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DESIGNING AND DELIVERING
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DUBLIN AIRPORT

2024 ENVIRONMENTAL MONITORING REPORT

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daa plc

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2024 ENVIRONMENTAL MONITORING REPORT

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Abstract: Fehily Timoney (FT) was retained by daa plc (daa) to prepare an environmental monitoring report for the airport site for 2024. This report has been produced following the completion of environmental monitoring activities conducted within the curtilage of the airport and its environs. FT previously conducted environmental monitoring and prepared the environmental monitoring report for the 2021 - 2023 period.

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EXECUTIVE SUMMARY

The 2024 Environmental Monitoring Report for Dublin Airport presents the outcomes of the annual programme to monitor the presence of per- and polyfluoroalkyl substances (PFAS) in groundwater and surface water . PFAS are a group of persistent synthetic chemicals historically associated with the use of aqueous film-forming foams (AFFF) for firefighting training at the airport.

The groundwater Generic Assessment Criteria (GAC) used in this report is 100ng/l for the sum of 20 PFAS of most concern as identified by the EU Drinking Water Directive (EU 2020/2184).

Groundwater was monitored from 27 monitoring wells across four areas: the North Apron, the North Runway/Former Fire Training Ground (APEC 5), Castlemoate House (a historic unregulated waste disposal site), and a Water Supply Well. PFAS detections in groundwater were generally below the GAC. The highest concentrations were detected within localised areas. PFAS is stable or decreasing in groundwater in 15 of the 27 monitoring wells while increasing in the remaining locations.

The Water Framework Directive (Directive 2000/60/EC, as amended by Directive 2013/39/EC) and Ireland's Environmental Objectives (Surface Waters) Regulations (S.I. No. 77, as amended) set PFOS Environmental Quality Standards (EQS) at 0.65ng/L (annual average) and 36,000ng/L (maximum admissible concentration), which this report uses as the surface water GAC.

Surface water monitoring was carried out at 39 locations, both within the airport boundary and in downstream watercourses. PFOS, the only PFAS regulated in Ireland for surface water, was detected in each surface water monitoring location on at least one occasion during the reporting period. However, with the exception of four monitoring locations, reported concentrations of PFOS in surface water were also below the laboratory limit of detection at some point during the reporting period. The average 2024 PFOS concentrations were above the Annual Average (AA) EQS of 0.65ng/L defined in the Surface Water Regulations in most monitoring locations, but they were below the EQS in several locations. All but five monitoring locations demonstrate stable or decreasing trends in PFOS concentrations.

The surface water monitoring indicates there may other be sources of PFOS/PFAS in surface waters external to the airport. The Mayne, Ward and Santry reported PFOS at greater concentrations in downstream monitoring locations than upstream locations which are closer to the airport.

1. INTRODUCTION

1.1 Introduction

Since 2021, Fehily Timoney (FT) has been retained by daa plc (daa) to conduct surface water and groundwater monitoring and to prepare an environmental monitoring and interpretation report for per- and poly-fluoroalkylated substances (herein referred to as PFAS) at Dublin Airport.

This report presents monitoring and interpretation of PFAS results for 2024 and compares these results to those obtained between 2021 to 2023. The purpose of this comparison is to examine trends in PFAS concentrations in surface and groundwater over the past three years. Previously, a detailed environmental monitoring and interpretation document, entitled *2021 – 2023 Environmental Monitoring Report* was prepared for the period 2021 to 2023.

The site location is shown in Figure 1-1.

1.2 Background

1.2.1 PFAS at Dublin Airport

PFAS are an extremely large group of long-lasting, synthetic chemicals containing multiple fluorine atoms attached to a carbon chain[1]. To date, c. 4,700 + PFAS compounds have been identified globally but may be in the millions depending on which definition of PFAS is used[2].

PFAS have several physical and chemical properties including water and oil resistance, and chemical and heat stability, which made them ideal for industrial, commercial and consumer products since the 1950s. They have been used in many different industries, including aerospace, automotive, food processes, pharmaceutical, the manufacture of clothing, construction, household products, and firefighting since the 1950s. Historically, PFAS chemicals were used globally in firefighting foams since the initial development of aqueous film-forming foam (AFFF) materials in the mid-1960's[3].The predominate source of PFAS at the airport is indicated to be from the historical use of firefighting foams.

[1] https://www.epa.ie/our-services/monitoring--assessment/waste/chemicals/pfas/
[2] Emma L. Schymanski, Jian Zhang, Paul A. Thiessen, Parviel Chirsir, Todor Kondic, and Evan E. Bolton. Environmental Science & Technology 2023 57 (44), 16918-16928. https://pubs.acs.org/doi/10.1021/acs.est.3c04855?ref=pdf
[3] Place, Benjamin J.; Field, Jennifer A. (3 July 2012). "Identification of Novel Fluorochemicals in Aqueous Film-Forming Foams (AFFF) Used by the US Military". Environmental Science and Technology. 46 (13): 7120–7127. doi:10.1021/es301465n. ISSN 0013-936X.

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World Topographic Map: Esri UK, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA
World Topographic Map: Esri, HERE, Garmin, FAO, USGS

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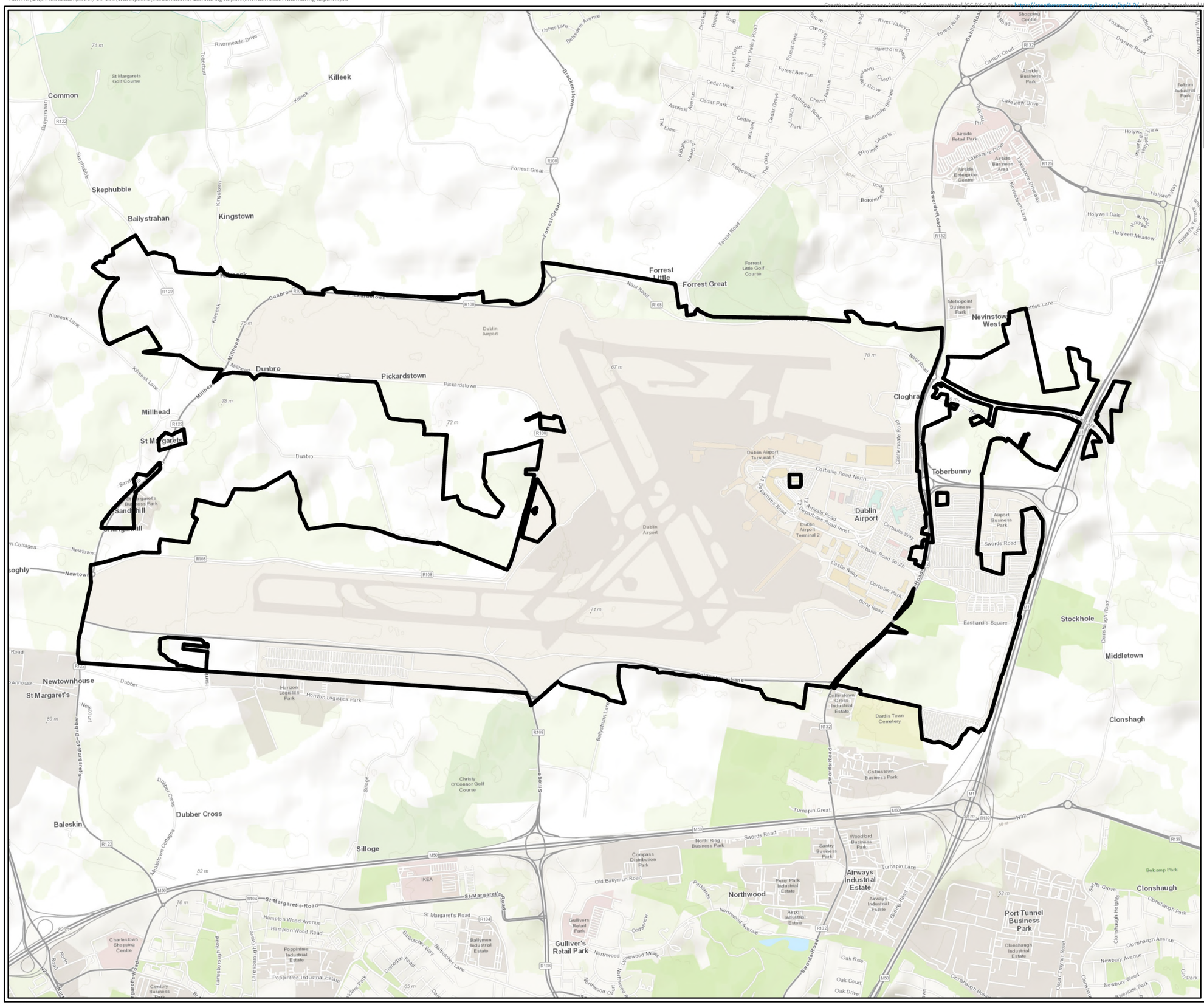

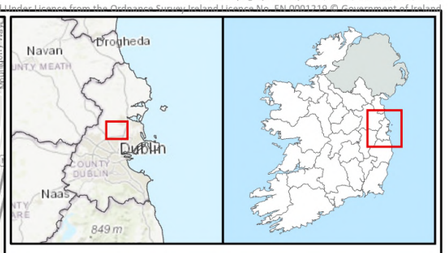

Legend

Dublin Airport Boundary

TITLE: Site Location (Environmental Monitoring/Site Investigation Locations)			
PROJECT: Environmental Monitoring Report			
FIGURE NO:	1-1		
CLIENT:	daa		
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DATE:	03/09/2025	**PAGE SIZE:**	A3

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1.2.2 Emerging Pollutant Monitoring in Europe

PFAS chemicals are categorised as Persistent Organic Pollutants (POPs) which are organic substances that persist in the environment and are bioaccumulative[4]. PFAS are globally ubiquitous in the aquatic environment and organisms[5], and have been widely detected in air, soil, plants and biota.

In December 2024, the European Environmental Agency (EEA) released a publication on PFAS pollution in European water[6], based on monitoring data reported to EEA's water base. This database provides comprehensive information on the status and quality of Europe's rivers, lakes, groundwater bodies and coastal waters, as well the quantity of water resources and pollutant emissions from both point and diffuse sources.

The publication provides water monitoring data from 22 European countries over the period 2018 to 2022 indicating variability of PFOS (one type of PFAS) levels in water bodies. The data demonstrates that PFOS is widespread throughout European waters, often exceeding regulatory threshold levels set to avoid potential risk to human health and the environment. According to Figure 1-2, PFOS levels exceeded the annual average environmental quality standards (EQS) in:

- 51-60% of rivers
- 11-35% of lakes
- 47-100% of transitional and coastal waters

In 2022, PFOS levels in surface water across Europe varied by country. Monitoring data from 14 countries showed that all reported water bodies in Belgium, France, and Iceland exceeded their applicable EQS. In the Netherlands, 96% of water bodies surpassed EQS, followed by 83% in Germany and 54% in Italy. In contrast, five countries reported less than 20% of sites exceeding EQS: Spain (18%), Ireland (6%), Poland (5%), Croatia (5%), and Estonia (2%). Meanwhile, Bulgaria, Latvia, and Montenegro reported no exceedances of the PFOS EQS.

From 2018 to 2022 groundwater monitoring data on PFOS were reported to the EEA by six Member States: Czechia, Denmark, France, Ireland, Italy, and Slovakia. These data are displayed in an interactive map, where triangle sizes vary based on PFOS concentrations at each monitoring site. Figure 1-3 shows annual average PFOS concentrations in surface and groundwater in Ireland.

[4] *A progressive increase in the amount of a substance in an organism or part of an organism that occurs because the rate of intake exceeds the organism's ability to remove the substance.* Source: https://www.oxfordreference.com/display/10.1093/oi/authority.20110803095506729

[5] Valsecchi, S., et al., 2013, 'Determination of perfluorinated compounds in aquatic organisms: a review', Analytical and Bioanalytical Chemistry 405(1), pp. 143-157 (DOI: 10.1007/s00216-012-6492-7)

[6] PFAS pollution in European waters | European Environment Agency's home page

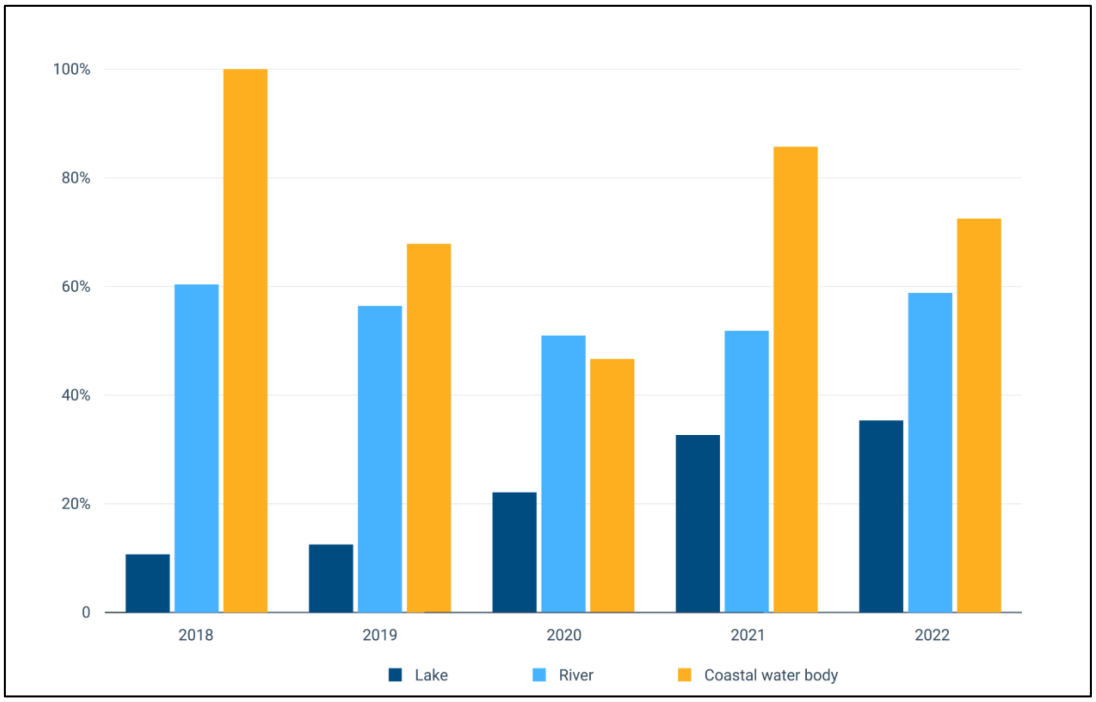

Figure 1-2: Percentage of EU Sites Above EQS for PFOS Per year and Water Body Type[6]

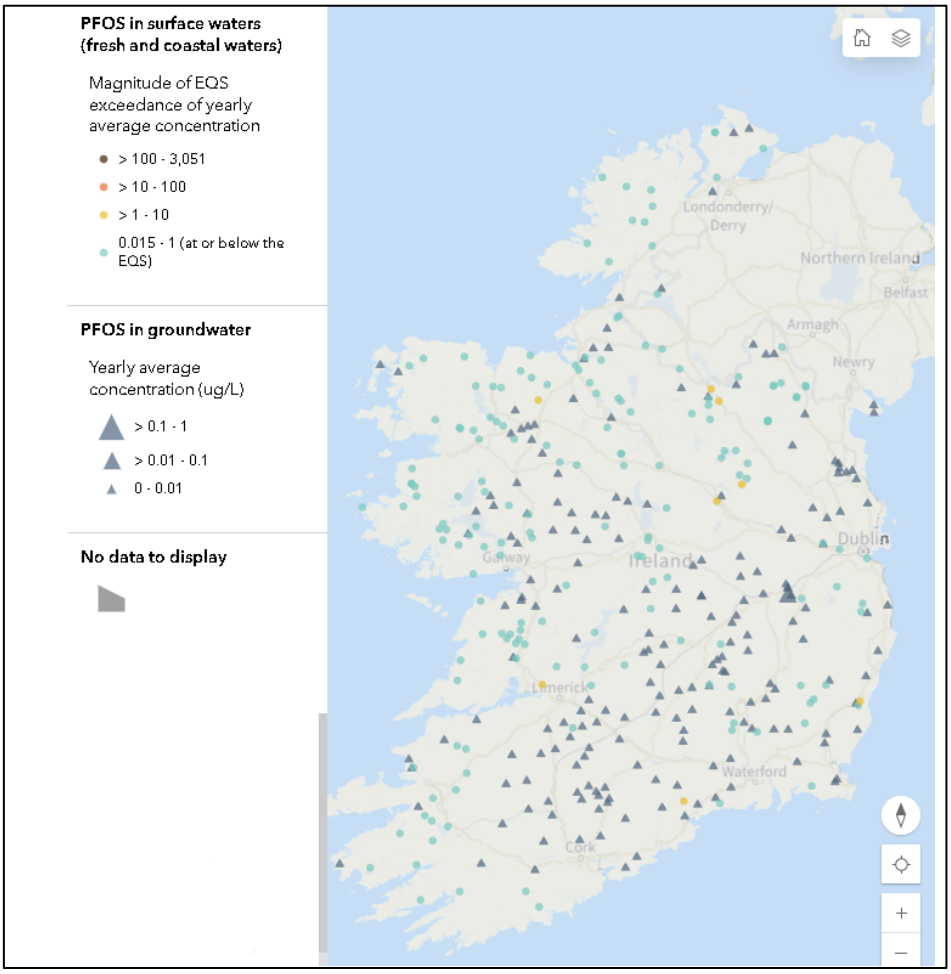

Figure 1-3: Annual Average PFOS Concentrations in Ireland for Surface and Groundwater (2018-2022)[6]

As per the EEA publication, it is difficult to draw conclusions on the extent to which regulatory threshold values are exceeded across Europe and the trend over time is not currently clear. This is due to uncertainties in the reported data, data quality and geographical coverage, as well as the increasing number of results. The granularity of the reported data also varies between countries and regions.

The different monitoring efforts undertaken by each country account for the variability of the results and thus the current understanding of the geographical distribution of contamination. However, it can be concluded with confidence that a significant number of EU monitoring sites are under pressure due to PFOS contamination.

1.2.3 Thresholds for PFAS in Groundwater and Surface Water in Ireland

This section outlines the applicable thresholds for PFAS in groundwater and surface water in Ireland. The results for the 2024 monitoring are compared to these thresholds.

1.2.3.1 Groundwater Generic Assessment Criteria (GAC)

In Ireland, there are currently no established limits for PFAS in groundwater. The Groundwater Directive (2006/118/EC) did not include limits for various parameters, instead it required Member States to set their own drinking water limits by 2008. Member States, such as Germany and Sweden, have set drinking water standards (Germany: 100ng/L for the sum of 13 PFAS and Sweden: 90ng/L for the sum of 11 PFAS).

The EU Drinking Water Directive (EU 2020/2184) includes limits for PFAS total of 500ng/L and the sum of 20 PFAS of most concern of 100ng/L. A list of the sum of 20 PFAS are included in Appendix 1. On 10 March 2023, the Government of Ireland published the European Union (Drinking Water) Regulations 2023 (S.I. No. 99 of 2023). The Regulations will become effective on 11 January 2026, with water suppliers not obligated to monitor water intended for human consumption until this date.

The drinking water limit (100ng/L for Sum of 20 PFAS) is used as the groundwater Generic Assessment Criteria (GAC) for this report. The GAC is used to indicate the threshold of PFAS concentrations at which there is no unacceptable risk to environmental receptors or for human consumption. In the absence of groundwater limits, it is appropriate to apply the drinking water limit.

1.2.3.2 Surface Water Generic Assessment Criteria

The Water Framework Directive (WFD) (Directive 2000/60/EC) as amended by Directive 2013/39/EC and the European Union Environmental Objectives (Surface Waters) Regulations (S.I. No. 77, as amended) include limits for PFOS in surface water. The limits referred to as Environmental Quality Standards (EQS) are set for water to meet a 'Good' status under the WFD*:*

- 0.65ng/L PFOS Annual Average (AA)[7]
- 36,000ng/L PFOS MAC (maximum admissible concentration)

[7] The AA-EQS of 0.65 ng/L is based on the potential for secondary poisoning in humans due to fish consumption. It is a guideline limit and defined as "the level at which no harmful effects are expected, based on annual average concentrations". The limit is often criticized for being very low. Several researchers across the EU (e.g., Cousins et al, 2022; Ahrens 2013; MacLachlan et al 2007) have noted that concentrations of PFOS in freshwaters regularly exceed the EQS, even in rainwater in urban environments.

The EQS is used as the surface water GAC in this report. The GAC represents the threshold at which PFOS concentrations are highly unlikely to cause impacts to receptors. The annual average limit is very low having been based on the risk of fish consumption by humans.

1.3 Scope of Report

The scope of this report includes:

- Presentation of 2024 environmental monitoring data
- Comparative review of surface and groundwater monitoring data against the GAC
- Identification of trends in the monitoring data over the period 2021 to 2024
- Summary and Conclusions

This report is structured as follows:

- Section 2 – Historic Use and Storage of PFAS at Dublin Airport
- Section 3 – Environmental Characteristics within and External to Dublin Airport
- Section 4 – 2024 Environmental Monitoring Programme and Results
- Section 5 – Summary and Conclusions

2. HISTORICAL USE AND STORAGE OF PFAS AT DUBLIN AIRPORT

2.1 Introduction

This section describes historic, current and future operations at Dublin Airport where the historic use of PFAS containing products may:

- Have environment effects within or external to the airport site boundary
- Affect future development with the airport campus

For clarity, two fire stations and two fire-fighting training grounds (FFTG) have been identified at Dublin Airport (Figure 2-1). The original fire station (Section 2.2.2) and original FFTG (Section 2.2.4) have been decommissioned and replaced by the current fire station and FFTG (Section 2.3.1).

Known locations of historical use of PFAS containing products and/or storage of PFAS chemicals are outlined in Section 2.2. These locations have been identified as some of the potential sources of PFAS in groundwater and surface water within the airport campus. This is based on a review of available information at this time.

2.2 Historic Site Operations

2.2.1 Brief History of Dublin Airport

In 1940, airfield operations commenced with the development of Dublin Airport. In 1948 and 1950, new concrete runways were completed. In 1959, a new terminal building was opened with new departure gate piers added to the terminal to facilitate larger aircraft. A new terminal building was opened in 1972 and was subsequently extended. Since 1972 a new terminal, new departure gate piers, a new runway and taxiways were opened. A stormwater drainage network which flows to various open drains and local watercourses was constructed and remains in operation. In 2010, Terminal 2 and its connected boarding gate pier were opened. Construction of the North Runway Development is complete, and the runway is operational as of August 2022. The North Runway Development has constructed a new surface drainage system with outfalls to local streams and rivers.

In 1941, hangar development in the North Apron commenced with the construction of Hangar 1. Construction continued with the development of Hangars 2, 4 and 5 through the 1950's and 1960's. In 1972, the Garage was constructed. In 1990 and 1992, Hangar 6 and Hangar 3 were respectively constructed. The former fire station, as detailed in the next section, was developed to provide firefighting services to the airport.

2.2.2 Former Fire Station Within the North Apron

The original fire station (herein referred to as the Former Fire Station) likely operated from the opening of Dublin Airport in 1940. Operations at the former fire station ceased c. 2000. This fire station was located within the North Apron. PFAS containing AFFF was stored at the original fire station. PFAS may have been historically released to ground during the discharge of fire extinguishers.

The location of the North Apron and Former Fire Station is shown on Figure 2-1.

2.2.3 East Area of North Apron

Environmental monitoring undertaken by FT during the monitoring programme indicates there is a potential second source of PFAS within the eastern area of the North Apron. This is further discussed in Section 4.2.3.1.

The location of the North Apron is shown in Figure 2-1.

2.2.4 North Runway Development /Former Firefighting Training Ground – APEC 5

The original FFTG site, also referred to as APEC 5 operated post-1983[8] until ceasing use in c. 2000. It was built and operated in accordance with common practice at the time. According to a report prepared on behalf of the EPA[9], the FFTG site was a similar standard to other firefighting training grounds in Ireland, where the capture of AFFF was "typically non-existent, with infiltration to ground being common or discharge to foul sewer network" depending on the particular site. In 2017, PFAS was identified at this location during the North Runway Development. Following the cessation of firefighting training at APEC 5 no other activity prior to the construction of the North Runway Development was undertaken at this location.

The location of the North Runway Development and APEC 5 are shown on Figure 2-1.

2.2.5 Castlemoate House – Historic Unregulated Waste Disposal Site

Environmental monitoring identified PFAS in groundwater at a historic unregulated waste disposal site at Castlemoate House. PFAS is commonly present in unregulated waste disposal leachate in Ireland[10]. The results of the environmental monitoring are discussed in Section 4.2.3.1.

In 2008, buried waste material was encountered during the excavation of a foul sewer connection on the grounds of Castlemoate House[11]. The Regulators, consisting of Fingal County Council, Environmental Protection Agency and Dept of Agriculture were notified. Intrusive investigations were undertaken in consultation with Fingal County Council as the lead Regulator.

The intrusive investigations determined the buried material comprised a mix of historical general waste and historical aircraft catering waste. It was estimated the waste was emplaced at the site between 1975 and 1984.

No waste has been buried at the site since the mid-1980's.

The location of Castlemoate House is shown on Figure 2-1.

[8] A review of aerial photography from 1983 indicates APEC 5 had not been developed.
[9] https://www.epa.ie/publications/monitoring--assessment/waste/PFAS-in-fire-fighting-foam-report-web-version.pdf
[10] https://www.epa.ie/publications/research/environment--health/Research_Report_345.pdf
[11] RPS. 2010. Investigation at Unregulated Waste Disposal Site at Castlemoate House Dublin Airport.

2.3 Current Site Operations

2.3.1 Current Fire Station and FFTG

In the early 2000's daa developed the current fire station and an engineered FFTG at its current location adjacent to the West Apron and south of the Irish Aviation Authority (IAA) Control Tower Building. The current FFTG can be accessed via gated entrance off the R108 road and internal access road within the airport from the West Apron. It provides the location for world class training to the Fire and Rescue Services crew at Dublin Airport.

AFFF for emergency events was stored in IBC tanks in a chemical bunded area. Intrinsic testing of the tanks is carried out every three years. Firefighting training commenced at the current FFTG at Dublin Airport in the early 2000's. Current fire-fighting training practices are carried out on an impermeable concrete base surrounded by ACO open channel grating. Typically, firefighting events were and are designed to target fire using water only. The water is supplied from overhead tanks and from hydrants.

Combustion is generated using kerosene. Runoff from respective fire-fighting exercises is directed off the impermeable concrete slab to ACO drains and to underground tanks prior to release via sewer.

As outlined in Section 1.2.1, as AFFF was used at this location it is a potential source of PFAS.

AFFF storage tanks may still contain residual PFAS. Previous cleaning and decontamination may not have been effective in removing all PFAS bound to the walls of the tanks or containers and may remain a source.

The location of the current Fire Station and FFTG is shown on Figure 2-1.

World Topographic Map: Esri, HERE, Garmin, FAO, NOAA, USGS
World Hillshade: Esri, Intermap, NASA, NGA, USGS
World Topographic Map: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
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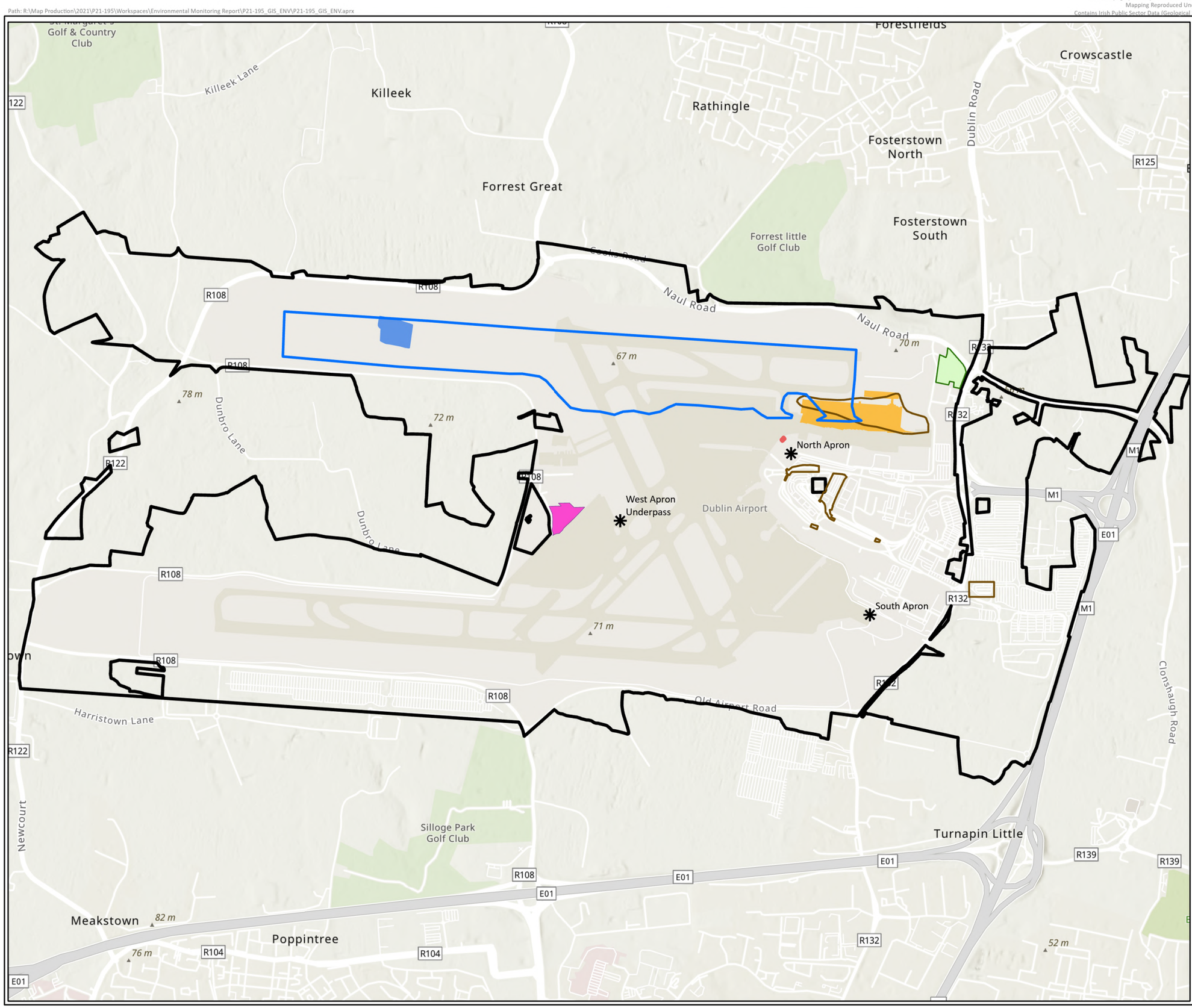

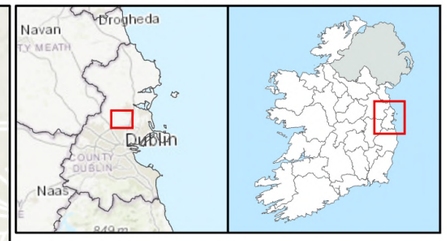

Legend

- Apron Locations
- Dublin Airport Boundary
- North Runway
- Departures Road Project
- Castlemoate House Boundary
- Proposed Apron 5H Development Area
- Current Fire Station & FFTG
- Former Fire Station
- APEC5 – Former Fire Fighting Training Ground

TITLE: Site Layout			
PROJECT: Environmental Monitoring Report			
FIGURE NO:	2-1		
CLIENT:	daa		
SCALE:	1:20,000	**REVISION:**	0
DATE:	03/09/2025	**PAGE SIZE:**	A3

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N W E S

0 0.25 0.5 1 Kilometers

3. ENVIRONMENTAL CHARACTERISTICS WITHIN AND EXTERNAL TO DUBLIN AIRPORT

This section describes the site setting of the environmental monitoring programme study area including its location, the regional geology, hydrogeology and hydrology.

3.1 Site Location

Dublin Airport campus is located approximately 7km north of Dublin City centre, between the M50, M1 and M2 motorways.

The airport complex is located at an elevation of between approximately 55m OD and 80m OD, orientating in a west to east direction. On a regional scale, elevation generally decreases to the east towards the Irish Sea and south towards the River Liffey.

Outside of Dublin Airport, the predominant land use in the area is agricultural, with pastures and arable land being the primary land uses in the region according to the COPERNICUS pan-European (Corine) 2018 landcover mapping.

Dublin Airport is served by an Uisce Éireann mains water supply which provides drinking water for the campus. Drinking water is sourced from Blessington Reservoir and treated at Ballymore Eustace Water Treatment Plant prior to distribution to Dublin Airport. A groundwater abstraction well, referred to as Gardener's Well is located at Corballis Avenue and is used for only for landscaping.

There are numerous streams, rivers and artificial land drains at and surrounding Dublin Airport. As the topography surrounding Dublin Airport falls predominantly from west to east surface water features generally flow in an easterly direction.

3.2 Hydrogeology

This section includes descriptions of groundwater bodies, aquifer classification, aquifer vulnerability, aquifer recharge and groundwater flow direction and groundwater abstraction wells as determined from published sources.

3.2.1 Ground Water Body Description

Dublin Airport is located within three groundwater bodies (GWBs):

- Industrial Facility (P0480-02)
- Swords
- Dublin

The descriptions of the GWBs for Swords and Dublin have been taken from the 'Summary of Initial Characterisation' draft reports for each defined GWB published by the GSI in accordance with the Groundwater Working Group Publication: Guidance Document GW2 (2003). The GWB Characterisation Reports are available from the GSI Public Data Viewer. A description is not available for the Industrial Facility (P0480-02) GWB, but as the GWB is bounded by both the Swords and Dublin GWBs the description is expected to be similar.

According to classification work carried out as part of the Water Framework Directive and published by the EPA, the Dublin and Swords GWB's are classified as having 'Good' status in terms of quality and quantity for the period of 2016-2021. Industrial Facility (P0480-02) GWB is classified as having 'Poor' status in terms of quality (for Trichloroethene - all isomers) and 'Good' in terms of quantity. The overall risk result of 'Not At Risk' is applied to the Swords GWB and 'At Risk' is applied to the Industrial Facility (P0480-02) GWB likely due to its current 'Poor' status. The Dublin GWB risk status is under review at the time of writing.

The Groundwater Body locations are shown in Figure 3-1.

3.2.1.1 Industrial Facility (P0480-02)

The Industrial Facility (P0480-02) GWB area is associated with Industrial Emissions (IE) Licence P0480-02, where two historical contamination plume areas were identified [12]. The contaminants of concern identified in these areas include:

- Chlorinated hydrocarbons
- Total petroleum hydrocarbons
- Sulphate, manganese, nitrite, ammoniacal nitrogen and methane

Dublin Aerospace Limited hold IE Licence P0480-02.

3.2.1.2 Swords Groundwater Body

The Swords GWB is located in north County Dublin with elevations ranging from 100m OD in the west of the GWB to sea level along the coast. The GWB is within a low-lying area with regional elevations reducing in an easterly direction towards the coast and towards streams on a local scale.

The Swords GWB is predominantly comprised of Dinantian Upper Impure Limestones with smaller amounts of Dinantian Lower Impure Limestones, Dinantian mixed sandstone, shales and limestones, Dinantian Sandstones and Ordovician volcanics and metasediments.

Information provided by the GSI indicates that the main recharge mechanism to the GWB is via diffuse recharge percolating through the subsoil. The amount of effective rainfall which will recharge the GWB is determined by the thickness and permeability of the soil, and the slope. Due to the low permeability of the GWB, a high proportion of the recharge will discharge rapidly to surface watercourses from the upper layers of the aquifer.

The main discharge mechanism from the Swords GWB is directly to the Irish Sea along the coast. Discharge to overlying rivers will also occur if they are in hydraulic conductivity with the aquifer.

3.2.1.3 Dublin Groundwater Body

The Dublin GWB is located in the Greater Dublin City area and extends southwest towards Kildare. The GWB is generally low lying, with higher elevations to the south at the foothills of the Dublin Mountains and to the northwest. Elevations decrease towards river estuaries.

[12] Groundwater Monitoring Report 2021 available at:
https://epawebapp.epa.ie/licences/lic_eDMS/090151b280820b5e.pdf

The Dublin GWB is comprised of Dinantian Upper Impure Limestones, Dinantian Lower Impure Limestones, Dinantian Pure Unbedded Limestones, Dinantian Mixed Sandstones, Shales and Limestones and Namurian Undifferentiated rock.

Information provided by the GSI indicates that the main recharge mechanism to the GWB outside of Dublin City locally is via diffuse recharge percolating through the subsoil. The amount of effective rainfall which will recharge the GWB is determined by the thickness and permeability of the soil, and the slope. Due to the low permeability of the GWB, a high proportion of the recharge will discharge rapidly to surface watercourses from the upper layers of the aquifer. Beneath Dublin City, it is conservatively estimated that on 10% of the city area is available for recharge as the remainder is an impermeable layer.

The main discharge mechanism from the Dublin GWB is directly to the Irish Sea along the coast. Discharge to overlying gravel aquifers and to overlying rivers will also occur if they are in hydraulic conductivity with the aquifer.

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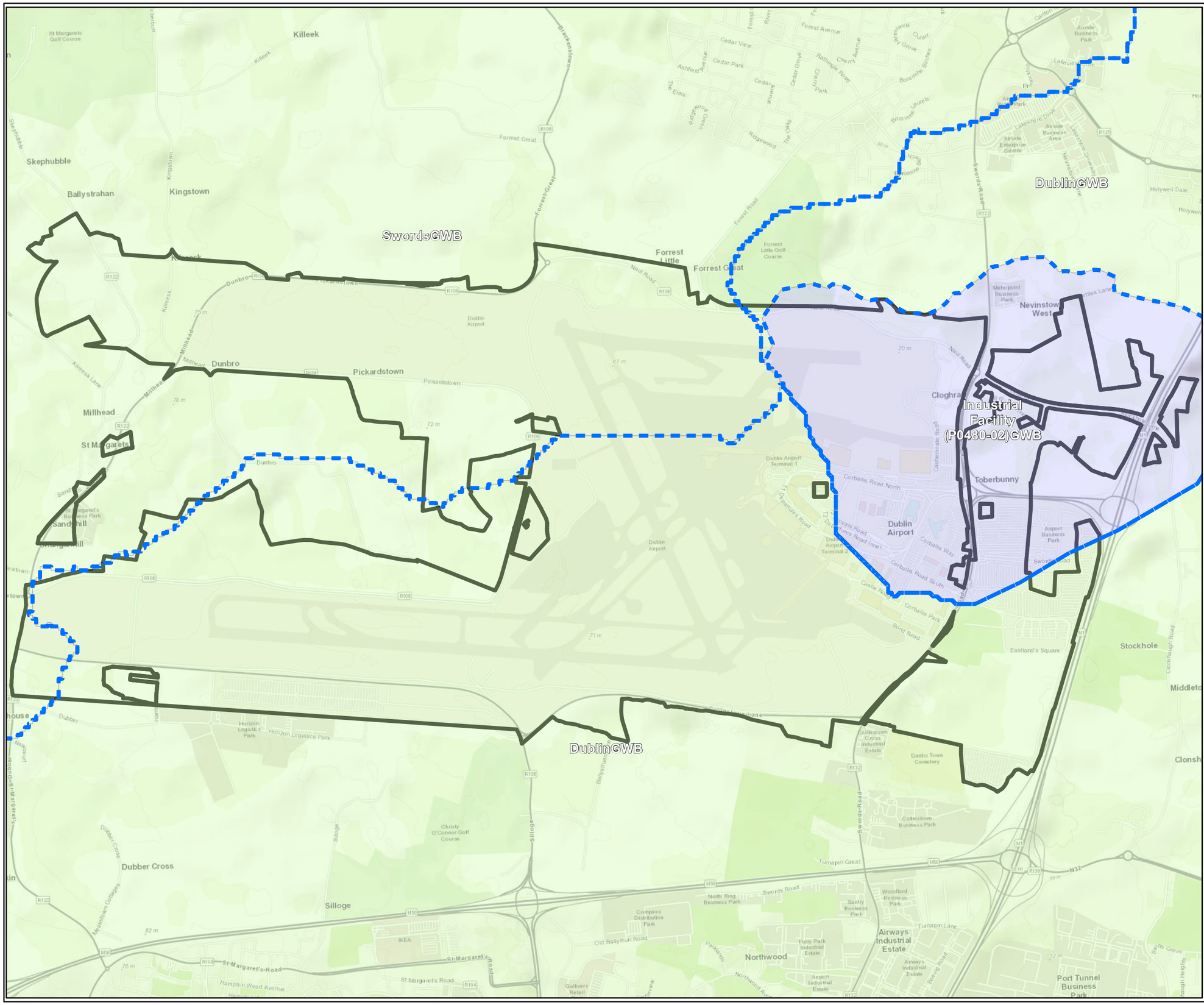

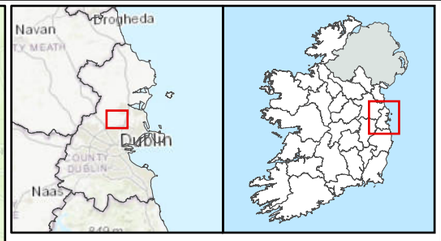

Legend

- Dublin Airport Boundary
- Groundwater Bodies

Groundwater Bodies Risk Categories (as assigned by EPA)

- At Risk
- Not at Risk

TITLE:	Groundwater Bodies		
PROJECT:	Environmental Monitoring Report		
FIGURE NO:	3-1		
CLIENT:	daa		
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3.2.2 Aquifer Classification

The GSI mapping describes the Swords, Dublin and Industrial Facility (P0480-02) GWBs as poorly productive bedrock aquifers.

Dublin Airport and surrounding lands sit on two aquifer classifications. The GSI classify the aquifer beneath the northwest area of Dublin Airport as a 'Locally important aquifer - bedrock which is Moderately Productive only in Local Zones', with the southeast area described as a 'Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones'.

The aquifer classification mapping is shown in Figure 3-2.

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Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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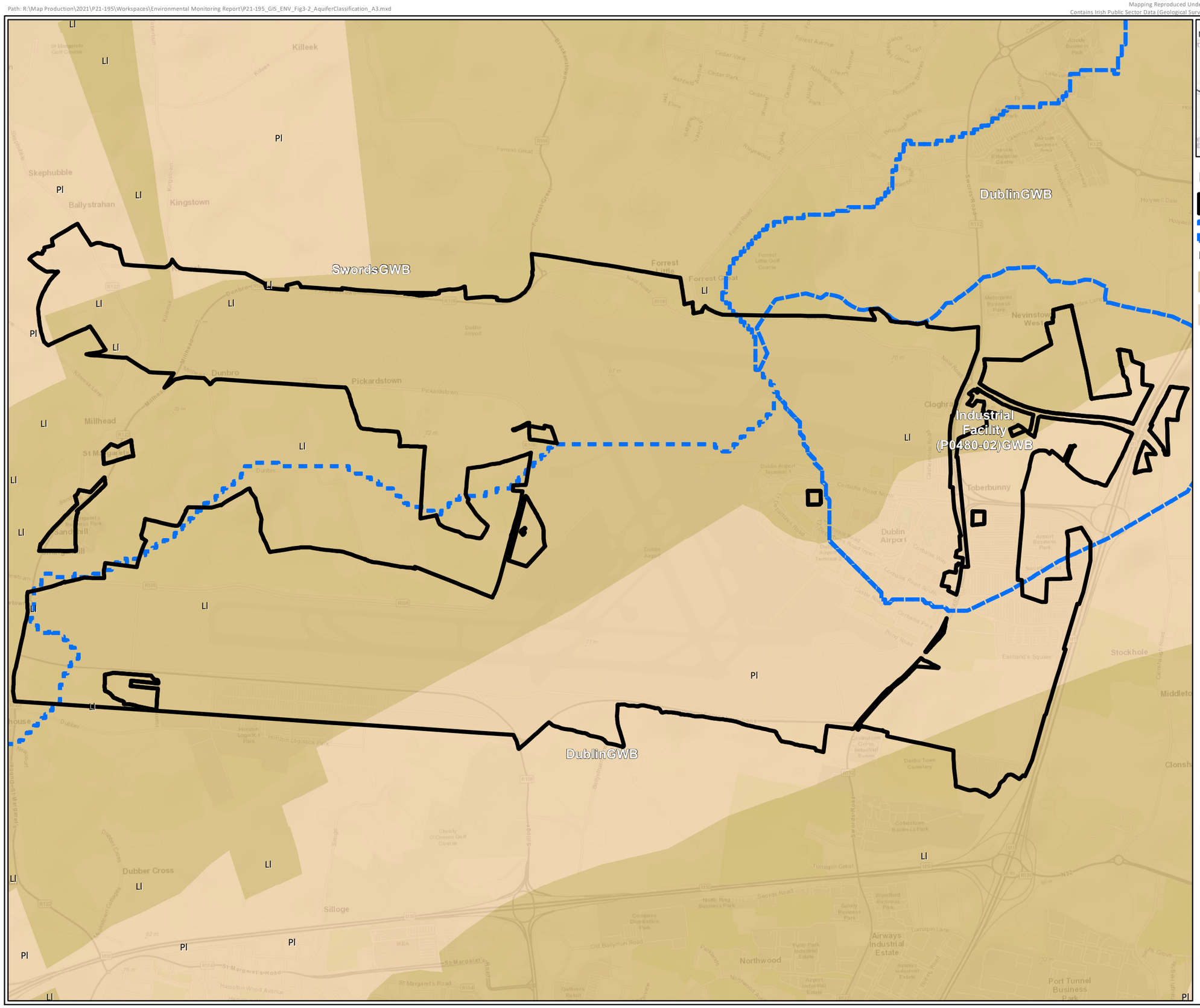

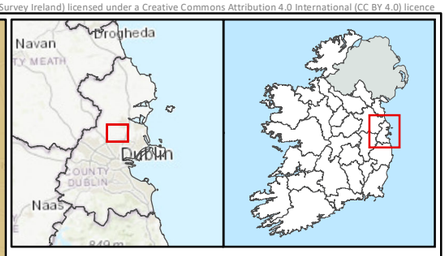

Legend

- Dublin Airport Boundary
- Groundwater Bodies

Bedrock Aquifers

- LI: Locally Important Aquifer - Bedrock Mod Productive Locally
- PI: Poor Aquifer Bedrock Generally Unproductive Except Locally

TITLE:	Aquifer Classification		
PROJECT:	Environmental Monitoring Report		
FIGURE NO:	3-2		
CLIENT:	daa		
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3.2.3 Aquifer Vulnerability

Groundwater vulnerability, as defined by the GSI, is the term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities.

The factors used in assessing groundwater vulnerability include subsoil type and thickness and recharge type as indicated in Table 3-1. The GSI procedure whereby groundwater protection is assessed is outlined in the EPA-GSI publication Groundwater Protection Schemes (DELG/EPA/GSI, 1999).

Table 3-1: GSI Guidelines – Aquifer Mapping

Vulnerability Rating	Hydrogeological Conditions		
	Subsoil Permeability (Type) and Thickness		
	High Permeability (Shallow Bedrock)	Moderate Permeability (e.g., Sandy soil)	Low Permeability (e.g., Clayey subsoil, clay, peat)
Extreme (E)	0 - 3.0 m	0 - 3.0 m	0 - 3.0 m
High (H)	>3.0 m	3.0 -10.0 m	3.0 - 5.0 m
Moderate (M)	N/A	>10.0 m	5.0 - 10.0 m
Low (L)	N/A	N/A	>10 m

Notes:

N/A = Not Applicable

Precise permeability values cannot be given at present.

GSI classifies the aquifer vulnerability in the region as varying from 'Low' to 'X - Rock at or near surface' (extreme). Low vulnerability areas are observed in the southern half of the airport, increasing in vulnerability towards the northern and western extents. Where vulnerability is classified as being 'X - Rock at or near surface' this coincides with areas of exposed bedrock or subcrop shown on other GSI geological mapping.

Based on these classifications it is expected that subsoil thickness, and depth to groundwater at the airport will vary from 0m to 10m in the northern and western airport extents to greater than 10m in the southern extent.

The aquifer vulnerability mapping is shown in Figure 3-3.

3.2.4 Aquifer Recharge

The GSI groundwater recharge mapping depicts the estimated recharge to the deep groundwater system i.e., groundwater that has the potential to be utilised as a groundwater resource. The GSI method for estimating groundwater recharge utilises data on groundwater vulnerability, subsoil permeability, soil drainage, aquifer type and hydrologically effective rainfall.

GSI estimates an annual groundwater recharge value of up to 66.24mm/yr for most of the Dublin Airport complex with a recharge co-efficient of 20% i.e. 20% of the effective rainfall will reach the aquifer.

The effective rainfall at the airport varies from 308 mm/year up to 356mm/year.

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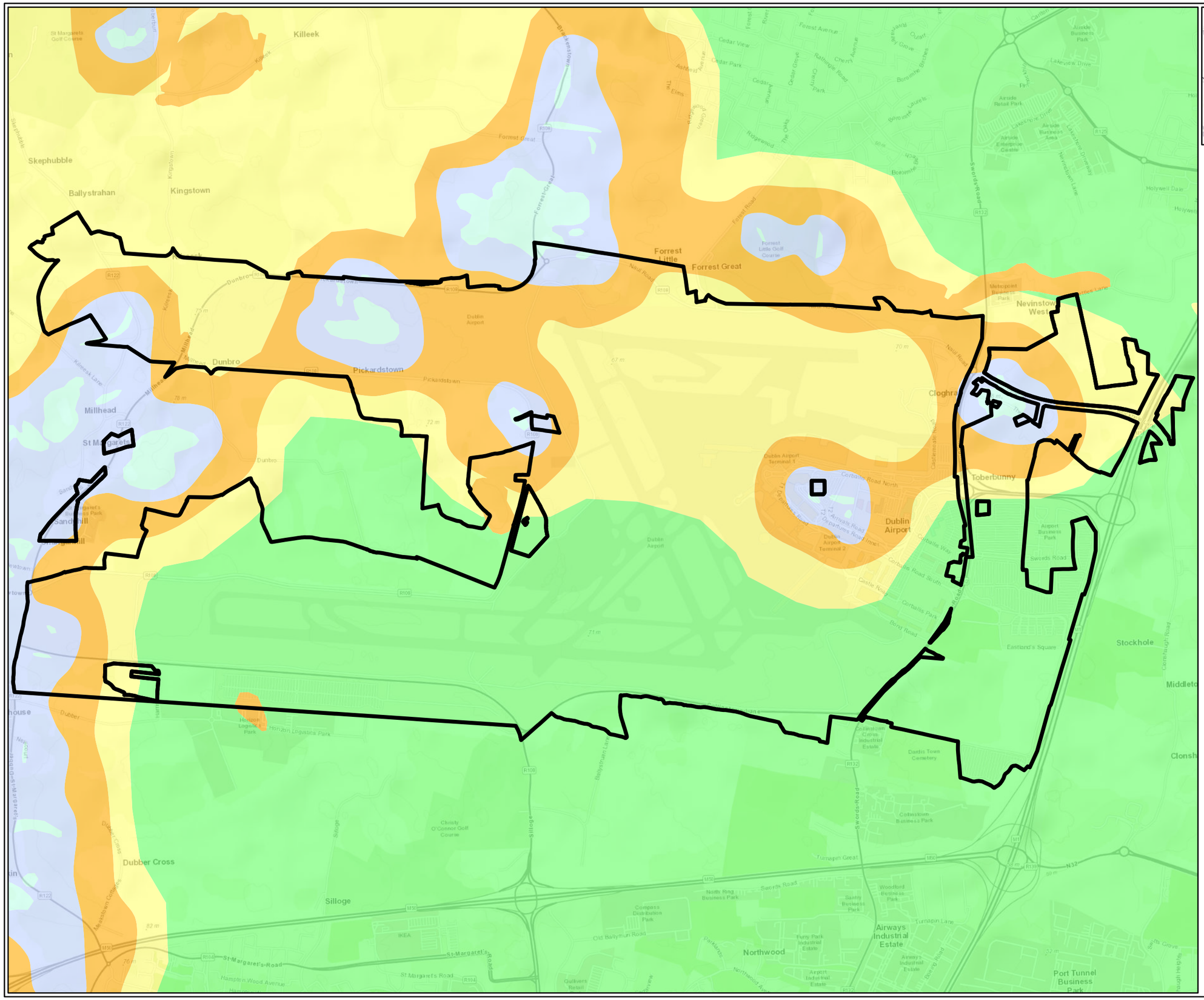

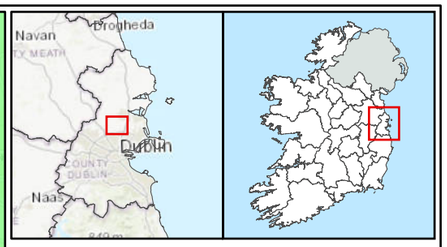

Legend

- Dublin Airport Boundary

Groundwater Vulnerability

- E - Extreme
- H - High
- M - Moderate
- L - Low
- X - Rock Near Surface or Karst

TITLE: Aquifer Vulnerability			
PROJECT: Environmental Monitoring Report			
FIGURE NO:	3-3		
CLIENT:	daa		
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3.2.5 Ground Water Flow Direction

AECOM Ireland Ltd. prepared a groundwater monitoring report for (IE) License P0480-02 which operates at the North Apron[13]. Based on previous groundwater monitoring events conducted for the licensee, AECOM infer groundwater flow direction at the North Apron is to the north or northeast with discharge occurring to surface water.

A draft 2020 groundwater monitoring report completed by AWN Consultants indicates groundwater flow at Castlemoate House is in an east to southeast direction. Castlemoate House is in the northeast corner of Dublin Airport, downgradient of the North Apron.

Based on the Swords and Dublin GWB descriptions, it is expected regional groundwater flow is generally towards the coast (east) and overlying rivers, including the River Liffey.

3.2.6 Ground Well Abstraction Wells

A review of GSI wells and springs mapping indicates the presence of groundwater abstraction wells surrounding Dublin Airport.

The locations of the GSI Wells and Springs surrounding the site are presented in Figure 3-4.

[13] Groundwater Monitoring Report 2020 available at: https://epawebapp.epa.ie/licences/lic_eDMS/090151b280783d0e.pdf

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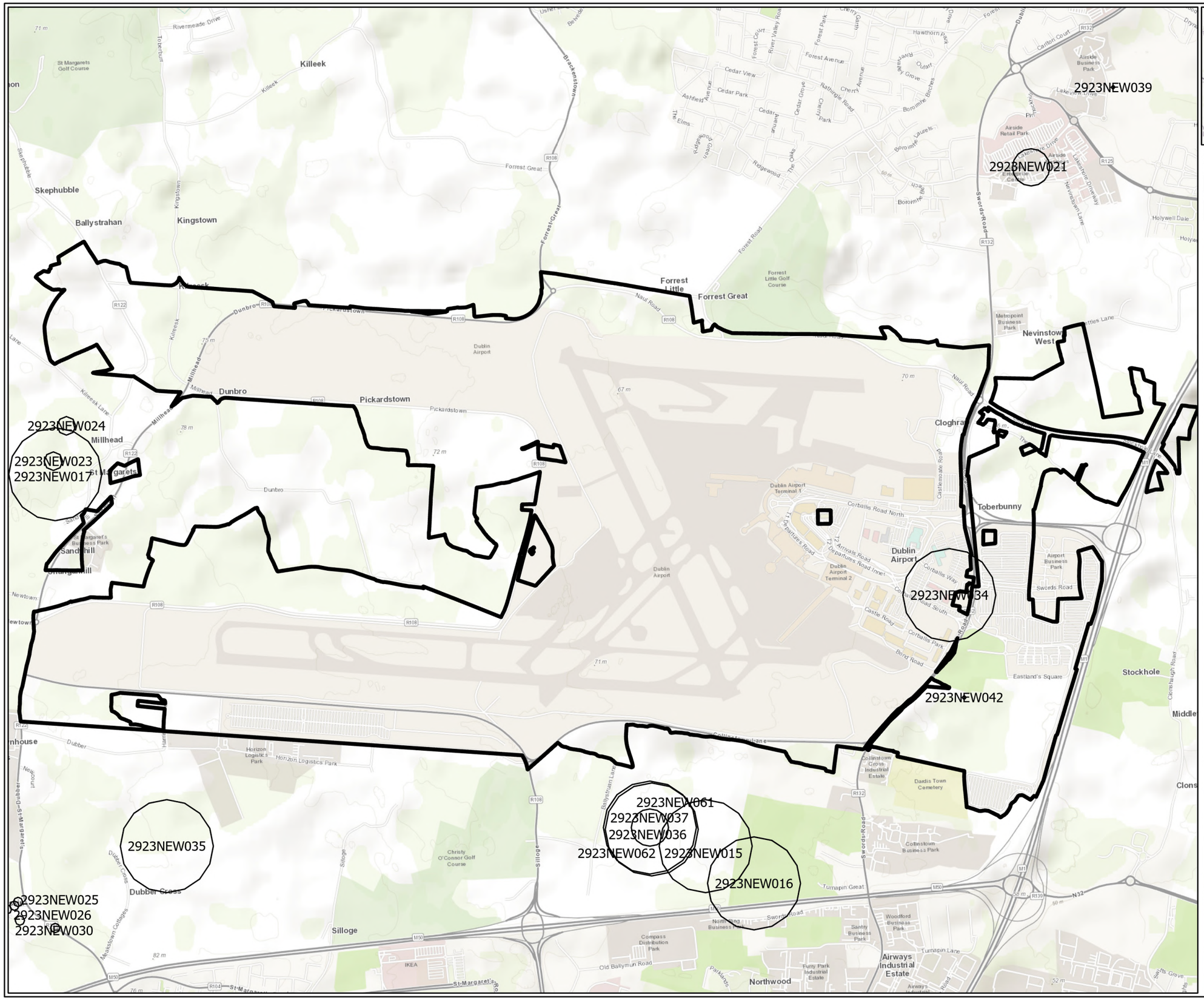

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PROJECT:	Environmental Monitoring Report		
FIGURE NO:	3-4		
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3.3 Hydrology

Dublin Airport is located within two catchments, the Nanny-Delvin (northwest portion) and Liffey and Dublin Bay catchment (southeast portion). The airport is located in two sub-catchments, the Broadmeadow_SC_010 (within the Nanny Delvin catchment) and the Mayne_SC_010 (within the Liffey and Dublin Bay catchment).

The Regional Hydrology for the site is presented in Figure 3-5.

3.3.1 Nanny-Delvin Catchment/Broadmeadows SC 010

The area of the airport located within the Nanny-Delvin catchment/ Broadmeadow_SC_010 is within one river sub-basin, the Ward_030. The closest surface water bodies to the airport are the Dunbro and Millhead to the west and the Barberstown 08 to the north. The airport drainage system outfalls to the Dunbro, Millhead and Barberstown 08 via land drains.

The Dunbro and Millhead flow west until they meet approximately 200m west of the airport boundary, turning in a northerly direction to meet Huntstown 08. The Barberstown 08 flows in a north direction and turns west approximately 450m north of the airport boundary until it meets Huntstown 08, approximately 1.1km northwest of the airport boundary. The Huntstown 08 meets the Ward River approximately 1.7km north of the airport flowing in an easterly direction. The Ward River enters the Broadmeadow River approximately 4.0km north of the airport boundary, and subsequently into the Broadmeadow Estuary, Malahide Bay and Irish Sea.

The Dunbro, Millhead, Huntstown 08, Barberstown 08, Ward River, Broadmeadow River and Broadmeadow Estuary have been assigned a ‘moderate’ 2016-2021 WFD water quality status. For the 2013-2018 period, the downstream portion of the Ward River, Broadmeadow River and Broadmeadow Estuary were assigned a ‘poor’ water quality status. Malahide Bay has been assigned a ‘moderate’ status and Irish Sea has been assigned a ‘good’ status. All surface water bodies except for the Irish Sea are described at ‘at risk’ of not meeting their WFD objectives by 2027. The Irish Sea is ‘not at risk’.

3.3.2 Liffey and Dublin Catchment/Mayne SC 010

The area of the airport located within the Liffey and Dublin Bay catchment/ Mayne_SC_010 is within three river sub-basins, the Sluice, Mayne and Santry. The closest surface water bodies to the airport are the Sluice to the north, Cuckoo Stream to the east and Mayne 09 and Santry to the south. The airport drainage system outfalls to the Sluice and Cuckoo Stream, and potentially Mayne 08 and Santry via land drains.

The Sluice and Mayne 09 primarily flow in a southeast direction discharging into the Mayne Estuary prior to entering the Irish Sea. The Irish Sea is approximately 8km from the airport boundary. The Cuckoo Stream flows in a southeast direction until it enters the Mayne 09 approximately 4.6km southeast of the airport boundary. The Santry flows in a southeast direction into the North Bull Island Estuary before entering the Irish Sea.

The water quality status has not been assigned to the Sluice or Mayne Estuary for 2016-2021. The Cuckoo Stream, Mayne 09 and Santry have been assigned a ‘poor’ water quality status. North Bull Island has a 'Moderate' status. The Irish Sea has been assigned a ‘good’ status. The risk status of the Sluice and Mayne Estuary of not meeting their WFD objectives by 2027 are under review. The Cuckoo Stream, Mayne 09 and Santry are ‘at risk’. North Bull Island is in Review. The Irish Sea is ‘not at risk’.

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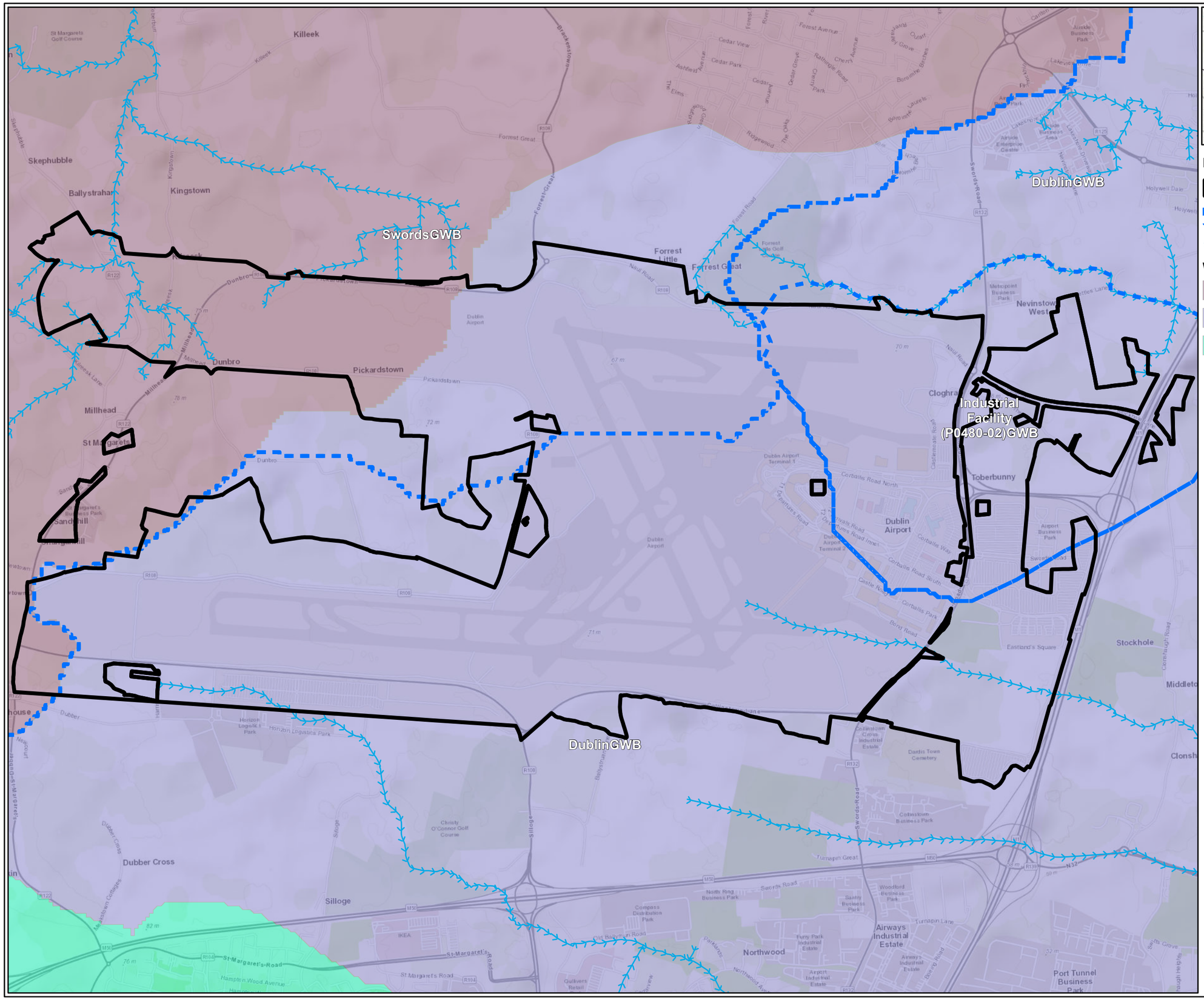

Legend

- Dublin Airport Boundary
- Groundwater Bodies
- Rivers

WFD Sub Catchments

- Broadmeadow_SC_010
- Mayne_SC_010
- Tolka_SC_020

TITLE: Regional Hydrology			
PROJECT: Environmental Monitoring Report			
FIGURE NO:	3-5		
CLIENT:	daa		
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3.4 Geology

3.4.1 Bedrock Geology

The GSI 1:100,000 scale bedrock geology map shows Dublin Airport and surrounding lands of the airport are underlain by carboniferous limestone consisting of the following four formations, from oldest to youngest:

- Malahide Formation
- Waulsortian Limestones
- Tober Colleen Formation
- Lucan Formation

The Malahide Formation is described as comprising 'argillaceous bioclastic limestone, shale'. The GSI lithological description describes the lower part of the formation as '*calcareous shales, siltstones and sandstones, and occasional thin limestones at its base*'. This formation is located beneath the northern and western areas of the of the airport complex and is lain in a southwest to northeast direction.

The Malahide Formation is overlain by the Waulsortian Limestones which is described as '*pale-grey, crudely bedded or massive limestone*'. The Waulsortian Limestones which extend from Terminal 1 in a northeast direction for approximately 2km, are overlain by the Tober Colleen Formation.

The Tober Colleen Formation is comprised of '*dark-grey, calcareous, commonly bioturbated mudstones and subordinate thin micritic limestones*'. This formation is located beneath the southern area of the of the airport complex and is lain in a southwest to northeast direction.

The Lucan Formation overlies the Waulsortian and Tober Colleen Formations and comprises the youngest rocks in the area. This formation is described as *'dark-grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey'*.

According to the GSI online mapping database there are several bedrock structural faults located within the airport. Several north-south and east-west faults are in the western half of the airport with a southwest to northeast fault in the eastern portion of the airport.

GSI mapping shows some small pockets of bedrock outcrop within and surrounding Dublin Airport.

Bedrock geology for the site is presented in Figure 3-6.

3.4.2 Quaternary Geology

The soil type at the site and in the region is predominately classified by the GSI as being till derived from limestones with the predominant soil cover described as BminDW - deep well drained mineral (mainly basic) and BminPD - mineral poorly drained (mainly basic). Pockets of gravels derived from limestones and bedrock outcrop are present throughout the region, with alluvium present along the vicinity of rivers and streams.

Quaternary Geology for the site is presented in Figure 3-7.

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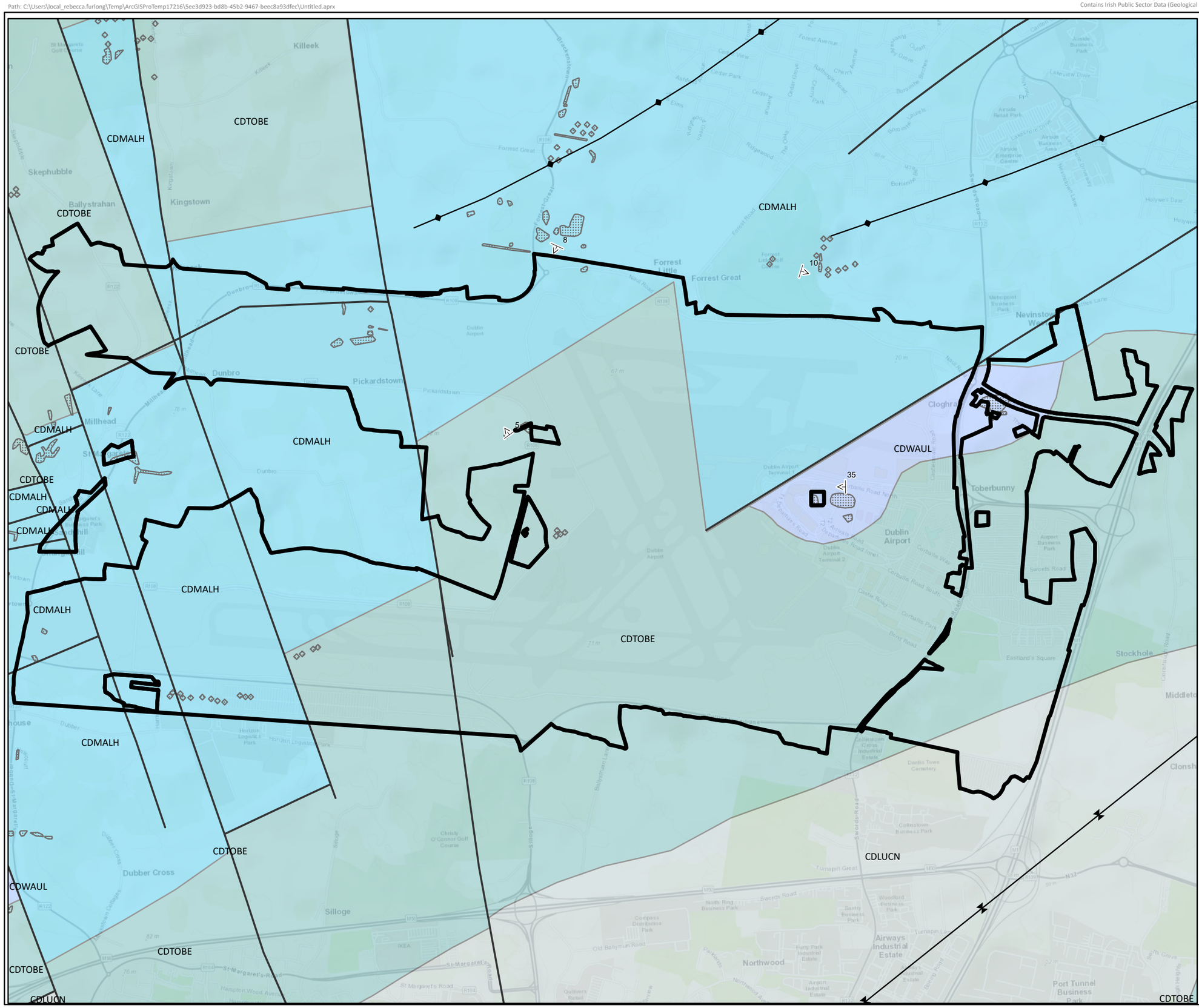

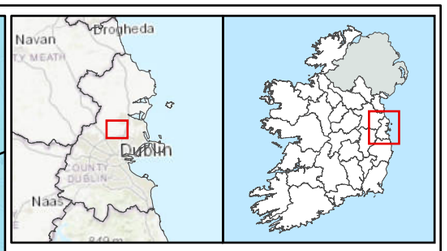

Legend

- Dublin Airport Boundary
- Strike and dip of bedding, right way up
- Anticlinal Axis
- Fault
- Synclinal Axis
- Bedrock Outcrop

Bedrock Geology

- Lucan Formation
- Malahide Formation
- Tober Colleen Formation
- Waulsortian Limestones

TITLE:	Bedrock Geology		
PROJECT:	Environmental Monitoring Report		
FIGURE NO:	3-6		
CLIENT:	daa		
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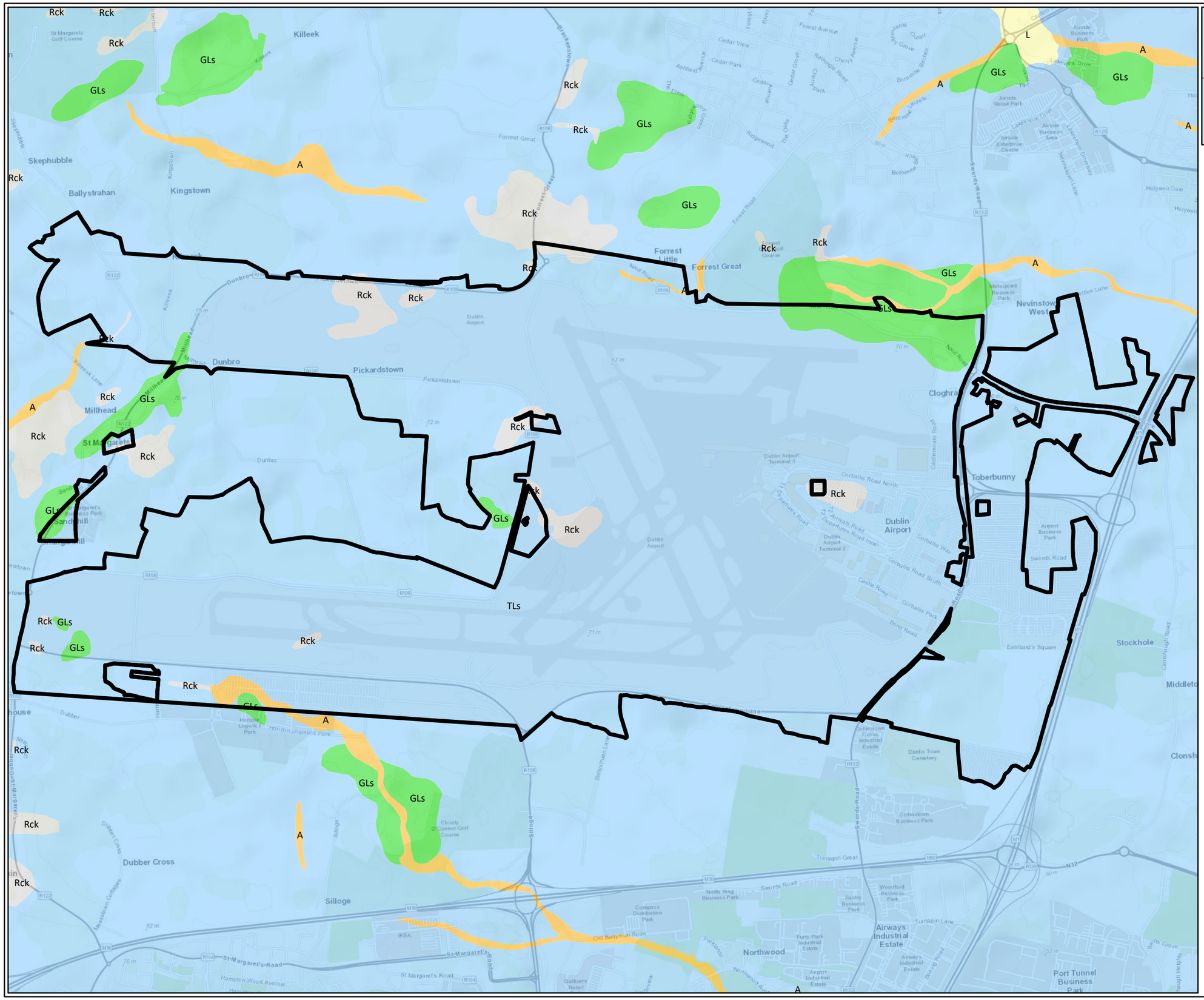

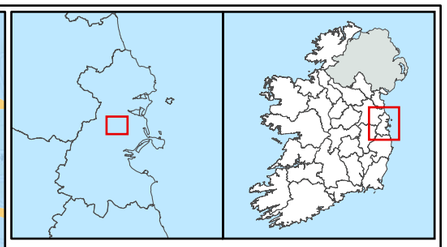

Legend

- Dublin Airport Boundary

Quaternary Sediments

- A, Alluvium
- GLs, Gravels derived from Limestones
- L, Lacustrine sediments
- Rck, Bedrock outcrop or subcrop
- TLs, Till derived from limestones

TITLE:	Quaternary Geology		
PROJECT:	Environmental Monitoring Report		
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CLIENT:	daa		
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4. 2024 ENVIRONMENTAL MONITORING PROGRAMME AND RESULTS

4.1 Introduction

This section describes sampling methodologies that were followed during the environmental monitoring undertaken at the airport and its environs, generic assessment criteria and results for groundwater and surface water.

4.2 Groundwater Monitoring

In 2024, 26 No. groundwater monitoring wells and a groundwater supply well were monitored for PFAS. Groundwater monitoring was undertaken at the following locations:

- North Apron – 9 No. groundwater monitoring wells
- North Runway / APEC 5 – 10 No. groundwater monitoring wells
- Castlemoate House (Historic Unregulated Waste Disposal Site) – 7 No. groundwater monitoring wells
- Groundwater supply well (Gardener's Well) – 1 No. well

Gardener's Well is used by daa for landscaping. Water abstracted from the supply well is not used for human consumption.

Figure 4-1 shows the groundwater monitoring locations.

The sampling methodology is outlined in Section 4.2.1 and the groundwater GAC is defined in Section 4.2.2.

A summary of the results is presented in Sections 4.2.3 to Section 4.2.6. Tabulated results are in Appendix 3, laboratory certificates are in Appendix 4 and trend charts are in Appendix 5.

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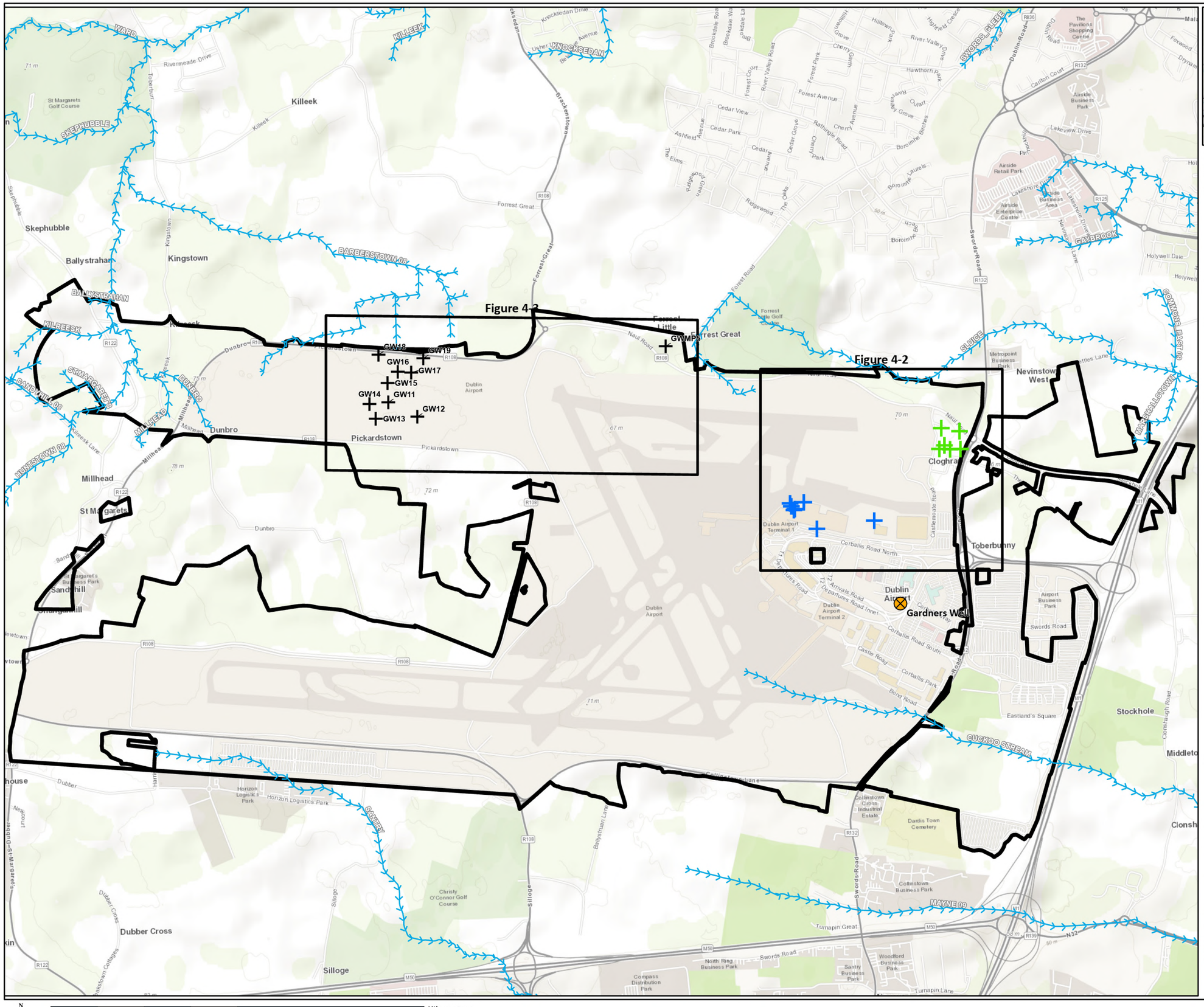

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PROJECT:	Environmental Monitoring Report		
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4.2.1 Sampling Methodology

The groundwater sampling methodology is provided in Appendix 2. A summary is provided hereunder.

Dedicated bottleware supplied by the laboratory was used to take the groundwater samples. The monitoring methodology entailed the following:

- The depth of each well and depth to groundwater was determined using a dip-meter. At least 3 well volumes of groundwater were removed from each well prior to sampling. This is in accordance with standard practice (EPA, 2003)[14] and is conducted to remove any stagnant water in the well casing to ensure stable sampling conditions of the aquifer. This is referred to as purging.
- A Waterra pump consisting of a Waterra foot valve attached to the bottom end of Waterra tubing was used for sample collection. Using an oscillation movement the groundwater is slowly pumped from the well through a sampling tube and into a sampling vessel. Each monitoring location contains its own dedicated tubing and foot valves to avoid cross-contamination between locations.
- Duplicate samples were collected at each monitoring locations as part of the quality control procedures.
- The sampling containers were completely filled and then capped and properly stored (in a cooler box, <4ºC).

All groundwater samples collected as part of the monitoring programme were submitted to ALS Global (ALS), an ISO 17025:2017 approved laboratory. Samples were submitted via courier under Chain of Custody procedures and analysed for:

- PFAS under ALS Method No. TM434

FT carried out four rounds of groundwater monitoring between April and December 2024 as detailed in Table 4-2, Table 4-6 and Table 4-10.

4.2.2 Groundwater Generic Assessment Criteria (GAC)

The drinking water limit (100ng/L for Sum of 20 PFAS) is used as the groundwater GAC in this report. Further information is provided in Section 1.2.3.1.

When laboratory analyses did not detect PFAS above the Limit of Detection (LOD) these results were recorded as <LOD. For analytical and reporting purposes, any results reported as "<" symbol was assigned a value of zero. For example, a result of <0.65ng/L was recorded as 0ng/L.

[14] EPA. 2003. Landfill Manuals, Landfill Monitoring, 2nd Edition. Environmental Protection Agency, Johnston Castle, Wexford, Ireland

4.2.3 North Apron

The North Apron groundwater sampling locations and associated groundwater bodies are in Table 4-1 and Figure 4-2.

Table 4-1: 2024 North Apron Groundwater Monitoring Locations

Monitoring Location	Ground Water Body (GWB)
GW001	Dublin
GW002D	
GW003D	
GW004	
GW005D	
GW007	
GW008	
GW014	Industrial Facility
GW015D	

World Hillshade: Esri, Intermap, NASA, NGA, USGS
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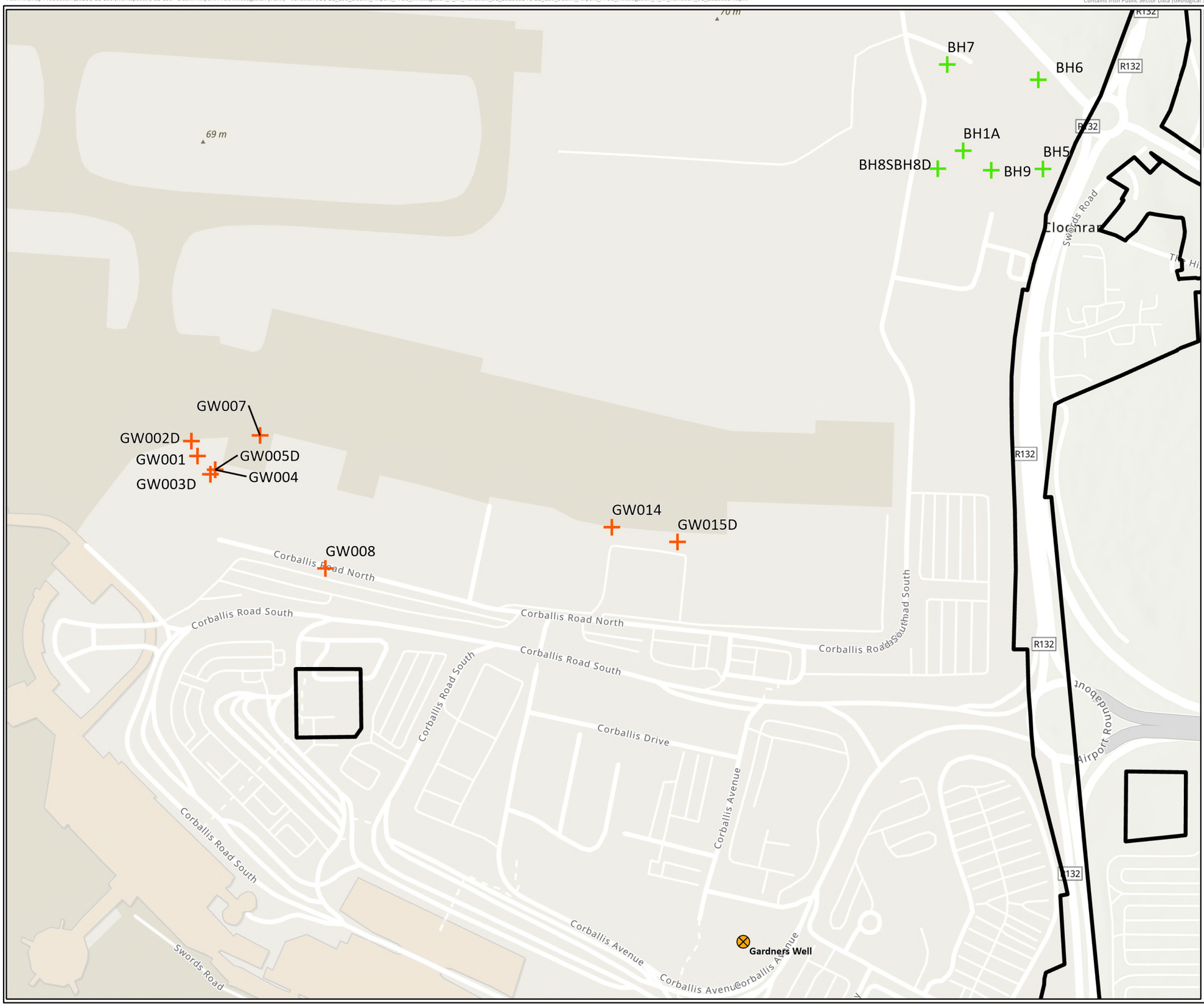

Legend

- Dublin Airport Boundary
- Castlemoate Groundwater Wells
- North Apron Groundwater Wells
- Groundwater Reservoir / Supply Well

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4.2.3.1 Groundwater Results

These groundwater monitoring locations were installed as part of groundwater monitoring requirements under IE Licence reg. no. P0480-02 issued by the EPA. The locations and summary of monitoring events are presented in Table 4-2.

Table 4-2: 2024 North Apron Groundwater Monitoring Events

ID	1st Round	2nd Round	3rd Round	4th Round
	02/04/2024	15/07/2024	02/10/2024	10/12/2024
GW001	✓	✓	✓	✓
GW002D	✓	✓	✓	✓
GW003D	✓	✓	✓	✓
GW004	✓	✓	✓	✓
GW005D	✓	✓	✓	✓
GW007	✓	✓	✓	✓
GW008	✓	✓	✓	✓
GW014	✓	✓	✓	✓
GW015D	✓	✓	✓	✓

Note: A tick denotes a sample was collected.

The depths to groundwater (metres below ground level) were recorded at all accessible monitoring locations between April and December 2024 as shown in Table 4-3.

Table 4-3: 2024 Depth to Groundwater at the North Apron

Monitoring Location	Total Well Depth (m)	Depth to Groundwater - Metres Below Ground Level			
		02/04/2024	15/07/2024	02/10/2024	10/12/2024
GW001	3.00	0.79	2.37	3.30	1.60
GW002D	20.00	9.85	11.05	10.90	10.87
GW003D	19.30	9.75	11.15	10.88	11.80
GW004	3.50	0.60	0.68	0.68	0.65
GW005D	22.00	9.46	10.62	10.44	9.67
GW007	2.58	2.08	2.76	2.93	1.40
GW008	4.85	1.06	1.17	0.97	1.14
GW014	3.20	0.61	2.51	2.58	1.22
GW015D	21.40	8.99	10.87	10.28	9.02

The 2024 groundwater depth at the North Apron is illustrated in Figure 4-3.

Groundwater levels did not vary significantly across the monitoring period at each monitoring location. There are two aquifers within the North Apron, one within the overburden and one in the upper bedrock as identified by the measured water levels.

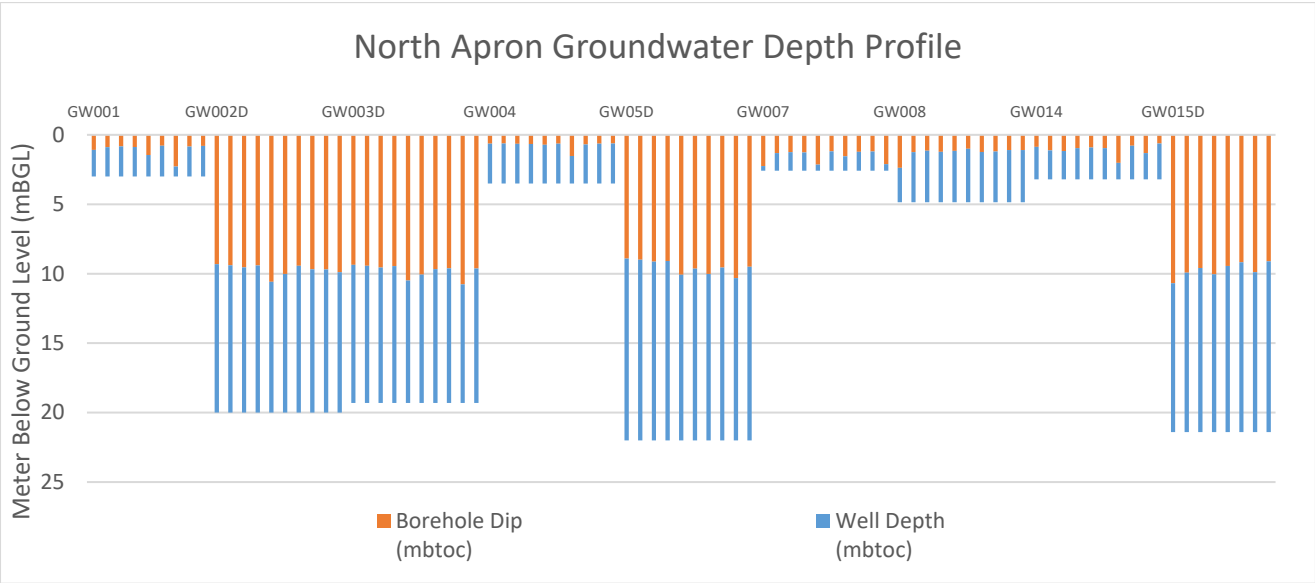

Figure 4-3: 2024 North Apron Groundwater Depth Profile

Table 4-4 presents a summary of the groundwater monitoring results for the North Apron.

Table 4-4: 2024 North Apron Groundwater Monitoring Summary Results

ID	No. of Samples	GAC Limit Value (ng/L)	Min Sum of 20 PFAS (ng/L)	Max Sum of 20 PFAS (ng/L)	Average Sum of 20 PFAS (ng/L)
GW001	8	100	17.60	558.01	344.52
GW002D	8		195.68	520.41	305.39
GW003D	8		0.00	26.22	15.52
GW004	8		34.43	73.25	54.50
GW005D	8		251.14	509.80	351.97
GW007	8		74.10	165.27	126.54
GW008	8		59.10	123.95	81.86
GW014	8		0.00	27.43	11.72
GW015D	8		91.23	1,060.70	362.98

Note: No. of Samples includes a sample and its duplicate. All results are reported in ng/L. Results in Blue exceed the GAC ((Sum of 20 PFAS) Limit Value[1].

[1] GAC (Sum of 20 PFAS) refers to the drinking water limit of 100ng/L (refer to Section 1.2.3.1).

PFAS results below LOD were assigned as 0ng/L for analytical and reporting purposes.

With the exception of monitoring locations GW003D, GW004 and GW014, all monitoring locations recorded Sum of 20 PFAS groundwater concentrations above the GAC.

Average Sum of 20 PFAS groundwater concentrations were elevated above the GAC in 5 No. monitoring wells (GW001, GW002D, GW005D, GW007 and GW015D).

The highest Sum of 20 PFAS concentrations in groundwater at the North Apron was recorded at monitoring location GW007. A quality check was completed and indicated that this single result was anomalous and not representative of groundwater quality at this location. Therefore, it has not been included in further consideration in this assessment.

The location considered to have the greatest concentrations at the North Apron is GW015D. This is the most easterly existing monitoring location approximately 500m east and downgradient (based on available information) of GW001, GW002D and GW005D. This indicates there are two potential sources of PFAS within the North Apron, the Former Fire Station and in the vicinity of GW015D.

Within the western area of the North Apron, locations GW001, GW002D and GW005D recorded elevated Sum of 20 PFAS concentrations. Monitoring locations GW001 and GW002D are closest to the Former Fire Station which based on available information was a source of PFAS. GW001 is in overburden and GW002D is in bedrock. Sum of 20 PFAS concentrations in groundwater decrease with distance from the Former Fire Station.

The results indicate that PFAS has mobilised but owing to the low permeability overburden and poorly productive bedrock, the extent of the groundwater plumes at the Former Fire Station and in the eastern area of the North Apron are localised. The local extent of the plumes has not been fully delineated.

Manholes at the North Apron were previously sampled (MH1, MH2, MH3 and MH4), with the results presented in the 2021-2023 monitoring report. In 2021, a CCTV survey was conducted of the storm and foul sewer lines at Hangar 2 and Hangar 3 at the North Apron. The survey identified ingress of groundwater through pipe defects and unsealed joints. This ingress potentially includes groundwater from beneath the Former Fire Station. An examination of Sum of 20 PFAS groundwater concentrations in manhole locations MH2 and MH4 (closest manholes to the Former Fire Station) identified similar or higher values reported in GW001 and GW002D. This indicates groundwater ingress at the Former Fire Station is entering the storm and sewer lines and is conveyed through this preferential pathway as surface water.

4.2.3.1 Groundwater Trends

Trends of Sum of 20 PFAS concentrations between 2021 and 2024 are presented in Appendix 5.

In summary, based on the results, Sum of 20 PFAS concentrations are steadily decreasing in monitoring well locations GW002D, GW003D, GW004 and GW015D while concentrations appear relatively stable in monitoring locations GW001, GW007 and GW014. An upward trend of the Sum of 20 PFAS concentrations is detected in GW005D and to a lesser extent in GW008.

4.2.4 North Runway/APEC 5

A network of groundwater monitoring locations was installed as part of the North Runway development. Residual PFAS in bedrock and soil remains as it was not removed during the construction phase. Monitoring wells (GW11 – GW19) are installed within bedrock to confirm the extent of the PFAS plume and groundwater flow direction. Two other monitoring wells, GWMP 4 and GWMP 5 were installed to monitor groundwater quality downgradient of emplaced APEC 5 material. During 2023, GWMP4 was decommissioned. The groundwater sampling locations and associated groundwater body are in Table 4-5 and Figure 4-4.

Table 4-5: 2024 North Runway/APEC 5 Groundwater Monitoring Locations

Monitoring Location	Ground Water Body (GWB)
GWMP 5	Swords
GW11	
GW12	
GW13	
GW14	
GW15	
GW16	
GW17	
GW18	
GW19	

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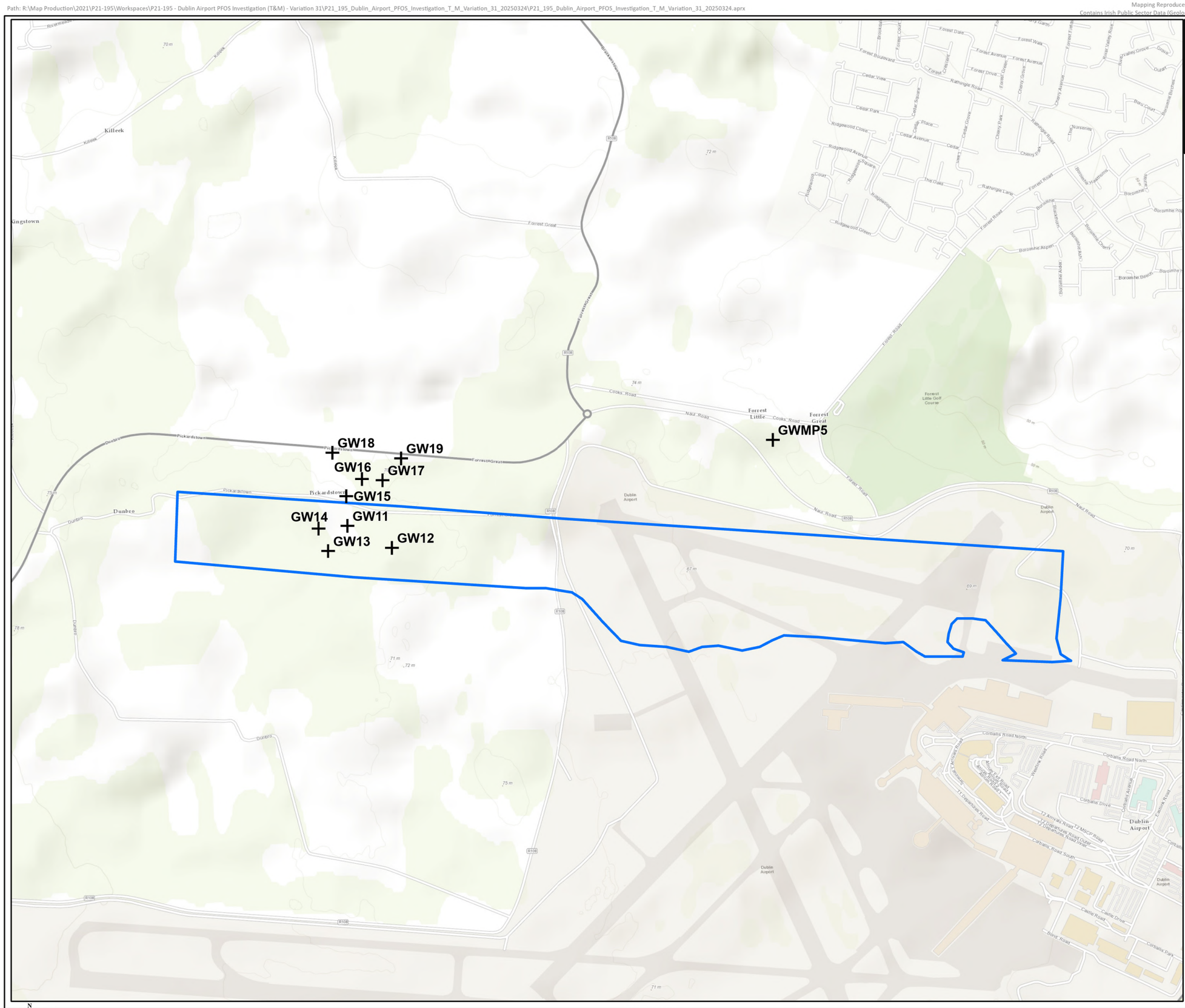

Legend

North Runway

Groundwater Monitoring Locations

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4.2.4.1 Groundwater Results

The locations and summary of monitoring events undertaken by FT during the reporting period are presented in Table 4-6. The depths to groundwater (metres below ground level) were recorded at 10 No. monitoring well locations at the North Runway on four occasions between April and December 2024 as outlined in Table 4-7.

Table 4-6: 2024 North Runway Groundwater Monitoring Events

ID	1st Round	2nd Round	3rd Round	4th Round
	03/04/2024	16/07/2024	25/09/2024	10/12/2024
GWMP 5	NS[1]	✓	✓[2]	✓
GW11	✓	✓	✓	✓
GW12	✓	✓	✓	✓
GW13	✓	✓	✓	✓
GW14	✓	✓	✓	✓
GW15	✓	✓	✓	✓
GW16	✓	✓	✓	✓
GW17	✓	✓	✓	✓
GW18	✓	✓	✓	✓
GW19	✓	✓	✓	✓

Note: A tick denotes a sample was collected. NS denotes no sample was collected.

[1] GWMP5 was obstructed and could not be accessed.

[2] The sample was collected in 02/10/2024.

Table 4-7: 2024 Depth to Groundwater at the North Runway

Monitoring Location	Total Well Depth (m)	Depth to Groundwater - Metres Below Ground Level			
		03/04/2024	16/07/2024	25/09/2024	10/12/2024
GWMP5	19.50	2.77[1]	3.32	2.76	1.75
GW11	10.00	0.15	1.89	2.08	0.22
GW12	10.00	2.59	2.75	2.80	2.60
GW13	10.00	1.66	2.10	2.44	1.68
GW14	10.00	0.51	1.63	2.13	0.65
GW15	10.00	1.59	2.10	2.51	1.57
GW16	10.00	1.31	1.48	1.50	1.34
GW17	10.00	1.12	1.67	1.96	1.51
GW18	10.00	1.11	1.65	1.89	1.46
GW19	10.00	0.85	1.87	1.98	1.1

[1] Dip monitoring completed; sampling could not be undertaken due to obstruction.

A bar graph illustrating the groundwater depth at the North Runway between April to December 2024 is shown in Figure 4-5.

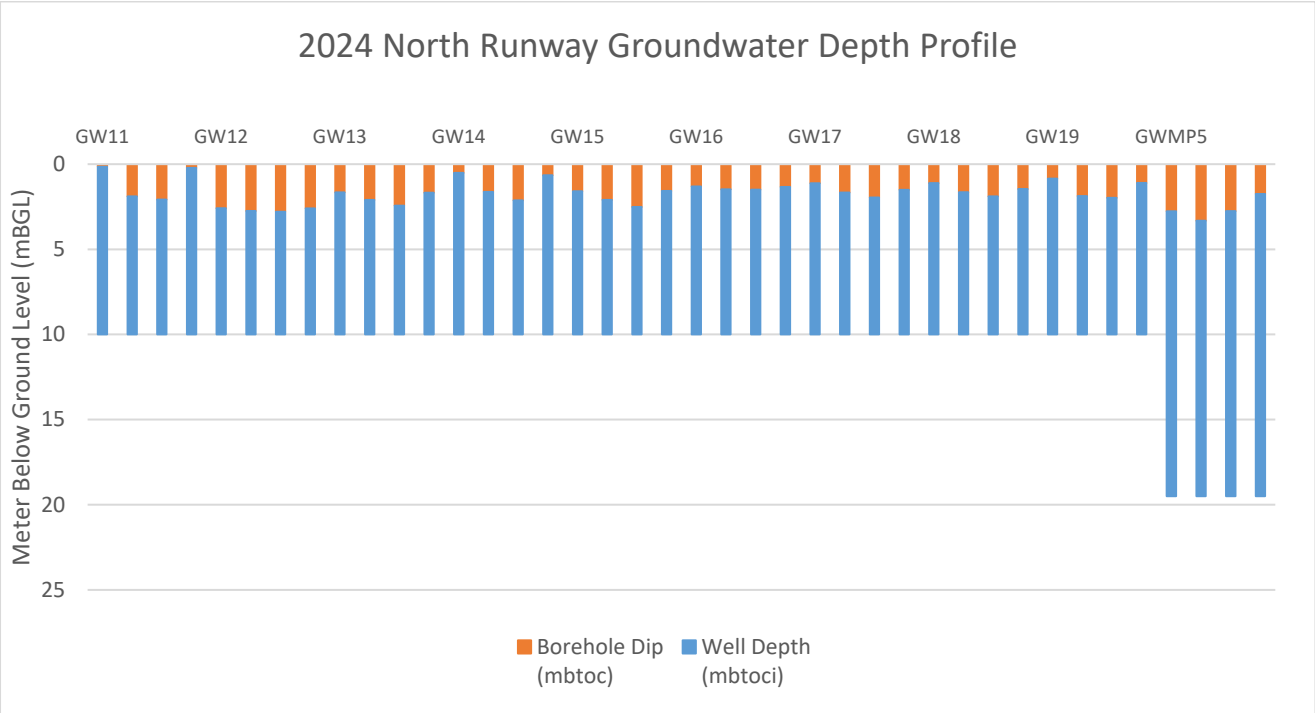

Figure 4-5: 2024 North Runway Groundwater Depth Profile

Table 4-8 presents a summary of the groundwater monitoring results for the North Runway.

Table 4-8: 2024 North Runway Groundwater Monitoring Summary Results

ID	No. of Samples	GAC Limit Value (ng/L)	Min Sum of 20 PFAS (ng/L)	Max Sum of 20 PFAS (ng/L)	Average Sum of 20 PFAS (ng/L)
GWMP 5	6	100	3.00	33.68	11.67
GW11	8		500.64	2,865.70	1,201.63
GW12	8		37.72	83.63	62.95
GW13	8		0.00	28.95	7.53
GW14	8		403.40	747.30	642.20
GW15	8		16.53	61.87	31.33
GW16	8		134.47	226.20	187.39
GW17	8		0.00	42.50	17.30
GW18	8		0.00	2.51	0.55
GW19	8		0.00	4.32	0.54

Note: No. of Samples includes a sample and its duplicate. All results are reported in ng/L. Results in Blue exceed the GAC ((Sum of 20 PFAS) Limit Value[1].

[1] GAC (Sum of 20 PFAS) refers to the drinking water limit of 100ng/L (refer to Section 1.2.3.1).

PFAS results below LOD were assigned as 0ng/L for analytical and reporting purposes.

With the exception of monitoring locations GW11, GW14 and GW16, all monitoring locations recorded Sum of 20 PFAS groundwater concentrations below the GAC. Average Sum of 20 PFAS groundwater concentrations were elevated above the GAC in these 3 No. monitoring wells.

The highest Sum of 20 PFAS concentrations in groundwater at the North Runway is at monitoring location GW11, located beneath/within the residual PFAS present in bedrock.

The results indicate the highest residual concentrations (up to almost 3,000 ng/L) of Sum of 20 PFAS remain within the original source, i.e. within the APEC 5 boundary, with the plume primarily extending west to GW14 and north to GW16. Maximum and average Sum of 20 PFAS concentrations reduce significantly over distances of approximately 150m to GW14 (747.30ng/L; 642.20ng/L, respectively), and GW16 (226.20ng/L; 187.39ng/L, respectively).

GW14 is located immediately west of APEC 5, reported concentrations may be related to the historical use of PFAS containing AFFF during firefighting training rather than plume migration caused by the construction of the North Runway.

GW15 located approximately 80m southwest of GW16 reports a maximum Sum of 20 PFAS of 61.87ng/L, 73% lower than GW16 and an average Sum of 20 PFAS of 31.33ng/L, 83% lower than GW16. Although GW15 is closer to GW11, a review of historical mapping indicates GW16 is installed near a decommissioned land drain which historically received surface water from APEC 5 and this may influence the higher Sum of 20 PFAS concentrations at GW16.

GW17 located approximately 70m east of GW16 reports a maximum Sum of 20 PFAS of 42.50ng/L, 81% lower than GW16 and an average Sum of 20 PFAS of 17.30ng/L, 91% lower than GW16.

It is noted minor detections were reported at both GW18 and GW19 during the beginning of 2024..

The lateral extent of the plume indicates it is largely confined to its source location, but the plume extent is not fully delineated.

4.2.4.2 Groundwater Trends

Trends of Sum of 20 PFAS concentrations between 2020 and 2024 are presented in Appendix 5.

In summary, based on the results to date, Sum of 20 PFAS concentrations are steadily decreasing in monitoring well location GWMP 5 while concentrations appear relatively stable in monitoring locations GW18 and GW19. An upward trend is noted in Sum of 20 PFAS concentrations in monitoring well locations GW11, GW13, GW14, GW15 and GW16. Sum of 20 PFAS groundwater concentrations appear to be slightly decreasing in monitoring locations GW12 and GW17.

4.2.5 Castlemoate House (Historic Unregulated Waste Disposal Site)

The Castlemoate House groundwater sampling locations and associated groundwater body are in Table 4-9.

Table 4-9: 2024 Castlemoate House Groundwater Monitoring Locations

Monitoring Location	Ground Water Body (GWB)
BH1A	Industrial Facility
BH5	
BH6	
BH7	
BH8D	
BH8S	
BH9	

4.2.5.1 Groundwater Results

9 No. groundwater monitoring boreholes were installed at Castlemoate House as part of a groundwater investigation at the historic unregulated waste disposal site.

In 2024 FT completed four rounds of groundwater monitoring at seven of the nine monitoring boreholes. The wells monitored were selected from the outer extent of the unregulated waste disposal site to determine if PFAS was entering or exiting the unregulated waste disposal site.

The locations and summary of monitoring events undertaken by FT during the reporting period are presented in Table 4-10.

Table 4-10: 2024 Castlemoate House Groundwater Monitoring Events

ID	1st Round	2nd Round	3rd Round	4th Round
	03/04/2024	16/07/2024	01/10/2024	12/12/2024
BH1A	✓	✓	✓	✓
BH5	✓	✓	✓	✓
BH6	✓	✓	✓	✓
BH7	✓	✓	✓	✓
BH8D[1]	✓	✓	✓	✓
BH8S[1]	✓	✓	✓	✓
BH9	✓	✓	✓	✓

Note: A tick denotes a sample was collected.

[1] BH8 is a dual installation borehole installed in January 2018 with a shallow and deep pipe. Although BH8D is a deep well, the installation is in overburden.

The depths to water were recorded at all 7 No. monitoring wells within the Castlemoate House area on four occasions (Table 4-11):

Table 4-11: 2024 Depth to Groundwater at Castlemoate House

Monitoring Location	Total Well Depth (m)	Depth to Groundwater - Metres Below Ground Level			
		03/04/2024	16/07/2024	01/10/2024	12/12/2024
BH1A	3.01	0.42	1.84	2.06	1.97
BH5	12.21	4.01	8.6	7.70	5.58
BH6	6.17	1.05	1.97	2.49	1.97
BH7	14.03	1.49	2.30	2.38	2.16
BH8D[1]	15.02	0.82	1.76	2.09	1.50
BH8S[1]	3.52	0.80	1.72	2.08	1.45
BH9	20.00	9.34	14.26	20.00	20.00

[1] BH8 is a dual installation borehole installed in January 2018 with a shallow and deep pipe. Although BH8D is a deep well, the installation is in overburden.

Groundwater depths at Castlemoate House are shown in Figure 4-6.

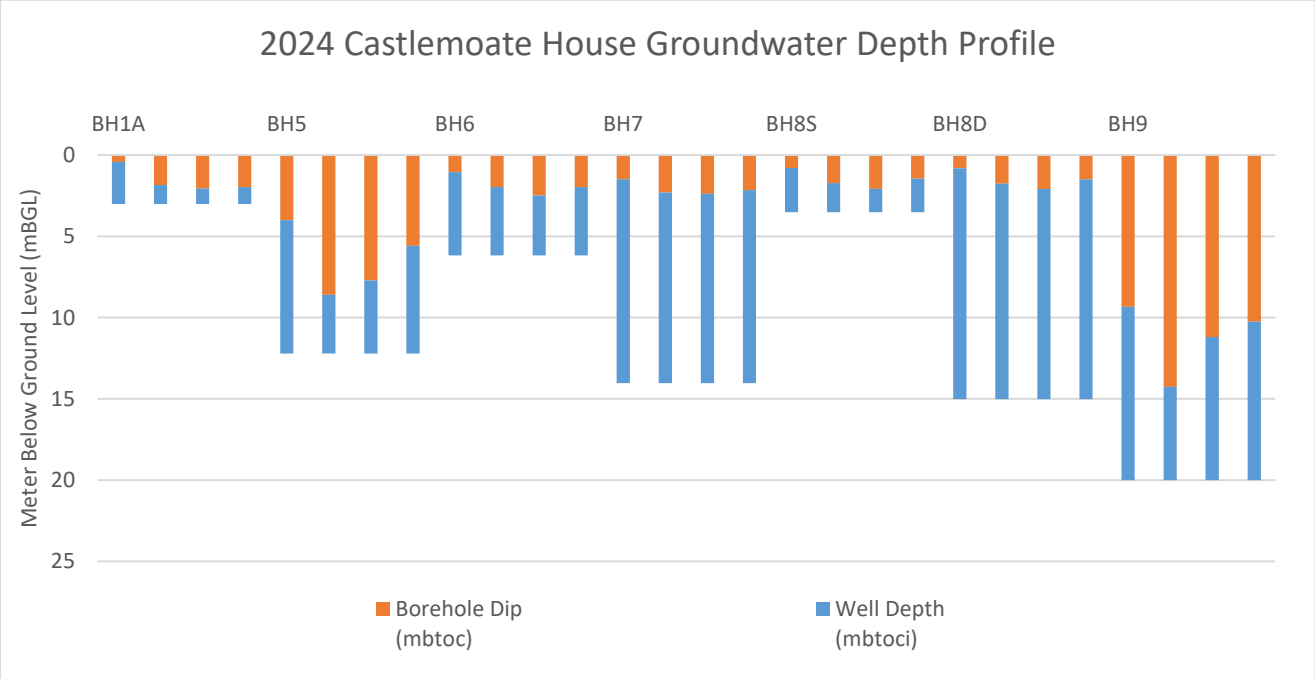

Figure 4-6: 2024 Castlemoate House Groundwater Level Depth Profile

A summary of results is presented in Table 4-12.

Table 4-12: 2024 Castlemoate House Groundwater Monitoring Summary Results

ID	No. of Samples	GAC Limit Value (ng/L)	Min Sum of 20 PFAS (ng/L)	Max Sum of 20 PFAS (ng/L)	Average Sum of 20 PFAS (ng/L)
BH1A	8	100	0.00	30.65	15.59
BH5	8		0.00	10.90	4.60
BH6	8		0.00	341.78	43.10
BH7	8		73.42	235.89	126.88
BH8D	8		0.00	45.58	21.92
BH8S	8		0.00	42.95	23.73
BH9	8		0.00	4.86	1.65

Note: No. of Samples includes a sample and its duplicate. All results are reported in ng/L. Results in Blue exceed the GAC (Sum of 20 PFAS) Limit Value[1].

[1] GAC (Sum of 20 PFAS) refers to the drinking water limit of 100ng/L (refer to Section 1.2.3.1).

PFAS results below LOD were assigned as 0ng/L for analytical and reporting purposes.

During the monitoring period, Sum of 20 PFAS concentrations were below the GAC at all monitoring locations, except at BH6 and BH7.

The average Sum of 20 PFAS groundwater concentrations in most of the monitoring locations were below the GAC, except in monitoring location BH7.

Based on the historic unregulated waste disposal which took place within Castlemoate House, it is considered that the presence of PFAS is likely associated with the deposition of waste materials. Concentrations of PFAS are low in most monitoring locations during most of the monitoring events.

4.2.5.2 Groundwater Trends

Trends of Sum of 20 PFAS concentrations between 2021 and 2024 are presented in Appendix 5.

Except for location (BH7), Sum of 20 PFAS groundwater concentration trends were detected at low levels and below GAC. Monitoring locations BH1A, BH5, BH6, BH8D and BH8S demonstrate noticeable variations and fluctuations in Sum of 20 PFAS concentrations. Monitoring location BH9 shows low levels for Sum of 20 PFAS concentrations.

BH7, located to the northwest corner of the Castlemoate House site, shows an increasing trend in Sum of 20 PFAS concentrations. As outlined previously, these observations are likely associated with the deposition of waste materials.

4.2.6 Water Supply Well

The Water Supply Well groundwater sampling location and associated groundwater body is in Table 4-13.

Table 4-13: 2024 Water Supply Well Location

Monitoring Location	Ground Water Body (GWB)
Gardeners Well	Industrial Facility

4.2.6.1 Groundwater Results

1 No. water supply well is used for the abstraction of groundwater for landscaping. The water supply well was monitored from April to December 2024 as shown Table 4-14.

Table 4-14: 2024 Water Supply Well Sampling Events

ID	1st Round	2nd Round	3rd Round	4th Round
	04/04/2024	16/07/2024	01/10/2024	12/12/2024
Gardener's Well	✓	✓	✓	✓

Note: A tick denotes a sample was collected.

A summary of results is presented in Table 4-15.

Table 4-15: 2024 Water Supply Well Monitoring Summary Results

ID	No. of Samples	GAC Limit Value [1] (ng/L)	Min Sum of 20 PFAS (ng/L)	Max Sum of 20 PFAS (ng/L)	Average Sum of 20 PFAS (ng/L)
Gardeners Well	8	100	0.00	8.36	1.35

Note: No. of Samples includes a sample and its duplicate. All results are reported in ng/L.

[1]GAC (Sum of 20 PFAS) refers to the drinking water limit of 100ng/L (refer to Section 1.2.3.1).

PFAS results below LOD were assigned as 0ng/L for analytical and reporting purposes.

4.2.6.2 Groundwater Trends

Trends of Sum of 20 PFAS concentrations between 2022 and 2024 are presented in Appendix 5.

Sum of 20 PFAS concentrations in April 2024 samples at Gardener's Well were detected at low levels and below GAC, and below the laboratory LOD for the remainder of 2024.

4.3 Surface Water Monitoring

As part of the surface water monitoring programme conducted between April and December 2024, samples were collected from 24 No. landside locations, 12 No. airside locations and 3 No. current fire station locations. The landside locations are all situated downstream of the boundary of the airport and in all orientations (i.e., north, east, south, west) surrounding the airport. The monitoring locations are in Figure 4-7 and Figure 4-8.

The sampling methodology is outlined in Section 4.3.1 and the surface water GAC is defined in Section 4.3.2.

A summary of the results is presented in Sections 4.3.3 to Section 4.3.5. A summary of EPA monitoring is included in Section 4.3.6. Tabulated results are in Appendix 6, laboratory certificates are in Appendix 7 and trend charts are in Appendix 8.

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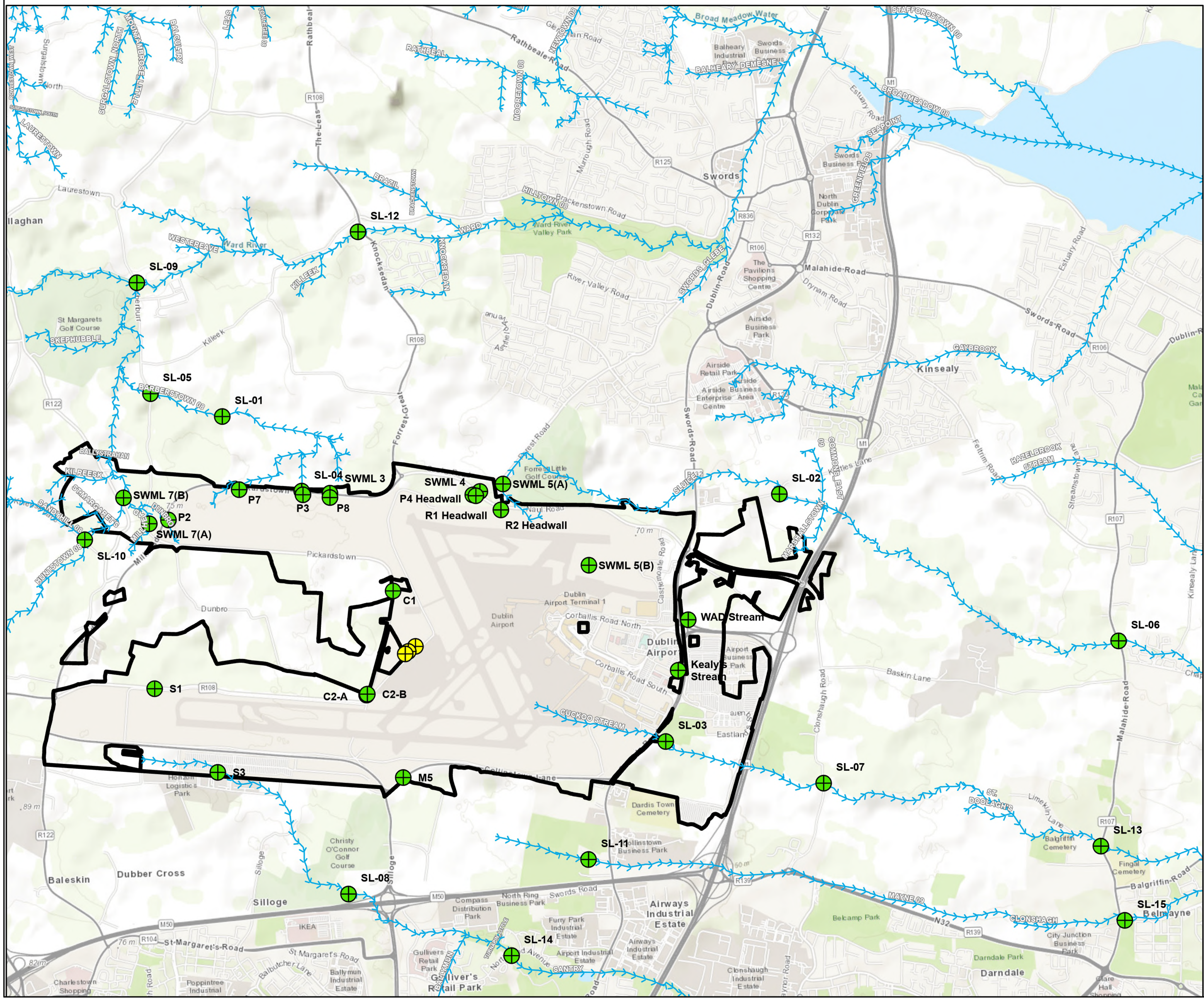

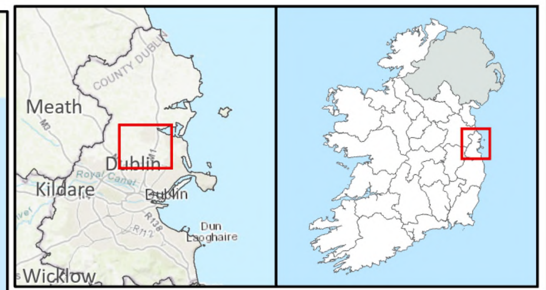

Legend

- Dublin Airport Boundary
- Current Firestation Surface Water Locations
- Surface Water Monitoring Locations
- Rivers

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TITLE:	Surface Water Monitoring Locations
PROJECT:	Environmental Monitoring Report
FIGURE NO:	4-7
CLIENT:	daa
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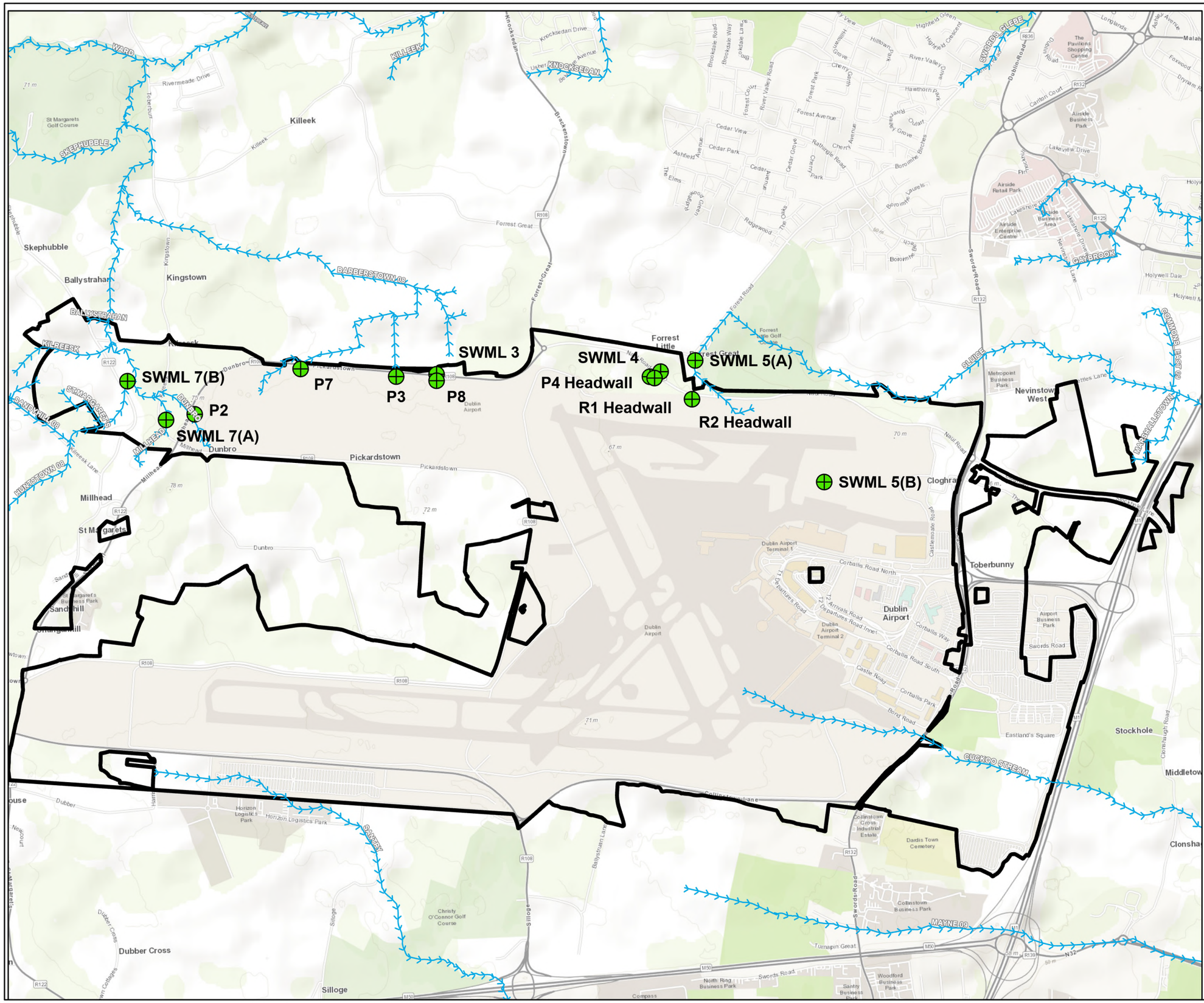

Legend

- Dublin Airport Boundary
- Rivers
- Surface Water Monitoring Locations

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4.3.1 Sampling Methodology

The sampling methodology is provided in Appendix 2. A summary is provided hereunder.

Dedicated bottleware supplied by the laboratory was used for the surface water samples. The monitoring methodology entailed the following:

- A surface water grab sampler was used to acquire samples safely from the surface water monitoring locations.
- To ensure quality control, all samples were stored and shipped in cooler boxes (<4ºC). All samples were accompanied by a chain-of-custody form on-site for same day delivery to laboratory. The procedure was repeated at all surface water monitoring locations, using new sampling containers.
- Duplicate samples were collected at each monitoring locations as part of the quality control procedures.

All groundwater samples collected as part of the monitoring programme were submitted to ALS, an ISO 17025:2017 approved laboratory. Samples were submitted via courier under Chain of Custody procedures and analysed for:

- PFAS under ALS Method No. TM434

4.3.2 Surface Water Generic Assessment Criteria (GAC)

The Water Framework Directive (WFD) (Directive 2000/60/EC) as amended by Directive 2013/39/EC and the European Union Environmental Objectives (Surface Waters) Regulations (S.I. No. 77, as amended) include limits for PFOS in surface water.

PFOS is one type of PFAS. PFOS is currently the only regulated PFAS in surface water in Ireland.

The limits referred to as Environmental Quality Standards (EQS) are set for water to meet a ‘Good’ status under the WFD. In this report, the surface water EQS is used as the GAC:

- 0.65ng/L PFOS Annual Average
- 36,000ng/L PFOS MAC (maximum admissible concentration)

Further information is provided in Section 1.2.3.2.

When laboratory analyses did not detect PFAS above the Limit of Detection (LOD) these results were recorded as <LOD. For analytical and reporting purposes, any results reported as "<" symbol was assigned a value of zero. For example, a result of <0.65ng/L was recorded as 0ng/L.

4.3.3 Landside

Landside surface water sampling locations and associated surface water bodies and catchments are outlined in Table 4-16.

Table 4-16: 2024 Landside Surface Water Monitoring Locations

ID	Surface Water Body	Surface Water Catchment	Location
SL1 (also known as 'Proposed SWML 8')	Barberstown 08	Ward_030	Landside
SL2	Sluice	Mayne_010	
SL3	Cuckoo Stream	Mayne_010	
SL4 (also known as 'SWML 2')	Ward_030	Ward_030	
SL5	Ward_030	Ward_030	
SL6	Sluice	Mayne_010	
SL7	Cuckoo Stream	Mayne_010	
SL8	Santry	Mayne_010	
SL9	Westereave	Ward_030	
SL10	Sandyhill 08	Ward_030	
SL11	Mayne 09	Mayne_010	
SL12	Ward	Ward_030	
SL13	Cuckoo Stream	Mayne_010	
SL14	Santry	Mayne_010	
SL15	Mayne 09	Mayne_010	
C1	Drainage Channel	Sluice_010	
C-2A	Manhole	Mayne_010	
C-2B	Manhole	Mayne_010	
Kealy's Stream	Drainage Channel	Sluice_010	
M5	Drainage Channel	Mayne_010	
S1	Drainage Channel	Santry_010	
S3	Santry	Santry_010	
WAD Stream	Drainage Channel	Sluice_010	
M1	Manhole	Mayne_010	

4.3.3.1 Surface Water Results

2024 landside surface water monitoring completed during the monitoring period is outlined in Table 4-17.

Table 4-17: 2024 Landside Surface Water Monitoring Events

ID	1st Round	2nd Round	3rd Round	4th Round
	02-03/04/2024	15-17/07/2024	30/09-02/10/2024	09-11/12/2024
SL1	✓	✓	✓	✓
SL2	✓	✓	✓	✓
SL3	✓	✓	✓	✓
SL4	✓	✓	✓	✓
SL5	✓	✓	✓	NS
SL6	✓	✓	✓	✓
SL7	✓	✓	✓	✓
SL8	✓	✓	✓	✓
SL9	✓	✓	✓	✓
SL10	✓	✓	✓	✓
SL11	✓	✓	✓	✓
SL12	✓	✓	✓	✓
SL13	✓	✓	✓	✓
SL14	✓	✓	✓	✓
SL15	✓	✓	✓	✓
C1	✓	✓	✓	✓
C-2A	✓	NS	NS	✓
C-2B	✓	NS	NS	✓
Kealy's Stream	✓	✓	✓	✓
M5	✓	✓	✓	✓
S1	✓	NS	NS	✓
S3	✓	✓	✓	✓
WAD Stream	✓	✓	✓	✓
M1	✓	NS	NS	✓

Note: A tick denotes a sample was collected. NS denotes no sample was collected as the surface water monitoring location was dry.

A summary of results is presented in Table 4-18.

Table 4-18: 2024 Landside Surface Water Monitoring Summary Results

ID	No. of Samples	GAC Limit Value (ng/L)	Min Total PFOS (ng/L)	Max Total PFOS (ng/L)	Average Total PFOS (ng/L)
SL1	8	0.65 (Annual Average)	0.00	2.04	0.98
SL2	8		2.87	7.29	4.98
SL3	8		4.17	9.91	6.44
SL4	8		0.00	3.27	1.77
SL5	8		0.00	1.68	0.42
SL6	8		3.93	10.00	5.23
SL7	8		0.00	8.94	4.72
SL8	8		0.00	1.71	0.50
SL9	8		0.00	1.56	0.42
SL10	8		0.00	2.06	0.47
SL11	8		0.00	9.61	3.31
SL12	8		0.00	2.80	1.32
SL13	8		0.00	6.14	4.08
SL14	8		0.00	4.54	2.25
SL15	8		0.00	2.67	1.75
C1	8		0.00	1.84	1.00
C-2A	4		0.00	3.16	2.03
C-2B	4		0.00	1.38	0.55
Kealy's Stream	8		3.61	22.80	14.56
M5	8		0.00	1.80	0.87
S1	4		0.00	0.68	0.17
S3	8		0.00	1.65	0.71
WAD Stream	8		0.00	4.31	2.86
M1	4		0.00	3.09	1.37

Note: No. of Samples includes a sample and its duplicate. All results are reported in ng/L. Results in Blue exceed the GAC (PFOS) Limit Value[1].

[1] GAC (PFOS) refers to the AA EQS Limit Value of 0.65ng/L is based on the annual average PFOS detected at a given location (refer to Section 1.2.3.2).

PFAS results below LOD were assigned as 0ng/L for analytical and reporting purposes.

All surface water monitoring results reported over the monitoring period were below the 36,000ng/L PFOS MAC defined in the Surface Water Regulations.

PFOS was detected in each surface water monitoring location on at least one occasion during the reporting period. All monitoring locations, with the exception of SL2, SL3, SL6 and Kealy's Stream reported concentrations of PFOS in surface water below the laboratory limit of detection for some monitoring events during the reporting period. Although PFOS was detected in all surface water monitoring locations at concentrations above the 0.65ng/L AA EQS, the average total PFOS concentrations were below the AA EQS in several locations (SL5, SL8, SL9, SL10, C-2B and S1).

During 2024, AA EQS PFOS concentrations were consistently above the GAC in the following surface water monitoring locations SL2, SL3, SL4, SL6, SL7, SL11, SL13, SL14, SL15 and Kealy's Stream.

The highest average PFOS concentrations in surface waters are located to the east of the airport in the Sluice (SL6 and SL11), Cuckoo Stream (SL3, SL7 and SL13), and Kealy's Stream. New drainage constructed beneath the North Runway and APEC 5 (where residual PFAS is confirmed) discharges to the Sluice upstream of SL2 and SL6.

Tributaries of the River Ward contain low levels of PFOS concentrations but are elevated above the GAC.

PFOS concentrations in surface water monitoring location SL11 and SL15 on the Mayne may be from an external source to the airport. Concentrations of PFOS in monitoring location M5, located adjacent to the airport boundary are lower than concentrations reported in downstream monitoring location S11. This indicates other sources of PFOS discharging into this surface water downstream of the airport.

Similar observations are evident in the Ward, where PFOS concentrations were lower in the upstream sampling locations (SL1, SL5, SL9) than downstream monitoring location SL12 and in the Santry River (S3) where PFOS concentrations increased in downstream sample locations (SL08 and SL14).

4.3.3.2 Surface Water Trends

Trends of PFOS concentrations between 2021 and 2024 are presented in Appendix 8.

Most surface water monitoring locations indicated stable or downward trends. SL10, C-2A, S1 and S3 demonstrated an overall slight upward trend.

4.3.4 Airside

Airside surface water sampling locations and associated surface water bodies and catchments are outlined in Table 4-19.

Table 4-19: 2024 Airside Surface Water Monitoring Locations

ID	Surface Water Body	Surface Water Catchment	Location
P2	Manhole	Ward_030	Airside
P3	Manhole	Ward_030	
P4	Headwall	Sluice_010	
P7	Manhole	Ward_030	
P8	Manhole	Ward_030	
R1	Headwall	Sluice_010	
R2	Headwall	Sluice_010	

ID	Surface Water Body	Surface Water Catchment	Location
SWML3	Unnamed	Sluice_010	Airside
SWML4	Unnamed	Sluice_010	
SWML5a	Sluice	Sluice_010	
SWML7a	Unnamed	Ward_030	
SWML7b	Huntstown 08	Ward_030	

4.3.4.1 Surface Water Results

2024 airside surface water monitoring completed during the reporting period is outlined in Table 4-20.

Table 4-20: 2024 Airside Surface Water Monitoring Events

ID	1st Round	2nd Round	3rd Round	4th Round
	02-03/04/2024	16/07/2024	02/10/2024	10-11/12/2024
P2	✓	✓	✓	✓
P3	✓	✓	✓	✓
P4	✓	✓	✓	✓
P7	✓	✓	✓	✓
P8	✓	✓	✓	✓
R1	✓	✓	✓	✓
R2	✓	✓	✓	✓
SWML3	✓	✓	✓	✓
SWML4	✓	✓	✓	✓
SWML5a	✓	✓	✓	✓
SWML7a	✓	✓	✓	✓
SWML7b	✓	✓	✓	✓

Note. A tick denotes a sample was collected.

A summary of results is presented in Table 4-20.

Table 4-21: 2024 Airside Surface Water Monitoring Results

ID	No. of Samples	GAC Limit Value (ng/L)	Min Total PFOS (ng/L)	Max Total PFOS (ng/L)	Average Total PFOS (ng/L)
P2	8	0.65 (Annual Average)	0.00	4.79	2.92
P3	8		0.00	2.89	1.89
P4	8		2.80	8.97	5.35
P7	8		0.00	3.76	1.42
P8	8		0.00	2.73	1.15
R1	8		4.39	14.40	8.80
R2	8		2.17	7.08	4.20
SWML3	8		0.00	4.59	2.50
SWML4	8		5.60	14.60	7.94
SWML5a	8		7.43	16.10	10.98
SWML7a	8		0.00	1.71	0.21
SWML7b	8		0.00	2.38	0.83

Note: No. of Samples includes a sample and its duplicate. All results are reported in ng/L. Results in Blue exceed the GAC (PFOS) Limit Value[1].

[1] GAC (PFOS) refers to the AA EQS Limit Value of 0.65ng/L is based on the annual average PFOS detected at a given location (refer to Section 1.2.3.2).

PFAS results below LOD were assigned as 0ng/L for analytical and reporting purposes.

All surface water monitoring results reported over the monitoring period were below the 36,000ng/L PFOS MAC defined in the Surface Water Regulations.

PFOS was detected in each surface water monitoring location on at least one occasion during the reporting period. All monitoring locations, except for P4, R1, R2, SWML4, and SWML5a reported concentrations of PFAS in surface water below the laboratory limit of detection for some monitoring events during the reporting period. Although PFOS was detected in all surface water monitoring locations at concentrations above the 0.65ng/L AA EQS, the average total PFOS concentrations were below the AA EQS in SWML7a. The highest PFOS concentrations were recorded in SWML5a.

4.3.4.2 Surface Water Trends

The PFOS concentrations between 2021 and 2024 are presented in Appendix 8.

Based on the results to date, PFOS concentrations appear to be overall steadily decreasing in monitoring locations P3, P4, P7, P8, R2, SWML3, SWML4, SWML5a, SWML7a and SWML7b, while concentrations appear relatively stable in monitoring locations P2. PFOS concentrations appear to be increasing in monitoring location R1 potentially due to its direct connectivity to APEC 5.

4.3.5 Current Fire Station and Fire Fighting Training Ground (FFTG)

Current fire station surface water sampling locations and associated surface water body and catchment are outlined in Table 4-22 and shown in Figure 4-9.

Table 4-22: 2024 Current Fire Station Surface Water Monitoring Locations

ID	Surface Water Body	Surface Water Catchment	Location
ACO Drain	Cuckoo Stream	Mayne_010	Current Fire Station
Interceptor	Cuckoo Stream	Mayne_010	
Sewer	Cuckoo Stream	Mayne_010	

In April 2024 monitoring was completed at the current fire station and FFTG (Table 4-23).

Table 4-23: 2024 Current Fire Station and FFTG Surface Water Monitoring Event

ID	1st Round
	02/04/2024
ACO Drain	✓
Interceptor	✓
Sewer	✓

Note. A tick denotes a sample was collected.

A summary of results is presented in Table 4-24.

Table 4-24: 2024 Current Fire Station and FFTG Surface Water Monitoring Summary Results

ID	No. of Samples	GAC Limit Value (ng/L)	Min Total PFOS (ng/L)	Max Total PFOS (ng/L)	Average Total PFOS (ng/L)
ACO Drain	2	0.65 (Annual Average)	1.69	1.84	1.77
Interceptor	2		4.39	5.22	4.81
Sewer	2		0.00	1.42	0.71

Note: No. of Samples includes a sample and its duplicate. All results are reported in ng/L. Results in *Blue* exceed the GAC (PFOS) Limit Value[1].

[1] GAC (PFOS) refers to the AA EQS Limit Value of 0.65ng/L is based on the annual average PFOS detected at a given location (refer to Section 1.2.3.2).

PFAS results below LOD were assigned as 0ng/L for analytical and reporting purposes.

All surface water monitoring results reported over the monitoring period were below the 36,000ng/L PFOS MAC defined in the Surface Water Regulations.

PFOS was detected in each surface water monitoring location during the one occasion it was monitored, above the AA EQS of 0.65ng/L for PFOS. The highest PFOS concentrations were reported within the interceptor.

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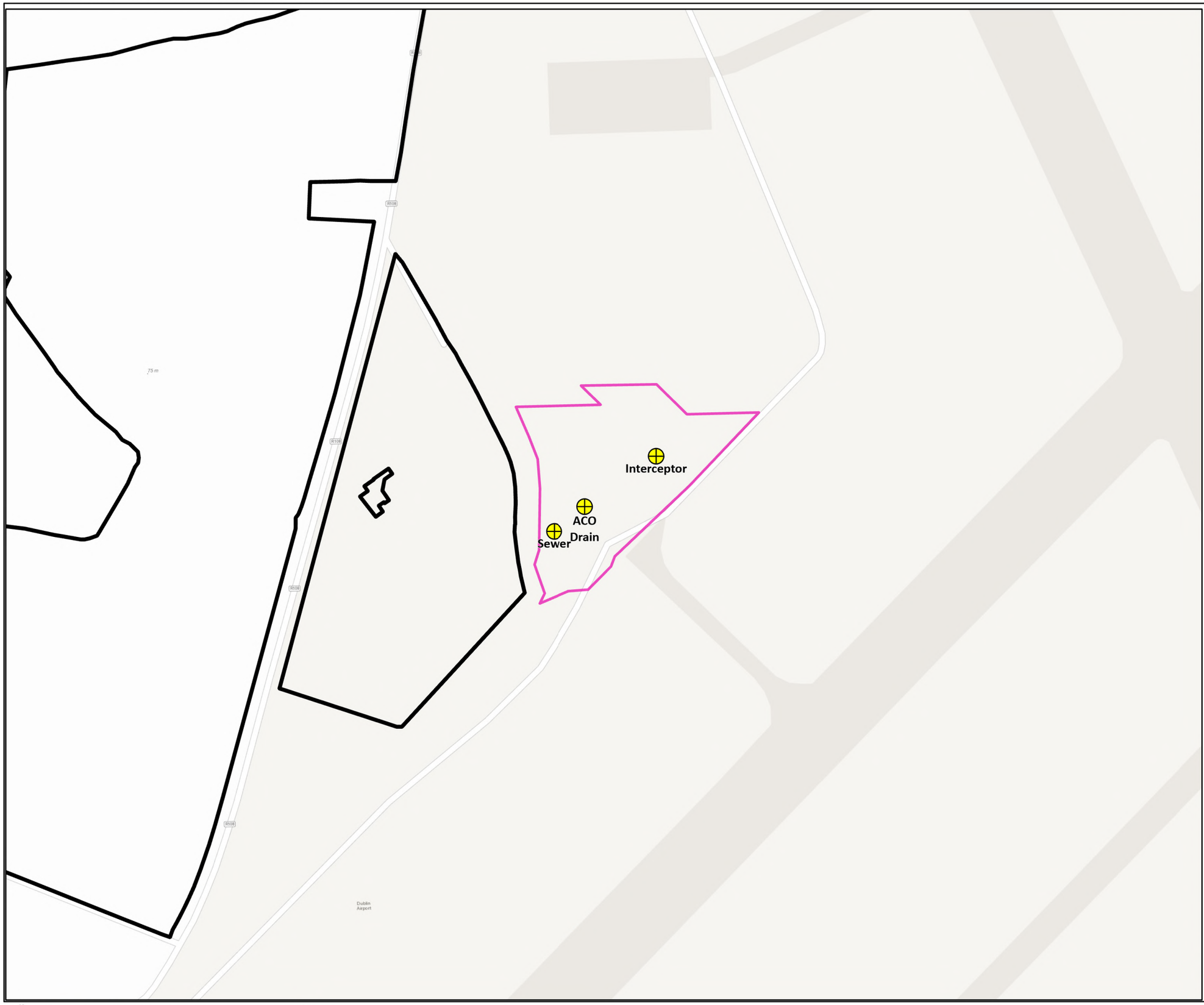

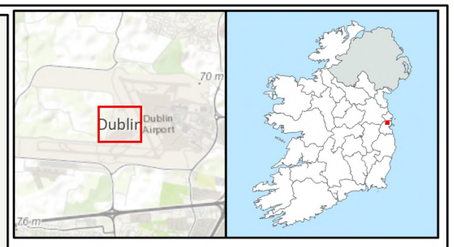

Legend

- Dublin Airport Boundary
- Current Fire Station & FFTG
- Current Firestation Surface Water Locations

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4.3.6 2024 EPA Monitoring of Surface Water

The EPA have undertaken surface water monitoring for PFOS and PFOA at the following bodies:

- Ward_030[15]
- Sluice_010[16]

The locations of National Water Monitoring Stations in the vicinity of Dublin Airport, where PFOS and PFOA monitoring in surface water was undertaken by the EPA and adjacent, upstream or downstream FT monitoring locations are shown in Figure 4-10.

4.3.6.1 Ward_030 Monitoring Results

PFOS and PFOA monitoring was undertaken by the EPA at monitoring station RS08W010300. This monitoring station is approximately 1km downstream of surface water monitoring location SL9 where PFOS concentrations were below the LOD in 2024 in five of the eight samples analysed. This indicates there may be another source of PFOS upstream of this monitoring station.

EPA PFOS results are in Table 4-25.

Table 4-25: 2024 Ward_030 PFOS Results

Date	GAC Limit Value (ng/L)	Result (ng/L)
14/03/2024	0.65	<0.52
09/05/2024		0.70
08/08/2024		<0.65
17/10/2024		0.64

4.3.6.2 Sluice_010 Monitoring Results

PFOS and PFOA monitoring was undertaken by the EPA at monitoring station RS09S070200. This corresponds to daa surface water monitoring location SWML5a where PFOS concentrations ranged between 7.43 to 16.10ng/L in 2024.

EPA PFOS results can be found in Table 4-26.

Table 4-26: 2024 Sluice_010 PFOS Results

Date	GAC Limit Value (ng/L)	Result (ng/L)
14/03/2024	0.65	9.12
09/05/2024		8.21
08/08/2024		6.80
17/10/2024		9.57

Results were elevated above the GAC Limit Value in all quarters in 2024.

[15] https://www.catchments.ie/data/#/waterbody/IE_EA_08W010300?_k=ng2pyn
[16] https://www.catchments.ie/data/#/waterbody/IE_EA_09S071100?_k=lfhj9i

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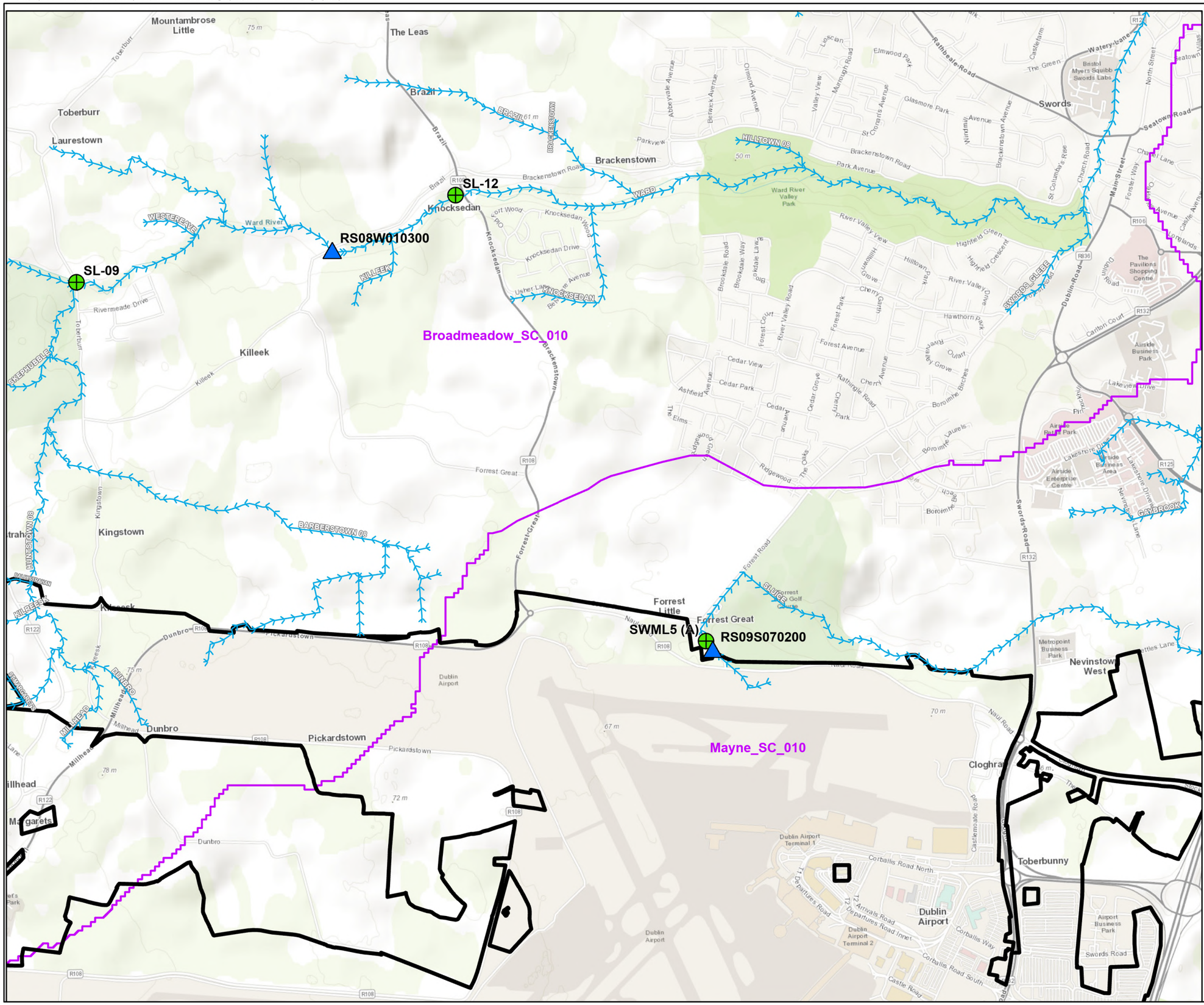

Legend

- Dublin Airport Boundary
- WFD Sub Catchments
- Surface Water Monitoring Locations
- EPA National Water Monitoring Stations
- Rivers

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4.4 Quality Assurance/Quality Control

Special handling and care must be taken when collecting samples for PFAS analysis to avoid cross contamination of the samples. PFAS is detected at extremely low concentrations and is susceptible to cross contamination. The routine analysis of trip and field blanks is to ensure handling and sampling procedures in the field are not contributing to cross contamination of samples and help ensure the validity of the sample results.

Trip blanks are provided by ALS. These blanks consist of de-ionized water which is purchased commercially (Honeywell) with PFAS listed as one of the components certified for analysis. The trips blanks are provided by ALS in sample HDPE bottles. FT bring trip blank bottles during each sampling visit, but they are never opened. They are then returned, unopened along with the water samples and analysed for the PFAS suite.

Field blanks are provided by ALS in a similar fashion. De-ionized water is provided by ALS in 1 litre HDPE bottles which is transported to site. Using the same field sampling techniques for collecting samples, and wearing same site gear, the de-ionized water is transferred into the sample containers by the FT sampler and stored along with the water samples. These are then returned to the laboratory along with the water samples and analysed for the PFAS suite.

ALS have two sources of de-ionized water:

- Commercially produced de-ionised water by Honeywell, that ALS sends to customers for use. This is referred to below as the standard de-ionised water.
- In-house ALS generated de-ionised water which is used for laboratory trip blanks in sampling runs.

Concentrations of PFAS were detected above the LOD in trip and field blank samples during the monitoring period are shown in Table 4-27.

Table 4-27: 2024 Trip and Field Blank Samples with Detections of PFAS

Sample ID	Date	PFAS Compound	LOD (ng/L)	Concentration (ng/L)
GWFB	15/07/2024	Branched PFOS	<0.65	0.682
		EtFOSE	<10	10.8
		Linear PFOS	<0.65	1.05
		MeFOSE	<10	10.7
		PFHxDA	<1	1.55
		PFOA	<0.65	0.979
		PFODA	<1	1.67
		PFTrDS	<1	1.04
		Total PFOS	<0.65	1.73
GWTB	04/04/2024	FHxSA	<1	10.2
		Linear PFOS	<0.65	2.04
		PFHpA	<1	1.27
		PFNA	<1	1.19
		PFOA	<0.65	1.58
		PFOSA	<2	3.1
		Total PFOS	<0.65	2.04
SWFB	04/04/2024	Linear PFOS	<0.65	0.779
		PFHxS	<1	1.19
		Total PFOS	<0.65	0.779

In April 2024 the anomalies noted in the trip blank samples can likely either be attributed to cross-contamination in the field, during transit or the laboratory. The anomalies noted in the field blank samples can likely be attributed to the mishandling of samples in the field, resulting in cross contamination of blank samples.

Consequently, the field sampling methodology was reviewed by FT and its was concluded that reported anomalies were an isolated occurrence. It is not considered a systemic issue, and no revisions to the methodology were warranted.

5. SUMMARY AND CONCLUSIONS

5.1 Introduction

A comprehensive environmental monitoring programme consisting of groundwater and surface water has been undertaken within and external to Dublin Airport by FT. This report presented all the monitoring results undertaken by FT and by the EPA during 2024.

5.1.1 Groundwater

At the North Apron, the results indicate that PFAS has mobilised but owing to the low permeability overburden and poorly productive bedrock, the extent of the groundwater plumes at the Former Fire Station and in the eastern area of the North Apron are localised. The local extent of the plumes has not been fully delineated. Most monitoring locations demonstrate stable or decreasing trends.

At the North Runway/APEC 5 most monitoring locations were reported below the GAC, with elevated concentrations detected at three monitoring wells. The highest Sum of 20 PFAS concentrations in groundwater are beneath/within the residual PFAS present in bedrock. The lateral extent of the plume indicates it is largely confined to its source location, but the plume extent is not fully delineated. Stable or decreasing trends were observed in four of the ten monitoring locations.

At Castlemoate House, the average Sum of 20 PFAS groundwater concentrations in most of the monitoring locations were below the GAC, except for one location. Most monitoring locations show demonstrate noticeable variations and fluctuations in Sum of 20 PFAS concentrations.

The majority of Sum of 20 PFAS concentrations in the Water Supply Well were below the laboratory LOD, with only one monitoring event reporting low detections of Sum of 20 PFAS concentrations.

5.1.2 Surface Water

During 2024, all surface water monitoring results for monitoring were below the 36,000ng/L PFOS MAC defined in the Surface Water Regulations.

PFOS was detected at all surface water monitoring locations on at least one occasion during the monitoring period. however, most monitoring locations reported concentrations of PFAS in surface water below the laboratory limit of detection for some monitoring events during the reporting period. The average total PFOS concentrations were below the AA EQS in several locations (SL5, SL8, SL9, SL10, C-2B and S1).

The highest average PFOS concentrations in surface waters are located to the east of the airport in the Sluice, Cuckoo Stream, Sluice and Kealy's Stream. New drainage constructed beneath the North Runway and APEC 5 (where residual PFAS is confirmed) discharges to the Sluice upstream. Tributaries of the River Ward contain low levels of PFOS concentrations but are elevated above the GAC.

The surface water monitoring indicates there may other be sources of PFOS/PFAS in surface waters external to the airport. The Mayne, Ward and Santry surface water bodies have reported PFOS at greater concentrations in downstream monitoring locations than upstream locations which are closer to the airport.

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 1

List of Sum of 20 PFAS Compounds

Sum of 20 PFAS compounds listed in Annex III Part B of Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the Quality of Water Intended for Human Consumption (recast) (the Directive):

- Perfluorobutanoic acid (PFBA)
- Perfluoropentanoic acid (PFPA/PFPeA)
- Perfluorohexanoic acid (PFHxA)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorooctanoic acid (PFOA)
- Perfluorononanoic acid (PFNA)
- Perfluorodecanoic acid (PFDA)
- Perfluoroundecanoic acid (PFUdA) / (PFUnA)/(PFUnDA)
- Perfluorododecanoic acid (PFDoA)/(PFDoDA)
- Perfluorotridecanoic acid (PFTrDA)
- Perfluorobutane sulfonic acid (PFBS)
- Perfluoropentane sulfonic acid (PFPeS) / (PFPS)
- Perfluorohexane sulfonic acid (PFHxS)
- Perfluoroheptane sulfonic acid (PFHpS)
- Perfluorooctane sulfonic acid (PFOS)
- Perfluorononane sulfonic acid (PFNS)
- Perfluorodecane sulfonic acid (PFDS)
- Perfluoroundecane sulfonic acid (PFUnDS)
- Perfluorododecane sulfonic acid (PFDoDS)/(PFDoS)
- Perfluorotridecane sulfonic acid (PFTrDS)

Definition of Sum of 20 PFAS according to the Directive:

'Sum of PFAS' means the sum of per- and polyfluoroalkyl substances considered a concern as regards water intended for human consumption listed in point 3 of Part B of Annex III. This is a subset of 'PFAS Total' substances that contain a perfluoroalkyl moiety with three or more carbons (i.e. –CnF2n–, n ≥ 3) or a perfluoroalkylether moiety with two or more carbons (i. e. –CnF2nOCmF2m–, n and m ≥ 1).

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 2

Sampling Methodologies

Sampling Methodology

This method statement should be read, understood and adhered to by the sampling personnel to ensure the correct procedures are followed. The collection, storage, and coordination of PFAS sampling is the full responsibility of the sampling personnel.

PFAS is detected at extremely low concentrations and is susceptible to cross contamination, therefore it is important that this sampling methodology is followed during the environmental sampling at each designated testing location.

It is required that all environmental sampling is undertaken by a person trained in line with this procedure and has been approved by the Project Manager.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should be laundered multiple times. Appropriate rain gear should be used that does not contain PFAS e.g. PVC, polyurethane, or rubber rain gear is acceptable. Random oversight and spot checks will be conducted to ensure these procedures are being adhered to.

On the day of sample collection do not use cosmetics, moisturisers, hand cream, sunscreen or insect repellent. In summer months, where possible, the sampler should adopt wrist to ankle cover and utilise sun hats to avoid the use of sunscreen.

Do not label the sampling containers with waterproof markers (e.g. Sharpies) as they may contain PFAS, ballpoint pens are acceptable.

1. Take sampling equipment, handheld meters and sampling bottles to each sampling location. Ensure you are wearing mandatory FT PPE and site mandatory PPE.

Surface Water Sampling

1. The sample handler must avoid PFAS contamination during sampling by thoroughly washing their hands and wearing nitrile gloves.
2. If sampling at a difficult location e.g. river edge, ensure another person (from FT or site) is present.
3. For surface water samples when at a safe location to sample from, rinse out sampling scoop three times in the surface water before collecting the sample.
4. When filling any sample container, care should be taken that splashing drops of water from the ground do not enter either the bottle or cap.
5. For collection of duplicate samples partially fill 2 sample bottles, 1 at a time, switching between the two bottles until suitable volume of sample is obtained in both bottles. i.e. fill 1/3 of one bottle and 1/3 of another and repeat until bottle are full.
6. Between sampling locations, rinse grab sample scoop with deionised water to flush beaker and avoid cross contamination of next location.
7. Keep sample sealed and place sample on ice for shipment. Samples to remain <4°C.

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 3

Groundwater Results

North Apron Groundwater Monitoring Results

Parameter	Unit	GW001																	
		15/11/21	15/11/21	10/02/22	10/02/22	15/03/22	15/03/22	19/04/22	19/04/22	24/05/22	24/05/22	21/06/22	21/06/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l																		
3:3 FTCA (356-02-5)	ng/l																		
4:2 FTS (757124-72-4)	ng/l	<2	<10	<10	<2	<2	<2	<10	<20	<10	<10	<20	<20	<2	<2	<10	<2	<10	<10
5:3 FTCA (914637-49-3)	ng/l	<20	<100	<100	<20	<20	<20	<100	<200	<100	<100	<200	<200	<20	<20	<100	<20	<100	<100
6:2 FTAB (34455-29-3)	ng/l																		
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	67.5	97.6	119	89.6	87.6	84.5	107	107	67.6	101	105	94.3	129	126	96.7	109	101	113
7:3 FTCA (812-70-4)	ng/l																		
8:2 FTS (39108-34-4)	ng/l	32.4	25.9			11.9	12	19	<20	16.5	24.6	59.1	52.2	48.6	52	20.1	25.3	22.6	20.8
9Cl-PF3ONS (756426-58-1)	ng/l																		
ADONA (919005-14-4)	ng/l																		
Branched PFOS	ng/l	63.4	68.1	61.9	41.5	61.9	64.8	53.3	61.1	49.6	81	65.3	55.9	86.7	83.5	61.3	81	56.1	58.4
EtFOSAA (2991-50-6)	ng/l																		
EtFOSE (1691-99-2)	ng/l																		
FBSA (30334-69-1)	ng/l																		
FHxSA (41997-13-1)	ng/l																		
HFPO-DA (13252-13-6)	ng/l																		
HFPO-TA (13252-14-7)	ng/l																		
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	70.7	83.1	75.4	80.5	56.3	55.9	64.5	63.4	56.6	84.5	72.8	61.9	87.2	86.2	74.5	77.8	46.6	44.5
MeFOSAA (2355-31-9)	ng/l																		
MeFOSE (24448-09-7)	ng/l																		
N-EtFOSA (4151-50-2)	ng/l																		
NFDHA (151772-58-6)	ng/l																		
N-MeFOSA (31506-32-8)	ng/l																		
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<91.5	<18	<10	<10	<20	<10	45.6	57.5	<35	<30	<20	<20	<25	<30	<10	<35	<24	<38
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	6.16	12.3	13.2	9.73	9.95	9.52	<10	15.4	9.69	16.8	13.8	12.6	29	28.2	20.1	26.4	14.4	16.6
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	1.28	<5	<5	<1	1.23	1.22	<10	<10	<5	<5	<10	<10	1.41	1.44	<5	1.24	<5	<5
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<5	<5	<1	<1	<1	<10	<10	<5	<5	<10	<10	<1	<1	<5	<1	<5	<5
PFDoS (79780-39-5)	ng/l					<2	<2	<10	<10	<5	<10	<20	<20	<2	<2	<5	<1	<5	<5
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<5	<5	<1	<1	<1	<10	<10	<5	<5	<10	<10	<1	<1	<5	<1	<5	<5
PFecHS (133201-07-7)	ng/l																		
PFEESA (113507-82-7)	ng/l																		
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	74.4	38	38.9	41.2	46.7	55.2	45	32.6	25.2	46.9	31.8	28.9	55.9	44.7	35.8	57.1	52.2	65.3
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	3.96	<5	<5	2.04	2.93	3.07	<10	<10	<5	<5	<10	<10	4.11	4.05	<5	3.67	<5	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	36.6	44.8	59	47.7	48.9	44.1	47.4	51.5	37	65.1	60.3	52	70.3	69.6	67	75.7	63.3	73.8
PFHxDA (67905-19-5)	ng/l																		
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	42.5	52.2	49.3	44.8	46.3	44	47.9	49.3	38	57.5	53.5	48.6	76	77.5	57.9	69.5	51.8	62.5
PFMOBA (863090-89-5)	ng/l																		
PFMOPrA (377-73-1)	ng/l																		
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	6.72	7.79	8.05	6.21	6.27	6.43	<10	<10	6.98	9.51	<10	<10	9.52	9.2	9.87	8.54	8.05	8.68
PFNS (68259-12-1)	ng/l					<1	<1	<10	<10	<5	<5	<10	<10	<1	<1	<5	<1	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	20.4	25.8	29.7	19.1	19.8	21	30.3	34.7	27.5	40.3	27	23	31.4	30.4	32.2	31.7	28.5	33.5
PFODA (16517-11-6)	ng/l																		
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<10	<10	<2	<2	<2	<20	<20	<10	<10	<20	<20	<2	<2	<10	<2	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	55.9	34	34.5	43.6	36.2	48.6	50.7	55.5	29.5	59.2	53.2	44.5	37.3	38.5	78.8	68.9	35.8	43.2
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	5.71	9.11	8.23	4.73	6.49	6	<10	<10	6.33	9.04	<10	<10	14.7	13.9	10.2	13.5	7.65	9.98
PFTeA (376-06-7)	ng/l																		
PFTrDA (72629-94-8)	ng/l					<1	<1	<10	<10	<5	<5	<10	<10	<2	<2	<5	<1	<5	<5
PFTrDS (174675-49-1)	ng/l					<2	<2	<10	<10	<5	<25	<20	<20	<2	<2	<5	<1	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<5	<5	<1	<1	<1	<10	<10	<5	<5	<10	<10	<1	<1	<5	<1	<5	<5
PFUnDS (749786-16-1)	ng/l					<2	<2	<10	<10	<5	<5	<10	<10	<2	<2	<5	<1	<5	<5
Total PFOS	ng/l	134	151	137	122	118	121	118	125	106	166	138	118	174	170	136	159	103	103
Sum of PFAS																			
Sum of 20 PFAS	ng/l	387.63	375.00	377.88	341.11	342.77	360.14	384.90	421.50	286.20	470.35	377.60	327.60	503.64	487.49	447.87	515.25	364.70	416.56
Sum of Total PFAS	ng/l	621.63	649.70	634.18	552.71	560.47	577.34	628.70	653.00	476.50	761.45	679.80	591.90	855.14	835.19	700.47	808.35	591.00	653.26
Average Sum of 20 PFAS	ng/l	382.43																	
Average Total PFAS	ng/l	635.03																	
Min Sum of 20 PFAS	ng/l	17.60																	
Max Sum of 20 PFAS	ng/l	558.01																	

North Apron Groundwater Monitoring Results

Parameter	Unit	GW001									
		30/05/23	30/05/23	02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<10	<10	<10	2.9	<4	<10
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<25	<25	<50	<5	<10	<25
6:2 FTAB (34455-29-3)	ng/l			<10	<10	<50	<50	<50	<10	<20	<50
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	37.8	33.8	78.2	78.2	107	23.4	67	89.9	<2	101
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<25	<25	<25	<5	<10	<25
8:2 FTS (39108-34-4)	ng/l	12.6	12.1	14.5	14.6	20.9	<10	<10	13	<4	17.2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	77.4	<5	<5	<1	<2	<5
Branched PFOS	ng/l	126	108	37.6	36.1	64	14	36.8	36.4	<1.3	63.2
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<50	<50	<50	<10	<20	<50
FBSA (30334-69-1)	ng/l	1.56	1.44	3.26	3.41	<5	<5	<5	5.11	<2	<5
FHxSA (41997-13-1)	ng/l	6.52	6.24	5.47	5.22	5.66	<5	<5	11.4	<2	6.18
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<25	<25	<25	<5	<10	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	119	104	34.6	34.2	54	11.8	17.2	27.7	<1.3	68.3
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<50	<50	<50	<10	<20	<50
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<15	<15	<15	<3	<6	<15
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	11.3	12.4	44.6	50.5	<10	<10	10.6	29.6	<4	<10
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	8.26	6.09	17	17.2	24.3	<5	11.7	15	<2	15.4
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
PFecHS (133201-07-7)	ng/l	57.1	48.2	64	61.3	66	15.8	47.2	42.2	3.94	64.5
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	15.3	13	46	45.2	56.3	12.5	25.8	39.1	<2	41
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	4.55	3.87	2.92	2.73	5.41	<5	<5	3.15	<2	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	25.9	23.4	72	69.7	92.1	20.8	44.1	65.5	5.15	65.1
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	42.2	32.9	59.2	57.7	84.2	19	40.4	60.3	3.3	73.3
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	104	<5	<5	<1	<2	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	3.18	3.16	5.21	5.36	11.3	<5	6.17	6.5	<2	11.3
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	15.1	12.4	28.8	28.4	49.1	10.1	21.4	29.7	1.68	38.9
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	34.3	32.7	108	104	106	24.5	53	88.8	7.47	79.1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	3.85	2.79	7.52	7.35	11.3	<5	6.9	8.29	<2	5.88
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<15	<15	<15	<3	<6	<15
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<5	<5	<5	<1	<2	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<10	<10	<10	<2	<4	<10
Total PFOS	ng/l	246	211	72.2	70.3	118	25.7	54	64.1	<1.3	132
Sum of PFAS											
Sum of 20 PFAS	ng/l	409.94	353.71	463.45	458.44	558.01	112.60	274.07	410.04	17.60	461.98
Sum of Total PFAS	ng/l	770.52	667.49	701.08	691.47	1056.97	177.60	442.27	638.65	21.54	782.36
Average Sum of 20 PFAS	ng/l										
Average Total PFAS	ng/l										
Min Sum of 20 PFAS	ng/l										
Max Sum of 20 PFAS	ng/l										

North Apron Groundwater Monitoring Results

Parameter	Unit	GW002D																	
		15/11/21	15/11/21	10/02/22	10/02/22	15/03/22	15/03/22	19/04/22	19/04/22	24/05/22	24/05/22	21/06/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23	30/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																		<2
3:3 FTCA (356-02-5)	ng/l																		<2
4:2 FTS (757124-72-4)	ng/l	<2	<4	<10	<2	<4	<4	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<40	<100	<20	<40	<40	<20	<20	<100	<20	<20	<20	<20	<20	<20	<20	<20	<5
6:2 FTAB (34455-29-3)	ng/l																		
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	5.02	5.52	7.86	15.5	2.41	10.4	24.5	23	24.8	18.5	9.47	33.7	35.8	9.31	12.2	13.5	13.6	<1
7:3 FTCA (812-70-4)	ng/l																		<5
8:2 FTS (39108-34-4)	ng/l	8.68	14.1			<4	<4	<2	4.18	<10	3.09	8.16	11	12	6.39	3.76	4.81	4.23	<2
9Cl-PF3ONS (756426-58-1)	ng/l																		<1
ADONA (919005-14-4)	ng/l																		<1
Branched PFOS	ng/l	42.3	50.2	55.5	34.5	40.8	36.5	28.8	24.6	66.4	49.9	39.8	61.7	62.4	43.2	54.7	36.8	38.7	53.3
EtFOSAA (2991-50-6)	ng/l																		<2
EtFOSE (1691-99-2)	ng/l																		<10
FBSA (30334-69-1)	ng/l																		1.05
FHxSA (41997-13-1)	ng/l																		1.82
HFPO-DA (13252-13-6)	ng/l																		<2
HFPO-TA (13252-14-7)	ng/l																		<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	48.5	57.9	38.9	58	28.1	25.6	28.8	27.5	45.3	38.9	33.9	48	49.8	46.9	43.2	27.9	27.9	53.2
MeFOSAA (2355-31-9)	ng/l																		<2
MeFOSE (24448-09-7)	ng/l																		<10
N-EtFOSA (4151-50-2)	ng/l																		<1
NFDHA (151772-58-6)	ng/l																		<3
N-MeFOSA (31506-32-8)	ng/l																		<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	27.9	25.7	31.4	19.2	30	28.6	23.2	25.3	46.6	34	34.9	<30	<34	<28	17.6	30.9	31.7	24.3
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	2.98	3.25	<5	2.61	3.83	3.26	1.83	<1	6.39	3.67	2.76	5.44	5.37	3.7	4.86	2.2	2.53	2.49
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<2	<5	<1	<2	<2	1.07	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<2	<5	<1	<2	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l					<4	<4	<1	<1	<40	<2	<2	<2	<2	<1	<1	<1	<1	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<2	<5	<1	<2	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFecHS (133201-07-7)	ng/l																		112
PFEESA (113507-82-7)	ng/l																		<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	79	76.1	81.8	77.3	48.7	45.7	53.7	99.8	84.5	77.9	68.9	68.3	71.4	82	76.8	76.3	81.4	52.8
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	2.86	3.59	<5	<1	<2	<2	1.47	1.22	<5	2.49	2.08	2.58	2.53	2.6	2.23	1.89	2	1.09
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	58.2	60.2	63.1	57.1	57.1	56.1	43	38.6	88.1	65.7	61.9	55.6	59.6	59.3	68	44.4	49	44.8
PFHxDA (67905-19-5)	ng/l																		<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	25.1	29.4	27.5	19.9	22.4	19.7	16.5	14.9	35.9	26.9	25.5	29.4	30.1	27.2	32.4	20.1	21.1	22.9
PFMOBA (863090-89-5)	ng/l																		<1
PFMOPrA (377-73-1)	ng/l																		<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	6.45	10.2	9.71	10.8	6.94	6.35	6.53	5.73	10.5	7.7	7.85	8.6	8.7	9.11	8.12	5.94	6.06	3.99
PFNS (68259-12-1)	ng/l					<2	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	29.5	34.6	36.2	34.1	27.1	24.6	23.5	20.6	45.7	37.7	35.5	35.5	33.6	36.8	38.1	24.8	25.5	22.9
PFODA (16517-11-6)	ng/l																		<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<4	<10	<2	<4	<4	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	61.2	57.7	76.7	56.1	66.2	61.4	117	135	128	75.4	81.9	50	55.8	87.1	80.4	39.1	54	79.3
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	2.36	2.53	<5	2.19	2.22	2.32	1.25	1.05	<5	2.34	2.29	2.74	2.88	2.57	2.93	1.9	1.94	<1
PFTeA (376-06-7)	ng/l																		<1
PFTrDA (72629-94-8)	ng/l					<3	<3	<1	<1	<15	<1	<1	<2	<2	<1	<1	<1	<1	<3
PFTrDS (174675-49-1)	ng/l					<4	<4	<1	<1	<40	<5	<2	<2	<2	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<2	<5	<1	<2	<2	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l					<4	<4	<1	<1	<10	<1	<1	<2	<2	<1	<1	<1	<1	<2
Total PFOS	ng/l	90.8	108	94.4	92.5	68.9	62.1	57.6	52.1	112	88.8	73.8	110	112	90	97.8	64.7	66.6	107
Sum of PFAS																			
Sum of 20 PFAS	ng/l	386.35	411.27	420.81	371.80	333.39	310.13	346.65	394.30	557.69	422.60	397.38	368.16	381.98	400.38	429.24	312.23	341.83	361.57
Sum of Total PFAS	ng/l	490.85	538.99	523.07	479.80	404.70	382.63	428.75	473.58	694.19	532.99	488.71	522.56	541.98	506.18	543.10	395.24	426.26	582.94
Average Sum of 20 PFAS	ng/l	366.33																	
Average Total PFAS	ng/l	499.00																	
Min Sum of 20 PFAS	ng/l	195.68																	
Max Sum of 20 PFAS	ng/l	557.69																	

North Apron Groundwater Monitoring Results

Parameter	Unit	GW002D										
		30/05/23	22/11/23	22/11/23	02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<10
6:2 FTAB (34455-29-3)	ng/l		<10	<10	<10	<10	<10	<10	<10	<50	<10	<20
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	21.9	21.3	<1	<1	1.85	2.42	1.58	<5	<1	<2
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<10
8:2 FTS (39108-34-4)	ng/l	<2	4.67	4.17	<2	<2	<2	<2	<2	<10	<2	<4
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
Branched PFOS	ng/l	44.9	50.3	52.1	17.2	16.6	23.8	25.3	20.4	31.7	43.3	50.1
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<20
FBSA (30334-69-1)	ng/l	1.21	2.05	1.88	<1	<1	1.15	1.34	<1	<5	1.83	2.24
FHxSA (41997-13-1)	ng/l	1.71	5.69	4.6	2.09	2.26	2.59	2.98	1.5	<5	2.22	2.58
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<10
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	40.3	40	37.4	14	12.3	15.5	18.4	10.2	18	23	31.5
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<20
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<6
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	24.2	39	30.1	21.6	22.1	24.1	27.7	18.3	31.5	29.9	35
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.81	4.23	3.9	2.43	2.41	2.61	3.15	2.14	5.83	4.15	5.74
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
PFecHS (133201-07-7)	ng/l	104	151	147	71.4	73.9	70.2	76.9	54.2	87.1	136	133
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	48.5	69.5	72.3	29.8	30.5	38	44.5	31	41.8	63.6	80.4
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	2.92	2.53	1.36	1.25	1.91	1.68	<1	<5	1.76	3.07
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	45	61.7	64.6	30.7	30.9	47.4	51.7	27.6	43.9	65	80
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	19.2	30.8	30.2	13.5	14.4	17.8	19.8	12.6	22.9	36.4	39.9
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	2.64	8.57	7.64	2.89	2.64	3.13	3.89	2.23	6.11	5.76	8.83
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	24.1	37.5	36.9	13.9	14.2	18.1	20.3	12.2	19.5	32.7	43.2
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	82.7	106	106	60.6	63.1	79.6	85.6	57.5	87.3	110	139
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	2.61	2.6	1.66	1.7	1.89	1.96	1.51	<5	3.29	3.67
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<6
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<4
Total PFOS	ng/l	85.2	90.2	89.5	31.3	28.9	39.3	43.7	30.6	49.7	66.3	81.6
Sum of PFAS												
Sum of 20 PFAS	ng/l	333.35	453.03	446.27	209.74	212.10	273.84	303.98	195.68	308.54	418.86	520.41
Sum of Total PFAS	ng/l	525.47	728.64	714.72	314.43	317.16	388.93	431.32	283.56	445.34	625.21	739.83
Average Sum of 20 PFAS	ng/l											
Average Total PFAS	ng/l											
Min Sum of 20 PFAS	ng/l											
Max Sum of 20 PFAS	ng/l											

North Apron Groundwater Monitoring Results

Parameter	Unit	GW003D																	
		15/02/22	15/02/22	15/03/22	19/04/22	19/04/22	24/05/22	24/05/22	21/06/22	21/06/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23	30/05/23	30/05/23	15/08/23
11Cl-PF3OUdS (763051-92-9)	ng/l																<2	<20	<20
3:3 FTCA (356-02-5)	ng/l																<2	<20	<20
4:2 FTS (757124-72-4)	ng/l	<2	<2	<100	<100	<20	<10	<10	<20	<20	<20	<20	<4	<20	<20	<20	<1	<10	<10
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<1000	<1000	<200	<100	<100	<200	<200	<200	<200	<40	<200	<200	<200	<5	<50	<50
6:2 FTAB (34455-29-3)	ng/l																		
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	3.73	3.54	<50	<50	<10	6.32	<5	<10	<10	<10	<10	2.4	<10	<10	<10	1.24	<10	<10
7:3 FTCA (812-70-4)	ng/l																<5	<50	<50
8:2 FTS (39108-34-4)	ng/l	<2	<2	<100	<100	<20	<10	<10	<20	<20	<20	<20	<4	<20	<20	<20	<2	<20	<20
9Cl-PF3ONS (756426-58-1)	ng/l																<1	<10	<10
ADONA (919005-14-4)	ng/l																<1	<10	<10
Branched PFOS	ng/l	7.46	5.94	<32.5	<32.5	7.82	10.2	9.62	<6.5	7.86	<6.5	<6.5	2.99	<6.5	<6.5	<6.5	1.68	<6.5	<6.5
EtFOSAA (2991-50-6)	ng/l																<2	<20	<20
EtFOSE (1691-99-2)	ng/l																<10	<100	<100
FBSA (30334-69-1)	ng/l																<1	<10	<10
FHxSA (41997-13-1)	ng/l																<1	<10	<10
HFPO-DA (13252-13-6)	ng/l																<2	<20	<20
HFPO-TA (13252-14-7)	ng/l																<5	<50	<50
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	10	8.46	<32.5	<32.5	10.6	16.2	14.5	10.6	13.2	11.2	9.36	4.97	8.4	<6.5	<6.5	2.23	<6.5	<6.5
MeFOSAA (2355-31-9)	ng/l																<2	<20	<20
MeFOSE (24448-09-7)	ng/l																<10	<100	<100
N-EtFOSA (4151-50-2)	ng/l																<1	<10	<10
NFDHA (151772-58-6)	ng/l																<3	<30	<30
N-MeFOSA (31506-32-8)	ng/l																<1	<10	<10
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<10	<5	<250	<800	<500	38.5	<35	<20	<20	2180	903	<4	<20	<20	<20	<2	<20	<20
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.45	1.2	<50	<50	<10	<5	<5	<10	<10	<10	<10	<2	<10	<10	<10	<1	<10	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<50	<50	<10	<5	<5	<10	<10	<10	<10	<2	<10	<10	<10	<2	<20	<20
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<50	<50	<10	<5	<5	<10	<10	<10	<10	<2	<10	<10	<10	<2	<20	<20
PFDoS (79780-39-5)	ng/l	<1	<1	<100	<50	<10	<40	<10	<20	<20	<10	<10	<2	<10	<10	<10	<2	<20	<20
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	3.38	3.74	<50	<50	<10	<5	<5	<10	<10	<10	<10	<2	<10	<10	<10	<2	<20	<20
PFecHS (133201-07-7)	ng/l																<1	<10	<10
PFEESA (113507-82-7)	ng/l																<1	<10	<10
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<50	<50	10	6.13	5.12	<10	<10	<10	<10	<2	<10	<10	<10	<1	<10	<10
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	4.05	3.92	<50	<50	<10	<5	<5	<10	<10	<10	<10	<2	<10	<10	<10	<1	<10	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	3.99	3.73	<50	<50	<10	7.96	6.03	<10	<10	<10	<10	<2	<10	<10	<10	1.43	<10	<10
PFHxDA (67905-19-5)	ng/l																<1	<10	<10
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<50	<50	<10	7.47	6.3	<10	<10	<10	<10	2.69	<10	<10	<10	<1	<10	<10
PFMOBA (863090-89-5)	ng/l																<1	<10	<10
PFMOPrA (377-73-1)	ng/l																<1	<10	<10
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.67	1.85	<50	<50	<10	<5	<5	<10	<10	<10	<10	<2	<10	<10	<10	<1	<10	<10
PFNS (68259-12-1)	ng/l	<2	<2	<50	<50	<10	<5	<5	<10	<10	<10	<10	<2	<10	<10	<10	<1	<10	<10
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	6.05	4.48	<32.5	<37	14.8	13.9	16	<6.5	<6.5	<17	<13.5	1.97	<6.5	<6.5	<6.5	<0.65	<6.5	<6.5
PFODA (16517-11-6)	ng/l																<1	<10	<10
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<1	<1	<100	<100	<20	<10	<10	<20	<20	<20	<20	<4	<20	<20	<20	<2	<20	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	<1	<50	<50	<10	9.2	6.05	<10	<10	14.7	<10	<2	<10	<10	<10	2.19	<10	<10
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	17.5	14.4	<50	<50	<10	<5	<5	<10	<10	<10	<10	<2	<10	<10	<10	<1	<10	<10
PFTeA (376-06-7)	ng/l																<1	<10	<10
PFTrDA (72629-94-8)	ng/l			<50	<50	<10	<15	<5	<10	<10	<10	<10	<2	<10	<10	<10	<3	<30	<30
PFTrDS (174675-49-1)	ng/l			<100	<50	<10	<40	<25	<20	<20	<10	<10	<2	<10	<10	<10	<1	<10	<10
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<50	<50	<10	<5	<5	<10	<10	<10	<10	<2	<10	<10	<10	<2	<20	<20
PFUnDS (749786-16-1)	ng/l			<100	<50	<10	<10	<5	<10	<10	<10	<10	<2	<10	<10	<10	<2	<20	<20
Total PFOS	ng/l	17.5	14.4	<32.5	<32.5	18.4	26.4	24.2	10.6	21.1	11.2	9.36	7.96	8.4	<6.5	<6.5	3.91	<6.5	<6.5
Sum of PFAS																			
Sum of 20 PFAS	ng/l	55.59	47.72	0.00	0.00	43.20	109.56	63.70	10.60	21.10	2205.90	912.36	12.62	8.40	0.00	0.00	7.53	0.00	0.00
Sum of Total PFAS	ng/l	76.78	65.66	0.00	0.00	61.62	142.28	87.82	21.20	42.16	2217.10	921.72	22.98	16.80	0.00	0.00	12.68	0.00	0.00
Average Sum of 20 PFAS	ng/l	124.91																	
Average Total PFAS	ng/l	134.75																	
Min Sum of 20 PFAS	ng/l	0.00																	
Max Sum of 20 PFAS	ng/l	2205.90																	

North Apron Groundwater Monitoring Results

Parameter	Unit	GW003D										
		15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
3:3 FTCA (356-02-5)	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
4:2 FTS (757124-72-4)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
5:3 FTCA (914637-49-3)	ng/l	<50	<50	<50	<25	<5	<25	<25	<5	<25	<25	<10
6:2 FTAB (34455-29-3)	ng/l		<100	<100	<50	<10	<50	<50	<10	<50	<50	<20
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<10	<10	<10	<5	1.35	<5	<5	1.28	<5	<5	2.57
7:3 FTCA (812-70-4)	ng/l	<50	<50	<50	<25	<5	<25	<25	<5	<25	<25	<10
8:2 FTS (39108-34-4)	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
9Cl-PF3ONS (756426-58-1)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
ADONA (919005-14-4)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
Branched PFOS	ng/l	<6.5	<6.5	<6.5	3.79	1.91	<3.25	<3.25	2.29	3.8	3.37	3.9
EtFOSAA (2991-50-6)	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
EtFOSE (1691-99-2)	ng/l	<100	<100	<100	<50	<10	<50	<50	<10	<50	<50	<20
FBSA (30334-69-1)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
FHxSA (41997-13-1)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
HFPO-DA (13252-13-6)	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
HFPO-TA (13252-14-7)	ng/l	<50	<50	<50	<25	<5	<25	<25	<5	<25	<25	<10
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<6.5	<6.5	<6.5	3.87	2.23	<3.25	<3.25	1.55	4.61	<3.25	3.38
MeFOSAA (2355-31-9)	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
MeFOSE (24448-09-7)	ng/l	<100	<100	<100	<50	<10	<50	<50	<10	<50	<50	<20
N-EtFOSA (4151-50-2)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
NFDHA (151772-58-6)	ng/l	<30	<30	<30	<15	<3	<15	<15	<3	<15	<15	<6
N-MeFOSA (31506-32-8)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<20	<20	<20	<10	3.41	<10	<10	<2	<10	<10	<4
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
PFDoS (79780-39-5)	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
PFecHS (133201-07-7)	ng/l	<10	10.1	10.5	6.97	3.54	<5	<5	2.49	6.35	6.34	7.45
PFEESA (113507-82-7)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	<10	<10	<5	1.69	<5	<5	1.91	<5	<5	3.1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<10	<10	<10	<5	2.4	<5	<5	2.46	<5	5.08	2.97
PFHxDA (67905-19-5)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	<10	<10	5.07	2.2	<5	<5	1.86	5.45	6.5	6.22
PFMOBA (863090-89-5)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFMOPrA (377-73-1)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFNS (68259-12-1)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<6.5	<6.5	<6.5	<3.25	1.38	6.67	<3.25	<0.65	<3.25	<3.25	2.26
PFODA (16517-11-6)	ng/l	<10	<10	<10	<5	<1	<5	<5	1.06	<5	<5	<2
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<10	<10	<10	7.1	4.54	<5	<5	5.07	7.73	<5	4.39
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFTeA (376-06-7)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFTrDA (72629-94-8)	ng/l	<30	<30	<30	<15	<3	<15	<15	<3	<15	<15	<6
PFTrDS (174675-49-1)	ng/l	<10	<10	<10	<5	<1	<5	<5	<1	<5	<5	<2
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
PFUnDS (749786-16-1)	ng/l	<20	<20	<20	<10	<2	<10	<10	<2	<10	<10	<4
Total PFOS	ng/l	<6.5	<6.5	<6.5	7.66	4.14	<3.25	<3.25	3.83	8.41	3.37	7.28
Sum of PFAS												
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	19.83	19.76	6.67	0.00	15.13	21.59	14.95	26.22
Sum of Total PFAS	ng/l	0.00	10.10	10.50	34.46	28.79	6.67	0.00	23.80	36.35	24.66	43.52
Average Sum of 20 PFAS	ng/l											
Average Total PFAS	ng/l											
Min Sum of 20 PFAS	ng/l											
Max Sum of 20 PFAS	ng/l											

North Apron Groundwater Monitoring Results

Parameter	Unit	GW004																	
		15/11/21	15/11/21	10/02/22	10/02/22	15/03/22	15/03/22	19/04/22	19/04/22	24/05/22	24/05/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23	30/05/23	30/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2	<20
3:3 FTCA (356-02-5)	ng/l																	<2	<20
4:2 FTS (757124-72-4)	ng/l	<2	<20	<20	<2	<20	<2	<20	<20	<10	<10	<10	<20	<20	<2	<10	<20	<1	<10
5:3 FTCA (914637-49-3)	ng/l	<20	<200	<200	<20	<200	<20	<200	<200	<100	<100	<100	<200	<200	<20	<100	<200	<5	<50
6:2 FTAB (34455-29-3)	ng/l																		
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	38	30.1	<10	7.27	<10	4.78	<10	<10	11.9	8.25	6.19	<10	<10	3.54	<5	<10	<1	<10
7:3 FTCA (812-70-4)	ng/l																	<5	<50
8:2 FTS (39108-34-4)	ng/l	64.9	<20			<20	<2	<20	<20	<10	<10	<10	<20	<20	<2	<10	<20	<2	<20
9Cl-PF3ONS (756426-58-1)	ng/l																	<1	<10
ADONA (919005-14-4)	ng/l																	<1	<10
Branched PFOS	ng/l	27.4	21.9	76.3	38.2	43.3	49.8	52	42.9	43	48.4	49.7	52.6	39.2	27.6	22.6	20.9	50.9	55
EtFOSAA (2991-50-6)	ng/l																	<2	<20
EtFOSE (1691-99-2)	ng/l																	<10	<100
FBSA (30334-69-1)	ng/l																	<1	<10
FHxSA (41997-13-1)	ng/l																	<1	<10
HFPO-DA (13252-13-6)	ng/l																	<2	<20
HFPO-TA (13252-14-7)	ng/l																	<5	<50
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	48.1	46.8	81.9	77.3	64	71.4	80.8	67	73.1	78.5	74.2	86.4	57.9	47.5	28.4	25.9	53.2	55.4
MeFOSAA (2355-31-9)	ng/l																	<2	<20
MeFOSE (24448-09-7)	ng/l																	<10	<100
N-EtFOSA (4151-50-2)	ng/l																	<1	<10
NFDHA (151772-58-6)	ng/l																	<3	<30
N-MeFOSA (31506-32-8)	ng/l																	<1	<10
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	24.6	28.1	<20	<20	<20	<30	<45	<40	<30	<13	179	318	<20	<12	25.1	<20	<2	<20
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	2.3	<10	<10	5.58	<10	4.12	<10	<10	<5	<5	9.06	<10	<10	3.81	<5	<10	<1	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	3.28	<10	<10	<1	<10	<1	<10	<10	<5	<5	<5	<10	<10	<1	<5	<10	<2	<20
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<10	<10	<1	<10	<1	<10	<10	<5	<5	<5	<10	<10	<1	<5	<10	<2	<20
PFDoS (79780-39-5)	ng/l					<10	<2	<10	<10	<5	<5	<10	<10	<10	<1	<5	<10	<2	<20
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<10	<10	<1	<10	<1	<10	<10	<5	<5	<5	<10	<10	<1	<5	<10	<2	<20
PFecHS (133201-07-7)	ng/l																	675	618
PFEESA (113507-82-7)	ng/l																	<1	<10
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	68.2	19.7	<10	3.55	<10	3.97	10.8	<10	5.17	5.65	<5	<10	<10	3.07	5.02	<10	2.61	<10
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	1.87	<10	<10	<1	<10	<1	<10	<10	<5	<5	<5	<10	<10	<1	<5	<10	<1	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	39.5	18.7	<10	4.76	<10	4.28	<10	<10	<5	<5	7.05	<10	<10	3.78	5.49	<10	4.22	<10
PFHxDA (67905-19-5)	ng/l																	<1	<10
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	26.1	14.2	10.6	6.46	<10	6.03	<10	<10	6.31	7.33	8.65	10.6	<10	5.43	8.82	<10	6.66	<10
PFMOBA (863090-89-5)	ng/l																	<1	<10
PFMOPrA (377-73-1)	ng/l																	<1	<10
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	7.89	<10	<10	<1	<10	<1	<10	<10	<5	<5	<5	<10	<10	1.13	<5	<10	<1	<10
PFNS (68259-12-1)	ng/l					<10	<1	<10	<10	<5	<5	<5	<10	<10	<1	<5	<10	<1	<10
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	22.7	17.8	9.31	4.01	8.37	2.98	16.2	16	7.79	5.99	6.55	<17	7.32	3.46	4.49	<6.5	2.69	<6.5
PFODA (16517-11-6)	ng/l																	<1	<10
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<20	<20	<2	<20	<2	<20	<20	<10	<10	<10	<20	<20	<2	<10	<20	<2	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	57.1	19.2	<10	7.76	<10	4.8	<10	<10	5.51	<5	<5	38.2	<10	12.3	<5	<10	5.19	<10
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	2.04	<10	<10	<1	<10	<1	<10	<10	<5	<5	<5	<10	<10	<1	<5	<10	<1	<10
PFTeA (376-06-7)	ng/l																	<1	<10
PFTrDA (72629-94-8)	ng/l					<10	<1	<10	<10	<5	<5	<10	<10	<10	<1	<5	<10	<3	<30
PFTrDS (174675-49-1)	ng/l					<10	<2	<10	<10	<5	<5	<10	<10	<10	<1	<5	<10	<1	<10
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<10	<10	<1	<10	<1	<10	<10	<5	<5	<5	<10	<10	<1	<5	<10	<2	<20
PFUnDS (749786-16-1)	ng/l					<10	<2	<10	<10	<5	<5	<10	<10	<10	<1	<5	<10	<2	<20
Total PFOS	ng/l	75.5	68.8	158	116	107	121	133	110	116	127	124	139	97.1	75.1	51	46.8	104	110
Sum of PFAS																			
Sum of 20 PFAS	ng/l	331.08	186.50	177.91	148.12	115.37	147.18	160.00	126.00	140.78	145.97	334.31	505.80	104.42	108.08	99.92	46.80	125.37	110.00
Sum of Total PFAS	ng/l	509.48	285.30	336.11	270.89	222.67	273.16	292.80	235.90	268.78	281.12	464.40	644.80	201.52	186.72	150.92	93.60	904.47	838.40
Average Sum of 20 PFAS	ng/l	127.04																	
Average Total PFAS	ng/l	408.17																	
Min Sum of 20 PFAS	ng/l	34.43																	
Max Sum of 20 PFAS	ng/l	505.80																	

North Apron Groundwater Monitoring Results

Parameter	Unit	GW004											
		15/08/23	15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
3:3 FTCA (356-02-5)	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
4:2 FTS (757124-72-4)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
5:3 FTCA (914637-49-3)	ng/l	<50	<5	<10	<5	<5	<25	<5	<5	<25	<5	<5	<25
6:2 FTAB (34455-29-3)	ng/l			<20	<10	<10	<50	<10	<10	<50	<10	<10	<50
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	14.3	1.13	<2	1.14	<1	11.8	<1	<1	<5	<1	<1	<5
7:3 FTCA (812-70-4)	ng/l	<50	<5	<10	<5	<5	<25	<5	<5	<25	<5	<5	<25
8:2 FTS (39108-34-4)	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
9Cl-PF3ONS (756426-58-1)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
ADONA (919005-14-4)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<5	<1	<5
Branched PFOS	ng/l	26.9	13.9	15.4	13.7	11.9	16	15.1	16.1	12.4	14.4	19.6	18.5
EtFOSAA (2991-50-6)	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
EtFOSE (1691-99-2)	ng/l	<100	<10	<20	<10	<10	<50	<10	<10	<50	<10	<10	<50
FBSA (30334-69-1)	ng/l	<10	1.75	2.13	1.6	<1	<5	1.32	1.28	<5	<1	1.64	<5
FHxSA (41997-13-1)	ng/l	<10	<1	<2	<1	1.2	<5	<1	<1	<5	<1	<1	<5
HFPO-DA (13252-13-6)	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
HFPO-TA (13252-14-7)	ng/l	<50	<5	<10	<5	<5	<25	<5	<5	<25	<5	<5	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	48.1	23	18	17.5	15.2	21.4	13.8	17.2	11.7	13.4	19	21.7
MeFOSAA (2355-31-9)	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
MeFOSE (24448-09-7)	ng/l	<100	<10	<20	<10	<10	<50	<10	<10	<50	<10	<10	<50
N-EtFOSA (4151-50-2)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
NFDHA (151772-58-6)	ng/l	<30	<3	<6	<3	<3	<15	<3	<3	<15	<3	<3	<15
N-MeFOSA (31506-32-8)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<20	<5	<4	<2	<2	<10	8.57	<2	<10	6.5	8.17	<10
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	3.4	3.07	2.85	1.8	5.3	1.95	2.9	<5	2.87	3.03	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
PFDoS (79780-39-5)	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
PFecHS (133201-07-7)	ng/l	416	236	84.4	171	518	622	359	378	430	394	396	609
PFEESA (113507-82-7)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	3.14	2.54	1.96	1.66	5.58	2.4	2.29	<5	2.45	3.41	<5
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<10	6.2	5.79	2.81	<1	5.09	6.87	3.69	<5	3.6	4.31	6.95
PFHxDA (67905-19-5)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	16.6	4.76	5.84	6.29	2.34	6.4	3.34	4.14	<10	2.61	3.88	7.93
PFMOBA (863090-89-5)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<10	<1	<1	<5
PFMOPrA (377-73-1)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<5	<1	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	1.46	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFNS (68259-12-1)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	9.31	4.06	2.59	2.46	1.93	5.79	1.84	2.01	3.38	2.27	4.06	4.98
PFODA (16517-11-6)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<10	<5	<2	<1	4.96	<5	<1	<1	6.95	4.68	7.89	7.79
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFTeA (376-06-7)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFTrDA (72629-94-8)	ng/l	<30	<3	<6	<3	<3	<15	<3	<3	<15	<3	<3	<15
PFTrDS (174675-49-1)	ng/l	<10	<1	<2	<1	<1	<5	<1	<1	<5	<1	<1	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
PFUnDS (749786-16-1)	ng/l	<20	<2	<4	<2	<2	<10	<2	<2	<10	<2	<2	<10
Total PFOS	ng/l	75	36.8	33.5	31.2	27.2	37.4	28.9	33.3	24.1	27.8	38.5	40.2
Sum of PFAS													
Sum of 20 PFAS	ng/l	100.91	59.82	53.33	47.57	39.89	65.56	53.87	48.33	34.43	52.78	73.25	67.85
Sum of Total PFAS	ng/l	606.21	335.60	173.26	252.51	586.19	736.76	443.09	460.91	488.53	474.58	509.49	717.05
Average Sum of 20 PFAS	ng/l												
Average Total PFAS	ng/l												
Min Sum of 20 PFAS	ng/l												
Max Sum of 20 PFAS	ng/l												

North Apron Groundwater Monitoring Results

Parameter	Unit	GW005D															
		15/03/22	15/03/22	19/04/22	19/04/22	24/05/22	24/05/22	21/06/22	21/06/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23	30/05/23	30/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l															<2	<20
3:3 FTCA (356-02-5)	ng/l															<2	<20
4:2 FTS (757124-72-4)	ng/l	<2	<2	<2	<2	<10	<4	<2	<2	<2	<2	<2	<2	<20	<20	<1	<10
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<20	<20	<100	<40	<20	<20	<20	<20	<20	<20	<200	<200	<5	<50
6:2 FTAB (34455-29-3)	ng/l																
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	59.3	57.3	39	49.1	72.3	46.6	20.3	23.2	6.78	6.77	6.97	5.96	23.6	24.3	35.3	25.8
7:3 FTCA (812-70-4)	ng/l															<5	<50
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<10	<4	<2	<2	<2	<2	<2	<2	<20	<20	<2	<20
9Cl-PF3ONS (756426-58-1)	ng/l															<1	<10
ADONA (919005-14-4)	ng/l															<1	<10
Branched PFOS	ng/l	56.2	48.6	25.5	35.4	69.3	40.6	12.2	13.4	<2.5	<2.5	<0.65	<0.65	20.7	16.3	37.6	27.7
EtFOSAA (2991-50-6)	ng/l															<2	<20
EtFOSE (1691-99-2)	ng/l															<10	<100
FBSA (30334-69-1)	ng/l															1.8	<10
FHxSA (41997-13-1)	ng/l															<1	<10
HFPO-DA (13252-13-6)	ng/l															<2	<20
HFPO-TA (13252-14-7)	ng/l															<5	<50
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	9.01	8.01	3.82	5.16	9.73	7.88	1.67	1.88	<0.65	<1	<0.65	<0.65	<6.5	<6.5	35.5	27.2
MeFOSAA (2355-31-9)	ng/l															<2	<20
MeFOSE (24448-09-7)	ng/l															<10	<100
N-EtFOSA (4151-50-2)	ng/l															<1	<10
NFDHA (151772-58-6)	ng/l															<3	<30
N-MeFOSA (31506-32-8)	ng/l															<1	<10
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	12.3	12.5	<12.5	<10	60.3	16.1	13.2	16.8	<14	<14	13.5	10.6	<20	<20	12.1	<20
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	12.5	12.6	6.69	7.86	18.6	12	9.08	9.33	10.4	9.3	9.53	8.67	11	<10	11.1	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<10	<10	<2	<20
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<10	<10	<2	<20
PFDoS (79780-39-5)	ng/l	<2	<4	<1	<2	<10	<2	<1	<2	<2	<2	<1	<1	<10	<10	<2	<20
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<10	<10	<2	<20
PFecHS (133201-07-7)	ng/l															21.6	<10
PFEESA (113507-82-7)	ng/l															<1	<10
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	9.65	8.93	5.87	10.9	16.3	11.1	9.3	9.2	5.84	5.53	7.17	5.75	<10	20.6	7.53	<10
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	2.91	2.39	1.78	2.28	5.88	3.17	1.09	1.15	<1	<1	<1	<1	<10	<10	1.74	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	37.2	36.1	24.4	29.2	56.2	38.1	32	37.4	23.2	21.6	26.3	22.6	31.1	33.2	32.3	27.8
PFHxDA (67905-19-5)	ng/l															<1	<10
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	42.3	40.2	25.8	33.3	61.4	40.2	16.2	17.7	5.72	5.39	5.46	4.54	19.8	18.9	44.7	34.5
PFMOBA (863090-89-5)	ng/l															<1	<10
PFMOPrA (377-73-1)	ng/l															<1	<10
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	4.9	4.52	3.64	4.93	9.86	5.55	1.8	2.12	<1	<1	<1	<1	<10	<10	3.91	<10
PFNS (68259-12-1)	ng/l	<1	<2	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<10	<10	<1	<10
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	8.18	8.38	6.83	7.79	34.1	11	3.75	4.34	2	2.03	2.31	1.89	6.73	13.8	8.85	<6.5
PFODA (16517-11-6)	ng/l															<1	<10
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<10	<4	<2	<2	<2	<2	<2	<2	<20	<20	<2	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	19.5	18	22.5	31	37.9	24.2	28.9	31.1	15.8	15.3	21.3	18.5	21.2	22.4	36.3	30
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	7.01	7.08	4.45	5.92	10.1	7.58	5.09	5.55	3.85	3.77	4.02	3.53	<10	<10	5.18	<10
PFTeA (376-06-7)	ng/l															<1	<10
PFTrDA (72629-94-8)	ng/l	<1	<2	<1	<2	<5	<2	<2	<1	<2	<2	<1	<1	<10	<10	<3	<30
PFTrDS (174675-49-1)	ng/l	<2	<4	<1	<1	<25	<2	<1	<2	<2	<2	<1	<1	<10	<10	<1	<10
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<5	<2	<1	<1	<1	<1	<1	<1	<10	<10	<2	<20
PFUnDS (749786-16-1)	ng/l	<2	<4	<1	<1	<5	<2	<1	<1	<2	<2	<1	<1	<10	<10	<2	<20
Total PFOS	ng/l	65.2	56.6	29.3	40.5	79.1	48.5	13.8	15.3	<2.5	<2.5	<0.65	<0.65	20.7	16.3	73.1	54.8
Sum of PFAS																	
Sum of 20 PFAS	ng/l	221.65	207.30	131.26	173.68	389.74	217.50	134.21	149.99	66.81	62.92	89.59	76.08	110.53	125.20	236.81	147.10
Sum of Total PFAS	ng/l	346.16	321.21	199.58	263.34	541.07	312.58	168.38	188.47	73.59	69.69	96.56	82.04	154.83	165.80	368.61	227.80
Average Sum of 20 PFAS	ng/l	244.26															
Average Total PFAS	ng/l	351.35															
Min Sum of 20 PFAS	ng/l	62.92															
Max Sum of 20 PFAS	ng/l	509.80															

North Apron Groundwater Monitoring Results

Parameter	Unit	GW005D											
		15/08/23	15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	1.62	1.92	<1	<1	1.3	<1	<1	<1	<1	<1	1.64	1.58
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	39.1	37.6	85.3	85.2	75.5	94.1	75.2	72.9	71.2	70.1	125	122
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	9.16	11.2	25.4	32.2	13.9	5.97	13.2	12.9	6.63	3.81	38	42.2
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	4.5	5.31	5.23	5.14	6.25	7.97	3.35	2.99	<1	5.91	7.93	9.23
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.23	1.98	4.33	7.29	2.06	2.35	1.29	1.25	1.63	1.36	1.26	1.92
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	28.6	25.9	26.7	36.4	19.2	22.3	18.1	16.3	13.8	13.3	26.1	35.2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	21.3	22.5	23.6	23.8	22.3	24.6	16.1	16.4	15.3	15.1	29.2	27.7
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	36.6	39.2	56.6	55.6	54.4	75.9	45.1	46.9	47.6	45.7	97.7	90.2
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	22.7	21.1	27.9	29.2	22.9	26.9	18.3	19	15.8	15.2	30.2	28.4
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	1.13	1.39	2.02	<1	<1	<1	<1	<1	1.67	1.85	1.51
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	69	69.5	77.2	73.1	58.8	70.1	46.2	51.9	38.7	40.6	75.1	76.3
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	60.7	63.8	108	110	103	122	86.3	88.8	84.8	87	165	154
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.7	1.74	2.89	4.14	2.36	2.39	2.09	2	2.58	2.81	4.89	4.89
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	12.8	13.7	21.7	23.8	21.5	23.9	17.5	16.4	15.7	17.2	32.1	31.3
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	73.5	74.6	74.5	71.1	56.9	67.1	43.8	42.9	42.7	41.9	80.5	81.4
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	14.4	15.7	19.5	19	19.7	20.6	14.6	15.1	13.5	13.9	25.5	25
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	10.4	13.2	29.8	39.5	16	8.31	14.5	14.2	8.26	5.17	39.2	44.1
Sum of PFAS													
Sum of 20 PFAS	ng/l	315.10	322.87	413.18	432.06	342.66	388.20	277.49	283.00	251.14	253.85	509.64	509.80
Sum of Total PFAS	ng/l	407.31	420.08	590.04	617.49	496.07	574.49	415.63	419.94	378.20	380.73	781.17	776.93
Average Sum of 20 PFAS	ng/l												
Average Total PFAS	ng/l												
Min Sum of 20 PFAS	ng/l												
Max Sum of 20 PFAS	ng/l												

North Apron Groundwater Monitoring Results

Parameter	Unit	GW007																	
		15/11/21	15/11/21	10/02/22	10/02/22	15/03/22	15/03/22	19/04/22	19/04/22	24/05/22	24/05/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23	30/05/23	30/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2	<2
3:3 FTCA (356-02-5)	ng/l																	<2	<2
4:2 FTS (757124-72-4)	ng/l	<20	<10	<20	<20	<2	<20	<10	<20	<10	<4	<2	<2	<2	<10	<10	<20	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<200	<100	<200	<200	<20	<200	<100	<200	<100	<40	<20	<20	<20	<100	<100	<200	<5	<5
6:2 FTAB (34455-29-3)	ng/l																		
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	23	20.1	20.2	19.2	17.9	14.8	15.4	18.5	16.6	14.5	13.2	13.1	16.9	12	12.9	14.1	11.7	12.3
7:3 FTCA (812-70-4)	ng/l																	<5	<5
8:2 FTS (39108-34-4)	ng/l	<20	<10			<3.5	<20	<10	<20	<10	6.88	3.16	<3	<2	<10	<10	<20	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1	<1
ADONA (919005-14-4)	ng/l																	<1	<1
Branched PFOS	ng/l	9.49	12.8	15.4	14.3	12.4	15.6	10.2	9.92	14.4	8.21	10.2	10.3	11.7	7.35	9.51	17.1	5.46	6.16
EtFOSAA (2991-50-6)	ng/l																	<2	<2
EtFOSE (1691-99-2)	ng/l																	<10	<10
FBSA (30334-69-1)	ng/l																	<1	<1
FHxSA (41997-13-1)	ng/l																	<1	<1
HFPO-DA (13252-13-6)	ng/l																	<2	<2
HFPO-TA (13252-14-7)	ng/l																	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	11.3	8.85	11.5	10.8	10.2	13.5	6.03	8.41	13.2	11.6	5.31	5.02	5.47	5.92	6.22	10.1	5.97	6.54
MeFOSAA (2355-31-9)	ng/l																	<2	<2
MeFOSE (24448-09-7)	ng/l																	<10	<10
N-EtFOSA (4151-50-2)	ng/l																	<1	<1
NFDHA (151772-58-6)	ng/l																	<3	<3
N-MeFOSA (31506-32-8)	ng/l																	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<22	<19.5	<20	<20	20.7	20.6	21	55.3	67.3	17.5	<18.5	<23	<5	<10	16.7	<20	14.2	11.1
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<5	<10	<10	<10	<10	7.49	<10	10.1	10.1	10.4	11.1	12.2	9.03	9.08	16.4	6.34	5.91
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<10	<5	<10	<10	<10	<10	<5	<10	<5	<2	<1	<1	<1	<5	<5	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<10	<5	<10	<10	<10	<10	<5	<10	<5	<2	<1	<1	<1	<5	<5	<10	<2	<2
PFDoS (79780-39-5)	ng/l					<10	<10	<5	<10	<10	<2	<2	<2	<1	<5	<5	<10	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<10	<5	<10	<10	<10	<10	<5	<10	<5	<2	<1	<1	<1	<5	<5	<10	<2	<2
PFecHS (133201-07-7)	ng/l																	217	226
PFEESA (113507-82-7)	ng/l																	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	6.61	<10	<10	<10	<10	9.34	12.6	12.2	9.6	7.88	7.84	9.13	8.47	10.3	11.9	<1	5.94
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<5	<10	<10	<10	<10	<5	<10	<5	<2	<1	<1	<1	<5	<5	<10	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	13.4	11.1	22.2	21.2	27.3	26.1	24.5	29.8	31.9	32.8	25.1	25.7	32.4	26.3	29.3	45.4	21.7	23.1
PFHxDA (67905-19-5)	ng/l																	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	14.2	17.3	27.9	26.3	32	32.5	27.6	35.4	34.6	32.6	30.5	31.3	36.9	30.5	27.5	39	26.1	22.5
PFMOBA (863090-89-5)	ng/l																	<1	<1
PFMOPrA (377-73-1)	ng/l																	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<5	<10	<10	<10	<10	<5	<10	<5	<2	1.01	1.09	1.14	<5	<5	<10	<1	<1
PFNS (68259-12-1)	ng/l					<10	<10	<5	<10	<5	<2	<1	<1	<1	<5	<5	<10	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	8.48	4.91	14	9.46	10.1	10.7	16	24.8	20.2	8.87	6.24	6.26	7.71	7.66	6.67	12	6.59	6.02
PFODA (16517-11-6)	ng/l																	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<10	<20	<20	<20	<20	<10	<20	<10	<4	<2	<2	<2	<10	<10	<20	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	13.5	15.9	16.3	15.8	21.6	19.5	27.7	33.6	26.6	21	15.2	14.1	27.4	21.4	21.4	39.1	24.1	21.9
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<5	<10	<10	<10	<10	5.06	<10	6.45	6.26	6.09	6	6.85	5.51	5.64	<10	2.85	2.97
PFTeA (376-06-7)	ng/l																	<1	<1
PFTrDA (72629-94-8)	ng/l					<10	<10	<5	<10	<5	<2	<2	<2	<1	<5	<5	<10	<3	<3
PFTrDS (174675-49-1)	ng/l					<10	<10	<5	<10	<25	<4	<2	<2	<1	<5	<5	<10	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<10	<5	<10	<10	<10	<10	<5	<10	<5	<2	<1	<1	<1	<5	<5	<10	<2	<2
PFUnDS (749786-16-1)	ng/l					<10	<10	<5	<10	<5	<2	<2	<2	<1	<5	<5	<10	<2	<2
Total PFOS	ng/l	20.8	21.7	26.9	25.1	22.6	29.1	16.2	18.3	27.6	19.8	15.5	15.3	17.2	13.3	15.7	27.3	11.4	12.7
Sum of PFAS																			
Sum of 20 PFAS	ng/l	70.38	77.52	107.30	97.86	134.30	138.50	154.89	209.80	236.95	158.53	117.92	118.69	150.93	122.17	142.29	191.10	113.28	112.14
Sum of Total PFAS	ng/l	114.17	119.27	154.40	142.16	174.80	182.40	186.52	246.63	281.15	199.72	149.79	147.11	185.00	147.44	170.92	232.40	353.41	363.14
Average Sum of 20 PFAS	ng/l	179.95																	
Average Total PFAS	ng/l	292.09																	
Min Sum of 20 PFAS	ng/l	70.38																	
Max Sum of 20 PFAS	ng/l	1538.70																	

North Apron Groundwater Monitoring Results

Parameter	Unit	GW007											
		15/08/23	15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<25	<5	<5	<5	<5	<5	<5	<25	<25
6:2 FTAB (34455-29-3)	ng/l			<10	<50	<10	<10	<10	<10	<10	<10	<50	<50
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	5.9	5.51	6.5	10.3	3.04	3.79	<1	<1	<1	1.17	<5	288
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<25	<5	<5	<5	<5	<5	<5	<25	<25
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	48
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
ADONA (919005-14-4)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
Branched PFOS	ng/l	7.13	6.34	6.36	8	7.35	9.01	14.9	12.8	6.55	6.67	6.48	223
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<50	<50
FBSA (30334-69-1)	ng/l	2.01	2.15	1.72	<5	1.34	1.19	<1	<1	<1	<1	<5	9.34
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<5	1.12	<1	<1	<1	<1	<1	<5	22.8
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<25	<5	<5	<5	<5	<5	<5	<25	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	3.2	3.45	3.35	4.36	2.92	3.24	6.86	6.33	2.82	3	5.6	207
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<50	<50
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<15	<3	<3	<3	<3	<3	<3	<15	<15
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	14	13.9	10.4	15.3	15.6	13.2	12.7	14.1	14.4	9.78	<10	<10
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	9.15	9.12	6.97	9.08	10.2	10.6	3.42	3.53	5.3	5.51	<5	48.1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
PFecHS (133201-07-7)	ng/l	143	135	152	167	147	172	14.8	14.6	22.6	15.7	21.2	283
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	7	6.92	5.66	7.98	8.11	8.65	9.32	8.45	11.4	9.89	7.04	139
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<5	<1	1.15	<1	<1	<1	<1	<5	14.4
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	28.2	26	24.4	27	35.2	32.4	20.5	19.1	26.6	19.1	16.2	204
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	28.4	26.9	19.6	22	27.9	31.7	17.1	16.3	26.2	25.4	10.2	236
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<5	<1	<1	2.95	2.7	2.04	1.15	<5	30.6
PFNS (68259-12-1)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	6.94	6.24	5.19	6.95	5.93	6.8	5.68	5.54	6.08	5.02	4.46	125
PFODA (16517-11-6)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	30.2	29.4	26.6	29	43	42.5	25.5	25	30	20.9	24.1	292
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	4.8	4.74	3.99	5.22	5.5	5.97	2.5	2.43	4.26	4.85	<5	19.6
PFTeA (376-06-7)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<15	<3	<3	<3	<3	<3	<3	<15	<15
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<10	<10
Total PFOS	ng/l	10.3	9.78	9.7	12.4	10.3	12.3	21.7	19.2	9.37	9.67	12.1	430
Sum of PFAS													
Sum of 20 PFAS	ng/l	138.99	133.00	112.51	134.93	161.74	165.27	121.37	116.35	135.65	111.27	74.10	1538.70
Sum of Total PFAS	ng/l	300.23	285.45	282.44	324.59	324.51	354.50	157.93	150.08	167.62	137.81	107.38	2619.84
Average Sum of 20 PFAS	ng/l												
Average Total PFAS	ng/l												
Min Sum of 20 PFAS	ng/l												
Max Sum of 20 PFAS	ng/l												

North Apron Groundwater Monitoring Results

Parameter	Unit	GW008																	
		15/11/21	15/11/21	10/02/22	10/02/22	15/03/22	15/03/22	19/04/22	19/04/22	24/05/22	24/05/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23	30/05/23	30/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2	<2
3:3 FTCA (356-02-5)	ng/l																	<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<2	<20	<2	<10	<10	<10	<10	<4	<4	<2	<2	<2	<2	<10	<10	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<200	<20	<100	<100	<100	<100	<40	<40	<20	<20	<20	<20	<100	<100	<5	<5
6:2 FTAB (34455-29-3)	ng/l																		
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<10	<1	<5	<5	<5	<5	<2	<2	<1	<1	<1	<1	<5	<5	1.86	1.58
7:3 FTCA (812-70-4)	ng/l																	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2			<10	<10	<10	<10	<4	<4	<2	<2	<2	<2	<10	<10	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1	<1
ADONA (919005-14-4)	ng/l																	<1	<1
Branched PFOS	ng/l	16.4	16.4	18.3	9.46	12.2	11.4	15.2	15.2	17.1	16.4	16.7	15.6	13.5	16.8	11.6	13.4	44.8	49.7
EtFOSAA (2991-50-6)	ng/l																	<2	<2
EtFOSE (1691-99-2)	ng/l																	<10	<10
FBSA (30334-69-1)	ng/l																	1.28	1.46
FHxSA (41997-13-1)	ng/l																	1.66	1.91
HFPO-DA (13252-13-6)	ng/l																	<2	<2
HFPO-TA (13252-14-7)	ng/l																	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	27.5	26.2	24.4	23	18.8	17.2	25.4	28.2	36.1	35	29.5	28.7	21.5	30	20.8	24	44.7	49.9
MeFOSAA (2355-31-9)	ng/l																	<2	<2
MeFOSE (24448-09-7)	ng/l																	<10	<10
N-EtFOSA (4151-50-2)	ng/l																	<1	<1
NFDHA (151772-58-6)	ng/l																	<3	<3
N-MeFOSA (31506-32-8)	ng/l																	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	4.34	5.54	<20	4.34	<10	<10	<27	<27	8.31	13.8	<15	<13.5	8.42	8.43	<10	<10	4.63	3.83
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.52	1.78	<10	2.2	<5	<5	<5	<5	4.54	4.17	5.16	4.23	3.69	3.95	<5	<5	1.7	1.3
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<10	<1	<5	<5	<5	<5	<2	<2	<1	<1	<1	<1	<5	<5	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<10	<1	<5	<5	<5	<5	<2	<2	<1	<1	<1	<1	<5	<5	<2	<2
PFDoS (79780-39-5)	ng/l					<5	<5	<5	<5	<2	<2	<2	<2	<1	<1	<5	<5	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<10	<1	<5	<5	<5	<5	<2	<2	<1	<1	<1	<1	<5	<5	<2	<2
PFecHS (133201-07-7)	ng/l																	7.58	8.07
PFEESA (113507-82-7)	ng/l																	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	3.26	2.25	<10	1.12	<5	<5	<5	<5	<2	<2	1.89	1.9	1.33	1.82	10.6	<5	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	1.35	1.42	<10	<1	<5	<5	<5	<5	<2	<2	<1	<1	<1	1.01	<5	<5	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	4.61	3.27	<10	3.33	<5	<5	<5	<5	6.33	5.62	4.68	4.37	4.05	5.31	6.99	<5	2.76	3.05
PFHxDA (67905-19-5)	ng/l																	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	12	12.4	12.8	8.76	10.7	10.2	13.4	12.9	17.4	16.5	17.7	17.5	13.8	19.1	11.2	11.2	13	14.8
PFMOBA (863090-89-5)	ng/l																	<1	<1
PFMOPrA (377-73-1)	ng/l																	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<10	<1	<5	<5	<5	<5	<2	<2	<1	<1	<1	<1	<5	<5	<1	<1
PFNS (68259-12-1)	ng/l					<5	<5	<5	<5	<2	<2	<1	<1	<1	<1	<5	<5	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.33	2	<6.5	1.87	<3.25	3.78	7.48	7.81	3.63	4.38	2.35	2.41	2.24	2.58	8.18	<3.25	2	1.98
PFODA (16517-11-6)	ng/l																	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<20	<2	<10	<10	<10	<10	<4	<4	<2	<2	<2	<2	<10	<10	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	3.2	2.07	<10	1.45	<5	<5	<5	<5	2.61	2.73	2.21	2.1	2.45	3.06	<5	<5	2.71	2.13
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	1.41	1.45	<10	1.55	<5	<5	<5	<5	2.57	2.68	2.56	2.39	2.3	2.78	<5	<5	<1	<1
PFTeA (376-06-7)	ng/l																	<1	<1
PFTrDA (72629-94-8)	ng/l					<5	<5	<5	<5	<2	<2	<2	<2	<1	<1	<5	<5	<3	<3
PFTrDS (174675-49-1)	ng/l					<5	<5	<5	<5	<4	<4	<2	<2	<1	<1	<5	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<10	<1	<5	<5	<5	<5	<2	<2	<1	<1	<1	<1	<5	<5	<2	<2
PFUnDS (749786-16-1)	ng/l					<5	<5	<5	<5	<2	<2	<2	<2	<1	<1	<5	<5	<2	<2
Total PFOS	ng/l	44	42.6	42.7	32.5	31	28.5	40.6	43.4	53.1	51.4	46.3	44.3	35	46.8	32.4	37.5	89.5	99.6
Sum of PFAS																			
Sum of 20 PFAS	ng/l	78.02	74.78	55.50	57.12	41.70	42.48	61.48	64.11	98.49	101.28	82.85	79.20	73.28	94.84	69.37	48.70	116.30	126.69
Sum of Total PFAS	ng/l	121.92	117.38	98.20	89.58	72.70	71.08	102.08	107.51	151.69	152.68	129.05	123.50	108.28	141.64	101.77	86.10	218.18	239.31
Average Sum of 20 PFAS	ng/l	78.31																	
Average Total PFAS	ng/l	128.72																	
Min Sum of 20 PFAS	ng/l	41.70																	
Max Sum of 20 PFAS	ng/l	126.69																	

North Apron Groundwater Monitoring Results

Parameter	Unit	GW008											
		15/08/23	15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<25	<5	<25	<25	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<50	<10	<50	<50	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<25	<5	<25	<25	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	13.7	12.3	11.6	14.8	13.5	12.9	17.6	19.9	8.28	11.8	11.3	9.72
EtFOSAA (2991-50-6)	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<50	<10	<50	<50	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	2.61	2.6	<5	1.9	<5	<5	2.11	2.72	4.93	1.21	<1	1.61
FHxSA (41997-13-1)	ng/l	2.7	2.49	<5	1.86	<5	<5	1.41	1.78	6.71	1.07	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<25	<5	<25	<25	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	31.3	30.7	17.4	25.3	22	21.1	30.9	36.4	17.6	13.9	16.2	13.6
MeFOSAA (2355-31-9)	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<50	<10	<50	<50	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<15	<3	<15	<15	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	7.16	6.7	<10	6.85	13	10.5	10.3	11.7	6.7	5.47	8.61	7.92
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	3.79	3.55	<5	3.22	6.99	<5	3.7	3.82	3.28	2.8	2.66	2.76
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	15.7	15.1	13.4	12.7	14.8	14	19	21.6	11.2	11.2	13.3	12.4
PFEESA (113507-82-7)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2.16	2.41	<5	1.6	<5	<5	2.56	2.45	<1	1.19	1.96	1.98
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	1.25	1.08	<5	1.19	<5	<5	1.3	1.37	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	6.37	5.56	5.23	3.74	5.34	<5	6.63	7.82	3.3	2.75	4.29	3.57
PFHxDA (67905-19-5)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	23	20.6	14.9	16.7	16.8	15.6	26.7	28.4	15.7	13.1	15	14.5
PFMOBA (863090-89-5)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.32	3.24	4.62	2.24	4.51	4.15	3.12	3.32	2.23	2.17	2.35	3.2
PFODA (16517-11-6)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	5.44	4.59	<5	2.69	6.41	5.58	4.22	4.6	3.62	3.36	5.25	4.13
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	2.9	2.88	<5	2.23	5.21	<5	3.73	4.17	2.7	2.56	2.5	2.63
PFTeA (376-06-7)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<15	<3	<15	<15	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<5	<1	<5	<5	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<10	<2	<10	<10	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	45	43	29	40.1	35.5	34	48.5	56.3	25.8	25.7	27.5	23.3
Sum of PFAS													
Sum of 20 PFAS	ng/l	100.39	93.61	53.75	80.56	93.76	69.83	110.76	123.95	63.33	59.10	70.12	63.99
Sum of Total PFAS	ng/l	166.40	156.80	96.15	137.12	144.06	117.83	181.78	206.35	112.05	98.28	110.92	101.32
Average Sum of 20 PFAS	ng/l												
Average Total PFAS	ng/l												
Min Sum of 20 PFAS	ng/l												
Max Sum of 20 PFAS	ng/l												

North Apron Groundwater Monitoring Results

Parameter	Unit	GW014																
		10/02/22	10/02/22	15/03/22	15/03/22	19/04/22	19/04/22	24/05/22	24/05/22	21/06/22	21/06/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23	30/05/23	30/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																<2	<2
3:3 FTCA (356-02-5)	ng/l																<2	<2
4:2 FTS (757124-72-4)	ng/l	<10	<2	<2	<20	<20	<20	<10	<4	<20	<20	<10	<2	<2	<10	<10	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<100	<20	<20	<200	<200	<200	<100	<40	<200	<200	<100	<20	<20	<100	<100	<5	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	4.18	4.4
7:3 FTCA (812-70-4)	ng/l																<5	<5
8:2 FTS (39108-34-4)	ng/l			<2	<20	<20	<20	<10	<4	<20	<20	<10	<2	<2	<10	<10	<2	2
9Cl-PF3ONS (756426-58-1)	ng/l																<1	<1
ADONA (919005-14-4)	ng/l																<1	<1
Branched PFOS	ng/l	<3.25	<0.65	<0.65	<6.5	<6.5	<6.5	<3.25	<1.3	<6.5	<6.5	<3.25	<0.65	<0.65	<3.25	<3.25	1.34	1.16
EtFOSAA (2991-50-6)	ng/l																<2	<2
EtFOSE (1691-99-2)	ng/l																<10	<10
FBSA (30334-69-1)	ng/l																<1	<1
FHxSA (41997-13-1)	ng/l																<1	<1
HFPO-DA (13252-13-6)	ng/l																<2	<2
HFPO-TA (13252-14-7)	ng/l																<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<3.25	<0.65	0.698	<6.5	<6.5	<6.5	<3.25	<1.3	<6.5	<6.5	<3.25	<0.65	<0.65	<3.25	<3.25	10.7	11.2
MeFOSAA (2355-31-9)	ng/l																<2	<2
MeFOSE (24448-09-7)	ng/l																<10	<10
N-EtFOSA (4151-50-2)	ng/l																<1	<1
NFDHA (151772-58-6)	ng/l																<3	<3
N-MeFOSA (31506-32-8)	ng/l																<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<10	5.64	6.28	<20	<30	36.2	<20	17.1	<20	<20	<80	8.76	7.92	<10	<10	9.97	9.07
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<2	<2
PFDoS (79780-39-5)	ng/l			<2	<10	<10	<10	<10	<2	<20	<20	<10	<1	<1	<5	<5	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<2	<2
PFecHS (133201-07-7)	ng/l																<1	<1
PFEESA (113507-82-7)	ng/l																<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<5	<1	1.62	<10	<10	<10	5.88	4.3	<10	<10	<5	1.21	1.03	<5	<5	2.11	2.39
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<5	<1	3.72	<10	<10	<10	8.76	7.06	<10	<10	<5	2.3	2.32	<5	<5	9.95	11.4
PFHxDA (67905-19-5)	ng/l																<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<1	<1
PFMOBA (863090-89-5)	ng/l																<1	<1
PFMOPrA (377-73-1)	ng/l																<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<1	<1
PFNS (68259-12-1)	ng/l			<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<3.25	<0.65	0.96	<6.5	<12.5	<16	14.8	4.56	<6.5	<6.5	<3.25	0.77	0.702	<3.25	<3.25	1.83	1.73
PFODA (16517-11-6)	ng/l																<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<2	<2	<20	<20	<20	<10	<4	<20	<20	<10	<2	<2	<10	<10	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<5	<1	5.17	11.4	<10	10.3	14.3	10.9	<10	<10	<5.5	4.55	4.17	5.83	<5	13.7	15.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<1	<1
PFTeA (376-06-7)	ng/l																<1	<1
PFTrDA (72629-94-8)	ng/l			<1	<10	<10	<10	<5	<2	<10	<10	<10	<1	<1	<5	<5	<3	<3
PFTrDS (174675-49-1)	ng/l			<2	<10	<10	<10	<25	<2	<20	<20	<10	<1	<1	<5	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<1	<1	<10	<10	<10	<5	<2	<10	<10	<5	<1	<1	<5	<5	<2	<2
PFUnDS (749786-16-1)	ng/l			<2	<10	<10	<10	<5	<2	<10	<10	<10	<1	<1	<5	<5	<2	<2
Total PFOS	ng/l	<3.25	<0.65	0.698	<6.5	<6.5	<6.5	<3.25	<1.3	<6.5	<6.5	<3.25	<0.65	<0.65	<3.25	<3.25	12.1	12.4
Sum of PFAS																		
Sum of 20 PFAS	ng/l	0.00	5.64	18.45	11.40	0.00	46.50	43.74	43.92	0.00	0.00	0.00	17.59	16.14	5.83	0.00	49.66	52.59
Sum of Total PFAS	ng/l	0.00	5.64	19.15	11.40	0.00	46.50	43.74	43.92	0.00	0.00	0.00	17.59	16.14	5.83	0.00	65.88	71.35
Average Sum of 20 PFAS	ng/l	15.47																
Average Total PFAS	ng/l	17.37																
Min Sum of 20 PFAS	ng/l	0.00																
Max Sum of 20 PFAS	ng/l	52.59																

North Apron Groundwater Monitoring Results

Parameter	Unit	GW014											
		15/08/23	15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<50	<25	<5	<25	<5	<5	<5	<25	<50	<5
6:2 FTAB (34455-29-3)	ng/l			<100	<50	<10	<50	<10	<10	<10	<50	<100	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	1.8	<1	<10	<5	<1	<5	8.48	2.09	<1	<5	<10	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<50	<25	<5	<25	<5	<5	<5	<25	<50	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
ADONA (919005-14-4)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
Branched PFOS	ng/l	<0.65	<0.65	<6.5	<3.25	<0.65	<3.25	<0.65	<0.65	<0.65	3.48	<6.5	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<100	<50	<10	<50	<10	<10	<10	<50	<100	<10
FBSA (30334-69-1)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<50	<25	<5	<25	<5	<5	<5	<25	<50	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<6.5	<3.25	<0.65	<3.25	<0.65	<0.65	<0.65	<3.25	<6.5	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<100	<50	<10	<50	<10	<10	<10	<50	<100	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<30	<15	<3	<15	<3	<3	<3	<15	<30	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	6.82	5.62	<20	<10	5.39	19.1	6.12	7.53	2.48	<10	<20	5.38
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<10	<5	1.1	<5	<1	<1	1.23	<5	<10	1.19
PFEESA (113507-82-7)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.52	1.4	<10	<5	1.13	<5	<1	1.08	<1	<5	<10	1.35
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	3.17	2.9	<10	<5	2.64	<5	1.65	1.77	<1	<5	<10	1.67
PFHxDA (67905-19-5)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.05	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	1.24
PFMOBA (863090-89-5)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFNS (68259-12-1)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.51	1.01	<6.5	<3.25	0.842	<3.25	<0.65	<0.65	0.757	<3.25	<6.5	1.18
PFODA (16517-11-6)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	6.21	5.11	<10	7.23	6.51	8.33	3.11	3.52	2.04	<5	<10	5.44
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFTeA (376-06-7)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<30	<15	<3	<15	<3	<3	<3	<15	<30	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<10	<5	<1	<5	<1	<1	<1	<5	<10	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<20	<10	<2	<10	<2	<2	<2	<10	<20	<2
Total PFOS	ng/l		<0.65	<6.5	<3.25	<0.65	<3.25	<0.65	<0.65	<0.65	3.48	<6.5	<0.65
Sum of PFAS													
Sum of 20 PFAS	ng/l	20.28	16.04	0.00	7.23	16.51	27.43	10.88	13.90	5.28	3.48	0.00	16.26
Sum of Total PFAS	ng/l	22.08	16.04	0.00	7.23	17.61	27.43	19.36	15.99	6.51	6.96	0.00	17.45
Average Sum of 20 PFAS	ng/l												
Average Total PFAS	ng/l												
Min Sum of 20 PFAS	ng/l												
Max Sum of 20 PFAS	ng/l												

North Apron Groundwater Monitoring Results

Parameter	Unit	GW015D																	
		15/11/21	15/11/21	10/02/22	10/02/22	15/03/22	15/03/22	19/04/22	19/04/22	24/05/22	24/05/22	15/11/22	15/11/22	14/02/23	14/02/23	15/08/23	15/08/23	22/11/23	22/11/23
11Cl-PF3OUdS (763051-92-9)	ng/l															<2	<2	<10	<10
3:3 FTCA (356-02-5)	ng/l															<2	<2	<10	<10
4:2 FTS (757124-72-4)	ng/l	<2	<2	<10	<20	<10	<2	<10	<10	<10	<10	<20	<2	<10	<10	<1	<1	<5	<5
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<100	<200	<100	<20	<100	<100	<100	<100	<200	<20	<100	<100	<5	<5	<25	<25
6:2 FTAB (34455-29-3)	ng/l																	285	356
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	14.7	14.1	8.6	<10	22.3	31.4	9.56	7.84	15.7	18	13.6	14.1	5.86	6.86	3.55	3.55	17.9	21.1
7:3 FTCA (812-70-4)	ng/l															<5	<5	<25	<25
8:2 FTS (39108-34-4)	ng/l	2.96	<2			<11	13.9	<10	<10	<10	<10	<20	3.29	<10	<10	<2	<2	<10	<10
9Cl-PF3ONS (756426-58-1)	ng/l															<1	<1	<5	<5
ADONA (919005-14-4)	ng/l															<1	<1	<5	<5
Branched PFOS	ng/l	2.51	2.6	<3.25	<6.5	<3.25	<6.5	<3.25	<3.25	<3.25	<3.25	<6.5	1.24	<3.25	<3.25	<0.65	<0.65	<3.25	<3.25
EtFOSAA (2991-50-6)	ng/l															<2	<2	<10	<10
EtFOSE (1691-99-2)	ng/l															<10	<10	<50	<50
FBSA (30334-69-1)	ng/l															<1	<1	<5	<5
FHxSA (41997-13-1)	ng/l															<1	<1	<5	<5
HFPO-DA (13252-13-6)	ng/l															<2	<2	<10	<10
HFPO-TA (13252-14-7)	ng/l															<5	<5	<25	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	3.33	3.62	3.55	<6.5	3.32	<6.5	<3.25	<3.25	3.91	<3.25	<6.5	1.75	<3.25	<3.25	<0.65	<0.65	<3.25	<3.25
MeFOSAA (2355-31-9)	ng/l															<2	<2	<10	<10
MeFOSE (24448-09-7)	ng/l															<10	<10	<50	<50
N-EtFOSA (4151-50-2)	ng/l															<1	<1	<5	<5
NFDHA (151772-58-6)	ng/l															<3	<3	<15	<15
N-MeFOSA (31506-32-8)	ng/l															<1	<1	<5	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	335	340	166	157	121	162	97.8	75.5	79.1	108	105	136	24.7	19.2	10.9	10.9	27.5	36.9
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<3	<5	<10	<5	<10	<5	<5	<5	<5	<10	<1	<5	<5	<1	<1	<5	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<5	<10	<5	<10	<5	<5	<5	<5	<10	<1	<5	<5	<2	<2	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<5	<10	<5	<10	<5	<5	<5	<5	<10	<1	<5	<5	<2	<2	<10	<10
PFDoS (79780-39-5)	ng/l					<5	<10	<5	<5	<5	<40	<10	<1	<5	<5	<2	<2	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<5	<10	<5	<10	<5	<5	<5	<5	<10	<1	<5	<5	<2	<2	<10	<10
PFecHS (133201-07-7)	ng/l															<1	<1	7.78	7.54
PFEESA (113507-82-7)	ng/l															<1	<1	<5	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	207	257	88.2	64	59.4	78.8	31.6	31.3	27.3	44.9	43.9	62	7.28	7.43	3.99	4.13	9.48	11
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<5	<10	<5	<10	<5	<5	<5	<5	<10	<1	<5	<5	<1	<1	<5	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	669	626	215	212	157	227	112	102	94	147	165	190	22.4	21.6	15.7	14.4	35.8	42.5
PFHxDA (67905-19-5)	ng/l															<1	<1	<5	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	5.53	4.99	<5	<10	<5	<10	<5	<5	<5	<5	<10	1.39	<5	<5	<1	<1	<5	<5
PFMOBA (863090-89-5)	ng/l															<1	<1	<5	<5
PFMOPrA (377-73-1)	ng/l															<1	<1	<5	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	7.87	7.49	5.91	<10	5.54	<10	<5	<5	<5	<5	<10	2.12	<5	<5	<1	<1	<5	<5
PFNS (68259-12-1)	ng/l					<5	<10	<5	<5	<5	<5	<10	<1	<5	<5	<1	<1	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	80.2	72.6	17.2	22.6	13.2	20.6	14.5	13	11.1	18.8	13.3	12	<3.25	<3.25	1.36	1.3	5.43	5.37
PFODA (16517-11-6)	ng/l															<1	<1	<5	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<10	<20	<10	<20	<10	<10	<10	<10	<20	<2	<10	<10	<2	<2	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	1870	1170	541	457	268	433	322	301	204	306	427	469	48.5	46.8	59.2	62.5	133	163
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<5	<10	<5	<10	<5	<5	<5	<5	<10	<1	<5	<5	<1	<1	<5	<5
PFTeA (376-06-7)	ng/l															<1	<1	<5	<5
PFTrDA (72629-94-8)	ng/l					<5	<10	<5	<5	<5	<15	<10	<1	<5	<5	<3	<3	<15	<15
PFTrDS (174675-49-1)	ng/l					<5	<10	<5	<5	<5	<40	<10	<1	<5	<5	<1	<1	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<5	<10	<5	<10	<5	<5	<5	<5	<10	<1	<5	<5	<2	<2	<10	<10
PFUnDS (749786-16-1)	ng/l					<5	<10	<5	<5	<5	<10	<10	<1	<5	<5	<2	<2	<10	<10
Total PFOS	ng/l	5.84	6.21	3.55	<6.5	3.32	<6.5	<3.25	<3.25	3.91	<3.25	<6.5	2.98	<3.25	<3.25	<0.65	<0.65	<3.25	<3.25
Sum of PFAS																			
Sum of 20 PFAS	ng/l	3180.44	2484.29	1036.86	912.60	627.46	921.40	577.90	522.80	419.41	624.70	754.20	875.49	102.88	95.03	91.15	93.23	211.21	258.77
Sum of Total PFAS	ng/l	3203.94	2504.61	1049.01	912.60	653.08	966.70	587.46	530.64	439.02	642.70	767.80	895.87	108.74	101.89	94.70	96.78	521.89	643.41
Average Sum of 20 PFAS	ng/l	642.06																	
Average Total PFAS	ng/l	791.54																	
Min Sum of 20 PFAS	ng/l	91.15																	
Max Sum of 20 PFAS	ng/l	3180.44																	

North Apron Groundwater Monitoring Results

Parameter	Unit	GW015D							
		02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
3:3 FTCA (356-02-5)	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
4:2 FTS (757124-72-4)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
5:3 FTCA (914637-49-3)	ng/l	<25	<25	<5	<5	<5	<5	<25	<25
6:2 FTAB (34455-29-3)	ng/l	<50	56.5	112	119	144	258	804	1330
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	6.38	14.5	14.6	20.5	22.5	10.7	<5
7:3 FTCA (812-70-4)	ng/l	<25	<25	<5	<5	<5	<5	<25	<25
8:2 FTS (39108-34-4)	ng/l	<10	<10	<2	<2	2.09	<2	<10	<10
9Cl-PF3ONS (756426-58-1)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
ADONA (919005-14-4)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
Branched PFOS	ng/l	<3.25	<3.25	<0.65	<0.65	0.883	<0.65	<3.25	<3.25
EtFOSAA (2991-50-6)	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
EtFOSE (1691-99-2)	ng/l	<50	<50	<10	<10	<10	<10	<50	<50
FBSA (30334-69-1)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
FHxSA (41997-13-1)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
HFPO-DA (13252-13-6)	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
HFPO-TA (13252-14-7)	ng/l	<25	<25	<5	<5	<5	<5	<25	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<3.25	<3.25	<0.65	<0.65	0.834	<0.65	<3.25	<3.25
MeFOSAA (2355-31-9)	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
MeFOSE (24448-09-7)	ng/l	<50	<50	<10	<10	<10	<10	<50	<50
N-EtFOSA (4151-50-2)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
NFDHA (151772-58-6)	ng/l	<15	<15	<3	<3	<3	<3	<15	<15
N-MeFOSA (31506-32-8)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	18.6	19.6	26.8	24.3	43.3	43.6	84	125
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
PFDoS (79780-39-5)	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
PFecHS (133201-07-7)	ng/l	<5	<5	2.48	2.5	4.07	4.26	8.25	17.4
PFEESA (113507-82-7)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	5.63	6.06	5.2	4.96	9.42	11.2	29.9	44.9
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	12.2	13.8	26.5	25.4	40.2	49.4	142	205
PFHxDA (67905-19-5)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFMOBA (863090-89-5)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFMOPrA (377-73-1)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFNS (68259-12-1)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<3.25	<3.25	0.935	1.21	2.44	2.58	8.61	14.8
PFODA (16517-11-6)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	54.8	60.8	103	106	199	202	458	671
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFTeA (376-06-7)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFTrDA (72629-94-8)	ng/l	<15	<15	<3	<3	<3	<3	<15	<15
PFTrDS (174675-49-1)	ng/l	<5	<5	<1	<1	<1	<1	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
PFUnDS (749786-16-1)	ng/l	<10	<10	<2	<2	<2	<2	<10	<10
Total PFOS	ng/l	<3.25	<3.25	<0.65	<0.65	1.72	<0.65	<3.25	<3.25
Sum of PFAS									
Sum of 20 PFAS	ng/l	91.23	100.26	162.44	161.87	296.08	308.78	722.51	1060.70
Sum of Total PFAS	ng/l	91.23	163.14	291.42	297.97	468.46	593.54	1545.46	2408.10
Average Sum of 20 PFAS	ng/l								
Average Total PFAS	ng/l								
Min Sum of 20 PFAS	ng/l								
Max Sum of 20 PFAS	ng/l								

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GWMP 4							
		30/09/20	08/10/20	14/10/20	21/07/20	03/12/20	06/01/21	22/01/21	27/05/21
11Cl-PF3OUdS (763051-92-9)	ng/l								
3:3 FTCA (356-02-5)	ng/l								
4:2 FTS (757124-72-4)	ng/l								
5:3 FTCA (914637-49-3)	ng/l								
6:2 FTAB (34455-29-3)	ng/l								
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	4.56	5.94	<5	1.46	<1	2.37	<1	<2
7:3 FTCA (812-70-4)	ng/l								
8:2 FTS (39108-34-4)	ng/l								
9Cl-PF3ONS (756426-58-1)	ng/l								
ADONA (919005-14-4)	ng/l								
Branched PFOS	ng/l	1.33	<1	<5	1.68	<1	<1	<1	<2
EtFOSAA (2991-50-6)	ng/l								
EtFOSE (1691-99-2)	ng/l								
FBSA (30334-69-1)	ng/l								
FHxSA (41997-13-1)	ng/l								
HFPO-DA (13252-13-6)	ng/l								
HFPO-TA (13252-14-7)	ng/l								
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.53	0.817	<3.25	1.33	<0.65	<0.65	<0.65	1.84
MeFOSAA (2355-31-9)	ng/l								
MeFOSE (24448-09-7)	ng/l								
N-EtFOSA (4151-50-2)	ng/l								
NFDHA (151772-58-6)	ng/l								
N-MeFOSA (31506-32-8)	ng/l								
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	82.5	<12	14.2	207	5.6	12.2	<5	5.93
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	1.9	<5	1.29	<1	<1	<1	<2
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<5	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<5	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l								
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l								
PFecHS (133201-07-7)	ng/l								
PFEESA (113507-82-7)	ng/l								
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.26	<2	<5	1.74	2.39	3.94	<1	2.46
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<5	<1	<1	<1	<1	<2
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	2.51	1.9	<5	1.31	1.21	3.17	<1	<2
PFHxDA (67905-19-5)	ng/l								
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<2.5	<1	<5	<1	<1	<1	<1	<2
PFMOBA (863090-89-5)	ng/l								
PFMOPrA (377-73-1)	ng/l								
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<5	<1	<1	<1	<1	<2
PFNS (68259-12-1)	ng/l								
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.15	<0.65	<3.25	1.8	1.22	1.27	<0.65	1.4
PFODA (16517-11-6)	ng/l								
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<10	<2	<2	<2	<2	<4
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	<3	<5	<1	<1	5.54	<1	<2
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l								
PFTeA (376-06-7)	ng/l								
PFTrDA (72629-94-8)	ng/l								
PFTrDS (174675-49-1)	ng/l								
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<5	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l								
Total PFOS	ng/l	2.86	<1	<5	3.01	<1	<1	<1	<2
Sum of PFAS									
Sum of 20 PFAS	ng/l	91.28	3.80	14.20	216.15	10.42	26.12	0.00	9.79
Sum of Total PFAS	ng/l	98.70	10.56	14.20	220.62	10.42	28.49	0.00	11.63
Average Sum of 20 PFAS	ng/l	46.47							
Average Total PFAS	ng/l	49.33							
Min Sum of 20 PFAS	ng/l	0.00							
Max Sum of 20 PFAS	ng/l	216.15							

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GWMP 5																					
		08/10/20	14/10/20	21/10/20	03/12/20	06/01/21	22/01/21	27/05/21	22/03/23	22/03/23	31/05/23	31/05/23	16/08/23	16/08/23	22/11/23	22/11/23	16/07/24	16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l										<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l										<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l								<4	<4	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l								<40	<40	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l														<10	<10	<50	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	2.23	<5	1.15	2.37	<1	<1	<1	<2	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l										<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l								<4	<4	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<10	<10	<1	<1
Branched PFOS	ng/l	<1	<5	1.61	<1	<1	1.78	<1	<1.3	<1.3	1.28	1.21	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	1.23	0.96	<0.65	11.6
EtFOSAA (2991-50-6)	ng/l										<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l										<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l										<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l										<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<3.25	1.19	<0.65	<0.65	2.62	<0.65	4.84	4.72	1.22	1.16	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<0.65	0.728	<0.65	10.5
MeFOSAA (2355-31-9)	ng/l										<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l										<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l										<3	<3	<3	<3	<3	<3	<15	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	16.2	28.3	178	12.2	<2.5	12.3	20.7	<9.5	<9.5	4.6	6.29	4.04	5.93	5.97	9.45	<10	3	2.66	2.56	6.44	6.24
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<2.5	<5	1.67	<1	<1	<1	<1	<2	<2	<1	<1	<1	1.16	<1	<1	<5	<1	1.08	1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l								<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l								<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFEESA (113507-82-7)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1.5	<5	1.57	3.94	<1	5.76	2.92	<2	<2	<1	<1	1.18	1.43	<1	<1	<5	<1	<1	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<5	<1	<1	<1	<1	<1	<2	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	3.91	<5	1.77	3.17	<1	3.84	4.51	2.53	2.67	1.35	1.35	<1	1.87	2.25	1.87	<5	<1	<1	<1	1.65	1.63
PFHxDA (67905-19-5)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<5	<1	<1	<1	<1	<1	<2	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<10	<25	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<5	<1	<1	<1	<1	<1	<2	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l								<2	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	<3.25	1.54	1.27	1.02	1.95	0.717	1.61	1.63	0.79	<0.65	0.915	1.33	1.12	1.1	7.79	<0.65	0.867	0.948	0.807	<0.65
PFODA (16517-11-6)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<10	<2	<2	<2	<2	<2	<4	<4	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	8.91	10.4	<2	5.54	<1	2.49	13.6	3.99	3.46	4.64	4.52	2.76	3.7	3	4.49	<5	<1	1.01	<1	3.61	3.81
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l								<2	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l										<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l								<2	<2	<3	<3	<3	<3	<3	<3	<15	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l								<2	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<5	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l								<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
Total PFOS	ng/l	<1	<5	2.8	<1	<1	4.4	<1	4.84	4.72	2.5	2.38	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	1.23	1.69	<0.65	22
Sum of PFAS																						
Sum of 20 PFAS	ng/l	29.02	38.70	187.35	26.12	1.02	30.74	42.45	12.97	12.48	13.88	14.54	8.90	15.42	12.34	16.91	7.79	3.00	6.85	6.20	12.51	33.68
Sum of Total PFAS	ng/l	31.25	38.70	191.30	28.49	1.02	35.14	42.45	17.81	17.20	16.38	16.91	8.90	15.42	12.34	16.91	7.79	3.00	8.08	7.89	12.51	55.78
Average Sum of 20 PFAS	ng/l	25.37																				
Average Total PFAS	ng/l	27.87																				
Min Sum of 20 PFAS	ng/l	1.02																				
Max Sum of 20 PFAS	ng/l	187.35																				

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GW11																		
		17/09/21	01/10/21	18/10/21	21/03/23	21/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	23/11/23	03/04/24	03/04/24	16/07/24	16/07/24	25/09/24	25/09/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
3:3 FTCA (356-02-5)	ng/l						<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
4:2 FTS (757124-72-4)	ng/l				<10	<20	<1	<10	1.14	1.57	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
5:3 FTCA (914637-49-3)	ng/l				<100	<200	<5	<50	<5	<5	<5	<50	<50	<5	<5	<5	<25	<25	<25	<25
6:2 FTAB (34455-29-3)	ng/l										4720	7380	5460	5040	5080	3800	5340	4590	4480	4070
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	523	428	192	774	862	489	609	664	1230	439	583	427	247	278	272	583	675	840	645
7:3 FTCA (812-70-4)	ng/l						<5	<50	<5	<5	<5	<50	<50	<5	<5	<5	<25	<25	<25	<25
8:2 FTS (39108-34-4)	ng/l				168	206	135	171	93.3	128	95.6	142	120	67.2	80.6	80.8	95.2	89.2	99.2	67.9
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
ADONA (919005-14-4)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
Branched PFOS	ng/l	58.4	57.5	37.1	19.2	24	95.9	169	18.4	26.1	22.6	36.9	29.1	10.8	15.6	15.2	35	27.8	45.5	34.5
EtFOSAA (2991-50-6)	ng/l						<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
EtFOSE (1691-99-2)	ng/l						<10	<100	<10	<10	<10	<100	<100	<10	<10	<10	<50	<50	<50	<50
FBSA (30334-69-1)	ng/l						3.36	<10	17.5	24.4	7.86	<10	<10	2.05	2.35	2.89	<5	<5	11.6	11.9
FHxSA (41997-13-1)	ng/l						8.02	<10	28.8	48	17.7	25.9	17.4	5.75	6.08	7.22	<5	<5	20.6	24.6
HFPO-DA (13252-13-6)	ng/l						<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
HFPO-TA (13252-14-7)	ng/l						<5	<50	<5	<5	<5	<50	<50	<5	<5	<5	<25	<25	<25	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	49.1	45.8	23.9	72.5	82	96.5	151	58.7	75.6	59.6	123	90.9	39	47.2	46.3	50.9	45	98.8	68.5
MeFOSAA (2355-31-9)	ng/l						<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
MeFOSE (24448-09-7)	ng/l						<10	<100	<10	<10	<10	<100	<100	<10	<10	<10	<50	<50	<50	<50
N-EtFOSA (4151-50-2)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
NFDHA (151772-58-6)	ng/l						<3	<30	<3	<3	<3	<30	<30	<3	<3	<3	<15	<15	<15	<15
N-MeFOSA (31506-32-8)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	138	180	144	113	129	77.4	54.6	184	323	154	179	92.9	62.5	54.7	51.2	68.9	75.9	203	194
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	5.59	9.95	3.84	11.6	13.8	8.43	<10	15.9	24.3	9.58	15.7	12.2	5	4.07	4.02	7.6	10.7	25.1	22.4
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<5	<1	<5	<10	<2	<20	<2	2.11	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<5	<1	<5	<10	<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
PFDoS (79780-39-5)	ng/l				<5	<10	<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<5	<1	<5	<10	<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
PFecHS (133201-07-7)	ng/l						<1	<10	<1	<1	<1	<10	<10	3.08	1.25	1.23	<5	<5	<5	<5
PFEESA (113507-82-7)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	55.8	69.4	84.4	168	177	112	106	198	370	133	154	71.9	48	38.7	38.5	46.1	50.3	207	194
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<5	1.24	<5	<10	<1	<10	1.2	2.08	2.08	<10	<10	<1	1.04	1.1	<5	<5	<5	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	209	282	219	270	273	195	187	468	886	300	341	158	105	95.6	89.6	153	151	645	535
PFHxDA (67905-19-5)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	26.5	33.1	22.2	62.6	67.4	61.6	56	103	126	58.8	77.6	40.7	22.4	24	22.8	41.7	45.7	132	101
PFMOBA (863090-89-5)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
PFMOPrA (377-73-1)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<5	2.64	13.8	15.3	15.1	14.6	16.5	25	14.1	21.6	15.8	7.05	6.13	6.44	8.64	8.84	15.1	11.4
PFNS (68259-12-1)	ng/l				<5	<10	<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	24.8	24.2	14.5	58.6	79.4	52.1	62.6	157	223	79.1	95.2	48.6	28.2	24.9	24.5	31.5	38.4	127	109
PFODA (16517-11-6)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<10	<2	<10	<20	<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	311	419	254	326	378	440	383	979	2010	738	824	353	281	193	198	303	333	1350	1370
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	5.33	3.89	8.29	<10	4.99	<10	13.6	16.6	6.37	10.2	10.7	2.99	3.08	2.98	7.05	8.74	17.5	14.3
PFTeA (376-06-7)	ng/l						<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
PFTrDA (72629-94-8)	ng/l				<5	<10	<3	<30	<3	<3	<3	<30	<30	<3	<3	<3	<15	<15	<15	<15
PFTrDS (174675-49-1)	ng/l				<5	<10	<1	<10	<1	<1	<1	<10	<10	<1	<1	<1	<5	<5	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<5	<1	<5	<10	<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
PFUnDS (749786-16-1)	ng/l				<5	<10	<2	<20	<2	<2	<2	<20	<20	<2	<2	<2	<10	<10	<10	<10
Total PFOS	ng/l	108	103	61	91.7	106	192	320	77.1	102	82.2	160	120	49.9	62.8	61.5	85.9	72.8	144	103
Sum of PFAS																				
Sum of 20 PFAS	ng/l	878.69	1125.98	810.71	1123.59	1238.90	1158.62	1183.80	2213.30	4110.09	1577.23	1878.30	923.80	612.04	508.02	500.64	753.39	795.38	2865.70	2654.10
Sum of Total PFAS	ng/l	1509.19	1657.28	1063.71	2157.29	2412.90	1986.40	2283.80	3095.14	5643.76	6939.59	10169.10	7068.20	6026.92	6019.10	4726.28	6857.49	6222.38	8461.40	7576.50
Average Sum of 20 PFAS	ng/l	1416.44																		
Average Total PFAS	ng/l	4835.60																		
Min Sum of 20 PFAS	ng/l	500.64																		
Max Sum of 20 PFAS	ng/l	4110.09																		

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GW12																		
		17/09/21	01/10/21	18/10/21	21/03/23	21/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	23/11/23	03/04/24	03/04/24	16/07/24	16/07/24	25/09/24	25/09/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
3:3 FTCA (356-02-5)	ng/l						<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
4:2 FTS (757124-72-4)	ng/l				<50	<20	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
5:3 FTCA (914637-49-3)	ng/l				<500	<200	<5	<5	<5	<5	<5	<5	<25	<25	<5	<5	<25	<5	<25	<25
6:2 FTAB (34455-29-3)	ng/l										<10	13.7	<50	<50	14.2	11.2	<50	<10	<50	<50
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	<2	<1	47.4	41.1	26.7	4.04	45.3	6.48	13.1	16.2	24.9	22.8	6.29	6.06	11.2	7.26	7.37	7.44
7:3 FTCA (812-70-4)	ng/l						<5	<5	<5	<5	<5	<5	<25	<25	<5	<5	<25	<5	<25	<25
8:2 FTS (39108-34-4)	ng/l				<50	<20	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
ADONA (919005-14-4)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
Branched PFOS	ng/l	<3.25	2.84	1.54	<16.3	<6.5	2.03	2.17	4.09	2.04	1.86	1.69	5.24	4.1	1.63	1.92	<3.25	1.81	<3.25	<3.25
EtFOSAA (2991-50-6)	ng/l						<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
EtFOSE (1691-99-2)	ng/l						<10	<10	<10	<10	<10	<10	<50	<50	<10	<10	<50	<10	<50	<50
FBSA (30334-69-1)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
FHxSA (41997-13-1)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
HFPO-DA (13252-13-6)	ng/l						<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
HFPO-TA (13252-14-7)	ng/l						<5	<5	<5	<5	<5	<5	<25	<25	<5	<5	<25	<5	<25	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	3.81	1.45	0.72	<16.3	6.57	2.43	1.45	3.71	1.83	1.4	1.65	5.11	3.98	1.2	1.17	<3.25	1.38	<3.25	<3.25
MeFOSAA (2355-31-9)	ng/l						<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
MeFOSE (24448-09-7)	ng/l						<10	<10	<10	<10	<10	<10	<50	<50	<10	<10	<50	<10	<50	<50
N-EtFOSA (4151-50-2)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
NFDHA (151772-58-6)	ng/l						<3	<3	<3	<3	<3	<3	<15	<15	<3	<3	<15	<3	<15	<15
N-MeFOSA (31506-32-8)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<22	<35	15	<100	24	8.28	7.07	5.57	5.46	5.47	6.38	<10	13.2	10.2	9.4	10.3	4.86	11.6	11.3
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<2	<1	<25	<10	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<2	<1	<25	<10	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<2	<1	<25	<10	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
PFDoS (79780-39-5)	ng/l				<25	<10	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<2	<1	<25	<10	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
PFecHS (133201-07-7)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFEESA (113507-82-7)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	6.19	5.61	3.31	<25	<10	4.24	3.63	4.15	3.27	3.12	3.92	6.88	6.19	3.05	3.12	6.52	1.82	7.97	7.68
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<2	<1	<25	<10	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	22.8	20.5	16.8	<25	11.4	12.9	12.1	8.1	7.26	8.03	8.61	10.8	10.9	11.9	11.5	<5	6.04	16	13.8
PFHxDA (67905-19-5)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	<2	1.25	<25	<10	1.4	1.99	6.79	3.79	1.54	1.95	5.64	<5	1.66	1.69	<5	1.3	<5	<5
PFMOBA (863090-89-5)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFMOPrA (377-73-1)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<2	<1	<25	<10	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFNS (68259-12-1)	ng/l				<25	<10	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<3.25	1.42	0.906	90.2	8.29	1.96	1.17	3.62	1.39	1.5	1.89	6.22	4.46	0.995	1.05	<3.25	1.27	4.96	4.52
PFODA (16517-11-6)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<4	<2	<50	<20	<2	<2	<2	<2	<2	<2	10.6	<10	<2	<2	<10	<2	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	49.3	28.7	30.7	<25	16.3	35.6	40.4	19.2	17.1	22.4	24.2	25.8	27.4	34.6	33.4	20.9	20.3	43.1	41.8
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<2	<1	<25	<10	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFTeA (376-06-7)	ng/l						<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFTrDA (72629-94-8)	ng/l				<25	<10	<3	<3	<3	<3	<3	<3	<15	<15	<3	<3	<15	<3	<15	<15
PFTrDS (174675-49-1)	ng/l				<25	<10	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1	<5	<1	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<2	<1	<25	<10	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
PFUnDS (749786-16-1)	ng/l				<25	<10	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2	<10	<2	<10	<10
Total PFOS	ng/l	3.81	4.3	2.26	<16.3	6.57	4.47	3.62	7.8	3.87	3.26	3.34	10.3	8.08	2.83	3.09	<3.25	3.18	<3.25	<3.25
Sum of PFAS																				
Sum of 20 PFAS	ng/l	82.10	60.53	70.23	90.20	66.56	68.85	69.98	55.23	42.14	45.32	50.29	65.64	70.23	65.24	63.25	37.72	38.77	83.63	79.10
Sum of Total PFAS	ng/l	85.91	64.82	72.49	137.60	114.23	100.01	77.64	108.33	52.49	61.68	83.53	111.49	101.11	88.56	83.60	48.92	49.22	91.00	86.54
Average Sum of 20 PFAS	ng/l	63.42																		
Average Total PFAS	ng/l	85.22																		
Min Sum of 20 PFAS	ng/l	37.72																		
Max Sum of 20 PFAS	ng/l	90.20																		

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GW13																		
		17/09/21	01/10/21	18/10/21	21/03/23	21/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	23/11/23	03/04/24	03/04/24	16/07/24	16/07/24	25/09/24	25/09/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
3:3 FTCA (356-02-5)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
4:2 FTS (757124-72-4)	ng/l				<50	<50	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
5:3 FTCA (914637-49-3)	ng/l				<500	<500	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<25	<25	<25
6:2 FTAB (34455-29-3)	ng/l										<10	<10	<10	<10	<10	<10	<50	<50	<50	<50
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	<5	<1	<25	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
7:3 FTCA (812-70-4)	ng/l						<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<25	<25	<25
8:2 FTS (39108-34-4)	ng/l				<50	<50	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
ADONA (919005-14-4)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
Branched PFOS	ng/l	<3.25	<3.25	<0.65	<16.3	<16.3	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.776	0.776	<0.65	<0.65	<3.25	<3.25	<3.25	<3.25
EtFOSAA (2991-50-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
EtFOSE (1691-99-2)	ng/l						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<50	<50	<50
FBSA (30334-69-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
FHxSA (41997-13-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	1.01	<1	<1	<5	<5	<5	<5
HFPO-DA (13252-13-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
HFPO-TA (13252-14-7)	ng/l						<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<25	<25	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<3.25	<3.25	<0.65	<16.3	<16.3	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.781	0.658	<0.65	<0.65	<3.25	<3.25	<3.25	<3.25
MeFOSAA (2355-31-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
MeFOSE (24448-09-7)	ng/l						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<50	<50	<50
N-EtFOSA (4151-50-2)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
NFDHA (151772-58-6)	ng/l						<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<15	<15	<15
N-MeFOSA (31506-32-8)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<10	<10	<2	<100	<90	<2	<2	<2	<2	3.06	<2	10.6	12.6	2.5	2.21	<10	<10	<10	<10
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<5	<1	<25	<25	<1	<1	<1	<1	<1	<1	1.07	1.08	<1	<1	<5	<5	<5	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<5	<1	<25	<25	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<5	<1	<25	<25	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
PFDoS (79780-39-5)	ng/l				<25	<25	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<5	<1	<25	<25	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
PFecHS (133201-07-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFEESA (113507-82-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<5	<5	<1	<25	<25	<1	<1	<1	<1	<1	<1	2.23	2.19	<1	<1	<5	<5	<5	<5
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<5	<1	<25	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<5	<5	<1	<25	<25	<1	<1	<1	<1	1.8	1.88	3.27	3.47	<1	<1	<5	<5	<5	<5
PFHxDA (67905-19-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	<5	<1	<25	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFMOBA (863090-89-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFMOPrA (377-73-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<5	<1	<25	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFNS (68259-12-1)	ng/l				<25	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<3.25	<3.25	<0.65	<16.3	<16.3	<0.65	<0.65	<0.85	<0.65	<0.65	<0.65	1.24	1.28	<0.65	<0.65	<3.25	<3.25	<3.25	<3.25
PFODA (16517-11-6)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<10	<2	<50	<50	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<5	<5	<1	<25	<25	<1	<1	<1	<1	1.86	2.5	6.58	6.9	<1	<1	<5	<5	<5	<5
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<5	<1	<25	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFTeA (376-06-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFTrDA (72629-94-8)	ng/l				<25	<25	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<15	<15	<15
PFTrDS (174675-49-1)	ng/l				<25	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<5	<1	<25	<25	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
PFUnDS (749786-16-1)	ng/l				<25	<25	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<10
Total PFOS	ng/l	<3.25	<3.25	<0.65	<16.3	<16.3	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	1.56	1.43	<0.65	<0.65	<3.25	<3.25	<3.25	<3.25
Sum of PFAS																				
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.72	4.38	26.55	28.95	2.50	2.21	0.00	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.72	4.38	28.11	31.39	2.50	2.21	0.00	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l	3.75																		
Average Total PFAS	ng/l	3.96																		
Min Sum of 20 PFAS	ng/l	0.00																		
Max Sum of 20 PFAS	ng/l	28.95																		

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GW14																		
		17/09/21	01/10/21	18/10/21	21/03/23	21/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	23/11/23	03/04/24	03/04/24	16/07/24	16/07/24	25/09/24	25/09/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
3:3 FTCA (356-02-5)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
4:2 FTS (757124-72-4)	ng/l				<20	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
5:3 FTCA (914637-49-3)	ng/l				<200	<100	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<125	<25
6:2 FTAB (34455-29-3)	ng/l										<10	<10	<10	<10	<10	<10	<50	<10	<250	<50
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<5	13.6	9.02	3.56	3.28	15.1	20.5	4.51	4.2	6.75	7.62	7.57	7.15	8.57	6.29	<25	5.61
7:3 FTCA (812-70-4)	ng/l						<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<125	<25
8:2 FTS (39108-34-4)	ng/l				<20	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
ADONA (919005-14-4)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
Branched PFOS	ng/l	<0.65	<0.65	<3.25	<6.5	<3.25	<0.65	<0.65	0.751	<0.65	<0.65	<0.65	<0.65	<0.65	0.722	0.742	<3.25	1.19	<16.3	<3.25
EtFOSAA (2991-50-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
EtFOSE (1691-99-2)	ng/l						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<250	<50
FBSA (30334-69-1)	ng/l						<1	<1	1.84	1.35	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
FHxSA (41997-13-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
HFPO-DA (13252-13-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
HFPO-TA (13252-14-7)	ng/l						<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<125	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.77	<0.65	<3.25	<6.5	<3.25	<0.65	<0.65	0.862	<0.65	<0.65	<0.65	<0.65	0.683	<0.65	<0.65	<3.25	1.02	<16.3	<3.25
MeFOSAA (2355-31-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
MeFOSE (24448-09-7)	ng/l						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<250	<50
N-EtFOSA (4151-50-2)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
NFDHA (151772-58-6)	ng/l						<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<75	<15
N-MeFOSA (31506-32-8)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<4	<2.5	<10	116	84.5	60.6	42.6	90.8	122	61.8	86.1	75.4	76.9	68.9	71	62.4	42.8	78.8	67.6
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<5	<10	<5	<1	<1	2.08	2.66	<1	<1	1.67	1.63	<1	1.16	<5	<1	<25	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<5	<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<5	<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
PFDoS (79780-39-5)	ng/l				<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<5	<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
PFecHS (133201-07-7)	ng/l						<1	<1	<1	<1	<1	<1	1.06	1.02	<1	<1	<5	<1	<25	<5
PFEESA (113507-82-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.07	1.26	<5	40.9	38.5	25.6	22.6	84.8	121	29.2	26.8	46.6	46.6	32	34	35.9	29.8	59.8	53.3
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	2.6	2.09	<5	158	131	98.1	84.9	302	457	106	107	159	160	148	139	129	85.7	179	168
PFHxDA (67905-19-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<5	<10	<5	1.1	1.19	16	7.58	1.97	1.79	3.2	3.36	3.25	3.32	<5	2.75	<25	5.72
PFMOBA (863090-89-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFMOPrA (377-73-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFNS (68259-12-1)	ng/l				<10	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	<0.65	<3.25	8.13	4.6	3.12	2.48	8.15	12.2	2.2	2.3	6.06	6	4.58	4.81	7.73	4.14	<16.3	6.67
PFODA (16517-11-6)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<10	<20	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	4.94	3.72	6.04	310	201	272	263	582	987	298	276	454	442	364	367	325	236	411	416
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<5	<10	<5	<1	<1	2.15	2.56	<1	<1	1.37	1.33	<1	<1	<5	<1	<25	<5
PFTeA (376-06-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFTrDA (72629-94-8)	ng/l				<10	<5	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<75	<15
PFTrDS (174675-49-1)	ng/l				<10	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<25	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<5	<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
PFUnDS (749786-16-1)	ng/l				<10	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<50	<10
Total PFOS	ng/l	0.77	<0.65	<3.25	<6.5	<3.25	<0.65	<0.65	1.61	<0.65	<0.65	<0.65	<0.65	0.683	0.722	0.742	<3.25	2.21	<16.3	<3.25
Sum of PFAS																				
Sum of 20 PFAS	ng/l	9.38	7.07	6.04	633.03	459.60	460.52	416.77	1089.59	1712.00	499.17	499.99	747.30	738.50	621.45	621.03	560.03	403.40	728.60	717.29
Sum of Total PFAS	ng/l	10.15	7.07	6.04	646.63	468.62	464.08	420.05	1108.14	1733.85	503.68	504.19	755.11	747.83	629.74	628.92	568.60	411.90	728.60	722.90
Average Sum of 20 PFAS	ng/l	575.30																		
Average Total PFAS	ng/l	582.43																		
Min Sum of 20 PFAS	ng/l	6.04																		
Max Sum of 20 PFAS	ng/l	1712.00																		

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GW15																		
		17/09/21	01/10/21	18/10/21	21/03/23	21/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	23/11/23	03/04/24	03/04/24	16/07/24	16/07/24	25/09/24	25/09/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
3:3 FTCA (356-02-5)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
4:2 FTS (757124-72-4)	ng/l				<20	<10	<1	<1	<1	<1	<1	<1	<1	<5	1.41	<5	<5	<1	<5	<5
5:3 FTCA (914637-49-3)	ng/l				<200	<100	<5	<5	<5	<5	<5	<5	<5	<25	<5	<25	<25	<5	<25	<25
6:2 FTAB (34455-29-3)	ng/l										<10	<10	<10	<50	15.7	<50	<50	<10	<50	<50
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<2	<1	<1	<10	<5	<1	<1	<1	<1	<1	<1	<1	5.53	1.19	16.1	<5	<1	<5	<5
7:3 FTCA (812-70-4)	ng/l						<5	<5	<5	<5	<5	<5	<5	<25	<5	<25	<25	<5	<25	<25
8:2 FTS (39108-34-4)	ng/l				<20	<10	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	1.46	<5	<5	<1	<5	<5
ADONA (919005-14-4)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	1.73	<5	<5	<1	<5	<5
Branched PFOS	ng/l	<1.3	<0.65	<0.65	<6.5	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	3.58	1.24	<3.25	<3.25	1.18	<3.25	3.96
EtFOSAA (2991-50-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
EtFOSE (1691-99-2)	ng/l						<10	<10	<10	<10	<10	<10	<10	<50	20.3	<50	<50	<10	<50	<50
FBSA (30334-69-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<5	<1	<5	<5
FHxSA (41997-13-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<5	<1	<5	<5
HFPO-DA (13252-13-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
HFPO-TA (13252-14-7)	ng/l						<5	<5	<5	<5	<5	<5	<5	<25	6.77	<25	<25	<5	<25	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<1.3	<0.65	<0.65	<6.5	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	3.72	1.44	<3.25	<3.25	0.751	<3.25	<3.25
MeFOSAA (2355-31-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
MeFOSE (24448-09-7)	ng/l						<10	<10	<10	<10	<10	<10	<10	<50	20.1	<50	<50	<10	<50	<50
N-EtFOSA (4151-50-2)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	1.36	<5	<5	<1	<5	<5
NFDHA (151772-58-6)	ng/l						<3	<3	<3	<3	<3	<3	<3	<15	<3	<15	<15	<3	<15	<15
N-MeFOSA (31506-32-8)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	1.11	<5	<5	<1	<5	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<4	<2	<10	<20	<10	3.39	2.96	4.88	4.33	4.8	3.43	9.38	14.9	8.51	<10	<10	3.85	<10	<10
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<2	<1	<1	<10	<5	<1	<1	1.02	<1	<1	<1	<1	<5	1.39	<5	<5	<1	<5	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<1	<1	<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<1	<1	<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
PFDoS (79780-39-5)	ng/l				<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<1	<1	<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
PFecHS (133201-07-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	1.39	<5	<5	<1	<5	<5
PFEESA (113507-82-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	1.33	<5	<5	<1	<5	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<2	<1	<1	<10	<5	1.71	<1	3.9	3.28	2.73	2.74	4.01	8.2	4.63	6.64	6.06	1.51	<5	6.73
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<2	<1	<1	<10	<5	<1	<1	<1	<1	<1	<1	<1	<5	1.22	<5	<5	<1	<5	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<2	<1	<1	<10	<5	2.42	2.13	3.32	5.98	3.64	3.94	4.96	6.95	5.12	5.83	5.36	2.27	6.42	5.31
PFHxDA (67905-19-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	2.1	<5	<5	<1	<5	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<2	<1	<1	<10	<5	<1	<1	2.88	3.35	1.2	1.26	1.35	5.15	2.59	<5	<5	1.48	<5	<5
PFMOBA (863090-89-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	1.62	<5	<5	<1	<5	<5
PFMOPrA (377-73-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	1.54	<5	<5	<1	<5	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<2	<1	<1	<10	<5	<1	<1	<1	<1	<1	<1	<1	<5	1.74	<5	<5	<1	<5	<5
PFNS (68259-12-1)	ng/l				<10	<5	<1	<1	<1	<1	<1	<1	<1	<5	1.34	<5	<5	<1	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<1.3	<0.65	<0.65	<7.5	<3.25	0.861	1.12	1.11	2.03	1.21	1.21	2.22	6.27	3.44	5.01	5.36	1.3	4.13	4.83
PFODA (16517-11-6)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	2.44	<5	<5	<1	<5	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<4	<2	<2	<20	<10	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	2.94	<1.5	1.32	<10	<5	3.98	3.71	4.97	4.34	4.7	5.17	6.28	13.1	7.63	6.81	8.05	4.19	9.32	11.2
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<2	<1	<1	<10	<5	<1	<1	<1	<1	<1	<1	<1	<5	1.13	<5	<5	<1	<5	<5
PFTeA (376-06-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	2.21	<5	<5	<1	<5	<5
PFTrDA (72629-94-8)	ng/l				<10	<5	<3	<3	<3	<3	<3	<3	<3	<15	<3	<15	<15	<3	<15	<15
PFTrDS (174675-49-1)	ng/l				<10	<5	<1	<1	<1	<1	<1	<1	<1	<5	1.62	<5	<5	<1	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<1	<1	<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
PFUnDS (749786-16-1)	ng/l				<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<2	<10	<10	<2	<10	<10
Total PFOS	ng/l	<1.3	<0.65	<0.65	<6.5	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	7.3	2.68	<3.25	<3.25	1.93	<3.25	3.96
Sum of PFAS																				
Sum of 20 PFAS	ng/l	2.94	0.00	1.32	0.00	0.00	12.36	9.92	22.08	23.31	18.28	17.75	28.20	61.87	43.04	24.29	24.83	16.53	19.87	32.03
Sum of Total PFAS	ng/l	2.94	0.00	1.32	0.00	0.00	12.36	9.92	22.08	23.31	18.28	17.75	28.20	74.70	129.48	40.39	24.83	18.46	19.87	35.99
Average Sum of 20 PFAS	ng/l	18.87																		
Average Total PFAS	ng/l	25.26																		
Min Sum of 20 PFAS	ng/l	0.00																		
Max Sum of 20 PFAS	ng/l	61.87																		

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GW16																		
		10/02/22	10/02/22	15/03/22	21/03/23	21/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	23/11/23	03/04/24	03/04/24	16/07/24	16/07/24	25/09/24	25/09/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
3:3 FTCA (356-02-5)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
4:2 FTS (757124-72-4)	ng/l				<20	<10	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
5:3 FTCA (914637-49-3)	ng/l				<200	<100	<5	<5	<5	<5	<5	<5	<5	<25	<25	<5	<25	<5	<5	<25
6:2 FTAB (34455-29-3)	ng/l										<10	<10	<10	234	<50	<10	<50	<10	<10	<50
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	2.8	<5	20.6	18.8	16.5	16.3	13.6	10.8	9.78	10.3	13.1	200	20.4	15.2	10.9	8.02	10.7	12.7
7:3 FTCA (812-70-4)	ng/l						<5	<5	<5	<5	<5	<5	<5	<25	<25	<5	<25	<5	<5	<25
8:2 FTS (39108-34-4)	ng/l				<20	<10	<2	<2	<2	<2	<2	<2	<2	13	<10	<2	<10	<2	<2	<10
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
ADONA (919005-14-4)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
Branched PFOS	ng/l	<3.25	2.37	<3.25	9.63	6.65	6.38	6.49	6.09	3.55	7.5	7.9	<6	<10.5	8.25	6.29	6.72	4.45	7.35	<3.25
EtFOSAA (2991-50-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
EtFOSE (1691-99-2)	ng/l						<10	<10	<10	<10	<10	<10	<10	<50	<50	<10	<50	<10	<10	<50
FBSA (30334-69-1)	ng/l						<1	1.16	1.33	1.5	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
FHxSA (41997-13-1)	ng/l						<1	<1	<1	<1	<1	<1	1.24	5.24	<5	<1	<5	<1	<1	<5
HFPO-DA (13252-13-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
HFPO-TA (13252-14-7)	ng/l						<5	<5	<5	<5	<5	<5	<5	<25	<25	<5	<25	<5	<5	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<3.25	0.86	<3.25	8.47	5.35	2.42	7.95	1.27	1.87	1.87	2.12	<2	<6.5	<3.25	1.86	<3.25	1.16	1.68	<3.25
MeFOSAA (2355-31-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
MeFOSE (24448-09-7)	ng/l						<10	<10	<10	<10	<10	<10	<10	<50	<50	<10	<50	<10	<10	<50
N-EtFOSA (4151-50-2)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
NFDHA (151772-58-6)	ng/l						<3	<3	<3	<3	<3	<3	<3	<15	<15	<3	<15	<3	<3	<15
N-MeFOSA (31506-32-8)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	14.3	10.3	15.3	70.4	36.1	20.2	31.9	30.7	22.1	29	23.3	28.5	39.2	31.6	28.5	29	18.7	26.3	19.5
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<1	<5	<10	<5	<1	<1	1.89	1.74	1.45	1.28	1.79	<5	<5	1.96	5.84	1.35	1.93	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<1	<5	<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<1	<5	<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
PFDoS (79780-39-5)	ng/l				<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<1	<5	<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
PFecHS (133201-07-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFEESA (113507-82-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	7.24	6.14	6.75	23.1	20.4	13.7	14.5	14.3	11	11.4	11.8	16	19.4	17.5	14.2	15.9	10.5	15.4	10.9
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<1	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	19.2	16.2	20.6	52.7	50.2	41.9	38.8	46.1	33.6	35.2	37.1	35.1	49.5	49	41.9	36.6	25	34.3	30.9
PFHxDA (67905-19-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	3.83	5.02	13.5	9.63	11.2	9.91	8.62	13.9	7.66	7.9	8.15	12.3	11.4	9.03	11.4	5.74	8.54	9.76
PFMOBA (863090-89-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFMOPrA (377-73-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<1	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFNS (68259-12-1)	ng/l				<10	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<3.25	1.61	<3.25	12.2	6.25	3.89	3.74	3.94	2.75	3.3	3.32	5.55	11.5	8.19	4.33	<3.25	2.72	8.29	4.81
PFODA (16517-11-6)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<2	<10	<20	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	30.4	22.5	28.2	67.7	46.2	106	101	106	68.9	84.8	88.3	90.9	94.3	93.9	99.3	84	63.4	87	64.3
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<1	<5	<10	<5	<1	<1	1.56	1.26	1.07	1.15	1.38	<5	<5	1.78	<5	1.45	1.7	<5
PFTeA (376-06-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFTrDA (72629-94-8)	ng/l				<10	<5	<3	<3	<3	<3	<3	<3	<3	<15	<15	<3	<15	<3	<3	<15
PFTrDS (174675-49-1)	ng/l				<10	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<5	<1	<1	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<1	<5	<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
PFUnDS (749786-16-1)	ng/l				<10	<5	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<10	<2	<2	<10
Total PFOS	ng/l	<3.25	3.23	<3.25	18.1	12	8.8	14.4	7.35	5.42	9.37	10	<6	<10.5	8.25	8.14	6.72	5.61	9.03	<3.25
Sum of PFAS																				
Sum of 20 PFAS	ng/l	71.14	63.81	75.87	257.70	180.78	205.69	214.25	220.46	160.67	183.25	184.15	187.37	226.20	219.84	209.14	189.46	134.47	192.49	140.17
Sum of Total PFAS	ng/l	71.14	69.84	75.87	296.40	211.58	230.99	246.15	242.75	178.39	202.40	204.47	201.71	678.44	248.49	232.49	207.08	148.10	212.22	152.87
Average Sum of 20 PFAS	ng/l	174.57																		
Average Total PFAS	ng/l	216.39																		
Min Sum of 20 PFAS	ng/l	63.81																		
Max Sum of 20 PFAS	ng/l	257.70																		

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GW17																		
		17/09/21	01/10/21	18/10/21	21/03/23	21/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	23/11/23	03/04/24	03/04/24	16/07/24	16/07/24	25/09/24	25/09/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
3:3 FTCA (356-02-5)	ng/l						<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
4:2 FTS (757124-72-4)	ng/l				<10	<20	<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
5:3 FTCA (914637-49-3)	ng/l				<100	<200	<5	<50	<5	<5	<5	<50	<5	<5	<50	<50	<5	<5	<50	<50
6:2 FTAB (34455-29-3)	ng/l										<10	<100	<10	<10	<100	<100	<10	<10	<100	<100
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	<1	<1	<5	<10	<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
7:3 FTCA (812-70-4)	ng/l						<5	<50	<5	<5	<5	<50	<5	<5	<50	<50	<5	<5	<50	<50
8:2 FTS (39108-34-4)	ng/l				<10	<20	<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
ADONA (919005-14-4)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
Branched PFOS	ng/l	<3.25	<0.65	<0.65	<3.25	<6.5	1.53	<6.5	1.01	0.759	<0.65	<6.5	<0.65	1	<6.5	<6.5	<0.65	<0.65	<6.5	<6.5
EtFOSAA (2991-50-6)	ng/l						<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
EtFOSE (1691-99-2)	ng/l						<10	<100	<10	<10	<10	<100	<10	<10	<100	<100	<10	<10	<100	<100
FBSA (30334-69-1)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
FHxSA (41997-13-1)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
HFPO-DA (13252-13-6)	ng/l						<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
HFPO-TA (13252-14-7)	ng/l						<5	<50	<5	<5	<5	<50	<5	<5	<50	<50	<5	<5	<50	<50
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<3.25	<0.65	<0.65	<3.25	<6.5	1.43	<6.5	1.42	0.885	<0.65	<6.5	<0.65	0.826	<6.5	<6.5	<0.65	<0.65	<6.5	<6.5
MeFOSAA (2355-31-9)	ng/l						<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
MeFOSE (24448-09-7)	ng/l						<10	<100	<10	<10	<10	<100	<10	<10	<100	<100	<10	<10	<100	<100
N-EtFOSA (4151-50-2)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
NFDHA (151772-58-6)	ng/l						<3	<30	<3	<3	<3	<30	<3	<3	<30	<30	<3	<3	<30	<30
N-MeFOSA (31506-32-8)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	14.3	<4.5	<2	<10	<40	7.45	<20	13.1	12.1	18.2	<20	15.8	17.3	<20	28.2	5.9	5.91	<20	<20
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<1	<1	<5	<10	<1	<10	<1	<1	<1	<10	1.34	1.22	<10	<10	<1	<1	<10	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<1	<1	<5	<10	<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<1	<1	<5	<10	<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
PFDoS (79780-39-5)	ng/l				<5	<10	<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<1	<1	<5	<10	<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
PFecHS (133201-07-7)	ng/l						<1	<10	<1	<1	<1	<10	1.36	2.92	<10	<10	<1	1.01	<10	<10
PFEESA (113507-82-7)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	7.24	<1	<1	<5	<10	<1	<10	3.91	3.56	5.33	<10	5.47	4.94	<10	<10	1.24	1.1	<10	<10
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<1	<1	<5	<10	<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	19.2	1.03	<1	<5	<10	1.14	<10	4.39	4.41	6.21	<10	5.78	5.4	<10	<10	1.83	1.77	<10	<10
PFHxDA (67905-19-5)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	<1	<1	<5	<10	<1	<10	<1	<1	<1	<10	<1	1.14	<10	<10	<1	<1	<10	<10
PFMOBA (863090-89-5)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFMOPrA (377-73-1)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<1	<1	<5	<10	<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFNS (68259-12-1)	ng/l				<5	<10	<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<3.25	<0.65	<0.65	<3.25	<13	<0.65	<6.5	2.49	2.31	2.41	<6.5	2.38	2.2	<6.5	<6.5	1.15	1.04	<6.5	<6.5
PFODA (16517-11-6)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<2	<2	<10	<20	<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	30.4	2.39	2.55	<5	<10	3.28	<10	7.97	7.82	7.16	<10	9.25	8.47	<10	<10	3.99	3.73	<10	<10
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<1	<1	<5	<10	<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFTeA (376-06-7)	ng/l						<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFTrDA (72629-94-8)	ng/l				<5	<10	<3	<30	<3	<3	<3	<30	<3	<3	<30	<30	<3	<3	<30	<30
PFTrDS (174675-49-1)	ng/l				<5	<10	<1	<10	<1	<1	<1	<10	<1	<1	<10	<10	<1	<1	<10	<10
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<1	<1	<5	<10	<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
PFUnDS (749786-16-1)	ng/l				<5	<10	<2	<20	<2	<2	<2	<20	<2	<2	<20	<20	<2	<2	<20	<20
Total PFOS	ng/l	<3.25	<0.65	<0.65	<3.25	<6.5	2.96	<6.5	2.44	1.64	<0.65	<6.5	<0.65	1.83	<6.5	<6.5	<0.65	<0.65	<6.5	<6.5
Sum of PFAS																				
Sum of 20 PFAS	ng/l	71.14	3.42	2.55	0.00	0.00	14.83	0.00	34.30	31.84	39.31	0.00	40.02	42.50	0.00	28.20	14.11	13.55	0.00	0.00
Sum of Total PFAS	ng/l	71.14	3.42	2.55	0.00	0.00	17.79	0.00	36.73	33.48	39.31	0.00	41.38	47.25	0.00	28.20	14.11	14.56	0.00	0.00
Average Sum of 20 PFAS	ng/l	17.67																		
Average Total PFAS	ng/l	18.42																		
Min Sum of 20 PFAS	ng/l	0.00																		
Max Sum of 20 PFAS	ng/l	71.14																		

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GW18																			
		17/09/21	01/10/21	18/10/21	21/03/23	21/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	23/11/23	02/04/24	02/04/24	15/07/24	15/07/24	25/09/24	25/09/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
3:3 FTCA (356-02-5)	ng/l						<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
4:2 FTS (757124-72-4)	ng/l				<20	<50	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
5:3 FTCA (914637-49-3)	ng/l				<200	<500	<5	<50	<5	<5	<25	<5	<50	<5	<50	<5	<50	<5	<125	<125
6:2 FTAB (34455-29-3)	ng/l										<50	<10	<100	<10	<100	<10	<100	<10	<250	<250
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	<5	<1	<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
7:3 FTCA (812-70-4)	ng/l						<5	<50	<5	<5	<25	<5	<50	<5	<50	<5	<50	<5	<125	<125
8:2 FTS (39108-34-4)	ng/l				<20	<50	<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
ADONA (919005-14-4)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<75	<1	<25	<25
Branched PFOS	ng/l	<3.25	<3.25	<0.65	<6.5	<16.3	<0.65	<6.5	<0.65	<0.65	<3.25	<0.65	<6.5	<0.65	<6.5	<0.65	<6.5	<0.65	<16.3	<16.3
EtFOSAA (2991-50-6)	ng/l						<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
EtFOSE (1691-99-2)	ng/l						<10	<100	<10	<10	<50	<10	<100	<10	<100	<10	<100	<10	<250	<250
FBSA (30334-69-1)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
FHxSA (41997-13-1)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
HFPO-DA (13252-13-6)	ng/l						<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
HFPO-TA (13252-14-7)	ng/l						<5	<50	<5	<5	<25	<5	<50	<5	<50	<5	<50	<5	<125	<125
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<3.25	<3.25	<0.65	<6.5	<16.3	<0.65	<6.5	<0.65	<0.65	<3.25	<0.65	<6.5	<0.65	<6.5	0.945	<6.5	<0.65	<16.3	<16.3
MeFOSAA (2355-31-9)	ng/l						<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
MeFOSE (24448-09-7)	ng/l						<10	<100	<10	<10	<50	<10	<100	<10	<100	<10	<100	<10	<250	<250
N-EtFOSA (4151-50-2)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
NFDHA (151772-58-6)	ng/l						<3	<30	<3	<3	<15	<3	<30	<3	<30	<3	<30	<3	<75	<75
N-MeFOSA (31506-32-8)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<10	<10	<2	<20	<65	<2	<20	<2	<2	<10	<2	<20	2.51	<20	<2	<20	<2	<50	<50
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<5	<1	<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<5	<1	<10	<25	<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<5	<1	<10	<25	<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
PFDoS (79780-39-5)	ng/l				<10	<25	<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<5	<1	<10	<25	<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
PFecHS (133201-07-7)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFEESA (113507-82-7)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<5	<5	<1	<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<5	<1	<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<5	<5	<1	<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFHxDA (67905-19-5)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	1.23	<10	<1	<25	<25
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	<5	<1	<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFMOBA (863090-89-5)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFMOPrA (377-73-1)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<100	<1	<25	<25
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<5	<1	<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFNS (68259-12-1)	ng/l				<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<3.25	<3.25	<0.65	<6.5	<16.3	<0.65	<6.5	<0.85	<0.65	<3.25	<0.65	<6.5	<0.65	<6.5	0.947	<6.5	<0.65	<16.3	<16.3
PFODA (16517-11-6)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	1.19	<10	<1	<25	<25
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<10	<2	<20	<50	<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<5	<5	<1	<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<5	<1	<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFTeA (376-06-7)	ng/l						<1	<10	<1	<1	<5	<1	<10	<1	<10	1.17	<10	<1	<25	<25
PFTrDA (72629-94-8)	ng/l				<10	<25	<3	<30	<3	<3	<15	<3	<30	<3	<30	<3	<30	<3	<75	<75
PFTrDS (174675-49-1)	ng/l				<10	<25	<1	<10	<1	<1	<5	<1	<10	<1	<10	<1	<10	<1	<25	<25
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<5	<1	<10	<25	<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
PFUnDS (749786-16-1)	ng/l				<10	<25	<2	<20	<2	<2	<10	<2	<20	<2	<20	<2	<20	<2	<50	<50
Total PFOS	ng/l	<3.25	<3.25	<0.65	<6.5	<16.3	<0.65	<6.5	<0.65	<0.65	<3.25	<0.65	<6.5	<0.65	<6.5	0.945	<6.5	<0.65	<16.3	<16.3
Sum of PFAS																				
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0.00	1.89	0.00	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.51	0.00	6.43	0.00	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l	0.23																		
Average Total PFAS	ng/l	0.47																		
Min Sum of 20 PFAS	ng/l	0.00																		
Max Sum of 20 PFAS	ng/l	2.51																		

North Runway/APEC 5 Groundwater Monitoring Results

Parameter	Unit	GW19																		
		17/09/21	01/10/21	18/10/21	21/03/23	21/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	23/11/23	02/04/24	02/04/24	15/07/24	15/07/24	25/09/24	25/09/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
3:3 FTCA (356-02-5)	ng/l						<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
4:2 FTS (757124-72-4)	ng/l				<10	<50	<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
5:3 FTCA (914637-49-3)	ng/l				<100	<500	<5	<5	<5	<5	<5	<5	<50	<5	<50	<50	<5	<5	<125	<125
6:2 FTAB (34455-29-3)	ng/l										<10	<10	<100	<10	<100	<100	<10	<10	<250	<250
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	<5	<5	<5	<25	<1	<1	<1	<1	<1	<1	<10	<1	21.2	<10	<1	<1	<25	<25
7:3 FTCA (812-70-4)	ng/l						<5	<5	<5	<5	<5	<5	<50	<5	<50	<50	<5	<5	<125	<125
8:2 FTS (39108-34-4)	ng/l				<10	<50	<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
ADONA (919005-14-4)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
Branched PFOS	ng/l	<3.25	<3.25	<3.25	<3.25	<16.3	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<6.5	<0.65	<6.5	<6.5	<0.65	<0.65	<16.3	<16.3
EtFOSAA (2991-50-6)	ng/l						<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
EtFOSE (1691-99-2)	ng/l						<10	<10	<10	<10	<10	<10	<100	<10	<100	<100	<10	<10	<250	<250
FBSA (30334-69-1)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
FHxSA (41997-13-1)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
HFPO-DA (13252-13-6)	ng/l						<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
HFPO-TA (13252-14-7)	ng/l						<5	<5	<5	<5	<5	<5	<50	<5	<50	<50	<5	<5	<125	<125
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<3.25	<3.25	<3.25	<3.25	<16.3	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<6.5	<0.65	<6.5	<6.5	<0.65	<0.65	<16.3	<16.3
MeFOSAA (2355-31-9)	ng/l						<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
MeFOSE (24448-09-7)	ng/l						<10	<10	<10	<10	<10	<10	<100	<10	<100	<100	<10	<10	<250	<250
N-EtFOSA (4151-50-2)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
NFDHA (151772-58-6)	ng/l						<3	<3	<3	<3	<3	<3	<30	<3	<30	<30	<3	<3	<75	<75
N-MeFOSA (31506-32-8)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<10	<10	<10	<10	<190	<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<5	<5	<5	<25	<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<5	<5	<5	<25	<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<5	<5	<5	<25	<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
PFDoS (79780-39-5)	ng/l				<5	<25	<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<5	<5	<5	<25	<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
PFecHS (133201-07-7)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFEESA (113507-82-7)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<5	<5	<5	<5	<25	<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<5	<5	<5	<25	<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<5	<5	<5	<5	<25	<1	<1	<1	<1	1.49	<1	<10	1.15	<10	<10	<1	<1	<25	<25
PFHxDA (67905-19-5)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	<5	<5	<5	<25	<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFMOBA (863090-89-5)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFMOPrA (377-73-1)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<5	<5	<5	<25	<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFNS (68259-12-1)	ng/l				<5	<25	<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<3.25	<3.25	<3.25	<3.25	<20	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<6.5	0.855	<6.5	<6.5	<0.65	<0.65	<16.3	<16.3
PFODA (16517-11-6)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<10	<10	<10	<50	<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<5	<5	<5	<5	<25	<1	<1	<1	<1	1.89	<1	<10	2.31	<10	<10	<1	<1	<25	<25
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<5	<5	<5	<25	<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFTeA (376-06-7)	ng/l						<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFTrDA (72629-94-8)	ng/l				<5	<25	<3	<3	<3	<3	<3	<3	<30	<3	<30	<30	<3	<3	<75	<75
PFTrDS (174675-49-1)	ng/l				<5	<25	<1	<1	<1	<1	<1	<1	<10	<1	<10	<10	<1	<1	<25	<25
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<5	<5	<5	<25	<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
PFUnDS (749786-16-1)	ng/l				<5	<25	<2	<2	<2	<2	<2	<2	<20	<2	<20	<20	<2	<2	<50	<50
Total PFOS	ng/l	<3.25	<3.25	<3.25	<3.25	<16.3	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<6.5	<0.65	<6.5	<6.5	<0.65	<0.65	<16.3	<16.3
Sum of PFAS																				
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.38	0.00	0.00	4.32	0.00	0.00	0.00	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.38	0.00	0.00	4.32	21.20	0.00	0.00	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l	0.41																		
Average Total PFAS	ng/l	1.52																		
Min Sum of 20 PFAS	ng/l	0.00																		
Max Sum of 20 PFAS	ng/l	4.32																		

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH1A															
		09/02/22	09/02/22	16/03/22	16/03/22	21/04/22	21/04/22	24/05/22	24/05/22	24/06/22	24/06/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l																
3:3 FTCA (356-02-5)	ng/l																
4:2 FTS (757124-72-4)	ng/l			<10	<10	<20	<10	<10	<10	<20	<20	<20	<20	<10	<2	<10	<10
5:3 FTCA (914637-49-3)	ng/l			<100	<100	<200	<100	<100	<100	<200	<200	<200	<200	<100	<20	<100	<100
6:2 FTAB (34455-29-3)	ng/l																
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	1.31	<5	<5
7:3 FTCA (812-70-4)	ng/l																
8:2 FTS (39108-34-4)	ng/l			<10	<10	<20	<10	<10	<10	<20	<20	<20	<20	<10	<2	<10	<10
9Cl-PF3ONS (756426-58-1)	ng/l																
ADONA (919005-14-4)	ng/l																
Branched PFOS	ng/l	<0.65	<6.5	<3.25	<3.25	<6.5	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<3.25	1.11	<3.25	<3.25
EtFOSAA (2991-50-6)	ng/l																
EtFOSE (1691-99-2)	ng/l																
FBSA (30334-69-1)	ng/l																
FHxSA (41997-13-1)	ng/l																
HFPO-DA (13252-13-6)	ng/l																
HFPO-TA (13252-14-7)	ng/l																
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<6.5	<3.25	<3.25	<6.5	<6.5	9.95	14.4	<6.5	<6.5	<6.5	<6.5	<3.25	0.839	<3.25	<3.25
MeFOSAA (2355-31-9)	ng/l																
MeFOSE (24448-09-7)	ng/l																
N-EtFOSA (4151-50-2)	ng/l																
NFDHA (151772-58-6)	ng/l																
N-MeFOSA (31506-32-8)	ng/l																
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<2	<20	<10	<10	<30	<35	<15	<26	<20	<20	642	33.7	<10	<2	<10	<10
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFDoS (79780-39-5)	ng/l			<15	<15	<10	<10	<10	<10	<10	<10	<10	<10	<5	<1	<5	<5
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFecHS (133201-07-7)	ng/l																
PFEESA (113507-82-7)	ng/l																
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	1.32	<5	<5
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	2.13	<5	<5
PFHxDA (67905-19-5)	ng/l																
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFMOBA (863090-89-5)	ng/l																
PFMOPrA (377-73-1)	ng/l																
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFNS (68259-12-1)	ng/l			<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<1.8	<10.5	<6	<6	<16	<10	16.7	15.5	<6.5	<6.5	<17.5	<15.5	4.02	2.74	<3.25	5.36
PFODA (16517-11-6)	ng/l																
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<20	<10	<10	<20	<20	<10	<10	<20	<20	<20	<20	<10	<2	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	3.64	<5	<5
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFTeA (376-06-7)	ng/l																
PFTrDA (72629-94-8)	ng/l			<10	<10	<10	<10	<5	<5	<20	<20	<10	<10	<5	<1	<5	<5
PFTrDS (174675-49-1)	ng/l			<15	<15	<10	<10	<25	<25	<10	<10	<10	<10	<5	<1	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<10	<5	<5	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
PFUnDS (749786-16-1)	ng/l			<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<5	<1	<5	<5
Total PFOS	ng/l	<0.65	<6.5	<3.25	<3.25	<6.5	<6.5	9.95	14.4	<6.5	<6.5	<6.5	<6.5	<3.25	1.95	<3.25	<3.25
Sum of PFAS																	
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	26.65	29.90	0.00	0.00	642.00	33.70	4.02	11.78	0.00	5.36
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	36.60	44.30	0.00	0.00	642.00	33.70	4.02	15.04	0.00	5.36
Average Sum of 20 PFAS	ng/l	30.86															
Average Total PFAS	ng/l	33.11															
Min Sum of 20 PFAS	ng/l	0.00															
Max Sum of 20 PFAS	ng/l	642.00															

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH1A													
		31/05/23	31/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	01/10/24	01/10/24	12/12/24	12/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
3:3 FTCA (356-02-5)	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
4:2 FTS (757124-72-4)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	1.19	<5	<25
5:3 FTCA (914637-49-3)	ng/l	<10	<10	<50	<5	<25	<5	<25	<5	<5	<5	<25	<5	<25	<125
6:2 FTAB (34455-29-3)	ng/l					<50	<10	<50	<10	<10	<10	<50	<10	<50	<250
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
7:3 FTCA (812-70-4)	ng/l	<10	<10	<50	<5	<25	<5	<25	<5	<5	<5	<25	<5	<25	<125
8:2 FTS (39108-34-4)	ng/l	<10	<10	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
9Cl-PF3ONS (756426-58-1)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
ADONA (919005-14-4)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
Branched PFOS	ng/l	<1.3	<1.3	<6.5	<0.65	<3.25	1.13	<3.25	0.915	1.19	1.22	<3.25	<0.65	<3.25	<16.3
EtFOSAA (2991-50-6)	ng/l	<4	<4	<20	2.72	<10	<2	<10	<2	<2	<2	<10	4.01	<10	<50
EtFOSE (1691-99-2)	ng/l	<20	<20	<100	<10	<50	<10	<50	<10	<10	<10	<50	<10	<50	<250
FBSA (30334-69-1)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
FHxSA (41997-13-1)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
HFPO-DA (13252-13-6)	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
HFPO-TA (13252-14-7)	ng/l	<10	<10	<50	<5	<25	<5	<25	<5	<5	<5	<25	<5	<25	<125
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<1.3	<1.3	<6.5	<0.65	<3.25	<0.65	<3.25	0.718	<0.65	<0.65	<3.25	<0.65	<3.25	<16.3
MeFOSAA (2355-31-9)	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
MeFOSE (24448-09-7)	ng/l	<20	<20	<100	<10	<50	<10	<50	<10	<10	<10	<50	<10	<50	<250
N-EtFOSA (4151-50-2)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
NFDHA (151772-58-6)	ng/l	<6	<6	<30	<3	<15	<3	<15	<3	<3	<3	<15	<3	<15	<75
N-MeFOSA (31506-32-8)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<4	<4	<20	7.21	<10	10.3	17.4	9.71	6.88	5.21	<10	10.7	<10	<50
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<2	<2	<10	<1	<5	1.1	<5	<1	<1	<1	<5	1.14	<5	<25
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
PFDoS (79780-39-5)	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
PFecHS (133201-07-7)	ng/l	<2	<2	<10	2.72	<5	2.55	13	2.13	2.23	2.06	<5	1.97	<5	<25
PFEESA (113507-82-7)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<2	<2	<10	1.57	<5	1.73	<5	1.62	1.43	1.66	<5	1.8	<5	<25
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<2	<2	<10	3.22	<5	3.39	<5	3.38	3.93	3.77	<5	2.55	<5	<25
PFHxDA (67905-19-5)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<2	<2	<10	<1	<5	1.4	<5	<1	1.24	1.24	<5	<1	<5	<25
PFMOBA (863090-89-5)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFMOPrA (377-73-1)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFNS (68259-12-1)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<1.3	<1.3	<6.5	3.31	<3.25	2.82	5.75	2.95	2.41	2.67	<5	3.4	<3.25	<16.3
PFODA (16517-11-6)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<2	<2	<10	4.67	<5	5.88	7.5	5.38	4.5	3.9	5.28	3.31	<5	<25
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFTeA (376-06-7)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFTrDA (72629-94-8)	ng/l	<5	<5	<30	<3	<15	<3	<15	<3	<3	<3	<15	<3	<15	<75
PFTrDS (174675-49-1)	ng/l	<2	<2	<10	<1	<5	<1	<5	<1	<1	<1	<5	<1	<5	<25
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
PFUnDS (749786-16-1)	ng/l	<4	<4	<20	<2	<10	<2	<10	<2	<2	<2	<10	<2	<10	<50
Total PFOS	ng/l	<1.3	<1.3	<6.5	<0.65	<3.25	1.13	<3.25	1.63	1.19	1.22	<3.25	<0.65	<3.25	<16.3
Sum of PFAS															
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	19.98	0.00	27.75	30.65	24.67	21.58	19.67	5.28	22.90	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.00	25.42	0.00	31.43	43.65	28.43	25.00	22.95	5.28	30.07	0.00	0.00
Average Sum of 20 PFAS	ng/l														
Average Total PFAS	ng/l														
Min Sum of 20 PFAS	ng/l														
Max Sum of 20 PFAS	ng/l														

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH5															
		12/11/21	12/11/21	09/02/22	09/02/22	16/03/22	16/03/22	21/04/22	21/04/22	24/05/22	24/05/22	24/06/22	24/06/22	20/09/22	20/09/22	15/11/22	15/11/22
11Cl-PF3OUdS (763051-92-9)	ng/l																
3:3 FTCA (356-02-5)	ng/l																
4:2 FTS (757124-72-4)	ng/l	<20	<2			<10	<10	<20	<20	<10	<10	<100	<20	<10	<20	<2	<20
5:3 FTCA (914637-49-3)	ng/l	<200	<20			<100	<100	<200	<200	<100	<100	<1000	<200	<100	<200	<20	<200
6:2 FTAB (34455-29-3)	ng/l																
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
7:3 FTCA (812-70-4)	ng/l																
8:2 FTS (39108-34-4)	ng/l	<20	<2			<10	<10	<20	<20	<10	<10	<100	<20	<10	<20	<2	<20
9Cl-PF3ONS (756426-58-1)	ng/l																
ADONA (919005-14-4)	ng/l																
Branched PFOS	ng/l	<6.5	<0.65	<3.25	<3.25	<3.25	<3.25	<6.5	<6.5	<3.25	<3.25	<32.5	<6.5	<3.25	<6.5	0.705	<6.5
EtFOSAA (2991-50-6)	ng/l																
EtFOSE (1691-99-2)	ng/l																
FBSA (30334-69-1)	ng/l																
FHxSA (41997-13-1)	ng/l																
HFPO-DA (13252-13-6)	ng/l																
HFPO-TA (13252-14-7)	ng/l																
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<6.5	<0.65	<3.25	<3.25	<3.25	<3.25	<6.5	<6.5	3.67	3.65	<32.5	<6.5	<3.25	<6.5	0.927	<6.5
MeFOSAA (2355-31-9)	ng/l																
MeFOSE (24448-09-7)	ng/l																
N-EtFOSA (4151-50-2)	ng/l																
NFDHA (151772-58-6)	ng/l																
N-MeFOSA (31506-32-8)	ng/l																
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	23.1	<2	<10	<10	<10	<10	<42	<37	<10	<10	<100	<20	<23	<20	<2	<20
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFDoS (79780-39-5)	ng/l					<15	<15	<10	<10	<40	<40	<50	<10	<10	<10	<1	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFecHS (133201-07-7)	ng/l																
PFEESA (113507-82-7)	ng/l																
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	1.13	<10
PFHxDA (67905-19-5)	ng/l																
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFMOBA (863090-89-5)	ng/l																
PFMOPrA (377-73-1)	ng/l																
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFNS (68259-12-1)	ng/l					<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<6.5	<0.65	<3.25	<6	<4	<3.25	<12	<12	3.67	<3.25	<32.5	<6.5	<3.25	<13	0.993	<6.5
PFODA (16517-11-6)	ng/l																
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<2	<10	<10	<10	<10	<20	<20	<10	<10	<100	<20	<10	<20	<2	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<10	<1	<20	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	3.3	<10
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFTeA (376-06-7)	ng/l																
PFTrDA (72629-94-8)	ng/l					<10	<10	<10	<10	<15	<15	<50	<20	<10	<10	<1	<10
PFTrDS (174675-49-1)	ng/l					<15	<15	<10	<10	<40	<40	<50	<10	<10	<10	<1	<10
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<10	<1	<5	<5	<5	<5	<10	<10	<5	<5	<50	<10	<5	<10	<1	<10
PFUnDS (749786-16-1)	ng/l					<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<1	<10
Total PFOS	ng/l	<6.5	<0.65	<3.25	<3.25	<3.25	<3.25	<6.5	<6.5	3.67	3.65	<32.5	<6.5	<3.25	<6.5	1.63	<6.5
Sum of PFAS																	
Sum of 20 PFAS	ng/l	23.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.34	3.65	0.00	0.00	0.00	0.00	7.05	0.00
Sum of Total PFAS	ng/l	23.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.01	7.30	0.00	0.00	0.00	0.00	8.69	0.00
Average Sum of 20 PFAS	ng/l	3.80															
Average Total PFAS	ng/l	4.29															
Min Sum of 20 PFAS	ng/l	0.00															
Max Sum of 20 PFAS	ng/l	23.10															

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH5															
		14/02/23	14/02/23	31/05/23	31/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	01/10/24	01/10/24	12/12/24	12/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l			<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
3:3 FTCA (356-02-5)	ng/l			<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
4:2 FTS (757124-72-4)	ng/l	<10	<10	<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
5:3 FTCA (914637-49-3)	ng/l	<100	<100	<5	<50	<5	<5	<5	<5	<5	<25	<5	<5	<25	<25	<50	<50
6:2 FTAB (34455-29-3)	ng/l							<10	<10	<10	<50	<10	<10	<50	<50	<100	<100
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	<5	<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
7:3 FTCA (812-70-4)	ng/l			<5	<50	<5	<5	<5	<5	<5	<25	<5	<5	<25	<25	<50	<50
8:2 FTS (39108-34-4)	ng/l	<10	<10	<10	<10	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
9Cl-PF3ONS (756426-58-1)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
ADONA (919005-14-4)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
Branched PFOS	ng/l	<3.25	<3.25	<0.65	<6.5	<0.65	<0.65	0.778	0.804	1.15	<3.25	0.988	1.07	<3.25	<3.25	<6.5	<6.5
EtFOSAA (2991-50-6)	ng/l			<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
EtFOSE (1691-99-2)	ng/l			<10	<100	<10	<10	<10	<10	<10	<50	<10	<10	<50	<50	<100	<100
FBSA (30334-69-1)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
FHxSA (41997-13-1)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
HFPO-DA (13252-13-6)	ng/l			<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
HFPO-TA (13252-14-7)	ng/l			<5	<50	<5	<5	<5	<5	<5	<25	<5	<5	<25	<25	<50	<50
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<3.25	<3.25	<0.65	<6.5	<0.65	<0.65	<0.65	<0.65	1.17	<3.25	<0.65	0.662	<3.25	<3.25	<6.5	<6.5
MeFOSAA (2355-31-9)	ng/l			<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
MeFOSE (24448-09-7)	ng/l			<10	<100	<10	<10	<10	<10	<10	<50	<10	<10	<50	<50	<100	<100
N-EtFOSA (4151-50-2)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
NFDHA (151772-58-6)	ng/l			<3	<30	<3	<3	<3	<3	<3	<15	<3	<3	<15	<15	<30	<30
N-MeFOSA (31506-32-8)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<10	<10	<2	<20	2.25	2.63	3.27	4.06	<2	10.9	4.04	3.35	<10	<10	<20	<20
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<5	<1	<10	<1	<1	<1	<1	1.15	<5	<1	<1	<5	<5	<10	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<5	<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<5	<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
PFDoS (79780-39-5)	ng/l	<5	<5	<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<5	<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
PFecHS (133201-07-7)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFEESA (113507-82-7)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<5	<5	<1	<10	1.29	1.14	<1	<1	1.05	<5	<1	1.03	<5	<5	<10	<10
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<5	<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<5	<5	<1	<10	1.72	1.86	2.42	2.24	<1	<5	1.59	1.66	<5	<5	<10	<10
PFHxDA (67905-19-5)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	<5	<1	<10	<1	1.01	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFMOBA (863090-89-5)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFMOPrA (377-73-1)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<5	<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFNS (68259-12-1)	ng/l	<5	<5	<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<3.25	<3.25	<0.65	<6.5	1.25	1.3	1.32	1.17	1.1	<3.25	<0.65	<0.65	<3.25	<3.25	<6.5	<6.5
PFODA (16517-11-6)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<10	<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<5	<5	<2	<10	2.82	2.79	3.66	3.95	1.81	<5	1.94	2.14	<5	<5	<10	<10
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<5	<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFTeA (376-06-7)	ng/l			<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFTrDA (72629-94-8)	ng/l	<5	<5	<5	<5	<3	<3	<3	<3	<3	<15	<3	<3	<15	<15	<30	<30
PFTrDS (174675-49-1)	ng/l	<5	<5	<1	<10	<1	<1	<1	<1	<1	<5	<1	<1	<5	<5	<10	<10
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<5	<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
PFUnDS (749786-16-1)	ng/l	<5	<5	<2	<20	<2	<2	<2	<2	<2	<10	<2	<2	<10	<10	<20	<20
Total PFOS	ng/l	<3.25	<3.25	<0.65	<6.5	<0.65	<0.65	0.778	0.804	2.32	<3.25	0.988	1.73	<3.25	<3.25	<6.5	<6.5
Sum of PFAS																	
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	9.33	10.73	11.45	12.22	7.43	10.90	8.56	9.91	0.00	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	9.33	10.73	12.23	13.03	9.75	10.90	9.55	11.64	0.00	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l																
Average Total PFAS	ng/l																
Min Sum of 20 PFAS	ng/l																
Max Sum of 20 PFAS	ng/l																

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH6																	
		12/11/21	12/11/21	09/02/22	09/02/22	16/03/22	16/03/22	21/04/22	21/04/22	24/05/22	24/05/22	24/06/22	24/06/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l																		
3:3 FTCA (356-02-5)	ng/l																		
4:2 FTS (757124-72-4)	ng/l	<2	<2			<10	<10	<20	<10	<10	<10	<2	<10	<20	<20	<2	<2	<10	<10
5:3 FTCA (914637-49-3)	ng/l	<20	<20			<100	<100	<200	<100	<100	<100	<20	<100	<200	<200	<20	<20	<100	<100
6:2 FTAB (34455-29-3)	ng/l																		
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	10.5	5.88	<1	<5	<10	<10	<1	<1	<5	<5
7:3 FTCA (812-70-4)	ng/l																		
8:2 FTS (39108-34-4)	ng/l	<2	<2			<10	<10	<20	<10	<10	<10	<2	<10	<20	<20	<2	<2	<10	<10
9Cl-PF3ONS (756426-58-1)	ng/l																		
ADONA (919005-14-4)	ng/l																		
Branched PFOS	ng/l	<0.65	<0.65	<3.25	<3.25	<3.25	<3.25	<6.5	<3.25	3.95	<3.25	<0.65	<3.25	<6.5	<6.5	<0.65	<0.65	<3.25	<3.25
EtFOSAA (2991-50-6)	ng/l																		
EtFOSE (1691-99-2)	ng/l																		
FBSA (30334-69-1)	ng/l																		
FHxSA (41997-13-1)	ng/l																		
HFPO-DA (13252-13-6)	ng/l																		
HFPO-TA (13252-14-7)	ng/l																		
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<3.25	<3.25	<3.25	<3.25	<6.5	<3.25	51.4	23.2	2.96	3.9	<6.5	<6.5	<0.65	<0.65	<3.25	<3.25
MeFOSAA (2355-31-9)	ng/l																		
MeFOSE (24448-09-7)	ng/l																		
N-EtFOSA (4151-50-2)	ng/l																		
NFDHA (151772-58-6)	ng/l																		
N-MeFOSA (31506-32-8)	ng/l																		
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<2	<2	<10	<10	<10	<10	<44	<13	<20	<10	<3	<10	25	<20	<2	<2	<10	<10
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFDoS (79780-39-5)	ng/l					<15	<15	<10	<5	<10	<40	<1	<5	<10	<10	<1	<1	<5	<5
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFecHS (133201-07-7)	ng/l																		
PFEESA (113507-82-7)	ng/l																		
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFHxDA (67905-19-5)	ng/l																		
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFMOBA (863090-89-5)	ng/l																		
PFMOPrA (377-73-1)	ng/l																		
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFNS (68259-12-1)	ng/l					<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	<0.65	<3.25	<6	<4.5	<4	<13.5	<3.25	11.6	<3.25	<0.65	<3.25	<12	<12	<0.65	<0.65	<3.25	<3.25
PFODA (16517-11-6)	ng/l																		
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<10	<10	<10	<10	<20	<10	<10	<10	<2	<10	<20	<20	<2	<2	<10	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	1.44	<5	<10	<10	<1	<1	<5	<5
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFTeA (376-06-7)	ng/l																		
PFTrDA (72629-94-8)	ng/l					<10	<10	<10	<5	<5	<15	<1	<10	<10	<10	<1	<1	<5	<5
PFTrDS (174675-49-1)	ng/l					<15	<15	<10	<5	<25	<40	<1	<5	<10	<10	<1	<1	<5	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<5	<5	<5	<5	<10	<5	<5	<5	<1	<5	<10	<10	<1	<1	<5	<5
PFUnDS (749786-16-1)	ng/l					<10	<10	<10	<5	<5	<10	<1	<5	<10	<10	<1	<1	<5	<5
Total PFOS	ng/l	<0.65	<0.65	<3.25	<3.25	<3.25	<3.25	<6.5	<3.25	55.4	23.2	2.96	3.9	<6.5	<6.5	<0.65	<0.65	<3.25	<3.25
Sum of PFAS																			
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.00	23.20	4.40	3.90	25.00	0.00	0.00	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132.85	52.28	7.36	7.80	25.00	0.00	0.00	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l	14.63																	
Average Total PFAS	ng/l	43.33																	
Min Sum of 20 PFAS	ng/l	0.00																	
Max Sum of 20 PFAS	ng/l	341.78																	

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH6													
		31/05/23	31/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	01/10/24	01/10/24	12/12/24	12/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	60.2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	<10	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<50	<50	<25	<5	<50	<5	<5	<25	<5	<5	<25	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l					<100	<10	<10	<50	<10	<10	<50	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<50	<50	<25	<5	<50	<5	<5	<25	<5	<5	<25	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<10	<10	<10	<2	<20	<2	<2	<10	<2	<2	12.5	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	15	<1	<1	<1
ADONA (919005-14-4)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
Branched PFOS	ng/l	<6.5	<6.5	<3.25	<0.65	<6.5	<0.65	<0.65	<3.25	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	30	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<100	<100	<50	<10	<100	<10	<10	<50	<10	<10	324	<10	<10	<10
FBSA (30334-69-1)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	<10	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<50	<50	<25	<5	<50	<5	<5	<25	<5	<5	<25	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<6.5	<6.5	<3.25	<0.65	<6.5	<0.65	<0.65	<3.25	<0.65	<0.65	4.46	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	25.8	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<100	<100	<50	<10	<100	<10	<10	<50	<10	<10	278	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<30	<30	<15	<3	<30	<3	<3	<15	<3	<3	<15	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	<10	2	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	11.7	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	57	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	37.9	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	38.2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<10	<10	9.99	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFEESA (113507-82-7)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFHxDA (67905-19-5)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	12	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFNS (68259-12-1)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	20.1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<6.5	<6.5	<3.25	<0.65	<6.5	<0.65	<0.65	<3.25	<0.65	<0.65	4.82	<0.65	<0.65	<0.65
PFODA (16517-11-6)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	10.6	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	<10	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	1.02	<1	<1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	<5	<1	<1	<1
PFTeA (376-06-7)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	33.8	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<5	<5	<15	<3	<30	<3	<3	<15	<3	<3	66.5	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<10	<10	<5	<1	<10	<1	<1	<5	<1	<1	17.8	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	28.9	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<20	<20	<10	<2	<20	<2	<2	<10	<2	<2	54.4	<2	<2	<2
Total PFOS	ng/l	<6.5	<6.5	<3.25	<0.65	<6.5	<0.65	<0.65	<3.25	<0.65	<0.65	4.46	<0.65	<0.65	<0.65
Sum of PFAS															
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	341.78	3.02	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	9.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1148.14	3.02	0.00	0.00
Average Sum of 20 PFAS	ng/l														
Average Total PFAS	ng/l														
Min Sum of 20 PFAS	ng/l														
Max Sum of 20 PFAS	ng/l														

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH7																
		12/11/21	09/02/22	09/02/22	16/03/22	16/03/22	21/04/22	21/04/22	24/05/22	24/05/22	24/06/22	24/06/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l	<20			<20	<20	<20	<20	<20	<10	<20	<20	<20	<20	<2	<2	<2	<2
5:3 FTCA (914637-49-3)	ng/l	<200			<200	<200	<200	<200	<200	<100	<200	<200	<200	<200	<20	<20	<20	<20
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l	<20			<20	<20	<20	<20	<20	<10	<20	<20	<20	<20	<2	5.45	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<6.5	<3.25	<6.5	<6.5	<6.5	<6.5	<0.65	<0.65	<0.65	0.726
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<6.5	<3.25	<6.5	<6.5	<6.5	<6.5	<0.65	<0.65	<0.65	0.686
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<20	<10	<10	<20	<20	<37	<40	<20	<16	<20	<20	<20	<20	<3	<4	41.8	44.3
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	1.52	1.52	1.55	2.57
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l				<30	<20	<10	<10	<80	<10	<10	<10	<10	<10	<1	<1	<1	<1
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	1.08	1.25
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l				<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<6.5	<5	<3.25	<6.5	<7.5	<12.5	<12	<6.5	<12	<6.5	<6.5	<12	<13.5	<0.65	<0.65	<0.65	<0.65
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<10	<10	<20	<20	<20	<20	<20	<10	<20	<20	<20	<20	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	1.9	1.91	42.3	40.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l				<20	<10	<10	<10	<30	<5	<20	<20	<10	<10	<1	<1	<1	<1
PFTrDS (174675-49-1)	ng/l				<30	<30	<10	<10	<80	<25	<10	<10	<10	<10	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<10	<5	<5	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l				<20	<10	<10	<10	<20	<5	<10	<10	<10	<10	<1	<1	<1	<1
Total PFOS	ng/l	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<6.5	<3.25	<6.5	<6.5	<6.5	<6.5	<0.65	<0.65	<0.65	1.41
Sum of PFAS																		
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.42	3.43	86.73	90.13
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.42	8.88	86.73	91.54
Average Sum of 20 PFAS	ng/l	74.41																
Average Total PFAS	ng/l	75.31																
Min Sum of 20 PFAS	ng/l	0.00																
Max Sum of 20 PFAS	ng/l	346.70																

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH7													
		31/05/23	31/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	01/10/24	01/10/24	12/12/24	12/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
3:3 FTCA (356-02-5)	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
4:2 FTS (757124-72-4)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	1.17	<5	<2
5:3 FTCA (914637-49-3)	ng/l	<50	<50	<5	<50	<5	<50	<5	<5	<5	<5	<25	<5	<25	<10
6:2 FTAB (34455-29-3)	ng/l					<10	<100	<10	<10	<10	<10	<50	<10	<50	<20
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
7:3 FTCA (812-70-4)	ng/l	<50	<50	<5	<50	<5	<50	<5	<5	<5	<5	<25	<5	<25	<10
8:2 FTS (39108-34-4)	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
9Cl-PF3ONS (756426-58-1)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
ADONA (919005-14-4)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
Branched PFOS	ng/l	<6.5	<6.5	<0.65	<6.5	<0.65	<6.5	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<3.25	<1.3
EtFOSAA (2991-50-6)	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
EtFOSE (1691-99-2)	ng/l	<100	<100	<10	<100	<10	<100	<10	<10	<10	<10	<50	<10	<50	<20
FBSA (30334-69-1)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
FHxSA (41997-13-1)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
HFPO-DA (13252-13-6)	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
HFPO-TA (13252-14-7)	ng/l	<50	<50	<5	<50	<5	<50	<5	<5	<5	<5	<25	<5	<25	<10
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<6.5	<6.5	<0.65	<6.5	<0.65	<6.5	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<3.25	<1.3
MeFOSAA (2355-31-9)	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
MeFOSE (24448-09-7)	ng/l	<100	<100	<10	<100	<10	<100	<10	<10	<10	<10	<50	<10	<50	<20
N-EtFOSA (4151-50-2)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
NFDHA (151772-58-6)	ng/l	<30	<30	<3	<30	<3	<30	<3	<3	<3	<3	<15	<3	<15	<6
N-MeFOSA (31506-32-8)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	106	114	26	29.7	55.2	65.3	68.2	70.5	42.5	42	27.6	24.9	30.2	26.9
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<10	1.66	<10	1.84	<10	3.21	3.41	1.93	1.77	<5	1.81	<5	<2
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
PFDoS (79780-39-5)	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
PFecHS (133201-07-7)	ng/l	<10	<10	<1	19.8	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFEESA (113507-82-7)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	<10	<1	<10	<1	<10	2.11	2.39	1.38	1.16	<5	1.21	<5	<2
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	26.4	30.7	4.7	<10	11.4	16.8	25.1	26.9	14.4	13.5	11.5	7.82	16.3	8.12
PFHxDA (67905-19-5)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	<10	<1	<10	1.18	<10	<1	1.78	1.08	1.09	<5	<1	<5	<2
PFMOBA (863090-89-5)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFMOPrA (377-73-1)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFNS (68259-12-1)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<6.5	<6.5	<0.65	<6.5	<0.65	<6.5	<0.65	0.906	<0.65	<0.65	<3.25	<0.65	<3.25	<1.3
PFODA (16517-11-6)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	185	202	35.4	36.6	75.6	82.4	120	130	56.4	59.7	42.2	37.9	48.8	38.4
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFTeA (376-06-7)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFTrDA (72629-94-8)	ng/l	<10	<10	<3	<30	<3	<30	<3	<3	<3	<3	<15	<3	<15	<6
PFTrDS (174675-49-1)	ng/l	<10	<10	<1	<10	<1	<10	<1	<1	<1	<1	<5	<1	<5	<2
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
PFUnDS (749786-16-1)	ng/l	<20	<20	<2	<20	<2	<20	<2	<2	<2	<2	<10	<2	<10	<4
Total PFOS	ng/l	<6.5	<6.5	<0.65	<6.5	<0.65	<6.5	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<3.25	<1.3
Sum of PFAS															
Sum of 20 PFAS	ng/l	317.40	346.70	67.76	66.30	145.22	164.50	218.62	235.89	117.69	119.22	81.30	73.64	95.30	73.42
Sum of Total PFAS	ng/l	317.40	346.70	67.76	86.10	145.22	164.50	218.62	235.89	117.69	119.22	81.30	74.81	95.30	73.42
Average Sum of 20 PFAS	ng/l														
Average Total PFAS	ng/l														
Min Sum of 20 PFAS	ng/l														
Max Sum of 20 PFAS	ng/l														

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH8D															
		12/11/21	12/11/21	09/02/22	09/02/22	16/03/22	16/03/22	21/04/22	21/04/22	24/05/22	24/05/22	24/06/22	24/06/22	20/09/22	20/09/22	15/11/22	15/11/22
11Cl-PF3OUdS (763051-92-9)	ng/l																
3:3 FTCA (356-02-5)	ng/l																
4:2 FTS (757124-72-4)	ng/l	<2	<2			<20	<20	<20	<20	<10	<10	<20	<20	<20	<20	<20	<20
5:3 FTCA (914637-49-3)	ng/l	<20	<20			<200	<200	<200	<200	<100	<100	<200	<200	<200	<200	<200	<200
6:2 FTAB (34455-29-3)	ng/l																
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
7:3 FTCA (812-70-4)	ng/l																
8:2 FTS (39108-34-4)	ng/l	<2	<2			<20	<20	<20	<20	<10	<10	<20	<20	<20	<20	<20	<20
9Cl-PF3ONS (756426-58-1)	ng/l																
ADONA (919005-14-4)	ng/l																
Branched PFOS	ng/l	<0.65	<0.65	<0.65	<3.25	<6.5	<6.5	<6.5	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5
EtFOSAA (2991-50-6)	ng/l																
EtFOSE (1691-99-2)	ng/l																
FBSA (30334-69-1)	ng/l																
FHxSA (41997-13-1)	ng/l																
HFPO-DA (13252-13-6)	ng/l																
HFPO-TA (13252-14-7)	ng/l																
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	<3.25	<6.5	<6.5	<6.5	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5
MeFOSAA (2355-31-9)	ng/l																
MeFOSE (24448-09-7)	ng/l																
N-EtFOSA (4151-50-2)	ng/l																
NFDHA (151772-58-6)	ng/l																
N-MeFOSA (31506-32-8)	ng/l																
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<2	4.61	7.66	10.8	<20	<20	<37	<42	<25	<16	<20	<20	<20	<20	<20	<20
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFDoS (79780-39-5)	ng/l					<30	<30	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFecHS (133201-07-7)	ng/l																
PFEESA (113507-82-7)	ng/l																
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<1	6.14	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	<1	1.43	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFHxDA (67905-19-5)	ng/l																
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFMOBA (863090-89-5)	ng/l																
PFMOPrA (377-73-1)	ng/l																
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFNS (68259-12-1)	ng/l					<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	<0.65	<0.65	<3.25	<6.5	<8	<10	<15	<12.5	<10	<6.5	<6.5	<13	<15	<6.5	<6.5
PFODA (16517-11-6)	ng/l																
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<10	<20	<20	<20	<20	<10	<10	<20	<20	<20	<20	<20	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	1.37	4.96	25.4	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<5	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFTeA (376-06-7)	ng/l																
PFTrDA (72629-94-8)	ng/l					<20	<20	<10	<10	<5	<5	<10	<20	<10	<10	<10	<10
PFTrDS (174675-49-1)	ng/l					<30	<30	<10	<10	<25	<25	<10	<10	<10	<10	<10	<10
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<6	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
PFUnDS (749786-16-1)	ng/l					<20	<20	<10	<10	<5	<5	<10	<10	<10	<10	<10	<10
Total PFOS	ng/l	<0.65	<0.65	<0.65	<3.25	<6.5	<6.5	<6.5	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5
Sum of PFAS																	
Sum of 20 PFAS	ng/l	0.00	5.98	14.05	42.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	5.98	14.05	42.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l	12.83															
Average Total PFAS	ng/l	18.31															
Min Sum of 20 PFAS	ng/l	0.00															
Max Sum of 20 PFAS	ng/l	45.58															

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH8D															
		14/02/23	14/02/23	31/05/23	31/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	01/10/24	01/10/24	12/12/24	12/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l			<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
3:3 FTCA (356-02-5)	ng/l			<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
4:2 FTS (757124-72-4)	ng/l	<20	<20	<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
5:3 FTCA (914637-49-3)	ng/l	<200	<200	<50	<10	<25	<5	<5	<5	<5	<5	<5	<5	<25	<25	<25	<125
6:2 FTAB (34455-29-3)	ng/l							<10	<10	<10	<10	<10	<10	<50	<50	<50	<250
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<10	<10	<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
7:3 FTCA (812-70-4)	ng/l			<50	<10	<25	<5	<5	<5	<5	<5	<5	<5	<25	<25	<25	<125
8:2 FTS (39108-34-4)	ng/l	<20	<20	<20	<20	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
9Cl-PF3ONS (756426-58-1)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
ADONA (919005-14-4)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
Branched PFOS	ng/l	<6.5	<6.5	<6.5	<1.3	<3.25	<0.65	<0.65	0.825	<0.65	2.36	<0.65	<0.65	<3.25	<3.25	<3.25	<16.3
EtFOSAA (2991-50-6)	ng/l			<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
EtFOSE (1691-99-2)	ng/l			<100	<20	<50	<10	<10	<10	<10	<10	<10	<10	<50	<50	<50	<250
FBSA (30334-69-1)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
FHxSA (41997-13-1)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
HFPO-DA (13252-13-6)	ng/l			<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
HFPO-TA (13252-14-7)	ng/l			<50	<10	<25	<5	<5	<5	<5	<5	<5	<5	<25	<25	<25	<125
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<6.5	<6.5	<6.5	<1.3	<3.25	<0.65	<0.65	<0.65	<0.65	1.62	<0.65	<0.65	<3.25	<3.25	<3.25	<16.3
MeFOSAA (2355-31-9)	ng/l			<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
MeFOSE (24448-09-7)	ng/l			<100	<20	<50	<10	<10	<10	<10	<10	<10	<10	<50	<50	<50	<250
N-EtFOSA (4151-50-2)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
NFDHA (151772-58-6)	ng/l			<30	<6	<15	<3	<3	<3	<3	<3	<3	<3	<15	<15	<15	<75
N-MeFOSA (31506-32-8)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<20	<20	<20	7.97	10.9	9.98	8.31	8.94	7.82	8.17	13	15.3	<10	<10	<10	<50
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<10	<10	<2	<5	1.85	1.69	1.72	1.97	2.45	1.48	1.48	<5	<5	<5	<25
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<10	<10	<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<10	<10	<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
PFDoS (79780-39-5)	ng/l	<10	<10	<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<10	<10	<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
PFecHS (133201-07-7)	ng/l			12.2	13.4	30	13.1	14.6	15.7	13.7	13.1	8.96	9.98	11.8	14.1	<5	<25
PFEESA (113507-82-7)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	<10	<10	<2	<5	1.34	<1	<1	1.54	1.36	<1	1.15	<5	<5	<5	<25
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<10	<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<10	<10	<10	3.98	7.64	4.21	3.94	4.06	4.14	4.31	4.17	5.02	<5	<5	<5	<25
PFHxDA (67905-19-5)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	<10	<10	3.9	8.35	3.02	3.91	4.23	4.87	6.9	2.6	2.88	<5	<5	<5	<25
PFMOBA (863090-89-5)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFMOPrA (377-73-1)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<10	<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFNS (68259-12-1)	ng/l	<10	<10	<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<6.5	<6.5	<6.5	<1.3	<3.25	0.796	<0.65	<0.65	<0.65	0.93	<0.65	<0.65	<3.25	<3.25	<3.25	<16.3
PFODA (16517-11-6)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<20	<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<10	<10	<10	17.1	16.5	13	11	11.5	18.2	15.4	16.7	17.8	<5	8.15	<5	<25
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<10	<10	<2	<5	<1	1.05	1.04	1.51	2.08	<1	<1	<5	<5	<5	<25
PFTeA (376-06-7)	ng/l			<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFTrDA (72629-94-8)	ng/l	<10	<10	<10	<10	<15	<3	<3	<3	<3	<3	<3	<3	<15	<15	<15	<75
PFTrDS (174675-49-1)	ng/l	<10	<10	<10	<2	<5	<1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<25
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<10	<10	<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
PFUnDS (749786-16-1)	ng/l	<10	<10	<20	<4	<10	<2	<2	<2	<2	<2	<2	<2	<10	<10	<10	<50
Total PFOS	ng/l	<6.5	<6.5	<6.5	<1.3	<3.25	<0.65	<0.65	0.825	<0.65	3.98	<0.65	<0.65	<3.25	<3.25	<3.25	<16.3
Sum of PFAS																	
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	32.95	43.39	34.20	29.90	32.32	40.05	45.58	37.95	43.63	0.00	8.15	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	12.20	46.35	73.39	47.30	44.50	48.84	53.75	62.66	46.91	53.61	11.80	22.25	0.00	0.00
Average Sum of 20 PFAS	ng/l																
Average Total PFAS	ng/l																
Min Sum of 20 PFAS	ng/l																
Max Sum of 20 PFAS	ng/l																

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH8S															
		09/02/22	09/02/22	16/03/22	16/03/22	21/04/22	21/04/22	24/05/22	24/05/22	24/06/22	24/06/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l																
3:3 FTCA (356-02-5)	ng/l																
4:2 FTS (757124-72-4)	ng/l			<20	<20	<20	<20	<10	<10	<20	<20	<20	<20	<20	<2	<20	<2
5:3 FTCA (914637-49-3)	ng/l			<200	<200	<200	<200	<100	<100	<200	<200	<200	<200	<200	<20	<200	<20
6:2 FTAB (34455-29-3)	ng/l																
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
7:3 FTCA (812-70-4)	ng/l																
8:2 FTS (39108-34-4)	ng/l			<20	<20	<20	<20	<10	<10	<20	<20	<20	<20	<20	<2	<20	<2
9Cl-PF3ONS (756426-58-1)	ng/l																
ADONA (919005-14-4)	ng/l																
Branched PFOS	ng/l	<0.65	<0.65	<6.5	<6.5	<6.5	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<6.5	<0.65	<6.5	<1.3
EtFOSAA (2991-50-6)	ng/l																
EtFOSE (1691-99-2)	ng/l																
FBSA (30334-69-1)	ng/l																
FHxSA (41997-13-1)	ng/l																
HFPO-DA (13252-13-6)	ng/l																
HFPO-TA (13252-14-7)	ng/l																
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<6.5	<6.5	<6.5	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<6.5	<0.65	<6.5	<1.3
MeFOSAA (2355-31-9)	ng/l																
MeFOSE (24448-09-7)	ng/l																
N-EtFOSA (4151-50-2)	ng/l																
NFDHA (151772-58-6)	ng/l																
N-MeFOSA (31506-32-8)	ng/l																
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	7.42	6.86	<20	<20	<30	<45	<22	<24	<20	<20	<20	21	<20	<2	<20	<7
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.03	1.23	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	2.15
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
PFDoS (79780-39-5)	ng/l			<30	<30	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1	<10	<1
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
PFecHS (133201-07-7)	ng/l																
PFEESA (113507-82-7)	ng/l																
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.38	1.35	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	2.65
PFHxDA (67905-19-5)	ng/l																
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
PFMOBA (863090-89-5)	ng/l																
PFMOPrA (377-73-1)	ng/l																
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
PFNS (68259-12-1)	ng/l			<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	<0.65	<9	<6.5	<12	<15	<13	<15.5	<6.5	<6.5	<12	<12	<6.5	<0.65	<6.5	1.51
PFODA (16517-11-6)	ng/l																
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<20	<20	<20	<20	<10	<10	<20	<20	<20	<20	<20	<2	<20	<4
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	5.23	4.59	<10	<10	<10	<10	<5	<5	<10	<10	<10	<100	<10	1.03	<10	5.12
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
PFTeA (376-06-7)	ng/l																
PFTrDA (72629-94-8)	ng/l			<20	<20	<10	<10	<5	<5	<20	<20	<10	<10	<10	<1	<10	<1
PFTrDS (174675-49-1)	ng/l			<30	<30	<10	<10	<25	<25	<10	<10	<10	<10	<10	<1	<10	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<2
PFUnDS (749786-16-1)	ng/l			<20	<20	<10	<10	<5	<5	<10	<10	<10	<10	<10	<1	<10	<1
Total PFOS	ng/l	<0.65	<0.65	<6.5	<6.5	<6.5	<6.5	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<6.5	<0.65	<6.5	<1.3
Sum of PFAS																	
Sum of 20 PFAS	ng/l	15.06	14.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	0.00	1.03	0.00	11.43
Sum of Total PFAS	ng/l	15.06	14.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	0.00	1.03	0.00	11.43
Average Sum of 20 PFAS	ng/l	13.16															
Average Total PFAS	ng/l	20.45															
Min Sum of 20 PFAS	ng/l	0.00															
Max Sum of 20 PFAS	ng/l	42.95															

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH8S													
		31/05/23	31/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	01/10/24	01/10/24	12/12/24	12/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
3:3 FTCA (356-02-5)	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
4:2 FTS (757124-72-4)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
5:3 FTCA (914637-49-3)	ng/l	<50	<10	<5	<5	<5	<5	<5	<5	<5	<5	<25	<25	<5	<10
6:2 FTAB (34455-29-3)	ng/l					<10	<10	<10	<10	<10	<10	<50	<50	<10	<20
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
7:3 FTCA (812-70-4)	ng/l	<50	<10	<5	<5	<5	<5	<5	<5	<5	<5	<25	<25	<5	<10
8:2 FTS (39108-34-4)	ng/l	<20	<20	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
9Cl-PF3ONS (756426-58-1)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
ADONA (919005-14-4)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
Branched PFOS	ng/l	<6.5	<1.3	<0.65	<0.65	1.1	0.949	<0.65	<0.65	0.908	0.95	<3.25	<3.25	<0.65	<1.3
EtFOSAA (2991-50-6)	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
EtFOSE (1691-99-2)	ng/l	<100	<20	<10	<10	<10	<10	<10	<10	<10	<10	<50	<50	<10	<20
FBSA (30334-69-1)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
FHxSA (41997-13-1)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
HFPO-DA (13252-13-6)	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
HFPO-TA (13252-14-7)	ng/l	<50	<10	<5	<5	<5	<5	<5	<5	<5	<5	<25	<25	<5	<10
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<6.5	<1.3	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<3.25	<3.25	<0.65	<1.3
MeFOSAA (2355-31-9)	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
MeFOSE (24448-09-7)	ng/l	<100	<20	<10	<10	<10	<10	<10	<10	<10	<10	<50	<50	<10	<20
N-EtFOSA (4151-50-2)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
NFDHA (151772-58-6)	ng/l	<30	<6	<3	<3	<3	<3	<3	<3	<3	<3	<15	<15	<3	<6
N-MeFOSA (31506-32-8)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<20	4.67	<10	8.75	7.71	7.06	9.35	8.73	13.5	14.4	<10	<10	2.47	<4
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<2	1.81	2.39	1.92	1.72	2.08	1.9	1.66	1.67	<5	<5	1.42	<2
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
PFDoS (79780-39-5)	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
PFecHS (133201-07-7)	ng/l	11.4	20.8	20.3	27.4	19.1	17.8	14	13.6	12.4	12.8	12.6	9.71	14.7	8.22
PFEESA (113507-82-7)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	<2	1.29	1.55	<1	<1	1.67	1.48	1.54	1.35	<5	<5	<1	<2
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<10	2.35	3.78	4.74	4.05	3.44	4.28	3.97	4.56	5	<5	<5	<1	<2
PFHxDA (67905-19-5)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	3.12	3.33	6.18	4.97	4.73	4.1	4.5	3.56	3.68	<5	<5	1.64	<2
PFMOBA (863090-89-5)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFMOPrA (377-73-1)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFNS (68259-12-1)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<6.5	<1.3	<0.65	<0.65	<0.65	<0.65	1.07	1.01	<0.65	<0.65	<3.25	<3.25	<0.65	<1.3
PFODA (16517-11-6)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<10	9.81	13.5	13.8	9.97	9.77	17.8	17.9	17.1	15.9	7.65	5.83	2.18	<2
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<2	<1	1.6	1.25	1.2	1.53	1.48	<1	<1	<5	<5	<1	<2
PFTeA (376-06-7)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFTrDA (72629-94-8)	ng/l	<10	<10	<3	<3	<3	<3	<3	<3	<3	<3	<15	<15	<3	<6
PFTrDS (174675-49-1)	ng/l	<10	<2	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<2
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
PFUnDS (749786-16-1)	ng/l	<20	<4	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<4
Total PFOS	ng/l	<6.5	<1.3	<0.65	<0.65	1.1	0.949	<0.65	<0.65	0.908	0.95	<3.25	<3.25	<0.65	<1.3
Sum of PFAS															
Sum of 20 PFAS	ng/l	0.00	19.95	23.71	39.01	30.97	28.87	41.88	40.97	42.83	42.95	7.65	5.83	7.71	0.00
Sum of Total PFAS	ng/l	11.40	40.75	44.01	66.41	51.17	47.62	55.88	54.57	56.14	56.70	20.25	15.54	22.41	8.22
Average Sum of 20 PFAS	ng/l														
Average Total PFAS	ng/l														
Min Sum of 20 PFAS	ng/l														
Max Sum of 20 PFAS	ng/l														

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH9															
		09/02/22	09/02/22	16/03/22	16/03/22	21/04/22	21/04/22	24/05/22	24/05/22	24/06/22	24/06/22	20/09/22	20/09/22	15/11/22	15/11/22	14/02/23	14/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l																
3:3 FTCA (356-02-5)	ng/l																
4:2 FTS (757124-72-4)	ng/l			<20	<10	<20	<20	<10	<10	<20	<20	<20	<20	<2	<20	<20	<20
5:3 FTCA (914637-49-3)	ng/l			<200	<100	<200	<200	<100	<100	<200	<200	<200	<200	<20	<200	<200	<200
6:2 FTAB (34455-29-3)	ng/l																
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
7:3 FTCA (812-70-4)	ng/l																
8:2 FTS (39108-34-4)	ng/l			<20	<10	<20	<20	<10	<10	<20	<20	<20	<20	<2	<20	<20	<20
9Cl-PF3ONS (756426-58-1)	ng/l																
ADONA (919005-14-4)	ng/l																
Branched PFOS	ng/l	<3.25	<3.25	<6.5	<3.25	<6.5	<3.25	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<0.65	<6.5	<6.5	<6.5
EtFOSAA (2991-50-6)	ng/l																
EtFOSE (1691-99-2)	ng/l																
FBSA (30334-69-1)	ng/l																
FHxSA (41997-13-1)	ng/l																
HFPO-DA (13252-13-6)	ng/l																
HFPO-TA (13252-14-7)	ng/l																
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<3.25	<3.25	<6.5	<3.25	<6.5	<3.25	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<0.65	<6.5	<6.5	<6.5
MeFOSAA (2355-31-9)	ng/l																
MeFOSE (24448-09-7)	ng/l																
N-EtFOSA (4151-50-2)	ng/l																
NFDHA (151772-58-6)	ng/l																
N-MeFOSA (31506-32-8)	ng/l																
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<10	<10	<20	<10	<30	<13	<10	<20	<20	<20	<20	<20	<2	<20	<20	<20
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFDoS (79780-39-5)	ng/l			<20	<15	<10	<5	<10	<10	<10	<10	<10	<10	<1	<10	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFecHS (133201-07-7)	ng/l																
PFEESA (113507-82-7)	ng/l																
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFHxDA (67905-19-5)	ng/l																
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFMOBA (863090-89-5)	ng/l																
PFMOPrA (377-73-1)	ng/l																
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFNS (68259-12-1)	ng/l			<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<4	<3.25	<7	<3.25	<8	<3.25	<12	<8.5	<6.5	<6.5	<12	<12	<0.65	<6.5	<6.5	<6.5
PFODA (16517-11-6)	ng/l																
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<10	<20	<10	<20	<10	<10	<10	<20	<20	<20	<20	<2	<20	<20	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFTeA (376-06-7)	ng/l																
PFTrDA (72629-94-8)	ng/l			<10	<10	<10	<5	<5	<5	<20	<20	<10	<10	<1	<10	<10	<10
PFTrDS (174675-49-1)	ng/l			<30	<15	<10	<5	<25	<25	<10	<10	<10	<10	<1	<10	<10	<10
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<5	<10	<5	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
PFUnDS (749786-16-1)	ng/l			<10	<10	<10	<5	<5	<5	<10	<10	<10	<10	<1	<10	<10	<10
Total PFOS	ng/l	<3.25	<3.25	<6.5	<3.25	<6.5	<3.25	<3.25	<3.25	<6.5	<6.5	<6.5	<6.5	<0.65	<6.5	<6.5	<6.5
Sum of PFAS																	
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l	0.44															
Average Total PFAS	ng/l	0.44															
Min Sum of 20 PFAS	ng/l	0.00															
Max Sum of 20 PFAS	ng/l	4.86															

Castlemoate House Groundwater Monitoring Results

Parameter	Unit	BH9													
		31/05/23	31/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	01/10/24	01/10/24	12/12/24	12/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<50	<10	<5	<5	<25	<5	<5	<5	<5	<5	<25	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l					<50	<10	<10	<10	<10	<10	<50	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<50	<10	<5	<5	<25	<5	<5	<5	<5	<5	<25	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<20	<20	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
ADONA (919005-14-4)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
Branched PFOS	ng/l	<6.5	<1.3	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<100	<20	<10	<10	<50	<10	<10	<10	<10	<10	<50	<10	<10	<10
FBSA (30334-69-1)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<50	<10	<5	<5	<25	<5	<5	<5	<5	<5	<25	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<6.5	<1.3	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<100	<20	<10	<10	<50	<10	<10	<10	<10	<10	<50	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<30	<6	<3	<3	<15	<3	<3	<3	<3	<3	<15	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<20	<4	<2	<10	<10	<2	2.7	2.65	<2	<2	<10	<2	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFEESA (113507-82-7)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxDA (67905-19-5)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFNS (68259-12-1)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<6.5	<1.3	<0.65	<0.65	<3.25	<0.65	0.901	0.947	<0.65	<0.65	3.57	<0.65	<0.65	<0.65
PFODA (16517-11-6)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<10	<2	<1	<1	<5	<1	1.26	1.19	<1	<1	<5	<1	<1	<1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTeA (376-06-7)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<10	<10	<3	<3	<15	<3	<3	<3	<3	<3	<15	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<10	<2	<1	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<20	<4	<2	<2	<10	<2	<2	<2	<2	<2	<10	<2	<2	<2
Total PFOS	ng/l	<6.5	<1.3	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65
Sum of PFAS															
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	4.86	4.79	0.00	0.00	3.57	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	4.86	4.79	0.00	0.00	3.57	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l														
Average Total PFAS	ng/l														
Min Sum of 20 PFAS	ng/l														
Max Sum of 20 PFAS	ng/l														

Water Supply Well Groundwater Monitoring Results

Parameter	Unit	Gardeners Well														
		25/08/21	10/02/22	10/02/22	15/03/22	15/03/22	20/04/22	20/04/22	24/05/22	24/05/22	20/09/22	20/09/22	15/11/22	15/11/22	15/02/23	15/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l															
3:3 FTCA (356-02-5)	ng/l															
4:2 FTS (757124-72-4)	ng/l		<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2
5:3 FTCA (914637-49-3)	ng/l		<20	<20	<20	<20	<20	<20	<20	<100	<20	<20	<20	<20	<20	<20
6:2 FTAB (34455-29-3)	ng/l															
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l															
8:2 FTS (39108-34-4)	ng/l				<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l															
ADONA (919005-14-4)	ng/l															
Branched PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l															
EtFOSE (1691-99-2)	ng/l															
FBSA (30334-69-1)	ng/l															
FHxSA (41997-13-1)	ng/l															
HFPO-DA (13252-13-6)	ng/l															
HFPO-TA (13252-14-7)	ng/l															
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l															
MeFOSE (24448-09-7)	ng/l															
N-EtFOSA (4151-50-2)	ng/l															
NFDHA (151772-58-6)	ng/l															
N-MeFOSA (31506-32-8)	ng/l															
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<2	<2	<2	<2	<2	<6	<7	<5	<10	<9	<6	<2	<2	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l				<1	<1	<2	<1	<2	<40	<2	<2	<1	<1	<1	<1
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l															
PFEESA (113507-82-7)	ng/l															
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFHxDA (67905-19-5)	ng/l															
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l															
PFMOPrA (377-73-1)	ng/l															
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l				<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<1.7	<1.4	<2	<4.5	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
PFODA (16517-11-6)	ng/l															
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l															
PFTrDA (72629-94-8)	ng/l				<1	<1	<2	<1	<1	<15	<2	<2	<1	<1	<1	<1
PFTrDS (174675-49-1)	ng/l		<1	<1	<1	<1	<1	<1	<5	<40	<2	<2	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1			<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l				<1	<1	<1	<1	<1	<10	<2	<2	<1	<1	<1	<1
Total PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<3.25	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
Sum of PFAS																
Sum of 20 PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l	0.60														
Average Total PFAS	ng/l	0.98														
Min Sum of 20 PFAS	ng/l	0.00														
Max Sum of 20 PFAS	ng/l	8.36														

Water Supply Well Groundwater Monitoring Results

Parameter	Unit	Gardeners Well													
		31/05/23	31/05/23	15/08/23	15/08/23	22/11/23	22/11/23	04/04/24	04/04/24	16/07/24	16/07/24	01/10/24	01/10/24	12/12/24	12/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l					<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<15	<10	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	9.72	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	1.28	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	2.41	<2	<2	<2	<2	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<1	<1	<1	<1	1.86	<1	<1	<1	<1	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	<1	1.32	1.27	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<30	<20	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	2.36	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	2.86	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	<1	2.01	2.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	1.28	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
Sum of PFAS															
Sum of 20 PFAS	ng/l	0.00	0.00	3.33	3.32	0.00	0.00	8.36	2.41	0.00	0.00	0.00	0.00	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	3.33	3.32	0.00	0.00	9.64	12.13	0.00	0.00	0.00	0.00	0.00	0.00
Average Sum of 20 PFAS	ng/l														
Average Total PFAS	ng/l														
Min Sum of 20 PFAS	ng/l														
Max Sum of 20 PFAS	ng/l														

Water Supply Well Groundwater Monitoring Results

Parameter	Unit	DAA Resevoir											
		15/11/21	15/11/21	10/02/22	10/02/22	15/03/2022	15/03/2022	20/04/22	20/04/22	24/05/22	24/05/22	21/06/22	21/06/22
11Cl-PF3OUdS (763051-92-9)	ng/l												
3:3 FTCA (356-02-5)	ng/l												
4:2 FTS (757124-72-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
6:2 FTAB (34455-29-3)	ng/l												
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l												
8:2 FTS (39108-34-4)	ng/l	<2	<2			<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l												
ADONA (919005-14-4)	ng/l												
Branched PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l												
EtFOSE (1691-99-2)	ng/l												
FBSA (30334-69-1)	ng/l												
FHxSA (41997-13-1)	ng/l												
HFPO-DA (13252-13-6)	ng/l												
HFPO-TA (13252-14-7)	ng/l												
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.701	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l												
MeFOSE (24448-09-7)	ng/l												
N-EtFOSA (4151-50-2)	ng/l												
NFDHA (151772-58-6)	ng/l												
N-MeFOSA (31506-32-8)	ng/l												
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<2	<2	<20	<2	<2	<2	<2	<2	<5	<20	<14	<5
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l					<1	<1	<2	<2	<1	<2	<1	<1
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l												
PFEESA (113507-82-7)	ng/l												
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	1.16	1.04	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	1.15	1.09	1.31	<1.15	<1.15
PFHxDA (67905-19-5)	ng/l												
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l												
PFMOPrA (377-73-1)	ng/l												
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	<0.65	0.89	1.07	0.902	<1	<1.8	<2	1.25	<3	<1.7	<2.0
PFODA (16517-11-6)	ng/l												
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	1.18	<1	<1	<1.1	<1.2
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l												
PFTrDA (72629-94-8)	ng/l					<1	<1	<2	<2	<1	<1	<1	<1
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l					<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1
Total PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.701	<0.65	<0.65	<0.65
Sum of PFAS													
Sum of 20 PFAS	ng/l	0.00	0.00	0.89	1.07	0.90	0.00	0.00	3.49	4.08	1.31	0.00	0.00
Sum of Total PFAS	ng/l	0.00	0.00	0.89	1.07	0.90	0.00	0.00	3.49	4.78	1.31	0.00	0.00
Average Sum of 20 PFAS	ng/l	0.98											
Average Total PFAS	ng/l	1.04											
Min Sum of 20 PFAS	ng/l	0.00											
Max Sum of 20 PFAS	ng/l	4.08											

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 4

Groundwater Laboratory Certificates

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	24 April 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240405-114
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	726797
Order Number:	Z4323

This report has been revised and directly supersedes 726100 in its entirety.

We received 16 samples on Friday April 05, 2024 and 16 of these samples were scheduled for analysis which was completed on Wednesday April 24, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan
Operations Manager

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29606897	GW004-A		0.00 - 0.00	02/04/2024
29606891	GW007-A		0.00 - 0.00	02/04/2024
29606884	GW008-A		0.00 - 0.00	02/04/2024
29606848	GW014-A		0.00 - 0.00	02/04/2024
29606870	GW015-A		0.00 - 0.00	02/04/2024
29606900	GW004-B		0.00 - 0.00	02/04/2024
29606894	GW007-B		0.00 - 0.00	02/04/2024
29606887	GW008-B		0.00 - 0.00	02/04/2024
29606854	GW014-B		0.00 - 0.00	02/04/2024
29606874	GW015-B		0.00 - 0.00	02/04/2024
29606842	GW003D-A		0.00 - 0.00	02/04/2024
29606881	GW005D-A		0.00 - 0.00	02/04/2024
29606864	GW03D-B		0.00 - 0.00	02/04/2024
29606878	GW005D-B		0.00 - 0.00	02/04/2024
29617788	GWFB			04/04/2024
29617825	GWTB DAA			04/04/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-114 **Report Number:** 726797 **Superseded Report:** 726100
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
29606897	GW004-A		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606891	GW007-A		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606884	GW008-A		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606848	GW014-A		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606870	GW015-A		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606900	GW004-B		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606894	GW007-B		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606887	GW008-B		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606854	GW014-B		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606874	GW015-B		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606842	GW003D-A		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606881	GW005D-A		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606864	GW03D-B		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29606878	GW005D-B		0.00 - 0.00	Digitube fo PFAS analysis.	GW
29617788	GWFB			Digitube fo PFAS analysis.	GW
29617825	GWTB DAA			500ml Plastic (ALE208)	GW

PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-114 **Report Number:** 726797 **Superseded Report:** 726100
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW004-A	GW007-A	GW008-A	GW014-A	GW015-A	GW004-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-114	240405-114	240405-114	240405-114	240405-114	240405-114
Lab Sample No.(s)			29606897	29606891	29606884	29606848	29606870	29606900
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 #	15.6 #	13 #	5.39 #	18.6 #	<10 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
PFPA (2706-90-3)	<1 ng/l	TM434	4.96 #	43 #	6.41 #	6.51 #	54.8 #	<5 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<15 #	<3 #	<15 #	<15 #
PFBS (375-73-5)	<1 ng/l	TM434	1.8 #	10.2 #	6.99 #	<1 #	<5 #	5.3 #
PFHxA (307-24-4)	<1 ng/l	TM434	<1 #	35.2 #	5.34 #	2.64 #	12.2 #	5.09 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
PFHpA (375-85-9)	<1 ng/l	TM434	1.66 #	8.11 #	<5 #	1.13 #	5.63 #	5.58 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	5.5 #	5.21 #	<1 #	<5 #	<5 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<25 #	<5 #	<25 #	<25 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	3.04 #	<5 #	<1 #	<5 #	11.8 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	1.34 #	<5 #	<1 #	<5 #	<5 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.93 #	5.93 #	4.51 #	0.842 #	<3.25 #	5.79 #
PFHxS (355-46-4)	<1 ng/l	TM434	2.34 #	27.9 #	16.8 #	<1 #	<5 #	6.4 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
PFecHS (133201-07-7)	<1 ng/l	TM434	518 #	147 #	14.8 #	1.1 #	<5 #	622 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<25 #	<5 #	<25 #	<25 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<25 #	<5 #	<25 #	<25 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	15.2 #	2.92 #	22 #	<0.65 #	<3.25 #	21.4 #
Branched PFOS	<0.65 ng/l	TM434	11.9 #	7.35 #	13.5 #	<0.65 #	<3.25 #	16 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #

13:06:39 24/04/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-114 **Report Number:** 726797 **Superseded Report:** 726100
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW004-A	GW007-A	GW008-A	GW014-A	GW015-A	GW004-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-114	240405-114	240405-114	240405-114	240405-114	240405-114
Lab Sample No.(s)			29606897	29606891	29606884	29606848	29606870	29606900
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	1.2 #	1.12 #	<5 #	<1 #	<5 #	<5 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<15 #	<3 #	<15 #	<15 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<10 #	<2 #	<10 #	<10 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<50 #	<10 #	<50 #	<50 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<50 #	<10 #	<50 #	<50 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<5 #	<1 #	<5 #	<5 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<50	<10	<50	<50
Total PFOS	<0.65 ng/l	TM434	27.2 #	10.3 #	35.5 #	<0.65 #	<3.25 #	37.4 #

13:06:39 24/04/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-114 **Report Number:** 726797 **Superseded Report:** 726100
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW007-B	GW008-B	GW014-B	GW015-B	GW003D-A	GW005D-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-114	240405-114	240405-114	240405-114	240405-114	240405-114
Lab Sample No.(s)			29606894	29606887	29606854	29606874	29606842	29606881
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	13.2 #	10.5 #	19.1 #	19.6 #	<10 #	19.2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	42.5 #	5.58 #	8.33 #	60.8 #	7.1 #	56.9 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	1.3 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<15 #	<15 #	<15 #	<15 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	10.6 #	<5 #	<5 #	<5 #	<5 #	22.3 #
PFHxA (307-24-4)	<1 ng/l	TM434	32.4 #	<5 #	<5 #	13.8 #	<5 #	58.8 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	8.65 #	<5 #	<5 #	6.06 #	<5 #	22.9 #
PFPeS (2706-91-4)	<1 ng/l	TM434	5.97 #	<5 #	<5 #	<5 #	<5 #	19.7 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<25 #	<25 #	<25 #	<25 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	3.79 #	<5 #	<5 #	6.38 #	<5 #	75.5 #
FBSA (30334-69-1)	<1 ng/l	TM434	1.19 #	<5 #	<5 #	<5 #	<5 #	6.25 #
PFOA (335-67-1)	<0.65 ng/l	TM434	6.8 #	4.15 #	<3.25 #	<3.25 #	<3.25 #	21.5 #
PFHxS (355-46-4)	<1 ng/l	TM434	31.7 #	15.6 #	<5 #	<5 #	5.07 #	103 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	2.36 #
PFecHS (133201-07-7)	<1 ng/l	TM434	172 #	14 #	<5	<5 #	6.97 #	54.4 #
PFHpS (375-92-8)	<1 ng/l	TM434	1.15 #	<5 #	<5 #	<5 #	<5 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<25 #	<25 #	<25 #	<25 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<25 #	<25 #	<25 #	<25 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	3.24 #	21.1 #	<3.25 #	<3.25 #	3.87 #	2.06 #
Branched PFOS	<0.65 ng/l	TM434	9.01 #	12.9 #	<3.25 #	<3.25 #	3.79 #	13.9 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #

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CERTIFICATE OF ANALYSIS

SDG: 240405-114 **Report Number:** 726797 **Superseded Report:** 726100
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW007-B	GW008-B	GW014-B	GW015-B	GW003D-A	GW005D-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-114	240405-114	240405-114	240405-114	240405-114	240405-114
Lab Sample No.(s)			29606894	29606887	29606854	29606874	29606842	29606881
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<15 #	<15 #	<15 #	<15 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<10 #	<10 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<50 #	<50 #	<50 #	<50 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<50 #	<50 #	<50 #	<50 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<5 #	<5 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<50	<50	56.5	<50	<10
Total PFOS	<0.65 ng/l	TM434	12.3 #	34 #	<3.25 #	<3.25 #	7.66 #	16 #

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CERTIFICATE OF ANALYSIS

SDG: 240405-114 **Report Number:** 726797 **Superseded Report:** 726100
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW03D-B	GW005D-B	GWFB	GWTB DAA		
Depth (m)			0.00 - 0.00	0.00 - 0.00	.	.		
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)		
Date Sampled			02/04/2024	02/04/2024	04/04/2024	04/04/2024		
Sample Time			.	.	.	.		
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024		
SDG Ref			240405-114	240405-114	240405-114	240405-114		
Lab Sample No.(s)			29606864	29606878	29617788	29617825		
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	3.41 #	22.3 #	<2 #	<2 2 #		
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
PFPA (2706-90-3)	<1 ng/l	TM434	4.54 #	67.1 #	<1 #	<1 2 #		
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 2 #		
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	24.6 #	<1 #	<1 2 #		
PFHxA (307-24-4)	<1 ng/l	TM434	2.4 #	70.1 #	<1 #	<1 2 #		
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
PFHpA (375-85-9)	<1 ng/l	TM434	1.69 #	26.9 #	<1 #	1.27 2 #		
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	20.6 #	<1 #	<1 2 #		
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 2 #		
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
6:2 FTS (27619-97-2)	<1 ng/l	TM434	1.35 #	94.1 #	<1 #	<1 2 #		
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	7.97 #	<1 #	<1 2 #		
PFOA (335-67-1)	<0.65 ng/l	TM434	1.38 #	23.9 #	<0.65 #	1.58 2 #		
PFHxS (355-46-4)	<1 ng/l	TM434	2.2 #	122 #	<1 #	<1 2 #		
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	2.39 #	<1 #	1.19 2 #		
PFecHS (133201-07-7)	<1 ng/l	TM434	3.54 #	75.9	<1 #	<1 2 #		
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 2 #		
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 2 #		
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	2.23 #	2.35 #	<0.65 #	2.04 2 #		
Branched PFOS	<0.65 ng/l	TM434	1.91 #	5.97 #	<0.65 #	<0.65 2 #		
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		

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CERTIFICATE OF ANALYSIS

SDG: 240405-114 **Report Number:** 726797 **Superseded Report:** 726100
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.			GW03D-B	GW005D-B	GWFB	GWTB DAA		
Depth (m)			0.00 - 0.00	0.00 - 0.00	.	.		
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)		
Date Sampled			02/04/2024	02/04/2024	04/04/2024	04/04/2024		
Sample Time			.	.	.	.		
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024		
SDG Ref			240405-114	240405-114	240405-114	240405-114		
Lab Sample No.(s)			29606864	29606878	29617788	29617825		
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	10.2 2 #		
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 2 #		
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	3.1 2 #		
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 2 #		
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 2 #		
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 2 #		
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 2 #		
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<10	<10 2		
Total PFOS	<0.65 ng/l	TM434	4.14 #	8.31 #	<0.65 #	2.04 2 #		

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Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

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CERTIFICATE OF ANALYSIS

SDG: 240405-114 **Report Number:** 726797 **Superseded Report:** 726100
Client Ref.: P21-195 **Location:** Dublin Airport

Test Completion Dates

Lab Sample No(s)	29606897	29606891	29606884	29606848	29606870	29606900	29606894	29606887	29606854	29606874
Customer Sample Ref.	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	16-Apr-2024	16-Apr-2024	17-Apr-2024	16-Apr-2024	17-Apr-2024	16-Apr-2024	16-Apr-2024	17-Apr-2024	09-Apr-2024	17-Apr-2024

Lab Sample No(s)	29606842	29606881	29606864	29606878	29617788	29617825
Customer Sample Ref.	GW003D-A	GW005D-A	GW03D-B	GW005D-B	GWFB	GWTB DAA
AGS Ref.						
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00		
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	17-Apr-2024	16-Apr-2024	16-Apr-2024	10-Apr-2024	24-Apr-2024	18-Apr-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Sean Foley

CERTIFICATE OF ANALYSIS

Date of report Generation:	21 May 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240509-148
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	729240
Order Number:	

We received 4 samples on Friday April 05, 2024 and 4 of these samples were scheduled for analysis which was completed on Tuesday May 21, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan
Operations Manager

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29769499	GW001 A			
29769500	GW001 B			
29769501	GW002 D A			
29769502	GW002 D B			

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240509-148 **Report Number:** 729240 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			29769499	29769500	29769501	29769502
Customer Sample Reference			GW001 A	GW001 B	GW002 D A	GW002 D B
AGS Reference						
Depth (m)						
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			UNL	UNL	UNL	UNL
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 4	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240509-148 **Report Number:** 729240 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001 A	GW001 B	GW002 D A	GW002 D B		
Depth (m)			.	.	.	.		
Sample Type			Unspecified Liquid (UNL)	Unspecified Liquid (UNL)	Unspecified Liquid (UNL)	Unspecified Liquid (UNL)		
Date Sampled			-	-	-	-		
Sample Time			.	.	.	.		
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024		
SDG Ref			240509-148	240509-148	240509-148	240509-148		
Lab Sample No.(s)			29769499	29769500	29769501	29769502		
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	44.6 §	50.5 §	21.6 §	22.1 §		
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
PFPA (2706-90-3)	<1 ng/l	TM434	108 §	104 §	60.6 §	63.1 §		
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 §	<3 §	<3 §	<3 §		
PFBS (375-73-5)	<1 ng/l	TM434	17 §	17.2 §	2.43 §	2.41 §		
PFHxA (307-24-4)	<1 ng/l	TM434	72 §	69.7 §	30.7 §	30.9 §		
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
PFHpA (375-85-9)	<1 ng/l	TM434	46 §	45.2 §	29.8 §	30.5 §		
PFPeS (2706-91-4)	<1 ng/l	TM434	7.52 §	7.35 §	1.66 §	1.7 §		
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 §	<5 §	<5 §	<5 §		
ADONA (919005-14-4)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
6:2 FTS (27619-97-2)	<1 ng/l	TM434	78.2 §	78.2 §	<1 §	<1 §		
FBSA (30334-69-1)	<1 ng/l	TM434	3.26 §	3.41 §	<1 §	<1 §		
PFOA (335-67-1)	<0.65 ng/l	TM434	28.8 §	28.4 §	13.9 §	14.2 §		
PFHxS (355-46-4)	<1 ng/l	TM434	59.2 §	57.7 §	13.5 §	14.4 §		
PFNA (375-95-1)	<1 ng/l	TM434	5.21 §	5.36 §	2.89 §	2.64 §		
PFecHS (133201-07-7)	<1 ng/l	TM434	64 §	61.3 §	71.4 §	73.9 §		
PFHpS (375-92-8)	<1 ng/l	TM434	2.92 §	2.73 §	1.36 §	1.25 §		
8:2 FTS (39108-34-4)	<2 ng/l	TM434	14.5 §	14.6 §	<2 §	<2 §		
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 §	<5 §	<5 §	<5 §		
PFDA (335-76-2)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 §	<5 §	<5 §	<5 §		
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	34.6 §	34.2 §	14 §	12.3 §		
Branched PFOS	<0.65 ng/l	TM434	37.6 §	36.1 §	17.2 §	16.6 §		
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
PFNS (68259-12-1)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		

13:02:42 21/05/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240509-148 **Report Number:** 729240 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001 A	GW001 B	GW002 D A	GW002 D B		
Depth (m)			.	.	.	.		
Sample Type			Unspecified Liquid (UNL)	Unspecified Liquid (UNL)	Unspecified Liquid (UNL)	Unspecified Liquid (UNL)		
Date Sampled			-	-	-	-		
Sample Time			.	.	.	.		
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024		
SDG Ref			240509-148	240509-148	240509-148	240509-148		
Lab Sample No.(s)			29769499	29769500	29769501	29769502		
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	5.47 §	5.22 §	2.09 §	2.26 §		
PFDoA (307-55-1)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
PFDS (335-77-3)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 §	<3 §	<3 §	<3 §		
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
PFTeA (376-06-7)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
PFOSA (754-91-6)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 §	<2 §	<2 §	<2 §		
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 §	<10 §	<10 §	<10 §		
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 §	<10 §	<10 §	<10 §		
PFODA (16517-11-6)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 §	<1 §	<1 §	<1 §		
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 §	<10 §	<10 §	<10 §		
Total PFOS	<0.65 ng/l	TM434	72.2 §	70.3 §	31.3 §	28.9 §		

13:02:42 21/05/2024

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	29769499	29769500	29769501	29769502
Customer Sample Ref.	GW001 A	GW001 B	GW002 D A	GW002 D B
AGS Ref.				
Depth				
Type	Unspecified	Unspecified	Unspecified	Unspecified
PFAS Liquids (Full Suite)	21-May-2024	21-May-2024	21-May-2024	21-May-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
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Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	20 June 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240405-110
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	732204
Order Number:	Z4323

This report has been revised and directly supersedes 726098 in its entirety.

We received 18 samples on Friday April 05, 2024 and 18 of these samples were scheduled for analysis which was completed on Wednesday April 17, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan
Operations Manager

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29606622	GW11A		0.00 - 0.00	03/04/2024
29606661	GW12A		0.00 - 0.00	03/04/2024
29606667	GW13A		0.00 - 0.00	03/04/2024
29606674	GW14A		0.00 - 0.00	03/04/2024
29606681	GW15A		0.00 - 0.00	03/04/2024
29606629	GW16A		0.00 - 0.00	03/04/2024
29606636	GW17A		0.00 - 0.00	03/04/2024
29606643	GW18A		0.00 - 0.00	02/04/2024
29606651	GW19A		0.00 - 0.00	02/04/2024
29606658	GW11B		0.00 - 0.00	03/04/2024
29606664	GW12B		0.00 - 0.00	03/04/2024
29606671	GW13B		0.00 - 0.00	03/04/2024
29606677	GW14B		0.00 - 0.00	03/04/2024
29606625	GW15B		0.00 - 0.00	03/04/2024
29606633	GW16B		0.00 - 0.00	03/04/2024
29606640	GW17B		0.00 - 0.00	03/04/2024
29606647	GW18B		0.00 - 0.00	02/04/2024
29606655	GW19B		0.00 - 0.00	02/04/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-110 **Report Number:** 732204 **Superseded Report:** 726098
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

		Lab Sample No(s)	29606622	29606661	29606667	29606674	29606681	29606629	29606636	29606643	29606651	29606658	29606664	29606671	29606677	29606625	29606633	29606640	29606647	29606655
		Customer Sample Reference	GW11A	GW12A	GW13A	GW14A	GW15A	GW16A	GW17A	GW18A	GW19A	GW11B	GW12B	GW13B	GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
		AGS Reference																		
		Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
		Container	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
		Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-110 **Report Number:** 732204 **Superseded Report:** 726098
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW11A	GW12A	GW13A	GW14A	GW15A	GW16A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-110	240405-110	240405-110	240405-110	240405-110	240405-110
Lab Sample No.(s)			29606622	29606661	29606667	29606674	29606681	29606629
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	92.9 #	<10 #	10.6 #	75.4 #	9.38 #	28.5 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	353 #	25.8 #	6.58 #	454 #	6.28 #	90.9 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<30 #	<15 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	12.2 #	<5 #	1.07 #	1.67 #	<1 #	1.79 #
PFHxA (307-24-4)	<1 ng/l	TM434	158 #	10.8 #	3.27 #	159 #	4.96 #	35.1 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	71.9 #	6.88 #	2.23 #	46.6 #	4.01 #	16 #
PFPeS (2706-91-4)	<1 ng/l	TM434	10.7 #	<5 #	<1 #	1.37 #	<1 #	1.38 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<50 #	<25 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	427 #	24.9 #	<1 #	6.75 #	<1 #	13.1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	48.6 #	6.22 #	1.24 #	6.06 #	2.22 #	5.55 #
PFHxS (355-46-4)	<1 ng/l	TM434	40.7 #	5.64 #	<1 #	3.2 #	1.35 #	8.15 #
PFNA (375-95-1)	<1 ng/l	TM434	15.8 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<10 #	<5 #	<1	1.06 #	<1 #	<1
PFHpS (375-92-8)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	120 #	<10 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<50 #	<25 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<50 #	<25 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	90.9 #	5.11 #	0.781 #	<0.65 #	<0.65 #	<2 #
Branched PFOS	<0.65 ng/l	TM434	29.1 #	5.24 #	0.776 #	<0.65 #	<0.65 #	<6 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-110 **Report Number:** 732204 **Superseded Report:** 726098
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW11A	GW12A	GW13A	GW14A	GW15A	GW16A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-110	240405-110	240405-110	240405-110	240405-110	240405-110
Lab Sample No.(s)			29606622	29606661	29606667	29606674	29606681	29606629
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	17.4 #	<5 #	<1 #	<1 #	<1 #	1.24 #
PFDoA (307-55-1)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<30 #	<15 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<20 #	10.6 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<20 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<100 #	<50 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<100 #	<50 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<10 #	<5 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	5460	<50	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	120 #	10.3 #	1.56 #	<0.65 #	<0.65 #	<6 #

14:34:20 20/06/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-110 **Report Number:** 732204 **Superseded Report:** 726098
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW17A	GW18A	GW19A	GW11B	GW12B	GW13B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	02/04/2024	02/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-110	240405-110	240405-110	240405-110	240405-110	240405-110
Lab Sample No.(s)			29606636	29606643	29606651	29606658	29606664	29606671
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	15.8 #	<20 #	<20 #	62.5 #	13.2 #	12.6 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	9.25 #	<10 #	<10 #	281 #	27.4 #	6.9 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<30 #	<30 #	<3 #	<15 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.34 #	<10 #	<10 #	5 #	<5 #	1.08 #
PFHxA (307-24-4)	<1 ng/l	TM434	5.78 #	<10 #	<10 #	105 #	10.9 #	3.47 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	5.47 #	<10 #	<10 #	48 #	6.19 #	2.19 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<10 #	<10 #	2.99 #	<5 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<50 #	<50 #	<5 #	<25 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<10 #	<10 #	247 #	22.8 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<10 #	<10 #	2.05 #	<5 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.38 #	<6.5 #	<6.5 #	28.2 #	4.46 #	1.28 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<10 #	<10 #	22.4 #	<5 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<10 #	<10 #	7.05 #	<5 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.36 #	<10 #	<10 #	3.08	<5 #	<1
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<20 #	<20 #	67.2 #	<10 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<50 #	<50 #	<5 #	<25 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<50 #	<50 #	<5 #	<25 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<6.5 #	<6.5 #	39 #	3.98 #	0.658 #
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	<6.5 #	<6.5 #	10.8 #	4.1 #	0.776 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-110 **Report Number:** 732204 **Superseded Report:** 726098
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW17A	GW18A	GW19A	GW11B	GW12B	GW13B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	02/04/2024	02/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-110	240405-110	240405-110	240405-110	240405-110	240405-110
Lab Sample No.(s)			29606636	29606643	29606651	29606658	29606664	29606671
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<10 #	<10 #	5.75 #	<5 #	1.01 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<30 #	<30 #	<3 #	<15 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<20 #	<20 #	<2 #	<10 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<100 #	<100 #	<10 #	<50 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<100 #	<100 #	<10 #	<50 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<10 #	<10 #	<1 #	<5 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<100	<100	5040	<50	<10
Total PFOS	<0.65 ng/l	TM434	<0.65 #	<6.5 #	<6.5 #	49.9 #	8.08 #	1.43 #

14:34:20 20/06/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-110 **Report Number:** 732204 **Superseded Report:** 726098
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	02/04/2024	02/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-110	240405-110	240405-110	240405-110	240405-110	240405-110
Lab Sample No.(s)			29606677	29606625	29606633	29606640	29606647	29606655
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	76.9 #	14.9 #	39.2 #	17.3 #	2.51 #	<2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	442 #	13.1 #	94.3 #	8.47 #	<1 #	2.31 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<15 #	<15 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.63 #	<5 #	<5 #	1.22 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	160 #	6.95 #	49.5 #	5.4 #	<1 #	1.15 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	46.6 #	8.2 #	19.4 #	4.94 #	<1 #	<1 #
PFPeS (2706-91-4)	<1 ng/l	TM434	1.33 #	<5 #	<5 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<25 #	<25 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	7.62 #	5.53 #	200 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	6 #	6.27 #	11.5 #	2.2 #	<0.65 #	0.855 #
PFHxS (355-46-4)	<1 ng/l	TM434	3.36 #	5.15 #	12.3 #	1.14 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.02 #	<5 #	<5	2.92	<1 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<10 #	13 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<25 #	<25 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<25 #	<25 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.683 #	3.72 #	<6.5 #	0.826 #	<0.65 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	3.58 #	<10.5 #	1 #	<0.65 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #

14:34:20 20/06/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-110 **Report Number:** 732204 **Superseded Report:** 726098
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	02/04/2024	02/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-110	240405-110	240405-110	240405-110	240405-110	240405-110
Lab Sample No.(s)			29606677	29606625	29606633	29606640	29606647	29606655
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<5 #	5.24 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<15 #	<15 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<50 #	<50 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<50 #	<50 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<50	234	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	0.683 #	7.3 #	<10.5 #	1.83 #	<0.65 #	<0.65 #

14:34:20 20/06/2024

Data Amendment

Sample No. : 29606640 **Date of Amendment :** 17/06/2024 **Authorised:** Sonia McWhan

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
GW17B	Analytical/Quality Issue	PFAS Liquids (Full Suite)	PFecHS (133201-07-7)	ng/l	1.46	2.92

Sample No. : 29606658 **Date of Amendment :** 17/06/2024 **Authorised:** Sonia McWhan

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
GW11B	Analytical/Quality Issue	PFAS Liquids (Full Suite)	PFecHS (133201-07-7)	ng/l	1.54	3.08

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	29606622	29606661	29606667	29606674	29606681	29606629	29606636	29606643	29606651	29606658
Customer Sample Ref.	GW11A	GW12A	GW13A	GW14A	GW15A	GW16A	GW17A	GW18A	GW19A	GW11B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	17-Apr-2024	16-Apr-2024	09-Apr-2024	16-Apr-2024	16-Apr-2024	09-Apr-2024	11-Apr-2024	17-Apr-2024	17-Apr-2024	09-Apr-2024

Lab Sample No(s)	29606664	29606671	29606677	29606625	29606633	29606640	29606647	29606655
Customer Sample Ref.	GW12B	GW13B	GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
AGS Ref.								
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	17-Apr-2024	09-Apr-2024	11-Apr-2024	16-Apr-2024	09-Apr-2024	09-Apr-2024	16-Apr-2024	11-Apr-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	20 June 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240405-108
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	732201
Order Number:	Z4323

This report has been revised and directly supersedes 725966 in its entirety.

We received 14 samples on Friday April 05, 2024 and 14 of these samples were scheduled for analysis which was completed on Tuesday April 16, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan
Operations Manager

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29606569	BH1A		0.00 - 0.00	03/04/2024
29606563	BH5A		0.00 - 0.00	03/04/2024
29606557	BH6A		0.00 - 0.00	03/04/2024
29606591	BH7A		0.00 - 0.00	03/04/2024
29606572	BH9A		0.00 - 0.00	03/04/2024
29606566	BH1B		0.00 - 0.00	03/04/2024
29606560	BH5B		0.00 - 0.00	03/04/2024
29606594	BH6B		0.00 - 0.00	03/04/2024
29606588	BH7B		0.00 - 0.00	03/04/2024
29606554	BH9B		0.00 - 0.00	03/04/2024
29606578	BH8DA		0.00 - 0.00	03/04/2024
29606575	BH8DB		0.00 - 0.00	03/04/2024
29606584	BH8SA		0.00 - 0.00	03/04/2024
29606581	BH8SB		0.00 - 0.00	03/04/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-108 **Report Number:** 732201 **Superseded Report:** 725966
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			29606569	29606563	29606557	29606591	29606572	29606566	29606560	29606594	29606588	29606554	29606578	29606575	29606584	29606581
Customer Sample Reference			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B	BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB	BH8SA	BH8SB
AGS Reference																
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 14	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-108 **Report Number:** 732201 **Superseded Report:** 725966
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-108	240405-108	240405-108	240405-108	240405-108	240405-108
Lab Sample No.(s)			29606569	29606563	29606557	29606591	29606572	29606566
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	17.4 #	<2 #	<2 #	68.2 #	2.7 #	9.71 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	7.5 #	1.81 #	<1 #	120 #	1.26 #	5.38 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<5 #	1.15 #	<1 #	3.21 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	<5 #	<1 #	<1 #	25.1 #	<1 #	3.38 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	<5 #	1.05 #	<1 #	2.11 #	<1 #	1.62 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	5.75 #	1.1 #	<0.65 #	<0.65 #	0.901 #	2.95 #
PFHxS (355-46-4)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	13	<1 #	<1 #	<1 #	<1	2.13 #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<3.25 #	1.17 #	<0.65 #	<0.65 #	<0.65 #	0.718 #
Branched PFOS	<0.65 ng/l	TM434	<3.25 #	1.15 #	<0.65 #	<0.65 #	<0.65 #	0.915 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-108 **Report Number:** 732201 **Superseded Report:** 725966
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-108	240405-108	240405-108	240405-108	240405-108	240405-108
Lab Sample No.(s)			29606569	29606563	29606557	29606591	29606572	29606566
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50	<10	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	<3.25 #	2.32 #	<0.65 #	<0.65 #	<0.65 #	1.63 #

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CERTIFICATE OF ANALYSIS

SDG: 240405-108 **Report Number:** 732201 **Superseded Report:** 725966
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-108	240405-108	240405-108	240405-108	240405-108	240405-108
Lab Sample No.(s)			29606560	29606594	29606588	29606554	29606578	29606575
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	10.9 #	<10 #	70.5 #	2.65 #	7.82 #	8.17 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	<5 #	<5 #	130 #	1.19 #	18.2 #	15.4 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 #	<15 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<5 #	<5 #	3.41 #	<1 #	1.97 #	2.45 #
PFHxA (307-24-4)	<1 ng/l	TM434	<5 #	<5 #	26.9 #	<1 #	4.14 #	4.31 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	<5 #	<5 #	2.39 #	<1 #	1.54 #	1.36 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	1.51 #	2.08 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 #	<25 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	<3.25 #	<3.25 #	0.906 #	0.947 #	<0.65 #	0.93 #
PFHxS (355-46-4)	<1 ng/l	TM434	<5 #	<5 #	1.78 #	<1 #	4.87 #	6.9 #
PFNA (375-95-1)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<5	<5	<1 #	<1	13.7 #	13.1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 #	<25 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 #	<25 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<3.25 #	<3.25 #	<0.65 #	<0.65 #	<0.65 #	1.62 #
Branched PFOS	<0.65 ng/l	TM434	<3.25 #	<3.25 #	<0.65 #	<0.65 #	<0.65 #	2.36 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-108 **Report Number:** 732201 **Superseded Report:** 725966
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-108	240405-108	240405-108	240405-108	240405-108	240405-108
Lab Sample No.(s)			29606560	29606594	29606588	29606554	29606578	29606575
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 #	<15 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 #	<10 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 #	<50 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 #	<50 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 #	<5 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50	<50	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	<3.25 #	<3.25 #	<0.65 #	<0.65 #	<0.65 #	3.98 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-108 **Report Number:** 732201 **Superseded Report:** 725966
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH8SA	BH8SB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			03/04/2024	03/04/2024				
Sample Time			-	-				
Date Received			05/04/2024	05/04/2024				
SDG Ref			240405-108	240405-108				
Lab Sample No.(s)			29606584	29606581				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	9.35 #	8.73 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #				
PFPA (2706-90-3)	<1 ng/l	TM434	17.8 #	17.9 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #				
PFBS (375-73-5)	<1 ng/l	TM434	2.08 #	1.9 #				
PFHxA (307-24-4)	<1 ng/l	TM434	4.28 #	3.97 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpA (375-85-9)	<1 ng/l	TM434	1.67 #	1.48 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	1.53 #	1.48 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	1.07 #	1.01 #				
PFHxS (355-46-4)	<1 ng/l	TM434	4.1 #	4.5 #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	14 #	13.6 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #				

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-108 **Report Number:** 732201 **Superseded Report:** 725966
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH8SA	BH8SB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			03/04/2024	03/04/2024				
Sample Time			.	.				
Date Received			05/04/2024	05/04/2024				
SDG Ref			240405-108	240405-108				
Lab Sample No.(s)			29606584	29606581				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10				
Total PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 #				

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Data Amendment

Sample No. : 29606569 **Date of Amendment :** 17/06/2024 **Authorised:** Sonia McWhan

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
BH1A	Analytical/Quality Issue	PFAS Liquids (Full Suite)	PFecHS (133201-07-7)	ng/l	6.52	13

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	29606569	29606563	29606557	29606591	29606572	29606566	29606560	29606594	29606588	29606554
Customer Sample Ref.	BH1A	BH5A	BH6A	BH7A	BH9A	BH1B	BH5B	BH6B	BH7B	BH9B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	09-Apr-2024	11-Apr-2024	11-Apr-2024	16-Apr-2024	09-Apr-2024	16-Apr-2024	09-Apr-2024	09-Apr-2024	11-Apr-2024	09-Apr-2024

Lab Sample No(s)	29606578	29606575	29606584	29606581
Customer Sample Ref.	BH8DA	BH8DB	BH8SA	BH8SB
AGS Ref.				
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	11-Apr-2024	16-Apr-2024	11-Apr-2024	11-Apr-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
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Fehily Timoney
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Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	18 April 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240408-37
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	726244
Order Number:	Z4323

We received 2 samples on Monday April 08, 2024 and 2 of these samples were scheduled for analysis which was completed on Thursday April 18, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan
Operations Manager

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29617781	Gardeners Well A		0.00 - 0.00	04/04/2024
29617784	Gardeners Well B		0.00 - 0.00	04/04/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-37 **Report Number:** 726244 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

	Lab Sample No(s)		29617781	29617784
	Customer Sample Reference		Gardeners Well A	Gardeners Well B
	AGS Reference			
	Depth (m)		0.00 - 0.00	0.00 - 0.00
	Container		Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
	Sample Type		SW	SW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 2	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-37 **Report Number:** 726244 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			Gardeners Well A	Gardeners Well B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			04/04/2024	04/04/2024				
Sample Time			.	.				
Date Received			08/04/2024	08/04/2024				
SDG Ref			240408-37	240408-37				
Lab Sample No.(s)			29617781	29617784				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 #	2.41 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 #	<1 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 #	<1 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpA (375-85-9)	<1 ng/l	TM434	1.86 #	<1 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	2.86 #	<0.65 #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #				
PFNA (375-95-1)	<1 ng/l	TM434	2.36 #	<1 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	9.72 #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.28 #	<0.65 #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #				

12:56:14 18/04/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-37 **Report Number:** 726244 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			Gardeners Well A	Gardeners Well B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			04/04/2024	04/04/2024				
Sample Time			.	.				
Date Received			08/04/2024	08/04/2024				
SDG Ref			240408-37	240408-37				
Lab Sample No.(s)			29617781	29617784				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<10 #	<1 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10				
Total PFOS	<0.65 ng/l	TM434	1.28 #	<0.65 #				

12:56:14 18/04/2024

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	29617781	29617784
Customer Sample Ref.	Gardeners Well A	Gardeners Well B
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water
PFAS Liquids (Full Suite)	18-Apr-2024	16-Apr-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
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Northwood Crescent
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Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	06 November 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240719-89
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	746000
Order Number:	Z4448

This report has been revised and directly supersedes 736361 in its entirety.

We received 20 samples on Friday July 19, 2024 and 20 of these samples were scheduled for analysis which was completed on Wednesday July 31, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data i s correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30104057	GW001-A		0.00 - 0.00	15/07/2024
30104107	GW004-A		0.00 - 0.00	15/07/2024
30104049	GW007-A		0.00 - 0.00	15/07/2024
30104035	GW008-A		0.00 - 0.00	15/07/2024
30104099	GW014-A		0.00 - 0.00	15/07/2024
30104068	GW015-A		0.00 - 0.00	15/07/2024
30104060	GW001-B		0.00 - 0.00	15/07/2024
30104102	GW004-B		0.00 - 0.00	15/07/2024
30104052	GW007-B		0.00 - 0.00	15/07/2024
30104032	GW008-B		0.00 - 0.00	15/07/2024
30104094	GW014-B		0.00 - 0.00	15/07/2024
30104028	GW015-B		0.00 - 0.00	15/07/2024
30104064	GW002D-A		0.00 - 0.00	15/07/2024
30104046	GW003D-A		0.00 - 0.00	15/07/2024
30104039	GW005D-A		0.00 - 0.00	15/07/2024
30104073	GW002D-B		0.00 - 0.00	15/07/2024
30104090	GW03D-B		0.00 - 0.00	15/07/2024
30104043	GW005D-B		0.00 - 0.00	15/07/2024
30104085	GWFB		0.00 - 0.00	15/07/2024
30104077	GWTB		0.00 - 0.00	15/07/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

		Lab Sample No(s)	30104057	30104107	30104049	30104035	30104099	30104068	30104060	30104102	30104052	30104032	30104094	30104028	30104064	30104046	30104039	30104073	30104090	30104043	30104085
		Customer Sample Reference	GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A	GW001-B	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B	GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B	GWFB
		AGS Reference																			
		Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
		Container	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
		Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 1																			N
		Tests: 20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

30104077	GWTB		0.00 - 0.00	Digitube fo PFAS analysis.	GW	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-89	240719-89	240719-89	240719-89	240719-89	240719-89
Lab Sample No.(s)			30104057	30104107	30104049	30104035	30104099	30104068
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<10 @ #	8.57 #	12.7 #	10.3 #	6.12 #	26.8 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	104 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	106 @ #	<1 #	25.5 #	4.22 #	3.11 #	103 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 @ #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	24.3 @ #	1.95 #	3.42 #	3.7 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	92.1 @ #	6.87 #	20.5 #	6.63 #	1.65 #	26.5 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	56.3 @ #	2.4 #	9.32 #	2.56 #	<1 #	5.2 #
PFPeS (2706-91-4)	<1 ng/l	TM434	11.3 @ #	<1 #	2.5 #	3.73 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 @ #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	77.4 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	107 @ #	<1 #	<1 #	<1 #	8.48 #	14.5 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 @ #	1.32 #	<1 #	2.11 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	49.1 @ #	1.84 #	5.68 #	3.12 #	<0.65 #	0.935 #
PFHxS (355-46-4)	<1 ng/l	TM434	84.2 @ #	3.34 #	17.1 #	26.7 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	11.3 @ #	<1 #	2.95 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	66 @ #	359 #	14.8 #	19 #	<1 #	2.48 #
PFHpS (375-92-8)	<1 ng/l	TM434	5.41 @ #	<1 #	<1 #	1.3 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	20.9 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 @ #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 @ #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	54 @ #	13.8 #	6.86 #	30.9 #	<0.65 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	64 @ #	15.1 #	14.9 #	17.6 #	<0.65 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #

16:31:26 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-89	240719-89	240719-89	240719-89	240719-89	240719-89
Lab Sample No.(s)			30104057	30104107	30104049	30104035	30104099	30104068
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	5.66 @ #	<1 #	<1 #	1.41 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 @ #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 @ #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 @ #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50 @	<10	<10	<10	<10	112
Total PFOS	<0.65 ng/l	TM434	118 @ #	28.9 #	21.7 #	48.5 #	<0.65 #	<0.65 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-B	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-89	240719-89	240719-89	240719-89	240719-89	240719-89
Lab Sample No.(s)			30104060	30104102	30104052	30104032	30104094	30104028
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<10 @ #	<2 #	14.1 #	11.7 #	7.53 #	24.3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	24.5 @ #	<1 #	25 #	4.6 #	3.52 #	106 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 @ #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<5 @ #	2.9 #	3.53 #	3.82 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	20.8 @ #	3.69 #	19.1 #	7.82 #	1.77 #	25.4 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	12.5 @ #	2.29 #	8.45 #	2.45 #	1.08 #	4.96 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 @ #	<1 #	2.43 #	4.17 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 @ #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	23.4 @ #	<1 #	<1 #	<1 #	2.09 #	14.6 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 @ #	1.28 #	<1 #	2.72 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	10.1 @ #	2.01 #	5.54 #	3.32 #	<0.65 #	1.21 #
PFHxS (355-46-4)	<1 ng/l	TM434	19 @ #	4.14 #	16.3 #	28.4 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<5 @ #	<1 #	2.7 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	15.8 @ #	378 #	14.6 #	21.6 #	<1 #	2.5 #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	1.37 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 @ #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 @ #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	11.8 @ #	17.2 #	6.33 #	36.4 #	<0.65 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	14 @ #	16.1 #	12.8 #	19.9 #	<0.65 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #

16:31:26 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-B	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-89	240719-89	240719-89	240719-89	240719-89	240719-89
Lab Sample No.(s)			30104060	30104102	30104052	30104032	30104094	30104028
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	1.78 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 @ #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 @ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 @ #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 @ #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50 @	<10	<10	<10	<10	119
Total PFOS	<0.65 ng/l	TM434	25.7 @ #	33.3 #	19.2 #	56.3 #	<0.65 #	<0.65 #

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CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-89	240719-89	240719-89	240719-89	240719-89	240719-89
Lab Sample No.(s)			30104064	30104046	30104039	30104073	30104090	30104043
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	24.1 @ #	<10 @ #	18.1 #	27.7 @ #	<10 @ #	16.3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	79.6 @ #	<5 @ #	43.8 #	85.6 @ #	<5 @ #	42.9 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 @ #	<15 @ #	<3 #	<3 @ #	<15 @ #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	2.61 @ #	<5 @ #	16.1 #	3.15 @ #	<5 @ #	16.4 #
PFHxA (307-24-4)	<1 ng/l	TM434	47.4 @ #	<5 @ #	46.2 #	51.7 @ #	<5 @ #	51.9 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	38 @ #	<5 @ #	18.3 #	44.5 @ #	<5 @ #	19 #
PFPeS (2706-91-4)	<1 ng/l	TM434	1.89 @ #	<5 @ #	14.6 #	1.96 @ #	<5 @ #	15.1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 @ #	<25 @ #	<5 #	<5 @ #	<25 @ #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	1.85 @ #	<5 @ #	75.2 #	2.42 @ #	<5 @ #	72.9 #
FBSA (30334-69-1)	<1 ng/l	TM434	1.15 @ #	<5 @ #	3.35 #	1.34 @ #	<5 @ #	2.99 #
PFOA (335-67-1)	<0.65 ng/l	TM434	18.1 @ #	6.67 @ #	17.5 #	20.3 @ #	<3.25 @ #	16.4 #
PFHxS (355-46-4)	<1 ng/l	TM434	17.8 @ #	<5 @ #	86.3 #	19.8 @ #	<5 @ #	88.8 #
PFNA (375-95-1)	<1 ng/l	TM434	3.13 @ #	<5 @ #	2.09 #	3.89 @ #	<5 @ #	2 #
PFecHS (133201-07-7)	<1 ng/l	TM434	70.2 @ #	<5 @ #	45.1 #	76.9 @ #	<5 @ #	46.9 #
PFHpS (375-92-8)	<1 ng/l	TM434	1.91 @ #	<5 @ #	<1 #	1.68 @ #	<5 @ #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 @ #	<25 @ #	<5 #	<5 @ #	<25 @ #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 @ #	<25 @ #	<5 #	<5 @ #	<25 @ #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	15.5 @ #	<3.25 @ #	1.29 #	18.4 @ #	<3.25 @ #	1.25 #
Branched PFOS	<0.65 ng/l	TM434	23.8 @ #	<3.25 @ #	13.2 #	25.3 @ #	<3.25 @ #	12.9 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #

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CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024	15/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-89	240719-89	240719-89	240719-89	240719-89	240719-89
Lab Sample No.(s)			30104064	30104046	30104039	30104073	30104090	30104043
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	2.59 @ #	<5 @ #	<1 #	2.98 @ #	<5 @ #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 @ #	<15 @ #	<3 #	<3 @ #	<15 @ #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 #	<2 @ #	<10 @ #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 @ #	<50 @ #	<10 #	<10 @ #	<50 @ #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 @ #	<50 @ #	<10 #	<10 @ #	<50 @ #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 #	<1 @ #	<5 @ #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 @	<50 @	<10	<10 @	<50 @	<10
Total PFOS	<0.65 ng/l	TM434	39.3 @ #	<3.25 @ #	14.5 #	43.7 @ #	<3.25 @ #	14.2 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GWFB	GWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			15/07/2024	15/07/2024				
Sample Time			.	.				
Date Received			19/07/2024	19/07/2024				
SDG Ref			240719-89	240719-89				
Lab Sample No.(s)			30104085	30104077				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 #	<2 @ #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 @ #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 @ #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 #	<1 @ #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 @ #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 @ #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 @ #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 @ #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 #	<1 @ #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 @ #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 @ #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 #	<1 @ #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 @ #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 @ #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 @ #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 @ #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 @ #				
PFOA (335-67-1)	<0.65 ng/l	TM434	0.979 #	<0.65 @ #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 @ #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 @ #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<1 @ #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 @ #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 @ #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 @ #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 @ #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 @ #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 @ #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.05 #	<0.65 @ #				
Branched PFOS	<0.65 ng/l	TM434	0.682 #	<0.65 @ #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 @ #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 @ #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 @ #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 @ #				

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CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GWFB	GWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			15/07/2024	15/07/2024				
Sample Time			.	.				
Date Received			19/07/2024	19/07/2024				
SDG Ref			240719-89	240719-89				
Lab Sample No.(s)			30104085	30104077				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 @ #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 @ #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 @ #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 @ #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 @ #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 @ #				
PFTeA (376-06-7)	<1 ng/l	TM434	1.4 #	<1 @ #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 @ #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 @ #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	1.04 #	<1 @ #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	1.55 #	<1 @ #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	10.7 0 #	<10 @ #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 @ #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	10.8 0 #	<10 @ #				
PFODA (16517-11-6)	<1 ng/l	TM434	1.67 #	<1 @ #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 @ #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10 @				
Total PFOS	<0.65 ng/l	TM434	1.73 #	<0.65 @ #				

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CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Notification of NDPs (No determination possible)

Date Received : 19/07/2024 13:55:45

Sample No	Customer Sample Ref.	Depth (m)	Test	Comment
30104085	GWFB	0.00 - 0.00	PFAS Liquids (Full Suite)	Insufficient Sample

CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Data Amendment

Sample No. : 30104085 **Date of Amendment :** 05/11/2024 **Authorised:** Mantas Rogulis

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
GWFB	Deviation Issue	PFAS Liquids (Full Suite)	EtFOSE (1691-99-2)	N/A	Not non-conformed	Non-conformed for holding time
GWFB	Deviation Issue	PFAS Liquids (Full Suite)	MeFOSE (24448-09-7)	N/A	Not non-conformed	Non-conformed for holding time

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

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CERTIFICATE OF ANALYSIS

SDG: 240719-89 **Report Number:** 746000 **Superseded Report:** 736361
Client Ref.: P21-195 **Location:** Dublin Airport

Test Completion Dates

Lab Sample No(s)	30104057	30104107	30104049	30104035	30104099	30104068	30104060	30104102	30104052	30104032
Customer Sample Ref.	GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A	GW001-B	GW004-B	GW007-B	GW008-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	31-Jul-2024	30-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	31-Jul-2024	30-Jul-2024	29-Jul-2024	29-Jul-2024

Lab Sample No(s)	30104094	30104028	30104064	30104046	30104039	30104073	30104090	30104043	30104085	30104077
Customer Sample Ref.	GW014-B	GW015-B	GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B	GWFB	GWTB
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	29-Jul-2024	29-Jul-2024	31-Jul-2024	31-Jul-2024	29-Jul-2024	31-Jul-2024	31-Jul-2024	29-Jul-2024	29-Jul-2024	30-Jul-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
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Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	06 November 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240719-94
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	745998
Order Number:	Z4448

This report has been revised and directly supersedes 736708 in its entirety.

We received 18 samples on Friday July 19, 2024 and 18 of these samples were scheduled for analysis which was completed on Friday August 02, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30104362	GW11A		0.00 - 0.00	16/07/2024
30104429	GW12A		0.00 - 0.00	16/07/2024
30104439	GW13A		0.00 - 0.00	16/07/2024
30104449	GW14A		0.00 - 0.00	16/07/2024
30104458	GW15A		0.00 - 0.00	16/07/2024
30104368	GW16A		0.00 - 0.00	16/07/2024
30104376	GW17A		0.00 - 0.00	16/07/2024
30104395	GW18A		0.00 - 0.00	15/07/2024
30104410	GW19A		0.00 - 0.00	15/07/2024
30104425	GW11B		0.00 - 0.00	16/07/2024
30104435	GW12B		0.00 - 0.00	16/07/2024
30104445	GW13B		0.00 - 0.00	16/07/2024
30104455	GW14B		0.00 - 0.00	16/07/2024
30104365	GW15B		0.00 - 0.00	16/07/2024
30104372	GW16B		0.00 - 0.00	16/07/2024
30104388	GW17B		0.00 - 0.00	16/07/2024
30104403	GW18B		0.00 - 0.00	15/07/2024
30104420	GW19B		0.00 - 0.00	15/07/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-94 **Report Number:** 745998 **Superseded Report:** 736708
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

	Lab Sample No(s)		30104362	30104429	30104439	30104449	30104458	30104368	30104376	30104395	30104410	30104425	30104435	30104445	30104455	30104365	30104372	30104388	30104403	30104420
	Customer Sample Reference		GW11A	GW12A	GW13A	GW14A	GW15A	GW16A	GW17A	GW18A	GW19A	GW11B	GW12B	GW13B	GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
	AGS Reference																			
	Depth (m)		0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	Container		Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
	Sample Type		GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-94 **Report Number:** 745998 **Superseded Report:** 736708
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW11A	GW12A	GW13A	GW14A	GW15A	GW16A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-94	240719-94	240719-94	240719-94	240719-94	240719-94
Lab Sample No.(s)			30104362	30104429	30104439	30104449	30104458	30104368
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	54.7 @ #	10.2 #	2.5 @ #	68.9 #	8.51 #	31.6 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.54 #	<5 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
PFPA (2706-90-3)	<1 ng/l	TM434	193 @ #	34.6 #	<1 @ #	364 #	7.63 #	93.9 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.62 #	<5 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.41 #	<5 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 @ #	<3 #	<3 @ #	<3 #	<3 #	<15 #
PFBS (375-73-5)	<1 ng/l	TM434	4.07 @ #	<1 #	<1 @ #	<1 #	1.39 #	<5 #
PFHxA (307-24-4)	<1 ng/l	TM434	95.6 @ #	11.9 #	<1 @ #	148 #	5.12 #	49 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.33 #	<5 #
PFHpA (375-85-9)	<1 ng/l	TM434	38.7 @ #	3.05 #	<1 @ #	32 #	4.63 #	17.5 #
PFPeS (2706-91-4)	<1 ng/l	TM434	3.08 @ #	<1 #	<1 @ #	<1 #	1.13 #	<5 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 @ #	<5 #	<5 @ #	<5 #	<5 #	<25 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.73 #	<5 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	278 @ #	6.29 #	<1 @ #	7.57 #	1.19 #	20.4 #
FBSA (30334-69-1)	<1 ng/l	TM434	2.35 @ #	<1 #	<1 @ #	<1 #	<1 #	<5 #
PFOA (335-67-1)	<0.65 ng/l	TM434	24.9 @ #	0.995 #	<0.65 @ #	4.58 #	3.44 #	8.19 #
PFHxS (355-46-4)	<1 ng/l	TM434	24 @ #	1.66 #	<1 @ #	3.25 #	2.59 #	11.4 #
PFNA (375-95-1)	<1 ng/l	TM434	6.13 @ #	<1 #	<1 @ #	<1 #	1.74 #	<5 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.25 @ #	<1 #	<1 @ #	<1 #	1.39 #	<5 #
PFHpS (375-92-8)	<1 ng/l	TM434	1.04 @ #	<1 #	<1 @ #	<1 #	1.22 #	<5 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	80.6 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 @ #	<5 #	<5 @ #	<5 #	6.77 #	<25 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 @ #	<5 #	<5 @ #	<5 #	<5 #	<25 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	47.2 @ #	1.2 #	<0.65 @ #	<0.65 #	1.44 #	<3.25 #
Branched PFOS	<0.65 ng/l	TM434	15.6 @ #	1.63 #	<0.65 @ #	0.722 #	1.24 #	8.25 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.46 #	<5 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.34 #	<5 #

16:29:06 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-94 **Report Number:** 745998 **Superseded Report:** 736708
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW11A	GW12A	GW13A	GW14A	GW15A	GW16A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-94	240719-94	240719-94	240719-94	240719-94	240719-94
Lab Sample No.(s)			30104362	30104429	30104439	30104449	30104458	30104368
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	6.08 @ #	<1 #	<1 @ #	<1 #	<1 #	<5 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 @ #	<3 #	<3 @ #	<3 #	<3 #	<15 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	2.21 #	<5 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 @ #	<2 #	<2 @ #	<2 #	<2 #	<10 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.62 #	<5 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	2.1 #	<5 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 @ #	<10 #	<10 @ #	<10 #	20.1 0 #	<50 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.11 #	<5 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 @ #	<10 #	<10 @ #	<10 #	20.3 0 #	<50 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	2.44 #	<5 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 @ #	<1 #	<1 @ #	<1 #	1.36 #	<5 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	5080 @	14.2	<10 @	<10	15.7	<50
Total PFOS	<0.65 ng/l	TM434	62.8 @ #	2.83 #	<0.65 @ #	0.722 #	2.68 #	8.25 #

16:29:06 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-94 **Report Number:** 745998 **Superseded Report:** 736708
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW17A	GW18A	GW19A	GW11B	GW12B	GW13B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	15/07/2024	15/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-94	240719-94	240719-94	240719-94	240719-94	240719-94
Lab Sample No.(s)			30104376	30104395	30104410	30104425	30104435	30104445
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	51.2 @ #	9.4 #	2.21 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	198 @ #	33.4 #	<1 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<30 #	<30 @ #	<30 #	<3 @ #	<3 #	<3 @ #
PFBS (375-73-5)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	4.02 @ #	<1 #	<1 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	89.6 @ #	11.5 #	<1 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	38.5 @ #	3.12 #	<1 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	2.98 @ #	<1 #	<1 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<50 #	<50 @ #	<50 #	<5 @ #	<5 #	<5 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<10 #	<10 @ #	21.2 #	272 @ #	6.06 #	<1 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	2.89 @ #	<1 #	<1 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	<6.5 #	<6.5 @ #	<6.5 #	24.5 @ #	1.05 #	<0.65 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	22.8 @ #	1.69 #	<1 @ #
PFNA (375-95-1)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	6.44 @ #	<1 #	<1 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	1.23 @ #	<1 #	<1 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	1.1 @ #	<1 #	<1 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	80.8 @ #	<2 #	<2 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<50 #	<50 @ #	<50 #	<5 @ #	<5 #	<5 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<50 #	<50 @ #	<50 #	<5 @ #	<5 #	<5 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<6.5 #	<6.5 @ #	<6.5 #	46.3 @ #	1.17 #	<0.65 @ #
Branched PFOS	<0.65 ng/l	TM434	<6.5 #	<6.5 @ #	<6.5 #	15.2 @ #	1.92 #	<0.65 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-94 **Report Number:** 745998 **Superseded Report:** 736708
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW17A	GW18A	GW19A	GW11B	GW12B	GW13B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	15/07/2024	15/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-94	240719-94	240719-94	240719-94	240719-94	240719-94
Lab Sample No.(s)			30104376	30104395	30104410	30104425	30104435	30104445
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	7.22 @ #	<1 #	<1 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<30 #	<30 @ #	<30 #	<3 @ #	<3 #	<3 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<20 #	<20 @ #	<20 #	<2 @ #	<2 #	<2 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<100 #	<100 @ #	<100 #	<10 @ #	<10 #	<10 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<100 #	<100 @ #	<100 #	<10 @ #	<10 #	<10 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<10 #	<10 @ #	<10 #	<1 @ #	<1 #	<1 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<100	<100 @	<100	3800 @	11.2	<10 @
Total PFOS	<0.65 ng/l	TM434	<6.5 #	<6.5 @ #	<6.5 #	61.5 @ #	3.09 #	<0.65 @ #

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CERTIFICATE OF ANALYSIS

SDG: 240719-94 **Report Number:** 745998 **Superseded Report:** 736708
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	15/07/2024	15/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-94	240719-94	240719-94	240719-94	240719-94	240719-94
Lab Sample No.(s)			30104455	30104365	30104372	30104388	30104403	30104420
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	71 #	<10 #	28.5 #	28.2 #	<2 #	<20 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
PFPA (2706-90-3)	<1 ng/l	TM434	367 #	6.81 #	99.3 #	<10 #	<1 #	<10 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<15 #	<3 #	<30 #	<3 #	<30 #
PFBS (375-73-5)	<1 ng/l	TM434	1.16 #	<5 #	1.96 #	<10 #	<1 #	<10 #
PFHxA (307-24-4)	<1 ng/l	TM434	139 #	5.83 #	41.9 #	<10 #	<1 #	<10 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
PFHpA (375-85-9)	<1 ng/l	TM434	34 #	6.64 #	14.2 #	<10 #	<1 #	<10 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<5 #	1.78 #	<10 #	<1 #	<10 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<25 #	<5 #	<50 #	<5 #	<50 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	7.15 #	16.1 #	15.2 #	<10 #	<1 #	<10 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
PFOA (335-67-1)	<0.65 ng/l	TM434	4.81 #	5.01 #	4.33 #	<6.5 #	0.947 #	<6.5 #
PFHxS (355-46-4)	<1 ng/l	TM434	3.32 #	<5 #	9.03 #	<10 #	<1 #	<10 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<25 #	<5 #	<50 #	<5 #	<50 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<25 #	<5 #	<50 #	<5 #	<50 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<3.25 #	1.86 #	<6.5 #	0.945 #	<6.5 #
Branched PFOS	<0.65 ng/l	TM434	0.742 #	<3.25 #	6.29 #	<6.5 #	<0.65 #	<6.5 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-94 **Report Number:** 745998 **Superseded Report:** 736708
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	15/07/2024	15/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-94	240719-94	240719-94	240719-94	240719-94	240719-94
Lab Sample No.(s)			30104455	30104365	30104372	30104388	30104403	30104420
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<15 #	<3 #	<30 #	<3 #	<30 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	1.17 #	<10 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<10 #	<2 #	<20 #	<2 #	<20 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	1.23 #	<10 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<50 #	<10 #	<100 #	<10 #	<100 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<50 #	<10 #	<100 #	<10 #	<100 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	1.19 #	<10 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<5 #	<1 #	<10 #	<1 #	<10 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<50	<10	<100	<10	<100
Total PFOS	<0.65 ng/l	TM434	0.742 #	<3.25 #	8.14 #	<6.5 #	0.945 #	<6.5 #

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Data Amendment

Sample No. : 30104458 **Date of Amendment :** 05/11/2024 **Authorised:** Mantas Rogulis

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
GW15A	Deviation Issue	PFAS Liquids (Full Suite)	EtFOSE (1691-99-2)	N/A	Not non-conformed	Non-conformed for holding time
GW15A	Deviation Issue	PFAS Liquids (Full Suite)	MeFOSE (24448-09-7)	N/A	Not non-conformed	Non-conformed for holding time

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-94 **Report Number:** 745998 **Superseded Report:** 736708
Client Ref.: P21-195 **Location:** Dublin Airport

Test Completion Dates

Lab Sample No(s)	30104362	30104429	30104439	30104449	30104458	30104368	30104376	30104395	30104410	30104425
Customer Sample Ref.	GW11A	GW12A	GW13A	GW14A	GW15A	GW16A	GW17A	GW18A	GW19A	GW11B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	01-Aug-2024	29-Jul-2024	02-Aug-2024	30-Jul-2024	29-Jul-2024	30-Jul-2024	29-Jul-2024	30-Jul-2024	29-Jul-2024	01-Aug-2024

Lab Sample No(s)	30104435	30104445	30104455	30104365	30104372	30104388	30104403	30104420
Customer Sample Ref.	GW12B	GW13B	GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
AGS Ref.								
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	30-Jul-2024	02-Aug-2024	30-Jul-2024	30-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	31 July 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240719-93
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	736311
Order Number:	Z4448

We received 14 samples on Friday July 19, 2024 and 14 of these samples were scheduled for analysis which was completed on Wednesday July 31, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30104297	BH1A		0.00 - 0.00	16/07/2024
30104289	BH5A		0.00 - 0.00	16/07/2024
30104281	BH6A		0.00 - 0.00	16/07/2024
30104324	BH7A		0.00 - 0.00	16/07/2024
30104301	BH9A		0.00 - 0.00	16/07/2024
30104294	BH1B		0.00 - 0.00	16/07/2024
30104285	BH5B		0.00 - 0.00	16/07/2024
30104329	BH6B		0.00 - 0.00	16/07/2024
30104321	BH7B		0.00 - 0.00	16/07/2024
30104269	BH9B		0.00 - 0.00	16/07/2024
30104308	BH8DA		0.00 - 0.00	16/07/2024
30104304	BH8DB		0.00 - 0.00	16/07/2024
30104317	BH8SA		0.00 - 0.00	16/07/2024
30104313	BH8SB		0.00 - 0.00	16/07/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-93 **Report Number:** 736311 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30104297	30104289	30104281	30104324	30104301	30104294	30104285	30104329	30104321	30104269	30104308	30104304	30104317	30104313
Customer Sample Reference			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B	BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB	BH8SA	BH8SB
AGS Reference																
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 14	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-93 **Report Number:** 736311 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-93	240719-93	240719-93	240719-93	240719-93	240719-93
Lab Sample No.(s)			30104297	30104289	30104281	30104324	30104301	30104294
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	6.88 #	4.04 #	<2 #	42.5 #	<2 #	5.21 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	4.5 #	1.94 #	<1 #	56.4 #	<1 #	3.9 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	1.93 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	3.93 #	1.59 #	<1 #	14.4 #	<1 #	3.77 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	1.43 #	<1 #	<1 #	1.38 #	<1 #	1.66 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.41 #	<0.65 #	<0.65 #	<0.65 #	<0.65 #	2.67 #
PFHxS (355-46-4)	<1 ng/l	TM434	1.24 #	<1 #	<1 #	1.08 #	<1 #	1.24 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	2.23 #	<1 #	<1 #	<1 #	<1 #	2.06 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #	<0.65 #	<0.65 #	<0.65 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	1.19 #	0.988 #	<0.65 #	<0.65 #	<0.65 #	1.22 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-93 **Report Number:** 736311 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-93	240719-93	240719-93	240719-93	240719-93	240719-93
Lab Sample No.(s)			30104297	30104289	30104281	30104324	30104301	30104294
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	1.19 #	0.988 #	<0.65 #	<0.65 #	<0.65 #	1.22 #

11:34:32 31/07/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-93 **Report Number:** 736311 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-93	240719-93	240719-93	240719-93	240719-93	240719-93
Lab Sample No.(s)			30104285	30104329	30104321	30104269	30104308	30104304
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	3.35 #	<2 #	42 #	<2 #	13 @ #	15.3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	2.14 #	<1 #	59.7 #	<1 #	16.7 @ #	17.8 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 @ #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	1.77 #	<1 #	1.48 @ #	1.48 #
PFHxA (307-24-4)	<1 ng/l	TM434	1.66 #	<1 #	13.5 #	<1 #	4.17 @ #	5.02 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	1.03 #	<1 #	1.16 #	<1 #	<1 @ #	1.15 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 @ #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #	<0.65 #	<0.65 #	<0.65 @ #	<0.65 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #	1.09 #	<1 #	2.6 @ #	2.88 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	8.96 @ #	9.98 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 @ #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 @ #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.662 #	<0.65 #	<0.65 #	<0.65 #	<0.65 @ #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	1.07 #	<0.65 #	<0.65 #	<0.65 #	<0.65 @ #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #

11:34:32 31/07/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-93 **Report Number:** 736311 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-93	240719-93	240719-93	240719-93	240719-93	240719-93
Lab Sample No.(s)			30104285	30104329	30104321	30104269	30104308	30104304
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 @ #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 @ #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 @ #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<10	<10	<10 @	<10
Total PFOS	<0.65 ng/l	TM434	1.73 #	<0.65 #	<0.65 #	<0.65 #	<0.65 @ #	<0.65 #

11:34:32 31/07/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-93 **Report Number:** 736311 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH8SA	BH8SB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			16/07/2024	16/07/2024				
Sample Time			.	.				
Date Received			19/07/2024	19/07/2024				
SDG Ref			240719-93	240719-93				
Lab Sample No.(s)			30104317	30104313				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	13.5 #	14.4 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #				
PFPA (2706-90-3)	<1 ng/l	TM434	17.1 #	15.9 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #				
PFBS (375-73-5)	<1 ng/l	TM434	1.66 #	1.67 #				
PFHxA (307-24-4)	<1 ng/l	TM434	4.56 #	5 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpA (375-85-9)	<1 ng/l	TM434	1.54 #	1.35 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
PFHxS (355-46-4)	<1 ng/l	TM434	3.56 #	3.68 #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	12.4 #	12.8 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
Branched PFOS	<0.65 ng/l	TM434	0.908 #	0.95 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #				

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-93 **Report Number:** 736311 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH8SA	BH8SB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			16/07/2024	16/07/2024				
Sample Time			.	.				
Date Received			19/07/2024	19/07/2024				
SDG Ref			240719-93	240719-93				
Lab Sample No.(s)			30104317	30104313				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10				
Total PFOS	<0.65 ng/l	TM434	0.908 #	0.95 #				

11:34:32 31/07/2024

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-93 **Report Number:** 736311 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Test Completion Dates

Lab Sample No(s)	30104297	30104289	30104281	30104324	30104301	30104294	30104285	30104329	30104321	30104269
Customer Sample Ref.	BH1A	BH5A	BH6A	BH7A	BH9A	BH1B	BH5B	BH6B	BH7B	BH9B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024

Lab Sample No(s)	30104308	30104304	30104317	30104313
Customer Sample Ref.	BH8DA	BH8DB	BH8SA	BH8SB
AGS Ref.				
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	31-Jul-2024	30-Jul-2024	30-Jul-2024	30-Jul-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	30 July 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240719-86
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	736175
Order Number:	Z4448

We received 2 samples on Friday July 19, 2024 and 2 of these samples were scheduled for analysis which was completed on Tuesday July 30, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30103992	Gardeners Well A		0.00 - 0.00	16/07/2024
30104006	Gardeners Well B		0.00 - 0.00	16/07/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-86 **Report Number:** 736175 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

	Lab Sample No(s)		30103992	30104006
	Customer Sample Reference		Gardeners Well A	Gardeners Well B
	AGS Reference			
	Depth (m)		0.00 - 0.00	0.00 - 0.00
	Container		Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
	Sample Type		GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 2	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-86 **Report Number:** 736175 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			Gardeners Well A	Gardeners Well B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			16/07/2024	16/07/2024				
Sample Time			.	.				
Date Received			19/07/2024	19/07/2024				
SDG Ref			240719-86	240719-86				
Lab Sample No.(s)			30103992	30104006				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 #	<2 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 #	<1 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 #	<1 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 #	<1 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #				

09:21:05 30/07/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-86 **Report Number:** 736175 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			Gardeners Well A	Gardeners Well B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			16/07/2024	16/07/2024				
Sample Time			.	.				
Date Received			19/07/2024	19/07/2024				
SDG Ref			240719-86	240719-86				
Lab Sample No.(s)			30103992	30104006				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10				
Total PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 #				

09:21:05 30/07/2024

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30103992	30104006
Customer Sample Ref.	Gardeners Well A	Gardeners Well B
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water
PFAS Liquids (Full Suite)	30-Jul-2024	30-Jul-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	25 October 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241004-96
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	744836
Order Number:	Z4534

We received 18 samples on Friday October 04, 2024 and 18 of these samples were scheduled for analysis which was completed on Friday October 25, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30466953	GW001-A		0.00 - 0.00	02/10/2024
30467003	GW004-A		0.00 - 0.00	02/10/2024
30466945	GW007-A		0.00 - 0.00	02/10/2024
30467014	GW008-A		0.00 - 0.00	02/10/2024
30466994	GW014-A		0.00 - 0.00	02/10/2024
30466974	GW015-A		0.00 - 0.00	02/10/2024
30466957	GW001-B		0.00 - 0.00	02/10/2024
30466999	GW004-B		0.00 - 0.00	02/10/2024
30466949	GW007-B		0.00 - 0.00	02/10/2024
30467007	GW008-B		0.00 - 0.00	02/10/2024
30466987	GW014-B		0.00 - 0.00	02/10/2024
30466921	GW015-B		0.00 - 0.00	02/10/2024
30466963	GW002D-A		0.00 - 0.00	02/10/2024
30466940	GW003D-A		0.00 - 0.00	02/10/2024
30466926	GW005D-A		0.00 - 0.00	02/10/2024
30466968	GW002D-B		0.00 - 0.00	02/10/2024
30466981	GW03D-B		0.00 - 0.00	02/10/2024
30466933	GW005D-B		0.00 - 0.00	02/10/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-96 **Report Number:** 744836 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30466953	30467003	30466945	30467014	30466994	30466974	30466957	30466999	30466949	30467007	30466987	30466921	30466963	30466940	30466926	30466968	30466981	30466933
Customer Sample Reference			GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A	GW001-B	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B	GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
AGS Reference																				
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-96 **Report Number:** 744836 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			-	-	-	-	-	-
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-96	241004-96	241004-96	241004-96	241004-96	241004-96
Lab Sample No.(s)			30466953	30467003	30466945	30467014	30466994	30466974
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	10.6 3 #	<10 3 #	14.4 #	6.7 #	2.48 3 #	43.3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	53 3 #	6.95 3 #	30 #	3.62 #	2.04 3 #	199 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 3 #	<10 3 #	<1 #	<1 #	<1 3 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 3 #	<15 3 #	<3 #	<3 #	<3 3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	11.7 3 #	<5 3 #	5.3 #	3.28 #	<1 3 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	44.1 3 #	<5 3 #	26.6 #	3.3 #	<1 3 #	40.2 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	25.8 3 #	<5 3 #	11.4 #	<1 #	<1 3 #	9.42 #
PFPeS (2706-91-4)	<1 ng/l	TM434	6.9 3 #	<5 3 #	4.26 #	2.7 #	<1 3 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<50 3 #	<25 3 #	<5 #	<5 #	<5 3 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	67 3 #	<5 3 #	<1 #	<1 #	<1 3 #	20.5 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	4.93 #	<1 3 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	21.4 3 #	3.38 3 #	6.08 #	2.23 #	0.757 3 #	2.44 #
PFHxS (355-46-4)	<1 ng/l	TM434	40.4 3 #	<10 3 #	26.2 #	15.7 #	<1 3 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	6.17 3 #	<5 3 #	2.04 #	<1 #	<1 3 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	47.2 3 #	430 3 #	22.6 #	11.2 #	1.23 3 #	4.07 #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	2.09 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 3 #	<25 3 #	<5 #	<5 #	<5 3 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 3 ♦ #	<10 3 ♦ #	<2 #	<2 #	<2 3 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 3 #	<25 3 #	<5 #	<5 #	<5 3 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	17.2 3 #	11.7 3 #	2.82 #	17.6 #	<0.65 3 #	0.834 #
Branched PFOS	<0.65 ng/l	TM434	36.8 3 #	12.4 3 #	6.55 #	8.28 #	<0.65 3 #	0.883 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 3 ♦ #	<10 3 ♦ #	<2 #	<2 #	<2 3 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #

15:25:29 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-96 **Report Number:** 744836 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-96	241004-96	241004-96	241004-96	241004-96	241004-96
Lab Sample No.(s)			30466953	30467003	30466945	30467014	30466994	30466974
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	6.71 #	<1 3 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 3 #	<15 3 #	<3 #	<3 #	<3 3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 3 #	<10 3 #	<2 #	<2 #	<2 3 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 3 ♦ #	<50 3 ♦ #	<10 #	<10 #	<10 3 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 3 ♦ #	<50 3 ♦ #	<10 #	<10 #	<10 3 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 3 #	<5 3 #	<1 #	<1 #	<1 3 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50 3	<50 3	<10	<10	<10 3	144
Total PFOS	<0.65 ng/l	TM434	54 3 #	24.1 3 #	9.37 #	25.8 #	<0.65 3 #	1.72 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-96 **Report Number:** 744836 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-B	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			-	-	-	-	-	-
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-96	241004-96	241004-96	241004-96	241004-96	241004-96
Lab Sample No.(s)			30466957	30466999	30466949	30467007	30466987	30466921
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	29.6 #	6.5 3 #	9.78 3 #	5.47 3 #	<10 ♦ #	43.6 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<5 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	2.9 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	88.8 #	4.68 3 #	20.9 3 #	3.36 3 #	<5 ♦ #	202 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 3 #	<3 3 #	<3 3 #	<15 ♦ #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	15 #	2.87 3 #	5.51 3 #	2.8 3 #	<5 ♦ #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	65.5 #	3.6 3 #	19.1 3 #	2.75 3 #	<5 ♦ #	49.4 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	39.1 #	2.45 3 #	9.89 3 #	1.19 3 #	<5 ♦ #	11.2 #
PFPeS (2706-91-4)	<1 ng/l	TM434	8.29 #	<1 3 #	4.85 3 #	2.56 3 #	<5 ♦ #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 3 #	<5 3 #	<5 3 #	<25 ♦ #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<5 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	89.9 #	<1 3 #	1.17 3 #	<1 3 #	<5 ♦ #	22.5 #
FBSA (30334-69-1)	<1 ng/l	TM434	5.11 #	<1 3 #	<1 3 #	1.21 3 #	<5 ♦ #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	29.7 #	2.27 3 #	5.02 3 #	2.17 3 #	<3.25 ♦ #	2.58 #
PFHxS (355-46-4)	<1 ng/l	TM434	60.3 #	2.61 3 #	25.4 3 #	13.1 3 #	<5 ♦ #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	6.5 #	<1 3 #	1.15 3 #	<1 3 #	<5 ♦ #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	42.2 #	394 3 #	15.7 3 #	11.2 3 #	<5 ♦ #	4.26 #
PFHpS (375-92-8)	<1 ng/l	TM434	3.15 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	13 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 3 #	<5 3 #	<5 3 #	<25 ♦ #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 3 ♦ #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 3 #	<5 3 #	<5 3 #	<25 ♦ #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	27.7 #	13.4 3 #	3 3 #	13.9 3 #	<3.25 ♦ #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	36.4 #	14.4 3 #	6.67 3 #	11.8 3 #	3.48 ♦ #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 3 ♦ #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-96 **Report Number:** 744836 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-B	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-96	241004-96	241004-96	241004-96	241004-96	241004-96
Lab Sample No.(s)			30466957	30466999	30466949	30467007	30466987	30466921
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	11.4 #	<1 3 #	<1 3 #	1.07 3 #	<5 ♦ #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 3 #	<3 3 #	<3 3 #	<15 ♦ #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 3 #	<2 3 #	<2 3 #	<10 ♦ #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 3 ♦ #	<10 3 #	<10 3 #	<50 ♦ #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 3 ♦ #	<10 3 #	<10 3 #	<50 ♦ #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 3 #	<1 3 #	<1 3 #	<5 ♦ #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10 3	<10 3	<10 3	<50 ♦	258
Total PFOS	<0.65 ng/l	TM434	64.1 #	27.8 3 #	9.67 3 #	25.7 3 #	3.48 ♦ #	<0.65 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-96 **Report Number:** 744836 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			-	-	-	-	-	-
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-96	241004-96	241004-96	241004-96	241004-96	241004-96
Lab Sample No.(s)			30466963	30466940	30466926	30466968	30466981	30466933
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	18.3 3 #	<2 #	13.8 #	31.5 ♦ #	<10 ♦ #	13.3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	57.5 3 #	5.07 #	42.7 #	87.3 ♦ #	7.73 ♦ #	41.9 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 3 #	<3 #	<3 #	<15 ♦ #	<15 ♦ #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	2.14 3 #	<1 #	15.3 #	5.83 ♦ #	<5 ♦ #	15.1 #
PFHxA (307-24-4)	<1 ng/l	TM434	27.6 3 #	2.46 #	38.7 #	43.9 ♦ #	<5 ♦ #	40.6 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	31 3 #	1.91 #	15.8 #	41.8 ♦ #	<5 ♦ #	15.2 #
PFPeS (2706-91-4)	<1 ng/l	TM434	1.51 3 #	<1 #	13.5 #	<5 ♦ #	<5 ♦ #	13.9 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 3 #	<5 #	<5 #	<25 ♦ #	<25 ♦ #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	1.58 3 #	1.28 #	71.2 #	<5 ♦ #	<5 ♦ #	70.1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	5.91 #
PFOA (335-67-1)	<0.65 ng/l	TM434	12.2 3 #	<0.65 #	15.7 #	19.5 ♦ #	<3.25 ♦ #	17.2 #
PFHxS (355-46-4)	<1 ng/l	TM434	12.6 3 #	1.86 #	84.8 #	22.9 ♦ #	5.45 ♦ #	87 #
PFNA (375-95-1)	<1 ng/l	TM434	2.23 3 #	<1 #	2.58 #	6.11 ♦ #	<5 ♦ #	2.81 #
PFecHS (133201-07-7)	<1 ng/l	TM434	54.2 3 #	2.49 #	47.6 #	87.1 ♦ #	6.35 ♦ #	45.7 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	1.67 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 3 #	<5 #	<5 #	<25 ♦ #	<25 ♦ #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 3 #	<5 #	<5 #	<25 ♦ #	<25 ♦ #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	10.2 3 #	1.55 #	1.63 #	18 ♦ #	4.61 ♦ #	1.36 #
Branched PFOS	<0.65 ng/l	TM434	20.4 3 #	2.29 #	6.63 #	31.7 ♦ #	3.8 ♦ #	3.81 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-96 **Report Number:** 744836 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4♦§@	Sample deviation (see appendix)

Customer Sample Ref.			GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-96	241004-96	241004-96	241004-96	241004-96	241004-96
Lab Sample No.(s)			30466963	30466940	30466926	30466968	30466981	30466933
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	1.5 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 3 #	<3 #	<3 #	<15 ♦ #	<15 ♦ #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 3 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 3 #	<10 #	<10 #	<50 ♦ #	<50 ♦ #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 3 #	<10 #	<10 #	<50 ♦ #	<50 ♦ #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 3 #	1.06 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 3 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 3	<10	<10	<50 ♦	<50 ♦	<10
Total PFOS	<0.65 ng/l	TM434	30.6 3 #	3.83 #	8.26 #	49.7 ♦ #	8.41 ♦ #	5.17 #

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Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-96 **Report Number:** 744836 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Test Completion Dates

Lab Sample No(s)	30466953	30467003	30466945	30467014	30466994	30466974	30466957	30466999	30466949	30467007
Customer Sample Ref.	GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A	GW001-B	GW004-B	GW007-B	GW008-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	25-Oct-2024	25-Oct-2024	15-Oct-2024	18-Oct-2024	24-Oct-2024	18-Oct-2024	15-Oct-2024	25-Oct-2024	24-Oct-2024	24-Oct-2024

Lab Sample No(s)	30466987	30466921	30466963	30466940	30466926	30466968	30466981	30466933
Customer Sample Ref.	GW014-B	GW015-B	GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
AGS Ref.								
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	22-Oct-2024	15-Oct-2024	24-Oct-2024	17-Oct-2024	18-Oct-2024	22-Oct-2024	22-Oct-2024	15-Oct-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	25 October 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241004-94
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	744835
Order Number:	Z4534

We received 20 samples on Friday October 04, 2024 and 20 of these samples were scheduled for analysis which was completed on Friday October 25, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30466818	GW11A		0.00 - 0.00	25/09/2024
30466874	GW12A		0.00 - 0.00	25/09/2024
30466883	GW13A		0.00 - 0.00	25/09/2024
30466893	GW14A		0.00 - 0.00	25/09/2024
30466906	GW15A		0.00 - 0.00	25/09/2024
30466828	GW16A		0.00 - 0.00	25/09/2024
30466836	GW17A		0.00 - 0.00	25/09/2024
30466846	GW18A		0.00 - 0.00	02/10/2024
30466854	GW19A		0.00 - 0.00	02/10/2024
30466866	GW11B		0.00 - 0.00	25/09/2024
30466879	GW12B		0.00 - 0.00	25/09/2024
30466889	GW13B		0.00 - 0.00	25/09/2024
30466900	GW14B		0.00 - 0.00	25/09/2024
30466823	GW15B		0.00 - 0.00	25/09/2024
30466832	GW16B		0.00 - 0.00	25/09/2024
30466840	GW17B		0.00 - 0.00	25/09/2024
30466850	GW18B		0.00 - 0.00	02/10/2024
30466858	GW19B		0.00 - 0.00	02/10/2024
30466862	GWFB		0.00 - 0.00	02/10/2024
30466870	GWTB		0.00 - 0.00	02/10/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30466818	30466874	30466883	30466893	30466906	30466828	30466836	30466846	30466854	30466866	30466879	30466889	30466900	30466823	30466832	30466840	30466850	30466858	30466862
Customer Sample Reference			GW11A	GW12A	GW13A	GW14A	GW15A	GW16A	GW17A	GW18A	GW19A	GW11B	GW12B	GW13B	GW14B	GW15B	GW16B	GW17B	GW18B	GW19B	GWFB
AGS Reference																					
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

30466870	GWTB		0.00 - 0.00	Digitube fo PFAS analysis.	GW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW11A	GW12A	GW13A	GW14A	GW15A	GW16A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024
Sample Time			-	-	-	-	-	-
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-94	241004-94	241004-94	241004-94	241004-94	241004-94
Lab Sample No.(s)			30466818	30466874	30466883	30466893	30466906	30466828
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	68.9 @ #	10.3 @ #	<10 #	62.4 @ #	<10 @ #	29 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	303 @ #	20.9 @ #	<5 #	325 @ #	8.05 @ #	84 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 @ #	<15 @ #	<15 #	<15 @ #	<15 @ #	<15 @ #
PFBS (375-73-5)	<1 ng/l	TM434	7.6 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	5.84 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	153 3 @ #	<5 @ #	<5 #	129 @ #	5.36 @ #	36.6 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	46.1 @ #	6.52 @ #	<5 #	35.9 @ #	6.06 @ #	15.9 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	7.05 3 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 #	<25 @ #	<25 @ #	<25 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	583 @ #	11.2 @ #	<5 #	8.57 @ #	<5 @ #	10.9 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	31.5 @ #	<3.25 @ #	<3.25 #	7.73 @ #	5.36 @ #	<3.25 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	41.7 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	11.4 @ #
PFNA (375-95-1)	<1 ng/l	TM434	8.64 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	95.2 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 #	<25 @ #	<25 @ #	<25 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 #	<25 @ #	<25 @ #	<25 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	50.9 @ #	<3.25 @ #	<3.25 #	<3.25 @ #	<3.25 @ #	<3.25 @ #
Branched PFOS	<0.65 ng/l	TM434	35 @ #	<3.25 @ #	<3.25 #	<3.25 @ #	<3.25 @ #	6.72 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #

15:23:36 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW11A	GW12A	GW13A	GW14A	GW15A	GW16A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-94	241004-94	241004-94	241004-94	241004-94	241004-94
Lab Sample No.(s)			30466818	30466874	30466883	30466893	30466906	30466828
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 @ #	<15 @ #	<15 #	<15 @ #	<15 @ #	<15 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 @ #	<10 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 @ #	<50 @ #	<50 @ #	<50 @ #	<50 @ #	<50 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 @ #	<50 @ #	<50 @ #	<50 @ #	<50 @ #	<50 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 @ #	<5 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	5340 3 @	<50 @	<50	<50 @	<50 @	<50 @
Total PFOS	<0.65 ng/l	TM434	85.9 @ #	<3.25 @ #	<3.25 #	<3.25 @ #	<3.25 @ #	6.72 @ #

15:23:36 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW17A	GW18A	GW19A	GW11B	GW12B	GW13B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			25/09/2024	02/10/2024	02/10/2024	25/09/2024	25/09/2024	25/09/2024
Sample Time			-	-	-	-	-	-
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-94	241004-94	241004-94	241004-94	241004-94	241004-94
Lab Sample No.(s)			30466836	30466846	30466854	30466866	30466879	30466889
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	5.9 3 @ #	<20 #	<2 #	75.9 @ #	4.86 3 @ #	<10 3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 3 @ #	<100 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
PFPA (2706-90-3)	<1 ng/l	TM434	3.99 3 @ #	<10 #	<1 #	333 @ #	20.3 3 @ #	<5 3 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 3 @ #	<30 #	<3 #	<15 @ #	<3 3 @ #	<15 3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	10.7 @ #	<1 3 @ #	<5 3 #
PFHxA (307-24-4)	<1 ng/l	TM434	1.83 3 @ #	<10 #	<1 #	151 @ #	6.04 3 @ #	<5 3 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
PFHpA (375-85-9)	<1 ng/l	TM434	1.24 3 @ #	<10 #	<1 #	50.3 @ #	1.82 3 @ #	<5 3 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	8.74 @ #	<1 3 @ #	<5 3 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 3 @ #	<50 #	<5 #	<25 @ #	<5 3 @ #	<25 3 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 3 @ #	<75 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	675 @ #	7.26 3 @ #	<5 3 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.15 3 @ #	<6.5 #	<0.65 #	38.4 @ #	1.27 3 @ #	<3.25 3 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	45.7 @ #	1.3 3 @ #	<5 3 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	8.84 @ #	<1 3 @ #	<5 3 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	89.2 @ #	<2 3 @ #	<10 3 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 3 @ #	<50 #	<5 #	<25 @ #	<5 3 @ #	<25 3 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 3 @ #	<20 ♦ #	<2 #	<10 @ #	<2 3 @ #	<10 3 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 3 @ #	<50 #	<5 #	<25 @ #	<5 3 @ #	<25 3 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 3 @ #	<6.5 #	<0.65 #	45 @ #	1.38 3 @ #	<3.25 3 #
Branched PFOS	<0.65 ng/l	TM434	<0.65 3 @ #	<6.5 #	<0.65 #	27.8 @ #	1.81 3 @ #	<3.25 3 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 3 @ #	<20 ♦ #	<2 #	<10 @ #	<2 3 @ #	<10 3 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW17A	GW18A	GW19A	GW11B	GW12B	GW13B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			25/09/2024	02/10/2024	02/10/2024	25/09/2024	25/09/2024	25/09/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-94	241004-94	241004-94	241004-94	241004-94	241004-94
Lab Sample No.(s)			30466836	30466846	30466854	30466866	30466879	30466889
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 3 @ #	<30 #	<3 #	<15 @ #	<3 3 @ #	<15 3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 3 @ #	<20 #	<2 #	<10 @ #	<2 3 @ #	<10 3 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 3 @ #	<100 ♦ #	<10 #	<50 @ #	<10 3 @ #	<50 3 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 3 @ #	<100 ♦ #	<10 #	<50 @ #	<10 3 @ #	<50 3 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 3 @ #	<10 #	<1 #	<5 @ #	<1 3 @ #	<5 3 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 3 @	<100	<10	4590 @	<10 3 @	<50 3
Total PFOS	<0.65 ng/l	TM434	<0.65 3 @ #	<6.5 #	<0.65 #	72.8 @ #	3.18 3 @ #	<3.25 3 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			25/09/2024	25/09/2024	25/09/2024	25/09/2024	02/10/2024	02/10/2024
Sample Time			-	-	-	-	-	-
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-94	241004-94	241004-94	241004-94	241004-94	241004-94
Lab Sample No.(s)			30466900	30466823	30466832	30466840	30466850	30466858
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	42.8 3 @ #	3.85 3 @ #	18.7 3 @ #	5.91 3 @ #	<2 #	<2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	236 3 @ #	4.19 3 @ #	63.4 3 @ #	3.73 3 @ #	<1 #	<1 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 3 @ #	<3 3 @ #	<3 3 @ #	<3 3 @ #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	1.35 3 @ #	<1 3 @ #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	85.7 3 @ #	2.27 3 @ #	25 3 @ #	1.77 3 @ #	<1 #	<1 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	29.8 3 @ #	1.51 3 @ #	10.5 3 @ #	1.1 3 @ #	<1 #	<1 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	1.45 3 @ #	<1 3 @ #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 3 @ #	<5 3 @ #	<5 3 @ #	<5 3 @ #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	6.29 3 @ #	<1 3 @ #	8.02 3 @ #	<1 3 @ #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	4.14 3 @ #	1.3 3 @ #	2.72 3 @ #	1.04 3 @ #	<0.65 #	<0.65 #
PFHxS (355-46-4)	<1 ng/l	TM434	2.75 3 @ #	1.48 3 @ #	5.74 3 @ #	<1 3 @ #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	1.01 3 @ #	<1 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 3 @ #	<5 3 @ #	<5 3 @ #	<5 3 @ #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 3 @ #	<5 3 @ #	<5 3 @ #	<5 3 @ #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.02 3 @ #	0.751 3 @ #	1.16 3 @ #	<0.65 3 @ #	<0.65 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	1.19 3 @ #	1.18 3 @ #	4.45 3 @ #	<0.65 3 @ #	<0.65 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			25/09/2024	25/09/2024	25/09/2024	25/09/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-94	241004-94	241004-94	241004-94	241004-94	241004-94
Lab Sample No.(s)			30466900	30466823	30466832	30466840	30466850	30466858
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 3 @ #	<3 3 @ #	<3 3 @ #	<3 3 @ #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 3 @ #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 3 @ #	<10 3 @ #	<10 3 @ #	<10 3 @ #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 3 @ #	<10 3 @ #	<10 3 @ #	<10 3 @ #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 3 @ #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 3 @	<10 3 @	<10 3 @	<10 3 @	<10	<10
Total PFOS	<0.65 ng/l	TM434	2.21 3 @ #	1.93 3 @ #	5.61 3 @ #	<0.65 3 @ #	<0.65 #	<0.65 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GWFB	GWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			02/10/2024	02/10/2024				
Sample Time			.	.				
Date Received			04/10/2024	04/10/2024				
SDG Ref			241004-94	241004-94				
Lab Sample No.(s)			30466862	30466870				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 #	<2 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 #	<1 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 #	<1 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 #	<1 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #				

15:23:36 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GWFB	GWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			02/10/2024	02/10/2024				
Sample Time			.	.				
Date Received			04/10/2024	04/10/2024				
SDG Ref			241004-94	241004-94				
Lab Sample No.(s)			30466862	30466870				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10				
Total PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 #				

15:23:36 25/10/2024

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-94 **Report Number:** 744835 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Test Completion Dates

Lab Sample No(s)	30466818	30466874	30466883	30466893	30466906	30466828	30466836	30466846	30466854	30466866
Customer Sample Ref.	GW11A	GW12A	GW13A	GW14A	GW15A	GW16A	GW17A	GW18A	GW19A	GW11B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	23-Oct-2024	22-Oct-2024	25-Oct-2024	22-Oct-2024	22-Oct-2024	22-Oct-2024	24-Oct-2024	25-Oct-2024	17-Oct-2024	22-Oct-2024

Lab Sample No(s)	30466879	30466889	30466900	30466823	30466832	30466840	30466850	30466858	30466862	30466870
Customer Sample Ref.	GW12B	GW13B	GW14B	GW15B	GW16B	GW17B	GW18B	GW19B	GWFB	GWTB
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	24-Oct-2024	25-Oct-2024	24-Oct-2024	24-Oct-2024	24-Oct-2024	24-Oct-2024	18-Oct-2024	15-Oct-2024	15-Oct-2024	18-Oct-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
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Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	06 November 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241004-43
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	745995
Order Number:	Z4534

We received 14 samples on Thursday October 03, 2024 and 14 of these samples were scheduled for analysis which was completed on Friday October 25, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data i s correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

CERTIFICATE OF ANALYSIS

SDG: 241004-43 **Report Number:** 745995 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30463853	BH1A		0.00 - 0.00	01/10/2024
30463845	BH5A		0.00 - 0.00	01/10/2024
30463837	BH6A		0.00 - 0.00	01/10/2024
30463887	BH7A		0.00 - 0.00	01/10/2024
30463858	BH9A		0.00 - 0.00	01/10/2024
30463849	BH1B		0.00 - 0.00	01/10/2024
30463841	BH5B		0.00 - 0.00	01/10/2024
30463893	BH6B		0.00 - 0.00	01/10/2024
30463880	BH7B		0.00 - 0.00	01/10/2024
30463833	BH9B		0.00 - 0.00	01/10/2024
30463866	BH8DA		0.00 - 0.00	01/10/2024
30463862	BH8DB		0.00 - 0.00	01/10/2024
30463875	BH8SA		0.00 - 0.00	01/10/2024
30463870	BH8SB		0.00 - 0.00	01/10/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-43 **Report Number:** 745995 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30463853	30463845	30463837	30463887	30463858	30463849	30463841	30463893	30463880	30463833	30463866	30463862	30463875	30463870
Customer Sample Reference			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B	BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB	BH8SA	BH8SB
AGS Reference																
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 14	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-43 **Report Number:** 745995 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			01/10/2024	01/10/2024	01/10/2024	01/10/2024	01/10/2024	01/10/2024
Sample Time			-	-	-	-	-	-
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-43	241004-43	241004-43	241004-43	241004-43	241004-43
Lab Sample No.(s)			30463853	30463845	30463837	30463887	30463858	30463849
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<10 #	<10 #	<10 #	27.6 ♦ #	<10 #	10.7 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 #	<10 #	<10 #	<10 ♦ #	<10 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	5.28 #	<5 #	<5 #	42.2 ♦ #	<5 #	3.31 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	1.19 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 #	<15 #	<15 #	<15 ♦ #	<15 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	1.14 #
PFHxA (307-24-4)	<1 ng/l	TM434	<5 #	<5 #	<5 #	11.5 3 ♦ #	<5 #	2.55 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 #	<10 #	<10 #	<10 ♦ #	<10 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	1.8 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 #	<25 #	<25 #	<25 ♦ #	<25 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	<5 #	<3.25 #	4.82 #	<3.25 ♦ #	3.57 #	3.4 #
PFHxS (355-46-4)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	1.97 #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 #	<10 #	12.5 #	<10 ♦ #	<10 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 #	<25 #	<25 #	<25 ♦ #	<25 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 #	<10 #	11.7 #	<10 ♦ #	<10 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 ♦ #	<10 #	25.8 0 #	<10 ♦ #	<10 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 #	<25 #	<25 #	<25 ♦ #	<25 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<3.25 #	<3.25 #	4.46 #	<3.25 ♦ #	<3.25 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	<3.25 #	<3.25 #	<3.25 #	<3.25 ♦ #	<3.25 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 ♦ #	<10 #	30 0 #	<10 ♦ #	<10 #	4.01 0 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 #	<10 #	28.9 #	<10 ♦ #	<10 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 #	<5 #	15 #	<5 ♦ #	<5 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 #	<5 #	20.1 #	<5 ♦ #	<5 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-43 **Report Number:** 745995 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			01/10/2024	01/10/2024	01/10/2024	01/10/2024	01/10/2024	01/10/2024
Sample Time			.	.	.	.	.	.
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-43	241004-43	241004-43	241004-43	241004-43	241004-43
Lab Sample No.(s)			30463853	30463845	30463837	30463887	30463858	30463849
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 #	<10 #	57 #	<10 ♦ #	<10 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 #	<10 #	38.2 #	<10 ♦ #	<10 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 #	<15 #	66.5 #	<15 ♦ #	<15 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 #	<10 #	60.2 #	<10 ♦ #	<10 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 #	<10 #	54.4 #	<10 ♦ #	<10 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 #	<5 #	33.8 #	<5 ♦ #	<5 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 #	<10 #	<10 #	<10 ♦ #	<10 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 #	<10 #	37.9 #	<10 ♦ #	<10 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 #	<5 #	17.8 #	<5 ♦ #	<5 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 #	<5 #	12 #	<5 ♦ #	<5 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 ♦ #	<50 #	278 0 #	<50 ♦ #	<50 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 ♦ #	<50 #	324 0 #	<50 ♦ #	<50 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 #	<5 #	10.6 #	<5 ♦ #	<5 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 #	<5 #	<5 #	<5 ♦ #	<5 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50	<50	<50	<50 ♦	<50	<10
Total PFOS	<0.65 ng/l	TM434	<3.25 #	<3.25 #	4.46 #	<3.25 ♦ #	<3.25 #	<0.65 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-43 **Report Number:** 745995 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			01/10/2024	01/10/2024	01/10/2024	01/10/2024	01/10/2024	01/10/2024
Sample Time			-	-	-	-	-	-
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-43	241004-43	241004-43	241004-43	241004-43	241004-43
Lab Sample No.(s)			30463841	30463893	30463880	30463833	30463866	30463862
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<10 #	2 #	24.9 #	<2 #	<10 #	<10 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
PFPA (2706-90-3)	<1 ng/l	TM434	<5 #	1.02 #	37.9 #	<1 #	<5 #	8.15 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 #	<1 #	1.17 #	<1 #	<5 #	<5 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 #	<3 #	<3 #	<3 #	<15 #	<15 #
PFBS (375-73-5)	<1 ng/l	TM434	<5 #	<1 #	1.81 #	<1 #	<5 #	<5 #
PFHxA (307-24-4)	<1 ng/l	TM434	<5 #	<1 #	7.82 #	<1 #	<5 #	<5 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
PFHpA (375-85-9)	<1 ng/l	TM434	<5 #	<1 #	1.21 #	<1 #	<5 #	<5 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 #	<5 #	<5 #	<5 #	<25 #	<25 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<5 ♦ #	<5 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
PFOA (335-67-1)	<0.65 ng/l	TM434	<3.25 #	<0.65 #	<0.65 #	<0.65 #	<3.25 #	<3.25 #
PFHxS (355-46-4)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
PFNA (375-95-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	11.8 #	14.1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 #	<5 #	<5 #	<5 #	<25 #	<25 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 #	<5 #	<5 #	<5 #	<25 #	<25 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<3.25 #	<0.65 #	<0.65 #	<0.65 #	<3.25 #	<3.25 #
Branched PFOS	<0.65 ng/l	TM434	<3.25 #	<0.65 #	<0.65 #	<0.65 #	<3.25 #	<3.25 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-43 **Report Number:** 745995 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			01/10/2024	01/10/2024	01/10/2024	01/10/2024	01/10/2024	01/10/2024
Sample Time			.	.	.	.	.	.
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-43	241004-43	241004-43	241004-43	241004-43	241004-43
Lab Sample No.(s)			30463841	30463893	30463880	30463833	30463866	30463862
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 #	<3 #	<3 #	<3 #	<15 #	<15 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 #	<2 #	<2 #	<2 #	<10 #	<10 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 #	<10 #	<10 #	<10 #	<50 #	<50 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 #	<10 #	<10 #	<10 #	<50 #	<50 #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 #	<1 #	<1 #	<1 #	<5 #	<5 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50	<10	<10	<10	<50	<50
Total PFOS	<0.65 ng/l	TM434	<3.25 #	<0.65 #	<0.65 #	<0.65 #	<3.25 #	<3.25 #

16:26:40 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-43 **Report Number:** 745995 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH8SA	BH8SB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			01/10/2024	01/10/2024				
Sample Time			-	-				
Date Received			03/10/2024	03/10/2024				
SDG Ref			241004-43	241004-43				
Lab Sample No.(s)			30463875	30463870				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<10 #	<10 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 ♦ #	<5 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 #	<10 #				
PFPA (2706-90-3)	<1 ng/l	TM434	7.65 #	5.83 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 #	<5 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 #	<5 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 #	<15 #				
PFBS (375-73-5)	<1 ng/l	TM434	<5 #	<5 #				
PFHxA (307-24-4)	<1 ng/l	TM434	<5 #	<5 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 #	<10 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 #	<5 #				
PFHpA (375-85-9)	<1 ng/l	TM434	<5 #	<5 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 #	<5 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 #	<25 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<5 ♦ #	<5 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<5 #	<5 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<5 #	<5 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<3.25 #	<3.25 #				
PFHxS (355-46-4)	<1 ng/l	TM434	<5 #	<5 #				
PFNA (375-95-1)	<1 ng/l	TM434	<5 #	<5 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	12.6 #	9.71 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<5 #	<5 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 #	<10 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 #	<25 #				
PFDA (335-76-2)	<2 ng/l	TM434	<10 #	<10 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 #	<10 ♦ #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 #	<25 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<3.25 #	<3.25 #				
Branched PFOS	<0.65 ng/l	TM434	<3.25 #	<3.25 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 #	<10 ♦ #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 #	<10 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 #	<5 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<5 #	<5 #				

16:26:40 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-43 **Report Number:** 745995 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH8SA	BH8SB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			01/10/2024	01/10/2024				
Sample Time			.	.				
Date Received			03/10/2024	03/10/2024				
SDG Ref			241004-43	241004-43				
Lab Sample No.(s)			30463875	30463870				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 #	<5 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<10 #	<10 #				
PFDS (335-77-3)	<2 ng/l	TM434	<10 #	<10 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 #	<15 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 #	<10 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 #	<10 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<5 #	<5 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<10 #	<10 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 #	<10 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 #	<5 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 #	<5 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 #	<50 ♦ #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 #	<5 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 #	<50 ♦ #				
PFODA (16517-11-6)	<1 ng/l	TM434	<5 #	<5 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 #	<5 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50	<50				
Total PFOS	<0.65 ng/l	TM434	<3.25 #	<3.25 #				

16:26:40 06/11/2024

Data Amendment

Sample No. : 30463837 **Date of Amendment :** 05/11/2024 **Authorised:** Mantas Rogulis

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
BH6A	Deviation Issue	PFAS Liquids (Full Suite)	EtFOSAA (2991-50-6)	N/A	Not non-conformed	Non-conformed for holding time
BH6A	Deviation Issue	PFAS Liquids (Full Suite)	EtFOSE (1691-99-2)	N/A	Not non-conformed	Non-conformed for holding time
BH6A	Deviation Issue	PFAS Liquids (Full Suite)	MeFOSAA (2355-31-9)	N/A	Not non-conformed	Non-conformed for holding time
BH6A	Deviation Issue	PFAS Liquids (Full Suite)	MeFOSE (24448-09-7)	N/A	Not non-conformed	Non-conformed for holding time

Sample No. : 30463849 **Date of Amendment :** 05/11/2024 **Authorised:** Mantas Rogulis

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
BH1B	Deviation Issue	PFAS Liquids (Full Suite)	EtFOSAA (2991-50-6)	N/A	Not non-conformed	Non-conformed for holding time

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-43 **Report Number:** 745995 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Test Completion Dates

Lab Sample No(s)	30463853	30463845	30463837	30463887	30463858	30463849	30463841	30463893	30463880	30463833
Customer Sample Ref.	BH1A	BH5A	BH6A	BH7A	BH9A	BH1B	BH5B	BH6B	BH7B	BH9B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	25-Oct-2024	22-Oct-2024	23-Oct-2024	23-Oct-2024	23-Oct-2024	11-Oct-2024	23-Oct-2024	18-Oct-2024	11-Oct-2024	17-Oct-2024

Lab Sample No(s)	30463866	30463862	30463875	30463870
Customer Sample Ref.	BH8DA	BH8DB	BH8SA	BH8SB
AGS Ref.				
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	23-Oct-2024	22-Oct-2024	23-Oct-2024	25-Oct-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
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Website: www.alsenvironmental.co.uk

Fehily Timoney
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Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	25 October 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241004-97
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	744784
Order Number:	Z4534

We received 2 samples on Friday October 04, 2024 and 2 of these samples were scheduled for analysis which was completed on Friday October 25, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30467054	Gardeners Well A		0.00 - 0.00	01/10/2024
30467061	Gardeners Well B		0.00 - 0.00	01/10/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-97 **Report Number:** 744784 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

	Lab Sample No(s)		30467054	30467061
	Customer Sample Reference		Gardeners Well A	Gardeners Well B
	AGS Reference			
	Depth (m)		0.00 - 0.00	0.00 - 0.00
	Container		Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
	Sample Type		GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 2	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-97 **Report Number:** 744784 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			Gardeners Well A	Gardeners Well B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			01/10/2024	01/10/2024				
Sample Time			.	.				
Date Received			04/10/2024	04/10/2024				
SDG Ref			241004-97	241004-97				
Lab Sample No.(s)			30467054	30467061				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 3 #	<2 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<30 3 #	<20 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 3 #	<2 #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 3 #	<1 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 3 #	<1 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 3 #	<1 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 3 #	<3 #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 3 #	<1 #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 3 #	<1 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 3 #	<2 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 3 #	<1 #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 3 #	<1 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 3 #	<1 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 3 #	<5 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<15 3 #	<10 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 3 #	<1 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 3 #	<1 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 3 #	<0.65 #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 3 #	<1 #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 3 #	<1 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 3 #	<1 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 3 #	<1 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 3 #	<2 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 3 #	<5 #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 3 #	<2 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 3 @ #	<2 @ #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 3 #	<5 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 3 #	<0.65 #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 3 #	<0.65 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 3 @ #	<2 @ #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 3 #	<2 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 3 #	<1 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 3 #	<1 #				

11:48:53 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-97 **Report Number:** 744784 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			Gardeners Well A	Gardeners Well B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			01/10/2024	01/10/2024				
Sample Time			.	.				
Date Received			04/10/2024	04/10/2024				
SDG Ref			241004-97	241004-97				
Lab Sample No.(s)			30467054	30467061				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 3 #	<1 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 3 #	<2 #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 3 #	<2 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 3 #	<3 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 3 #	<2 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 3 #	<2 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 3 #	<1 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 3 #	<2 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 3 #	<2 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 3 #	<1 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 3 #	<1 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 3 @ #	<10 @ #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 3 #	<1 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 3 @ #	<10 @ #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 3 #	<1 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 3 #	<1 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 3	<10				
Total PFOS	<0.65 ng/l	TM434	<0.65 3 #	<0.65 #				

11:48:53 25/10/2024

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30467054	30467061
Customer Sample Ref.	Gardeners Well A	Gardeners Well B
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water
PFAS Liquids (Full Suite)	25-Oct-2024	25-Oct-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

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11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	24 January 2025
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241213-120
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	753719
Order Number:	Z4628

We received 18 samples on Friday December 13, 2024 and 18 of these samples were scheduled for analysis which was completed on Friday January 24, 2025. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30833392	GW001-A		0.00 - 0.00	10/12/2024
30833437	GW004-A		0.00 - 0.00	10/12/2024
30833383	GW007-A		0.00 - 0.00	10/12/2024
30833449	GW008-A		0.00 - 0.00	10/12/2024
30833429	GW014-A		0.00 - 0.00	10/12/2024
30833415	GW015-A		0.00 - 0.00	10/12/2024
30833400	GW001-B		0.00 - 0.00	10/12/2024
30833433	GW004-B		0.00 - 0.00	10/12/2024
30833387	GW007-B		0.00 - 0.00	10/12/2024
30833442	GW008-B		0.00 - 0.00	10/12/2024
30833424	GW014-B		0.00 - 0.00	10/12/2024
30833356	GW015-B		0.00 - 0.00	10/12/2024
30833405	GW002D-A		0.00 - 0.00	10/12/2024
30833379	GW003D-A		0.00 - 0.00	10/12/2024
30833371	GW005D-A		0.00 - 0.00	10/12/2024
30833411	GW002D-B		0.00 - 0.00	10/12/2024
30833420	GW03D-B		0.00 - 0.00	10/12/2024
30833375	GW005D-B		0.00 - 0.00	10/12/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-120 **Report Number:** 753719 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

		Lab Sample No(s)	30833392	30833437	30833383	30833449	30833429	30833415	30833400	30833433	30833387	30833442	30833424	30833356	30833405	30833379	30833371	30833411	30833420	30833375
		Customer Sample Reference	GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A	GW001-B	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B	GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
		AGS Reference																		
		Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
		Container	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
		Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-120 **Report Number:** 753719 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-120	241213-120	241213-120	241213-120	241213-120	241213-120
Lab Sample No.(s)			30833392	30833437	30833383	30833449	30833429	30833415
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<4 @ #	8.17 @ #	<10 @ #	8.61 @ #	<20 @ #	84 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	7.47 @ #	7.89 @ #	24.1 @ #	5.25 @ #	<10 @ #	458 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<6 @ #	<3 @ #	<15 @ #	<3 @ #	<30 @ #	<15 @ #
PFBS (375-73-5)	<1 ng/l	TM434	<2 @ #	3.03 @ #	<5 @ #	2.66 @ #	<10 @ #	<5 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	5.15 @ #	4.31 @ #	16.2 @ #	4.29 @ #	<10 @ #	142 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	<2 @ #	3.41 @ #	7.04 @ #	1.96 @ #	<10 @ #	29.9 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	2.5 @ #	<10 @ #	<5 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<10 @ #	<5 @ #	<25 @ #	<5 @ #	<50 @ #	<25 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	10.7 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	<2 @ #	1.64 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.68 @ #	4.06 @ #	4.46 @ #	2.35 @ #	<6.5 @ #	8.61 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	3.3 @ #	3.88 @ #	10.2 @ #	15 @ #	<10 @ #	<5 @ #
PFNA (375-95-1)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	3.94 @ #	396 @ #	21.2 @ #	13.3 @ #	<10 @ #	8.25 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<10 @ #	<5 @ #	<25 @ #	<5 @ #	<50 @ #	<25 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<10 @ #	<5 @ #	<25 @ #	<5 @ #	<50 @ #	<25 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<1.3 @ #	19 @ #	5.6 @ #	16.2 @ #	<6.5 @ #	<3.25 @ #
Branched PFOS	<0.65 ng/l	TM434	<1.3 @ #	19.6 @ #	6.48 @ #	11.3 @ #	<6.5 @ #	<3.25 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-120 **Report Number:** 753719 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-120	241213-120	241213-120	241213-120	241213-120	241213-120
Lab Sample No.(s)			30833392	30833437	30833383	30833449	30833429	30833415
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<6 @ #	<3 @ #	<15 @ #	<3 @ #	<30 @ #	<15 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<4 @ #	<2 @ #	<10 @ #	<2 @ #	<20 @ #	<10 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<20 @ #	<10 @ #	<50 @ #	<10 @ #	<100 @ #	<50 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<20 @ #	<10 @ #	<50 @ #	<10 @ #	<100 @ #	<50 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<2 @ #	<1 @ #	<5 @ #	<1 @ #	<10 @ #	<5 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<20 @	<10 @	<50 @	<10 @	<100 @	804 @
Total PFOS	<0.65 ng/l	TM434	<1.3 @ #	38.5 @ #	12.1 @ #	27.5 @ #	<6.5 @ #	<3.25 @ #

15:41:38 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-120 **Report Number:** 753719 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-B	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-120	241213-120	241213-120	241213-120	241213-120	241213-120
Lab Sample No.(s)			30833400	30833433	30833387	30833442	30833424	30833356
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	7.92 @ #	5.38 @ #	125 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	79.1 @ #	7.79 @ #	292 @ #	4.13 @ #	5.44 @ #	671 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 @ #	<15 @ #	<15 @ #	<3 @ #	<3 @ #	<15 @ #
PFBS (375-73-5)	<1 ng/l	TM434	15.4 @ #	<5 @ #	48.1 @ #	2.76 @ #	<1 @ #	<5 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	65.1 @ #	6.95 @ #	204 @ #	3.57 @ #	1.67 @ #	205 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	41 @ #	<5 @ #	139 @ #	1.98 @ #	1.35 @ #	44.9 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	5.88 @ #	<5 @ #	19.6 @ #	2.63 @ #	<1 @ #	<5 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 @ #	<5 @ #	<5 @ #	<25 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	101 @ #	<5 @ #	288 @ #	<1 @ #	<1 @ #	<5 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	9.34 @ #	1.61 @ #	<1 @ #	<5 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	38.9 @ #	4.98 @ #	125 @ #	3.2 @ #	1.18 @ #	14.8 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	73.3 @ #	7.93 @ #	236 @ #	14.5 @ #	1.24 @ #	<5 @ #
PFNA (375-95-1)	<1 ng/l	TM434	11.3 @ #	<5 @ #	30.6 @ #	<1 @ #	<1 @ #	<5 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	64.5 @ #	609 @ #	283 @ #	12.4 @ #	1.19 @ #	17.4 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 @ #	<5 @ #	14.4 @ #	<1 @ #	<1 @ #	<5 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	17.2 @ #	<10 @ #	48 @ #	<2 @ #	<2 @ #	<10 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 @ #	<5 @ #	<5 @ #	<25 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 @ #	<5 @ #	<5 @ #	<25 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	68.3 @ #	21.7 @ #	207 @ #	13.6 @ #	<0.65 @ #	<3.25 @ #
Branched PFOS	<0.65 ng/l	TM434	63.2 @ #	18.5 @ #	223 @ #	9.72 @ #	<0.65 @ #	<3.25 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-120 **Report Number:** 753719 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW001-B	GW004-B	GW007-B	GW008-B	GW014-B	GW015-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-120	241213-120	241213-120	241213-120	241213-120	241213-120
Lab Sample No.(s)			30833400	30833433	30833387	30833442	30833424	30833356
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	6.18 @ #	<5 @ #	22.8 @ #	<1 @ #	<1 @ #	<5 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 @ #	<15 @ #	<15 @ #	<3 @ #	<3 @ #	<15 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<2 @ #	<2 @ #	<10 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 @ #	<50 @ #	<50 @ #	<10 @ #	<10 @ #	<50 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 @ #	<50 @ #	<50 @ #	<10 @ #	<10 @ #	<50 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<1 @ #	<1 @ #	<5 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50 @	<50 @	<50 @	<10 @	<10 @	1330 @
Total PFOS	<0.65 ng/l	TM434	132 @ #	40.2 @ #	430 @ #	23.3 @ #	<0.65 @ #	<3.25 @ #

15:41:38 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-120 **Report Number:** 753719 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-120	241213-120	241213-120	241213-120	241213-120	241213-120
Lab Sample No.(s)			30833405	30833379	30833371	30833411	30833420	30833375
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	29.9 @ #	<10 @ #	26.1 @ #	35 @ #	<4 @ #	35.2 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	110 @ #	<5 @ #	80.5 @ #	139 @ #	4.39 @ #	81.4 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 @ #	<5 @ #	1.64 @ #	<2 @ #	<2 @ #	1.58 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 @ #	<15 @ #	<3 @ #	<6 @ #	<6 @ #	<3 @ #
PFBS (375-73-5)	<1 ng/l	TM434	4.15 @ #	<5 @ #	29.2 @ #	5.74 @ #	<2 @ #	27.7 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	65 @ #	5.08 @ #	75.1 @ #	80 @ #	2.97 @ #	76.3 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	63.6 @ #	<5 @ #	30.2 @ #	80.4 @ #	3.1 @ #	28.4 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	3.29 @ #	<5 @ #	25.5 @ #	3.67 @ #	<2 @ #	25 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 @ #	<25 @ #	<5 @ #	<10 @ #	<10 @ #	<5 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 @ #	<5 @ #	125 @ #	<2 @ #	2.57 @ #	122 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	1.83 @ #	<5 @ #	7.93 @ #	2.24 @ #	<2 @ #	9.23 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	32.7 @ #	<3.25 @ #	32.1 @ #	43.2 @ #	2.26 @ #	31.3 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	36.4 @ #	6.5 @ #	165 @ #	39.9 @ #	6.22 @ #	154 @ #
PFNA (375-95-1)	<1 ng/l	TM434	5.76 @ #	<5 @ #	4.89 @ #	8.83 @ #	<2 @ #	4.89 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	136 @ #	6.34 @ #	97.7 @ #	133 @ #	7.45 @ #	90.2 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	1.76 @ #	<5 @ #	1.85 @ #	3.07 @ #	<2 @ #	1.51 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 @ #	<25 @ #	<5 @ #	<10 @ #	<10 @ #	<5 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 @ #	<25 @ #	<5 @ #	<10 @ #	<10 @ #	<5 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	23 @ #	<3.25 @ #	1.26 @ #	31.5 @ #	3.38 @ #	1.92 @ #
Branched PFOS	<0.65 ng/l	TM434	43.3 @ #	3.37 @ #	38 @ #	50.1 @ #	3.9 @ #	42.2 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-120 **Report Number:** 753719 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-120	241213-120	241213-120	241213-120	241213-120	241213-120
Lab Sample No.(s)			30833405	30833379	30833371	30833411	30833420	30833375
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	2.22 @ #	<5 @ #	<1 @ #	2.58 @ #	<2 @ #	<1 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 @ #	<15 @ #	<3 @ #	<6 @ #	<6 @ #	<3 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 @ #	<10 @ #	<2 @ #	<4 @ #	<4 @ #	<2 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 @ #	<50 @ #	<10 @ #	<20 @ #	<20 @ #	<10 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 @ #	<50 @ #	<10 @ #	<20 @ #	<20 @ #	<10 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 @ #	<5 @ #	<1 @ #	<2 @ #	<2 @ #	<1 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 @	<50 @	<10 @	<20 @	<20 @	<10 @
Total PFOS	<0.65 ng/l	TM434	66.3 @ #	3.37 @ #	39.2 @ #	81.6 @ #	7.28 @ #	44.1 @ #

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Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30833392	30833437	30833383	30833449	30833429	30833415	30833400	30833433	30833387	30833442
Customer Sample Ref.	GW001-A	GW004-A	GW007-A	GW008-A	GW014-A	GW015-A	GW001-B	GW004-B	GW007-B	GW008-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	20-Jan-2025	22-Jan-2025	17-Jan-2025	22-Jan-2025	17-Jan-2025	20-Jan-2025	20-Jan-2025	17-Jan-2025	20-Jan-2025	22-Jan-2025

Lab Sample No(s)	30833424	30833356	30833405	30833379	30833371	30833411	30833420	30833375
Customer Sample Ref.	GW014-B	GW015-B	GW002D-A	GW003D-A	GW005D-A	GW002D-B	GW03D-B	GW005D-B
AGS Ref.								
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	21-Jan-2025	24-Jan-2025	20-Jan-2025	17-Jan-2025	21-Jan-2025	17-Jan-2025	21-Jan-2025	21-Jan-2025

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Potentially respirable fibres are identified by using a Phase Contrast Microscope.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

21. 6:2 FTAB

Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	24 January 2025
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241213-121
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	753692
Order Number:	Z4628

We received 20 samples on Friday December 13, 2024 and 20 of these samples were scheduled for analysis which was completed on Friday January 24, 2025. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30833472	GW11A		0.00 - 0.00	10/12/2024
30833528	GW12A		0.00 - 0.00	10/12/2024
30833536	GW13A		0.00 - 0.00	10/12/2024
30833545	GW14A		0.00 - 0.00	10/12/2024
30833554	GW15A		0.00 - 0.00	10/12/2024
30833481	GW16A		0.00 - 0.00	10/12/2024
30833489	GW17A		0.00 - 0.00	10/12/2024
30833498	GW18A		0.00 - 0.00	11/12/2024
30833508	GW19A		0.00 - 0.00	11/12/2024
30833520	GW11B		0.00 - 0.00	10/12/2024
30833532	GW12B		0.00 - 0.00	10/12/2024
30833540	GW13B		0.00 - 0.00	10/12/2024
30833549	GW14B		0.00 - 0.00	10/12/2024
30833476	GW15B		0.00 - 0.00	10/12/2024
30833485	GW16B		0.00 - 0.00	10/12/2024
30833494	GW17B		0.00 - 0.00	10/12/2024
30833504	GW18B		0.00 - 0.00	11/12/2024
30833512	GW19B		0.00 - 0.00	11/12/2024
30833516	GWFB		0.00 - 0.00	11/12/2024
30833524	GWTB		0.00 - 0.00	11/12/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-121 **Report Number:** 753692 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	30833472	30833528	30833536	30833545	30833554	30833481	30833489	30833498	30833508	30833520	30833532	30833540	30833549	30833476	30833485	30833494	30833504	30833512	30833516
Customer Sample Reference	GW11A	GW12A	GW13A	GW14A	GW15A	GW16A	GW17A	GW18A	GW19A	GW11B	GW12B	GW13B	GW14B	GW15B	GW16B	GW17B	GW18B	GW19B	GWFB
AGS Reference																			
Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite) / All / NDPs: 0 Tests: 20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

30833524	GWTB		0.00 - 0.00	Digitube fo PFAS analysis.	GW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-121 **Report Number:** 753692 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW11A	GW12A	GW13A	GW14A	GW15A	GW16A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-121	241213-121	241213-121	241213-121	241213-121	241213-121
Lab Sample No.(s)			30833472	30833528	30833536	30833545	30833554	30833481
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	203 @ #	11.6 @ #	<10 @ #	78.8 @ #	<10 @ #	26.3 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	1350 @ #	43.1 @ #	<5 @ #	411 @ #	9.32 @ #	87 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 @ #	<15 @ #	<15 @ #	<75 @ #	<15 @ #	<3 @ #
PFBS (375-73-5)	<1 ng/l	TM434	25.1 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	1.93 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	645 @ #	16 @ #	<5 @ #	179 @ #	6.42 @ #	34.3 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	207 @ #	7.97 @ #	<5 @ #	59.8 @ #	<5 @ #	15.4 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	17.5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	1.7 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 @ #	<125 @ #	<25 @ #	<5 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	840 @ #	7.37 @ #	<5 @ #	<25 @ #	<5 @ #	10.7 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	11.6 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	127 @ #	4.96 @ #	<3.25 @ #	<16.3 @ #	4.13 @ #	8.29 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	132 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	8.54 @ #
PFNA (375-95-1)	<1 ng/l	TM434	15.1 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	99.2 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 @ #	<125 @ #	<25 @ #	<5 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 @ #	<125 @ #	<25 @ #	<5 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	98.8 @ #	<3.25 @ #	<3.25 @ #	<16.3 @ #	<3.25 @ #	1.68 @ #
Branched PFOS	<0.65 ng/l	TM434	45.5 @ #	<3.25 @ #	<3.25 @ #	<16.3 @ #	<3.25 @ #	7.35 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-121 **Report Number:** 753692 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			GW11A	GW12A	GW13A	GW14A	GW15A	GW16A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-121	241213-121	241213-121	241213-121	241213-121	241213-121
Lab Sample No.(s)			30833472	30833528	30833536	30833545	30833554	30833481
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	20.6 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 @ #	<15 @ #	<15 @ #	<75 @ #	<15 @ #	<3 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<2 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 @ #	<50 @ #	<50 @ #	<250 @ #	<50 @ #	<10 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 @ #	<50 @ #	<50 @ #	<250 @ #	<50 @ #	<10 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<1 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	4480 @	<50 @	<50 @	<250 @	<50 @	<10 @
Total PFOS	<0.65 ng/l	TM434	144 @ #	<3.25 @ #	<3.25 @ #	<16.3 @ #	<3.25 @ #	9.03 @ #

13:56:53 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-121 **Report Number:** 753692 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW17A	GW18A	GW19A	GW11B	GW12B	GW13B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	11/12/2024	11/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-121	241213-121	241213-121	241213-121	241213-121	241213-121
Lab Sample No.(s)			30833489	30833498	30833508	30833520	30833532	30833540
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	194 @ #	11.3 @ #	<10 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	1370 @ #	41.8 @ #	<5 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<30 @ #	<75 ♦ #	<75 ♦ #	<15 @ #	<15 @ #	<15 @ #
PFBS (375-73-5)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	22.4 @ #	<5 @ #	<5 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	535 @ #	13.8 @ #	<5 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	194 @ #	7.68 @ #	<5 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	14.3 @ #	<5 @ #	<5 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<50 @ #	<125 ♦ #	<125 ♦ #	<25 @ #	<25 @ #	<25 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	645 @ #	7.44 @ #	<5 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	11.9 @ #	<5 @ #	<5 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	<6.5 @ #	<16.3 ♦ #	<16.3 ♦ #	109 @ #	4.52 @ #	<3.25 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	101 @ #	<5 @ #	<5 @ #
PFNA (375-95-1)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	11.4 @ #	<5 @ #	<5 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	67.9 @ #	<10 @ #	<10 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<50 @ #	<125 ♦ #	<125 ♦ #	<25 @ #	<25 @ #	<25 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<50 @ #	<125 ♦ #	<125 ♦ #	<25 @ #	<25 @ #	<25 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<6.5 @ #	<16.3 ♦ #	<16.3 ♦ #	68.5 @ #	<3.25 @ #	<3.25 @ #
Branched PFOS	<0.65 ng/l	TM434	<6.5 @ #	<16.3 ♦ #	<16.3 ♦ #	34.5 @ #	<3.25 @ #	<3.25 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-121 **Report Number:** 753692 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW17A	GW18A	GW19A	GW11B	GW12B	GW13B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	11/12/2024	11/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-121	241213-121	241213-121	241213-121	241213-121	241213-121
Lab Sample No.(s)			30833489	30833498	30833508	30833520	30833532	30833540
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	24.6 @ #	<5 @ #	<5 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<30 @ #	<75 ♦ #	<75 ♦ #	<15 @ #	<15 @ #	<15 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<20 @ #	<50 ♦ #	<50 ♦ #	<10 @ #	<10 @ #	<10 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<100 @ #	<250 ♦ #	<250 ♦ #	<50 @ #	<50 @ #	<50 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<100 @ #	<250 ♦ #	<250 ♦ #	<50 @ #	<50 @ #	<50 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<10 @ #	<25 ♦ #	<25 ♦ #	<5 @ #	<5 @ #	<5 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<100 @	<250 ♦	<250 ♦	4070 @	<50 @	<50 @
Total PFOS	<0.65 ng/l	TM434	<6.5 @ #	<16.3 ♦ #	<16.3 ♦ #	103 @ #	<3.25 @ #	<3.25 @ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-121 **Report Number:** 753692 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	11/12/2024	11/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-121	241213-121	241213-121	241213-121	241213-121	241213-121
Lab Sample No.(s)			30833549	30833476	30833485	30833494	30833504	30833512
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	67.6 @ #	<10 @ #	19.5 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	416 @ #	11.2 @ #	64.3 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 @ #	<15 @ #	<15 @ #	<30 @ #	<75 ♦ #	<75 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	168 @ #	5.31 @ #	30.9 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	53.3 @ #	6.73 @ #	10.9 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 @ #	<50 @ #	<125 ♦ #	<125 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	5.61 @ #	<5 @ #	12.7 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	6.67 @ #	4.83 @ #	4.81 @ #	<6.5 @ #	<16.3 ♦ #	<16.3 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	5.72 @ #	<5 @ #	9.76 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 @ #	<50 @ #	<125 ♦ #	<125 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 @ #	<25 @ #	<25 @ #	<50 @ #	<125 ♦ #	<125 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<3.25 @ #	<3.25 @ #	<3.25 @ #	<6.5 @ #	<16.3 ♦ #	<16.3 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<3.25 @ #	3.96 @ #	<3.25 @ #	<6.5 @ #	<16.3 ♦ #	<16.3 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-121 **Report Number:** 753692 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GW14B	GW15B	GW16B	GW17B	GW18B	GW19B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			10/12/2024	10/12/2024	10/12/2024	10/12/2024	11/12/2024	11/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-121	241213-121	241213-121	241213-121	241213-121	241213-121
Lab Sample No.(s)			30833549	30833476	30833485	30833494	30833504	30833512
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 @ #	<15 @ #	<15 @ #	<30 @ #	<75 ♦ #	<75 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<20 @ #	<50 ♦ #	<50 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 @ #	<50 @ #	<50 @ #	<100 @ #	<250 ♦ #	<250 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 @ #	<50 @ #	<50 @ #	<100 @ #	<250 ♦ #	<250 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<10 @ #	<25 ♦ #	<25 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50 @	<50 @	<50 @	<100 @	<250 ♦	<250 ♦
Total PFOS	<0.65 ng/l	TM434	<3.25 @ #	3.96 @ #	<3.25 @ #	<6.5 @ #	<16.3 ♦ #	<16.3 ♦ #

13:56:53 24/01/2025

CERTIFICATE OF ANALYSIS

SDG: 241213-121 **Report Number:** 753692 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GWFB	GWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			11/12/2024	11/12/2024				
Sample Time			.	.				
Date Received			13/12/2024	13/12/2024				
SDG Ref			241213-121	241213-121				
Lab Sample No.(s)			30833516	30833524				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFOA (335-67-1)	<0.65 ng/l	TM434	0.679 ♦ #	<0.65 ♦ #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-121 **Report Number:** 753692 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GWFB	GWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			11/12/2024	11/12/2024				
Sample Time			.	.				
Date Received			13/12/2024	13/12/2024				
SDG Ref			241213-121	241213-121				
Lab Sample No.(s)			30833516	30833524				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦				
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				

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Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30833472	30833528	30833536	30833545	30833554	30833481	30833489	30833498	30833508	30833520
Customer Sample Ref.	GW11A	GW12A	GW13A	GW14A	GW15A	GW16A	GW17A	GW18A	GW19A	GW11B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	20-Jan-2025	21-Jan-2025	21-Jan-2025	24-Jan-2025	20-Jan-2025	20-Jan-2025	20-Jan-2025	17-Jan-2025	17-Jan-2025	22-Jan-2025

Lab Sample No(s)	30833532	30833540	30833549	30833476	30833485	30833494	30833504	30833512	30833516	30833524
Customer Sample Ref.	GW12B	GW13B	GW14B	GW15B	GW16B	GW17B	GW18B	GW19B	GWFB	GWTB
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	21-Jan-2025	20-Jan-2025	21-Jan-2025	21-Jan-2025	20-Jan-2025	20-Jan-2025	17-Jan-2025	17-Jan-2025	21-Jan-2025	20-Jan-2025

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Potentially respirable fibres are identified by using a Phase Contrast Microscope.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

21. 6:2 FTAB

Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	24 January 2025
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241213-117
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	753718
Order Number:	Z4628

We received 14 samples on Friday December 13, 2024 and 14 of these samples were scheduled for analysis which was completed on Friday January 24, 2025. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30833180	BH1A		0.00 - 0.00	12/12/2024
30833162	BH5A		0.00 - 0.00	12/12/2024
30833142	BH6A		0.00 - 0.00	12/12/2024
30833248	BH7A		0.00 - 0.00	12/12/2024
30833188	BH9A		0.00 - 0.00	12/12/2024
30833170	BH1B		0.00 - 0.00	12/12/2024
30833153	BH5B		0.00 - 0.00	12/12/2024
30833254	BH6B		0.00 - 0.00	12/12/2024
30833238	BH7B		0.00 - 0.00	12/12/2024
30833124	BH9B		0.00 - 0.00	12/12/2024
30833207	BH8DA		0.00 - 0.00	12/12/2024
30833198	BH8DB		0.00 - 0.00	12/12/2024
30833229	BH8SA		0.00 - 0.00	12/12/2024
30833219	BH8SB		0.00 - 0.00	12/12/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-117 **Report Number:** 753718 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30833180	30833162	30833142	30833248	30833188	30833170	30833153	30833254	30833238	30833124	30833207	30833198	30833229	30833219
Customer Sample Reference			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B	BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB	BH8SA	BH8SB
AGS Reference																
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 14	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-117 **Report Number:** 753718 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-117	241213-117	241213-117	241213-117	241213-117	241213-117
Lab Sample No.(s)			30833180	30833162	30833142	30833248	30833188	30833170
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	30.2 ♦ #	<2 ♦ #	<50 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	48.8 ♦ #	<1 ♦ #	<25 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 ♦ #	<30 ♦ #	<3 ♦ #	<15 ♦ #	<3 ♦ #	<75 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	16.3 ♦ #	<1 ♦ #	<25 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 ♦ #	<50 ♦ #	<5 ♦ #	<25 ♦ #	<5 ♦ #	<125 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	<3.25 ♦ #	<6.5 ♦ #	<0.65 ♦ #	<3.25 ♦ #	<0.65 ♦ #	<16.3 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 ♦ #	<50 ♦ #	<5 ♦ #	<25 ♦ #	<5 ♦ #	<125 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 ♦ #	<50 ♦ #	<5 ♦ #	<25 ♦ #	<5 ♦ #	<125 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<3.25 ♦ #	<6.5 ♦ #	<0.65 ♦ #	<3.25 ♦ #	<0.65 ♦ #	<16.3 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<3.25 ♦ #	<6.5 ♦ #	<0.65 ♦ #	<3.25 ♦ #	<0.65 ♦ #	<16.3 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #

15:39:57 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-117 **Report Number:** 753718 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH1A	BH5A	BH6A	BH7A	BH9A	BH1B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-117	241213-117	241213-117	241213-117	241213-117	241213-117
Lab Sample No.(s)			30833180	30833162	30833142	30833248	30833188	30833170
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 ♦ #	<30 ♦ #	<3 ♦ #	<15 ♦ #	<3 ♦ #	<75 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 ♦ #	<20 ♦ #	<2 ♦ #	<10 ♦ #	<2 ♦ #	<50 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 ♦ #	<100 ♦ #	<10 ♦ #	<50 ♦ #	<10 ♦ #	<250 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 ♦ #	<100 ♦ #	<10 ♦ #	<50 ♦ #	<10 ♦ #	<250 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 ♦ #	<10 ♦ #	<1 ♦ #	<5 ♦ #	<1 ♦ #	<25 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50 ♦	<100 ♦	<10 ♦	<50 ♦	<10 ♦	<250 ♦
Total PFOS	<0.65 ng/l	TM434	<3.25 ♦ #	<6.5 ♦ #	<0.65 ♦ #	<3.25 ♦ #	<0.65 ♦ #	<16.3 ♦ #

15:39:57 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-117 **Report Number:** 753718 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-117	241213-117	241213-117	241213-117	241213-117	241213-117
Lab Sample No.(s)			30833153	30833254	30833238	30833124	30833207	30833198
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	26.9 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	38.4 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<30 ♦ #	<3 ♦ #	<6 ♦ #	<3 ♦ #	<15 ♦ #	<75 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	8.12 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<50 ♦ #	<5 ♦ #	<10 ♦ #	<5 ♦ #	<25 ♦ #	<125 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	<6.5 ♦ #	<0.65 ♦ #	<1.3 ♦ #	<0.65 ♦ #	<3.25 ♦ #	<16.3 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<50 ♦ #	<5 ♦ #	<10 ♦ #	<5 ♦ #	<25 ♦ #	<125 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<50 ♦ #	<5 ♦ #	<10 ♦ #	<5 ♦ #	<25 ♦ #	<125 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<6.5 ♦ #	<0.65 ♦ #	<1.3 ♦ #	<0.65 ♦ #	<3.25 ♦ #	<16.3 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<6.5 ♦ #	<0.65 ♦ #	<1.3 ♦ #	<0.65 ♦ #	<3.25 ♦ #	<16.3 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-117 **Report Number:** 753718 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH5B	BH6B	BH7B	BH9B	BH8DA	BH8DB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled			12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024	12/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-117	241213-117	241213-117	241213-117	241213-117	241213-117
Lab Sample No.(s)			30833153	30833254	30833238	30833124	30833207	30833198
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<30 ♦ #	<3 ♦ #	<6 ♦ #	<3 ♦ #	<15 ♦ #	<75 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<20 ♦ #	<2 ♦ #	<4 ♦ #	<2 ♦ #	<10 ♦ #	<50 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<100 ♦ #	<10 ♦ #	<20 ♦ #	<10 ♦ #	<50 ♦ #	<250 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<100 ♦ #	<10 ♦ #	<20 ♦ #	<10 ♦ #	<50 ♦ #	<250 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<10 ♦ #	<1 ♦ #	<2 ♦ #	<1 ♦ #	<5 ♦ #	<25 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<100 ♦	<10 ♦	<20 ♦	<10 ♦	<50 ♦	<250 ♦
Total PFOS	<0.65 ng/l	TM434	<6.5 ♦ #	<0.65 ♦ #	<1.3 ♦ #	<0.65 ♦ #	<3.25 ♦ #	<16.3 ♦ #

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CERTIFICATE OF ANALYSIS

SDG: 241213-117 **Report Number:** 753718 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH8SA	BH8SB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			12/12/2024	12/12/2024				
Sample Time			.	.				
Date Received			13/12/2024	13/12/2024				
SDG Ref			241213-117	241213-117				
Lab Sample No.(s)			30833229	30833219				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	2.47 ♦ #	<4 ♦ #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
PFPA (2706-90-3)	<1 ng/l	TM434	2.18 ♦ #	<2 ♦ #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<6 ♦ #				
PFBS (375-73-5)	<1 ng/l	TM434	1.42 ♦ #	<2 ♦ #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<10 ♦ #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<1.3 ♦ #				
PFHxS (355-46-4)	<1 ng/l	TM434	1.64 ♦ #	<2 ♦ #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
PFecHS (133201-07-7)	<1 ng/l	TM434	14.7 ♦ #	8.22 ♦ #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<10 ♦ #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<10 ♦ #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<1.3 ♦ #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<1.3 ♦ #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-117 **Report Number:** 753718 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			BH8SA	BH8SB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			12/12/2024	12/12/2024				
Sample Time			.	.				
Date Received			13/12/2024	13/12/2024				
SDG Ref			241213-117	241213-117				
Lab Sample No.(s)			30833229	30833219				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<6 ♦ #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<4 ♦ #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<20 ♦ #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<20 ♦ #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<2 ♦ #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<20 ♦				
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<1.3 ♦ #				

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Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30833180	30833162	30833142	30833248	30833188	30833170	30833153	30833254	30833238	30833124
Customer Sample Ref.	BH1A	BH5A	BH6A	BH7A	BH9A	BH1B	BH5B	BH6B	BH7B	BH9B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	21-Jan-2025	17-Jan-2025	17-Jan-2025	21-Jan-2025	20-Jan-2025	17-Jan-2025	17-Jan-2025	24-Jan-2025	17-Jan-2025	21-Jan-2025

Lab Sample No(s)	30833207	30833198	30833229	30833219
Customer Sample Ref.	BH8DA	BH8DB	BH8SA	BH8SB
AGS Ref.				
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water
PFAS Liquids (Full Suite)	21-Jan-2025	17-Jan-2025	20-Jan-2025	17-Jan-2025

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Potentially respirable fibres are identified by using a Phase Contrast Microscope.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

21. 6:2 FTAB

Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	20 January 2025
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241213-119
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	753218
Order Number:	Z4628

We received 2 samples on Friday December 13, 2024 and 2 of these samples were scheduled for analysis which was completed on Monday January 20, 2025. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30833299	Gardeners Well A		0.00 - 0.00	12/12/2024
30833310	Gardeners Well B		0.00 - 0.00	12/12/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-119 **Report Number:** 753218 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30833299	30833310
Customer Sample Reference			Gardeners Well A	Gardeners Well B
AGS Reference				
Depth (m)			0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			GW	GW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 2	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-119 **Report Number:** 753218 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			Gardeners Well A	Gardeners Well B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			12/12/2024	12/12/2024				
Sample Time			.	.				
Date Received			13/12/2024	13/12/2024				
SDG Ref			241213-119	241213-119				
Lab Sample No.(s)			30833299	30833310				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				

13:37:24 20/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-119 **Report Number:** 753218 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			Gardeners Well A	Gardeners Well B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			12/12/2024	12/12/2024				
Sample Time			.	.				
Date Received			13/12/2024	13/12/2024				
SDG Ref			241213-119	241213-119				
Lab Sample No.(s)			30833299	30833310				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦				
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				

13:37:24 20/01/2025

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30833299	30833310
Customer Sample Ref.	Gardeners Well A	Gardeners Well B
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water
PFAS Liquids (Full Suite)	17-Jan-2025	20-Jan-2025

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Potentially respirable fibres are identified by using a Phase Contrast Microscope.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

21. 6:2 FTAB

Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

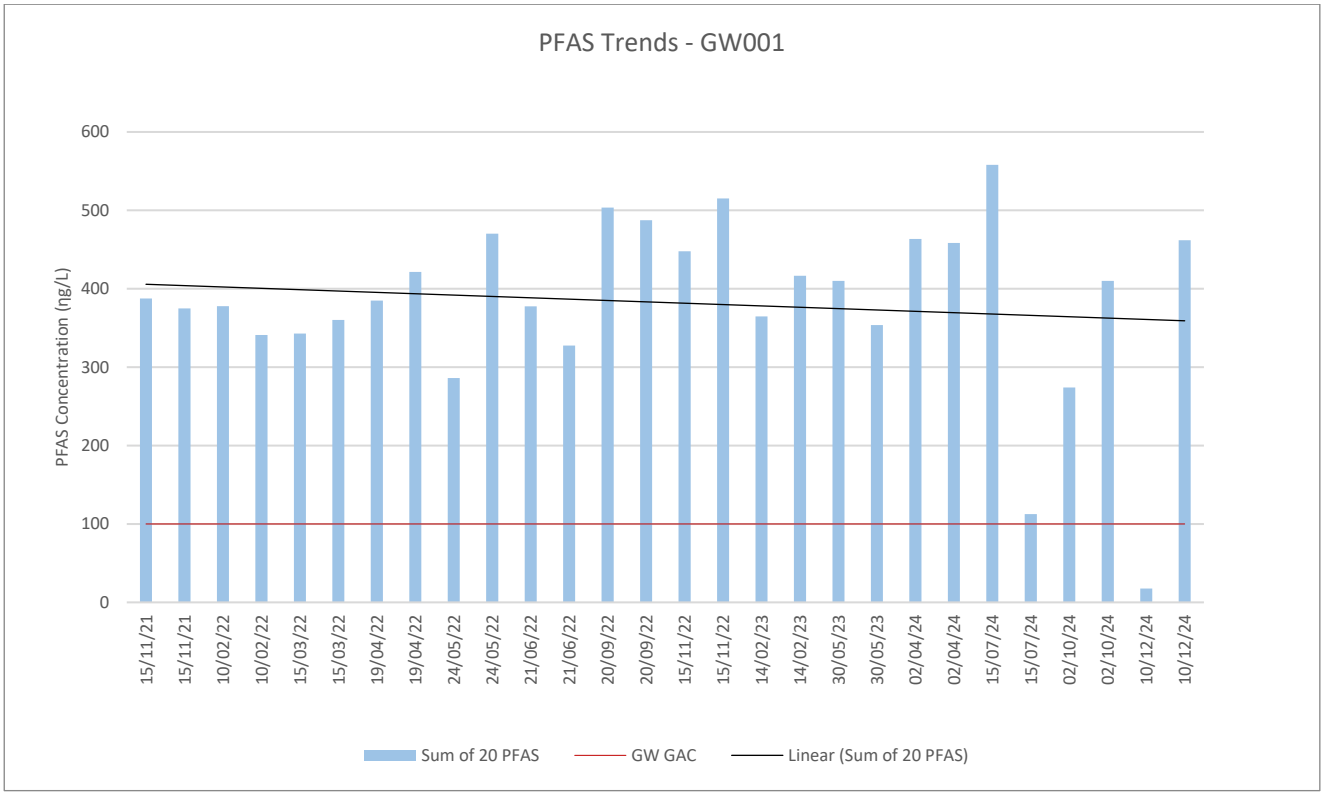
FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

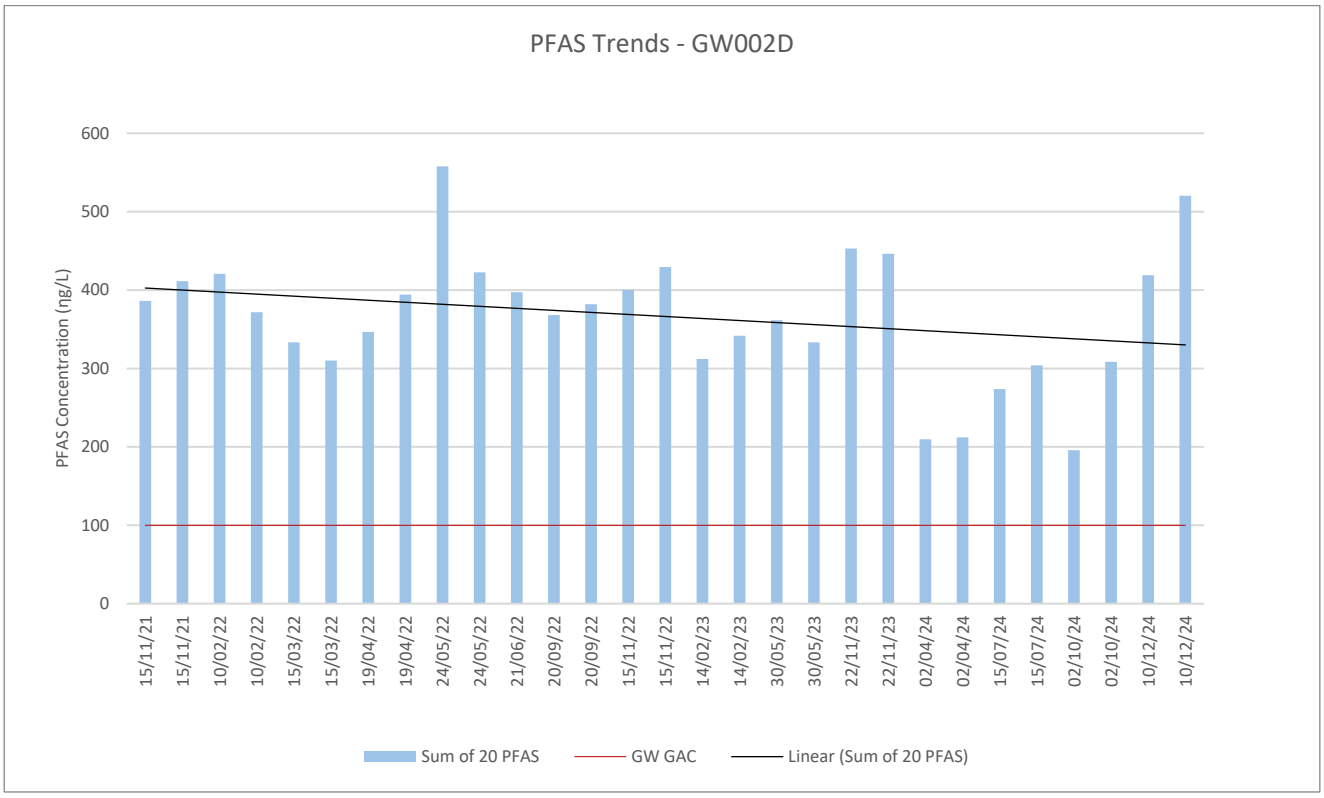
APPENDIX 5

Groundwater Trends

North Apron Groundwater Trends

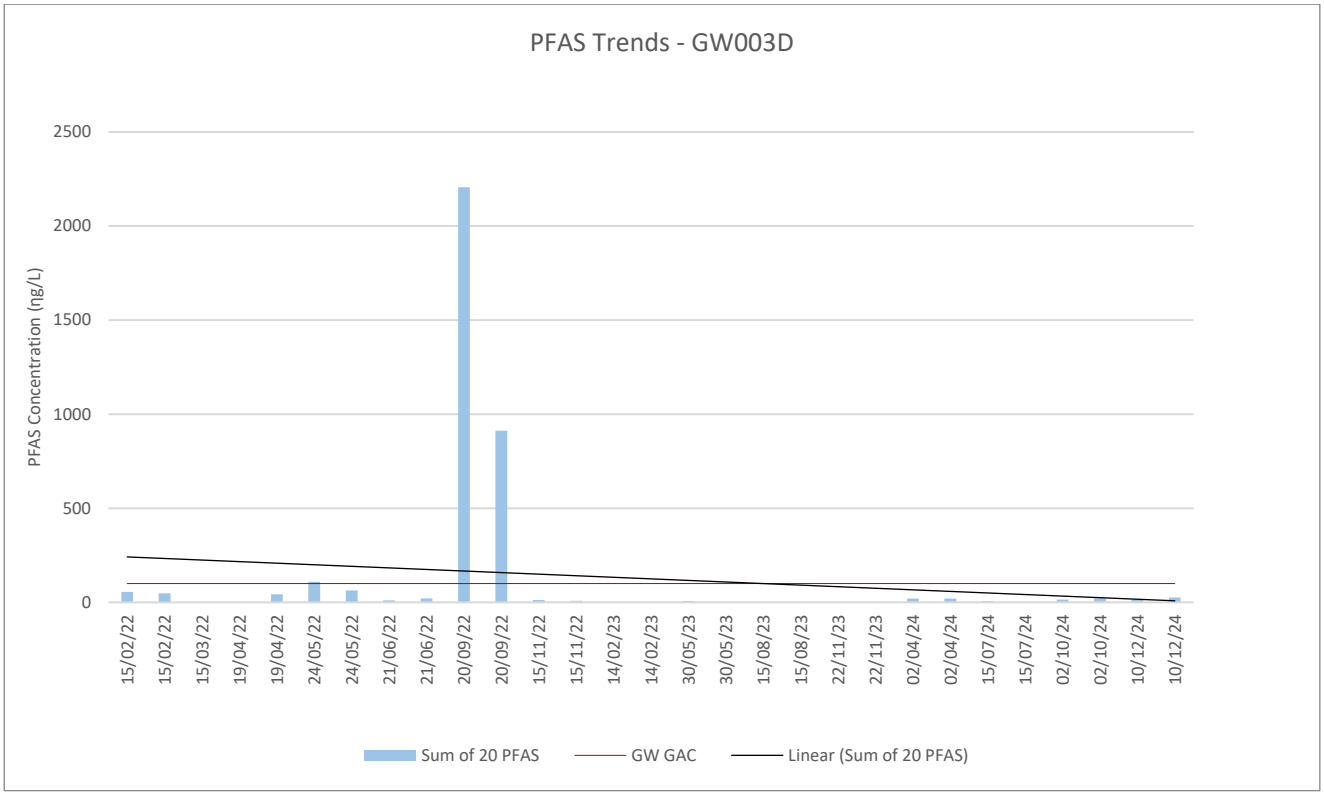


Sum of 20 PFAS Concentrations at GW001 (Above GAC)

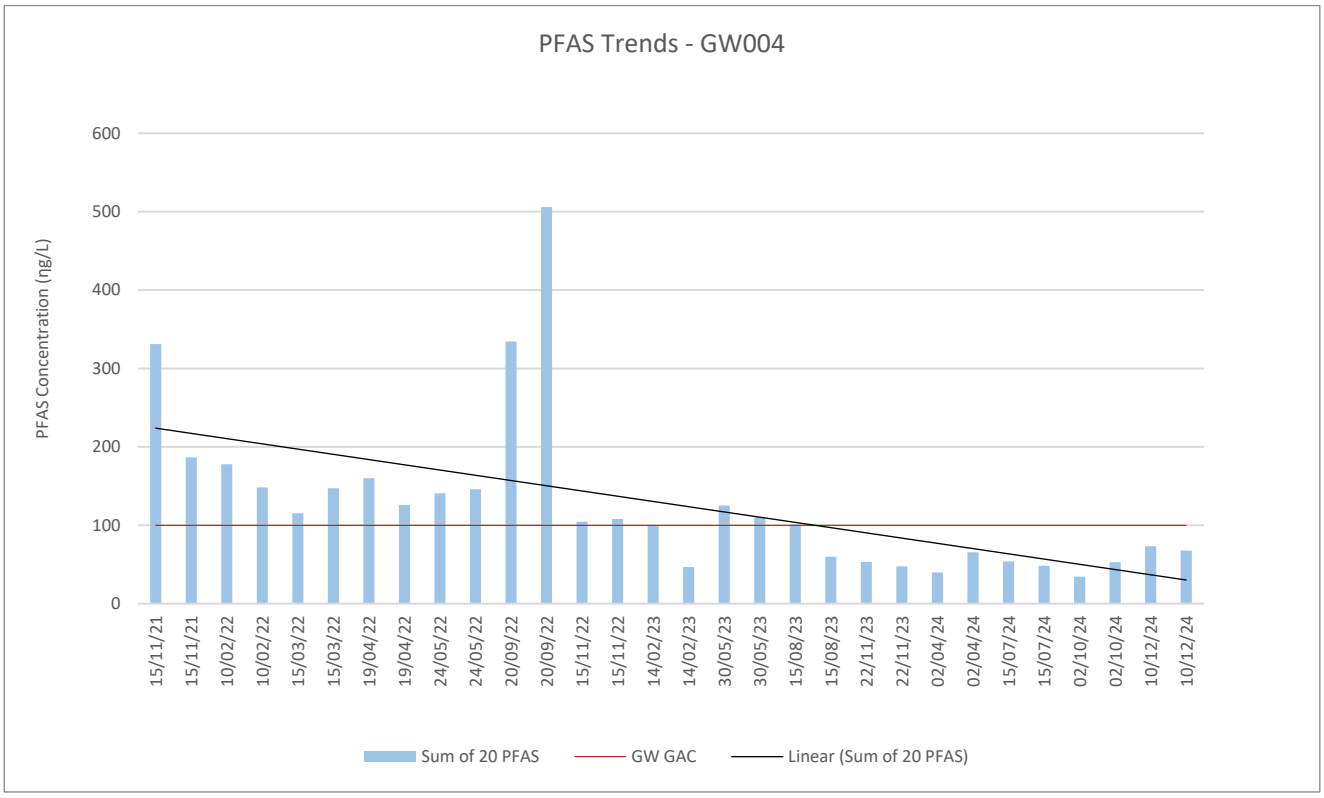


Sum of 20 PFAS Concentrations at GW002D (Above GAC)

North Apron Groundwater Trends

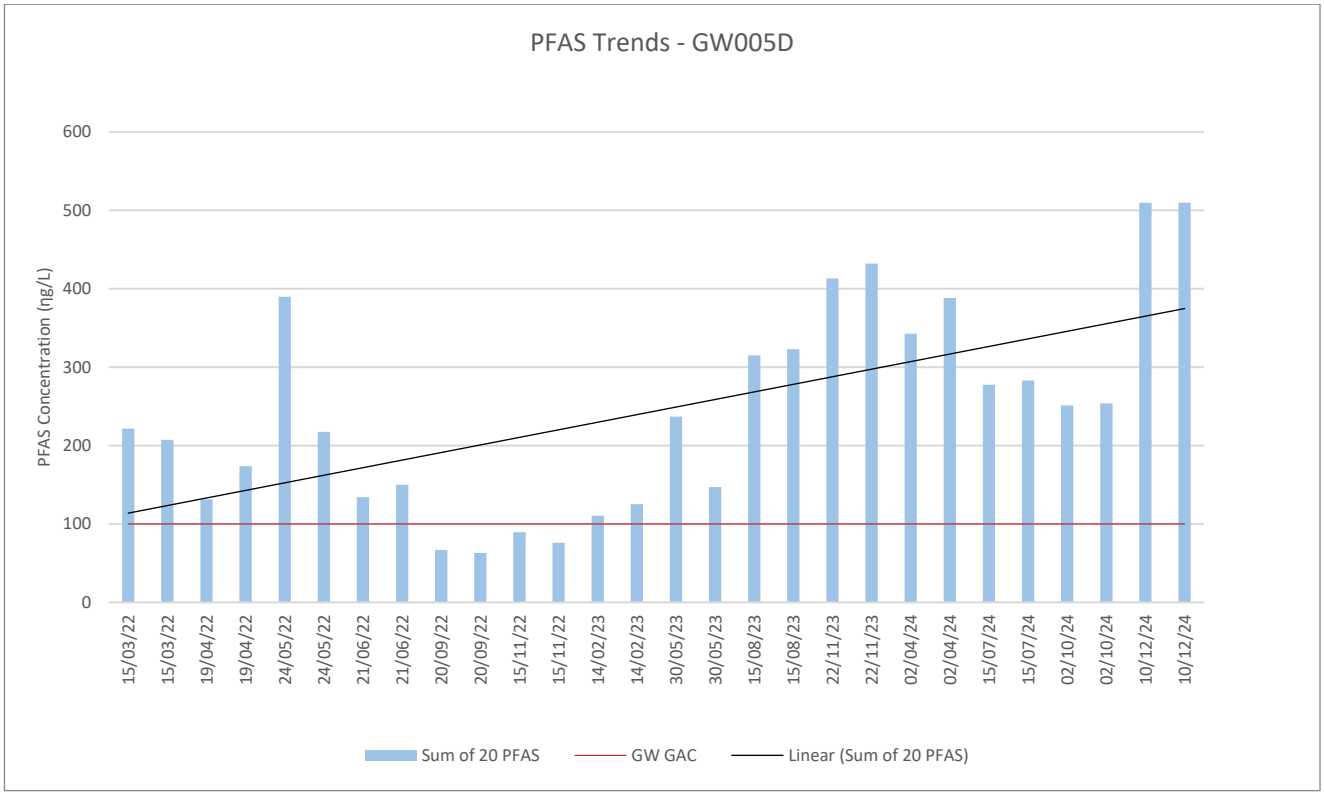


Sum of 20 PFAS Concentrations at GW003D (Below GAC)

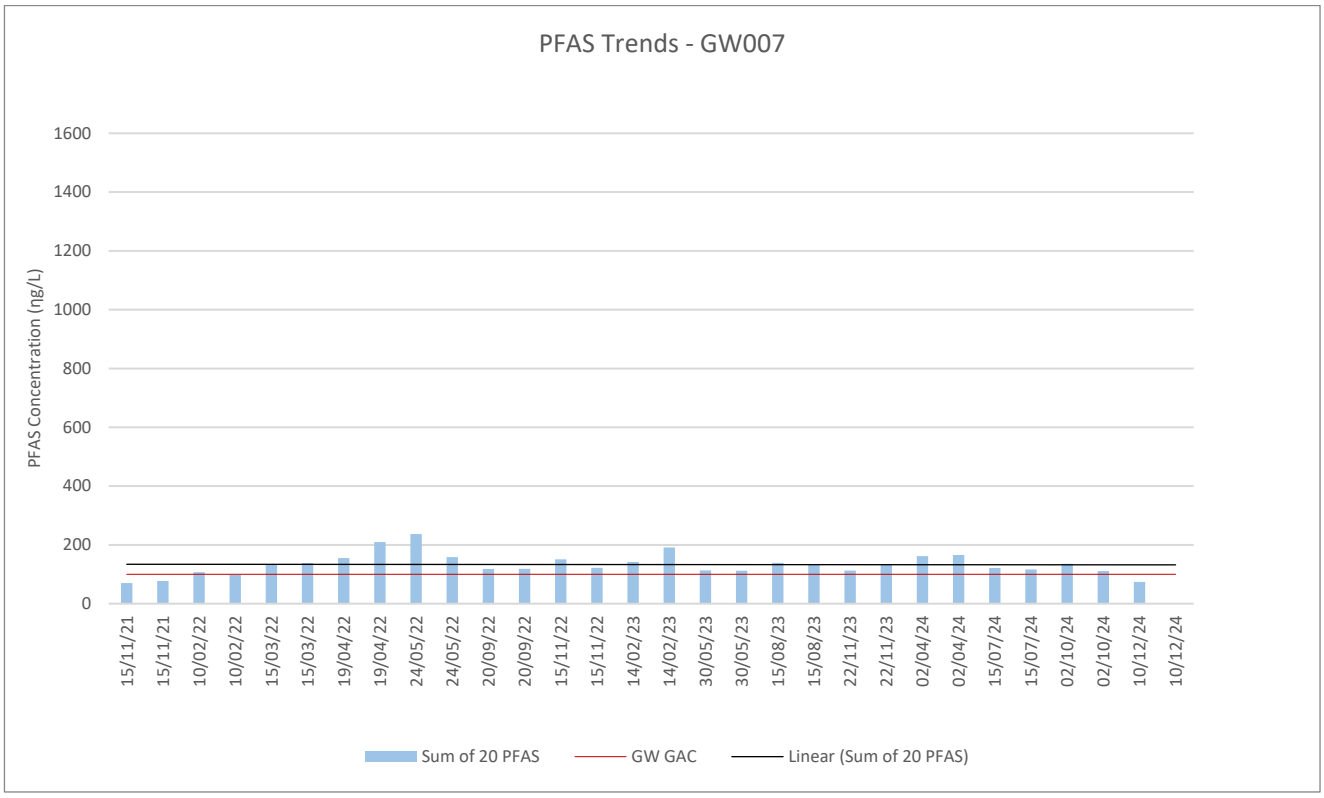


Sum of 20 PFAS Concentrations at GW004 (Above GAC)

North Apron Groundwater Trends

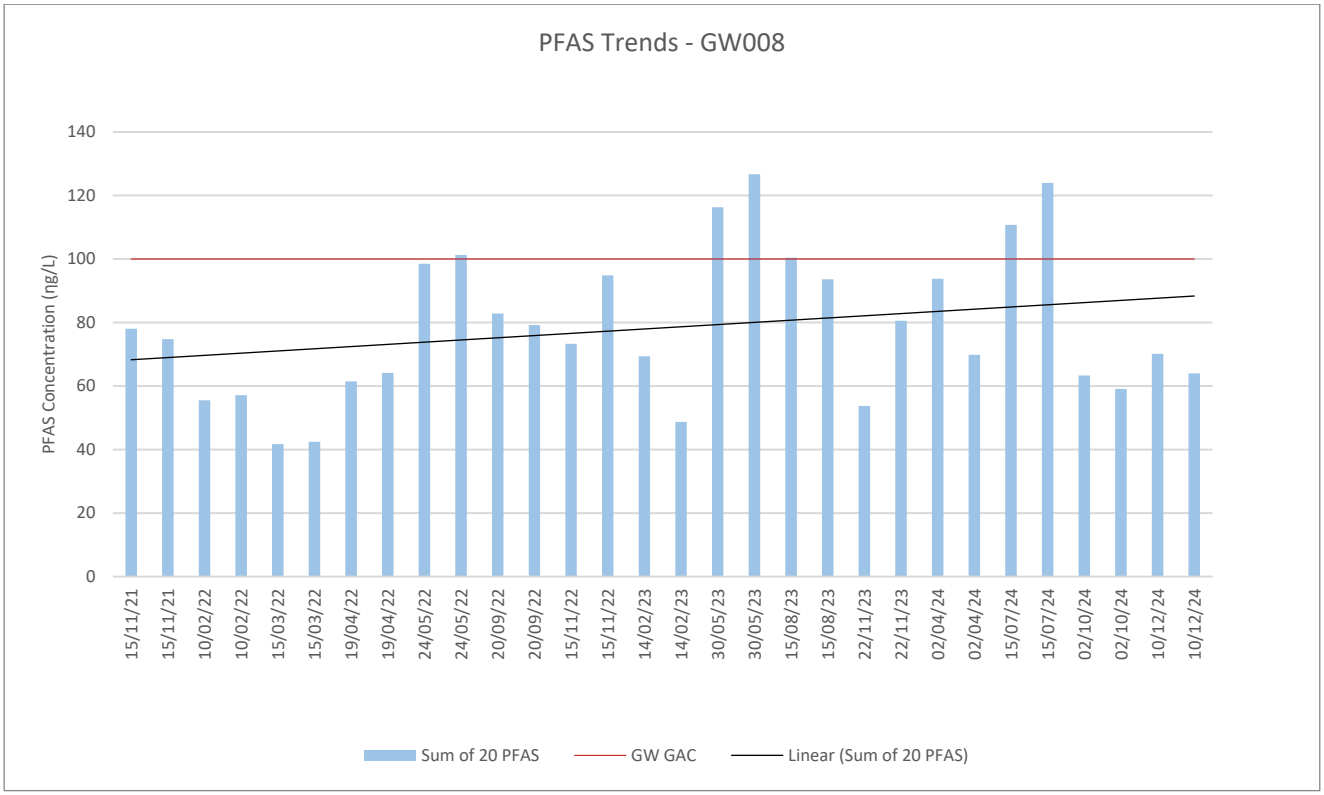


Sum of 20 PFAS Concentrations at GW005D (Above GAC)

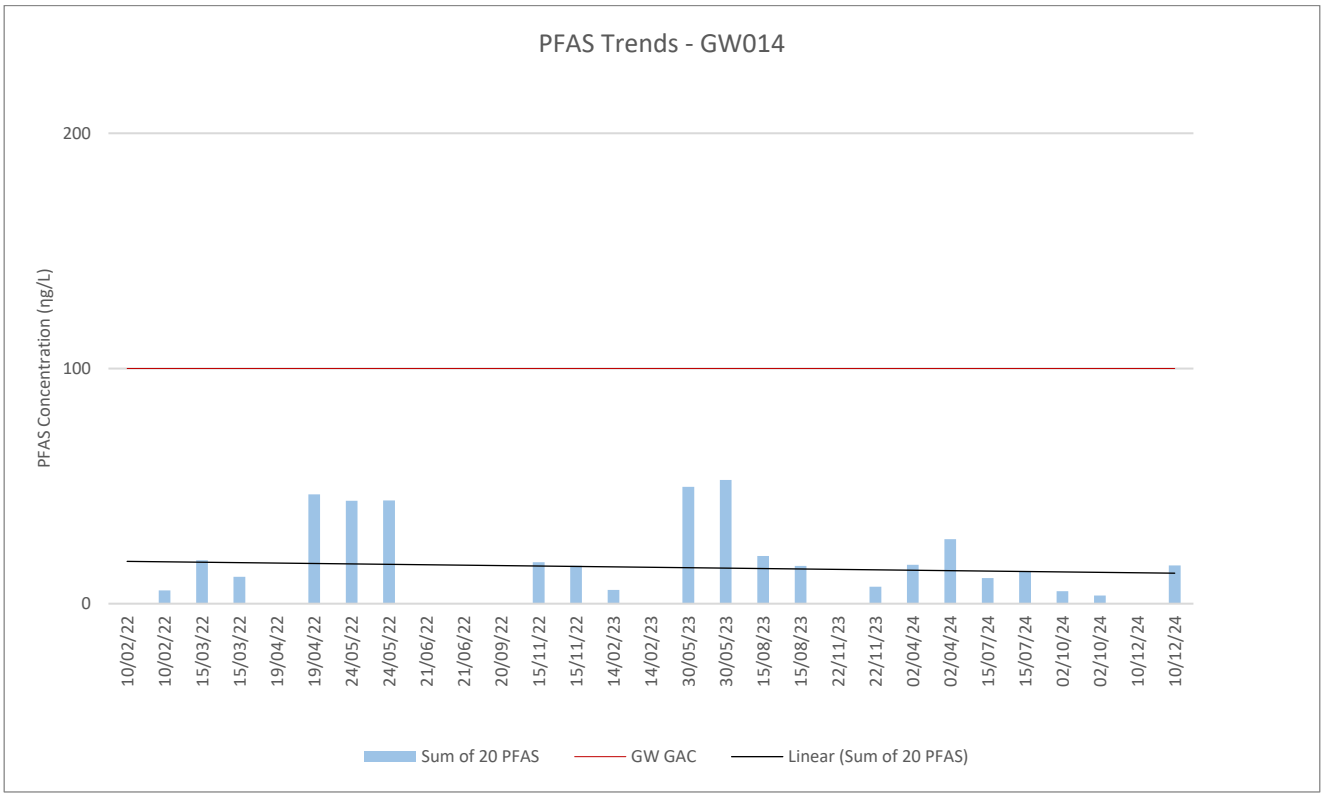


Sum of 20 PFAS Concentrations at GW007 (Above GAC)

North Apron Groundwater Trends

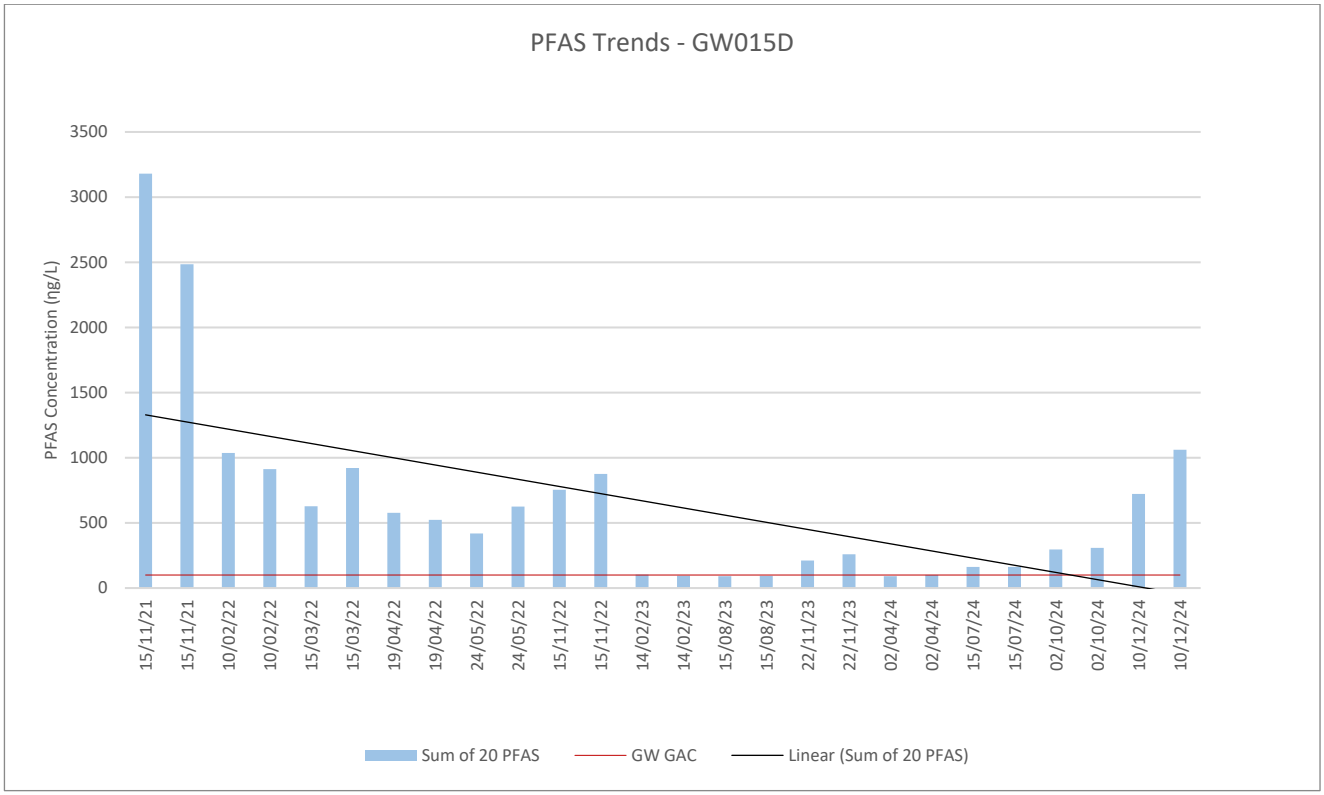


Sum of PFAS Concentrations at GW008 (Below GAC)



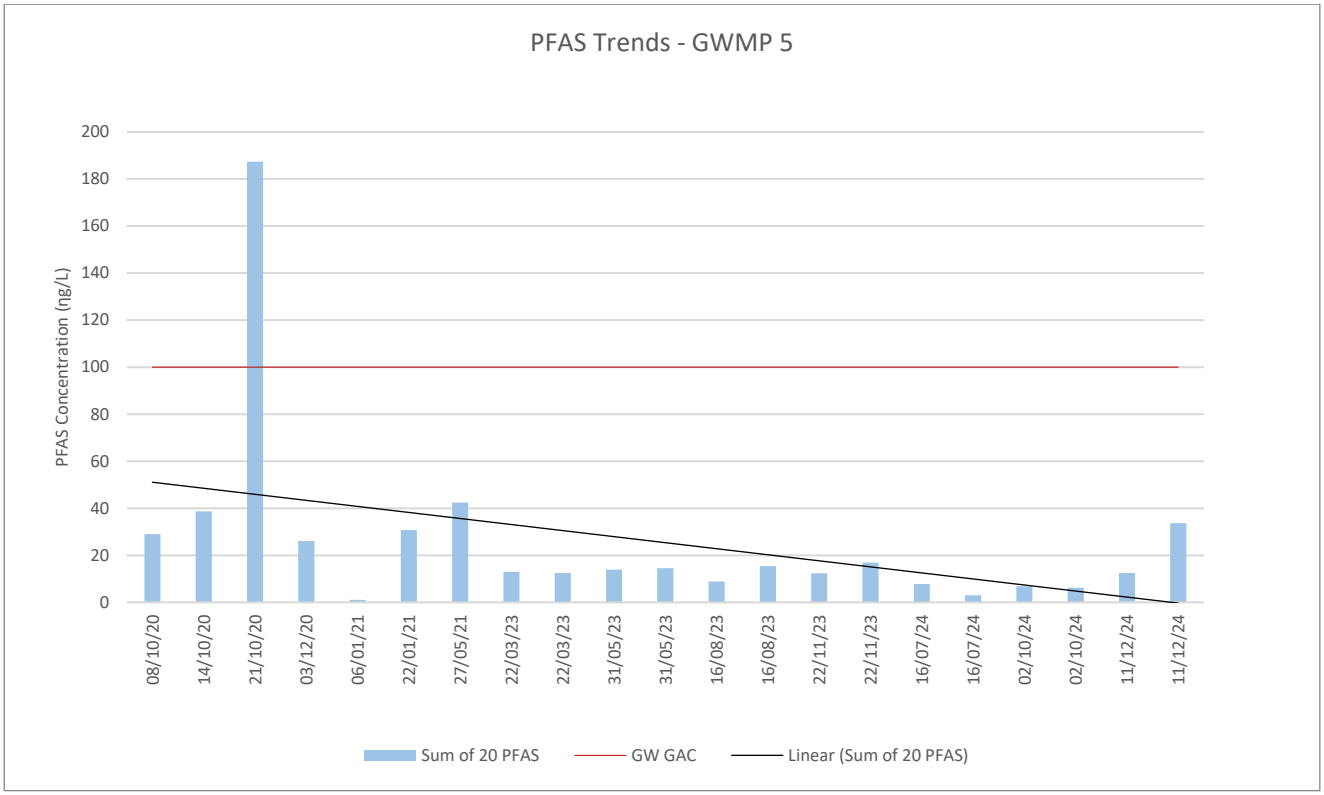
Sum of 20 PFAS Concentrations at GW014 (Below GAC)

North Apron Groundwater Trends

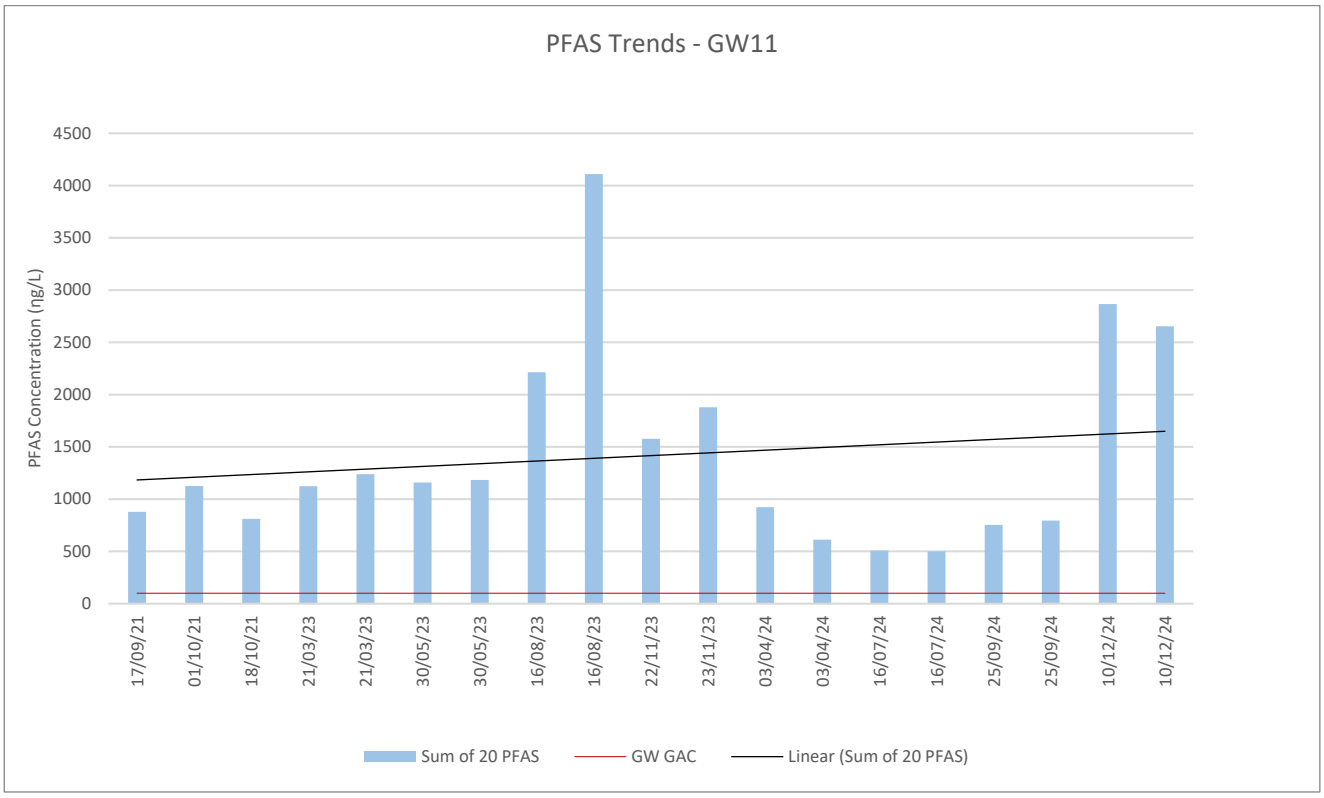


Sum of 20 PFAS Concentrations at GW015D (Above GAC)

North Runway/APEC 5 Groundwater Trends

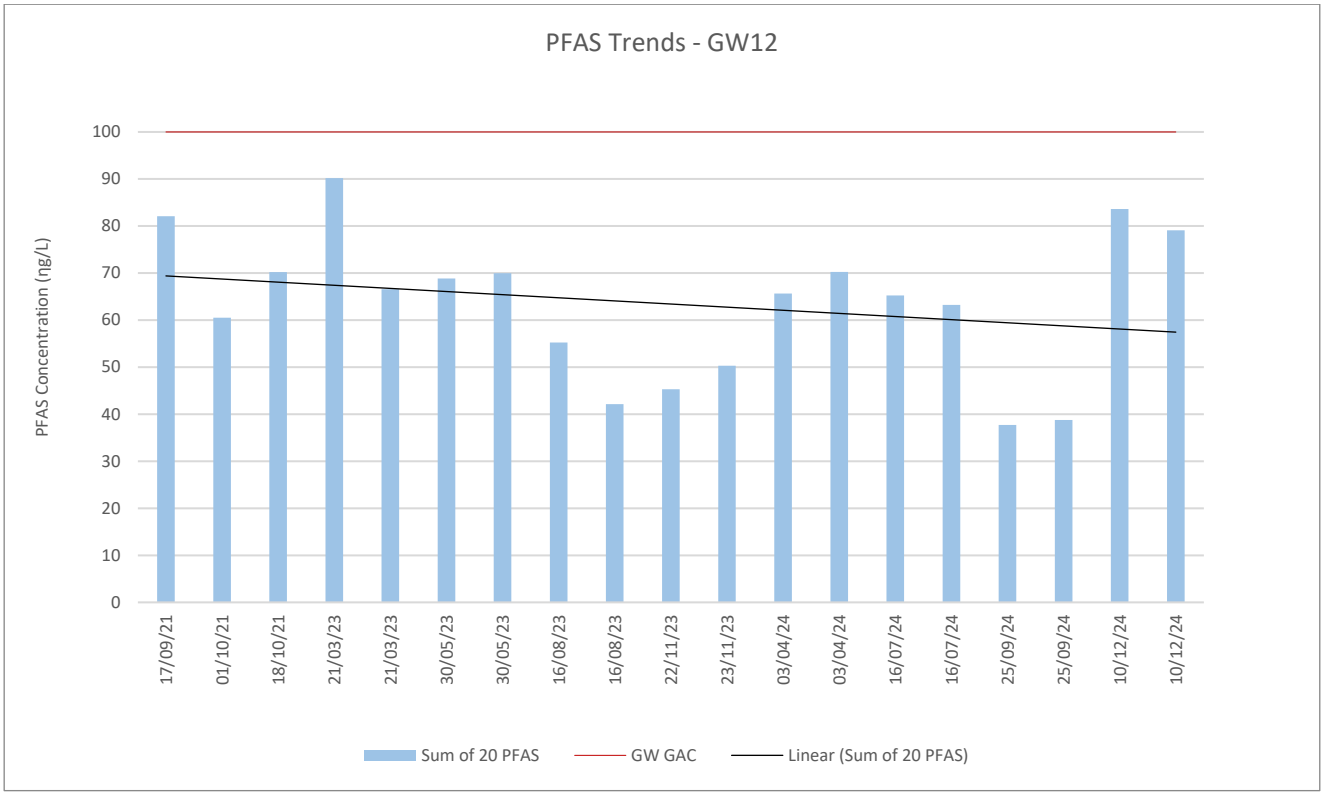


Sum of 20 PFAS Concentrations at GWMP 5 (Below GAC)

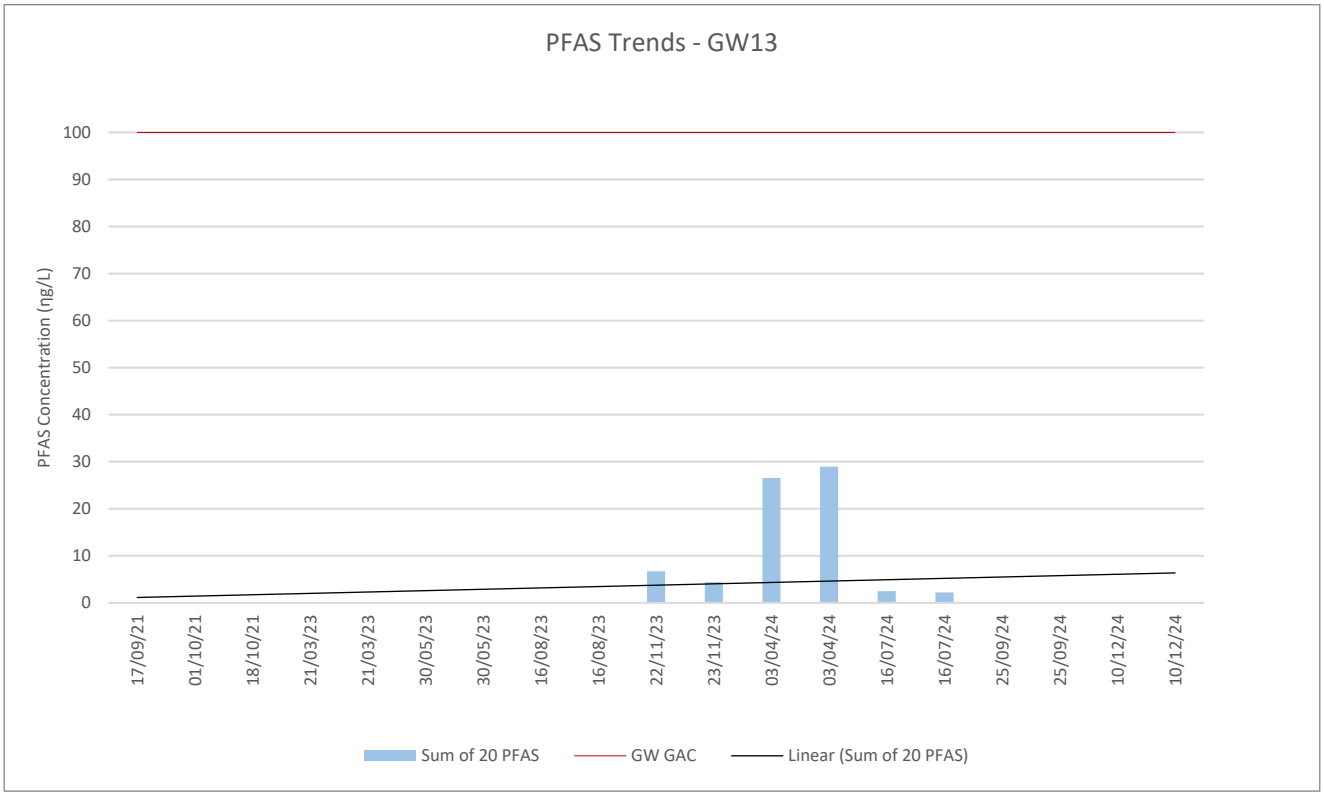


Sum of 20 PFAS Concentrations at GW11 (Above GAC)

North Runway/APEC 5 Groundwater Trends

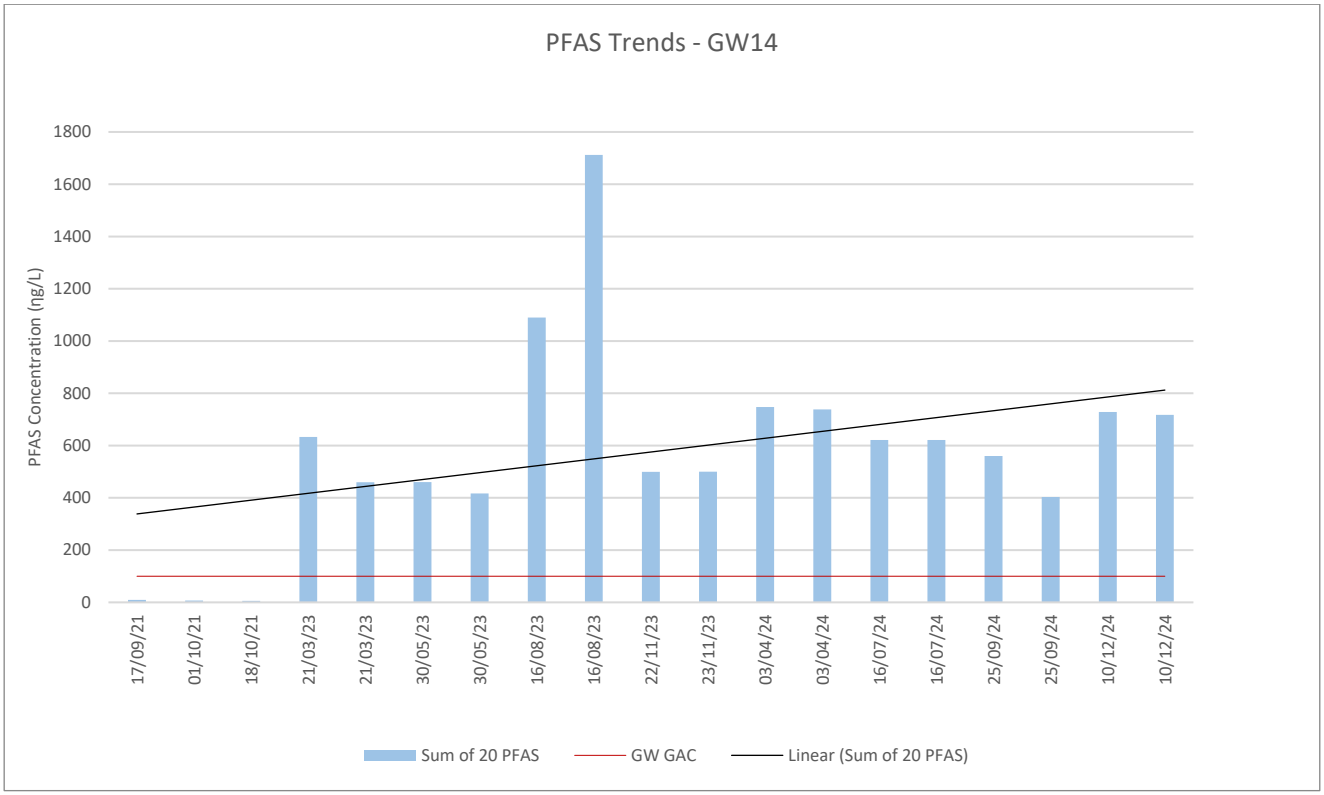


Sum of 20 PFAS Concentrations at GW12 (Below GAC)

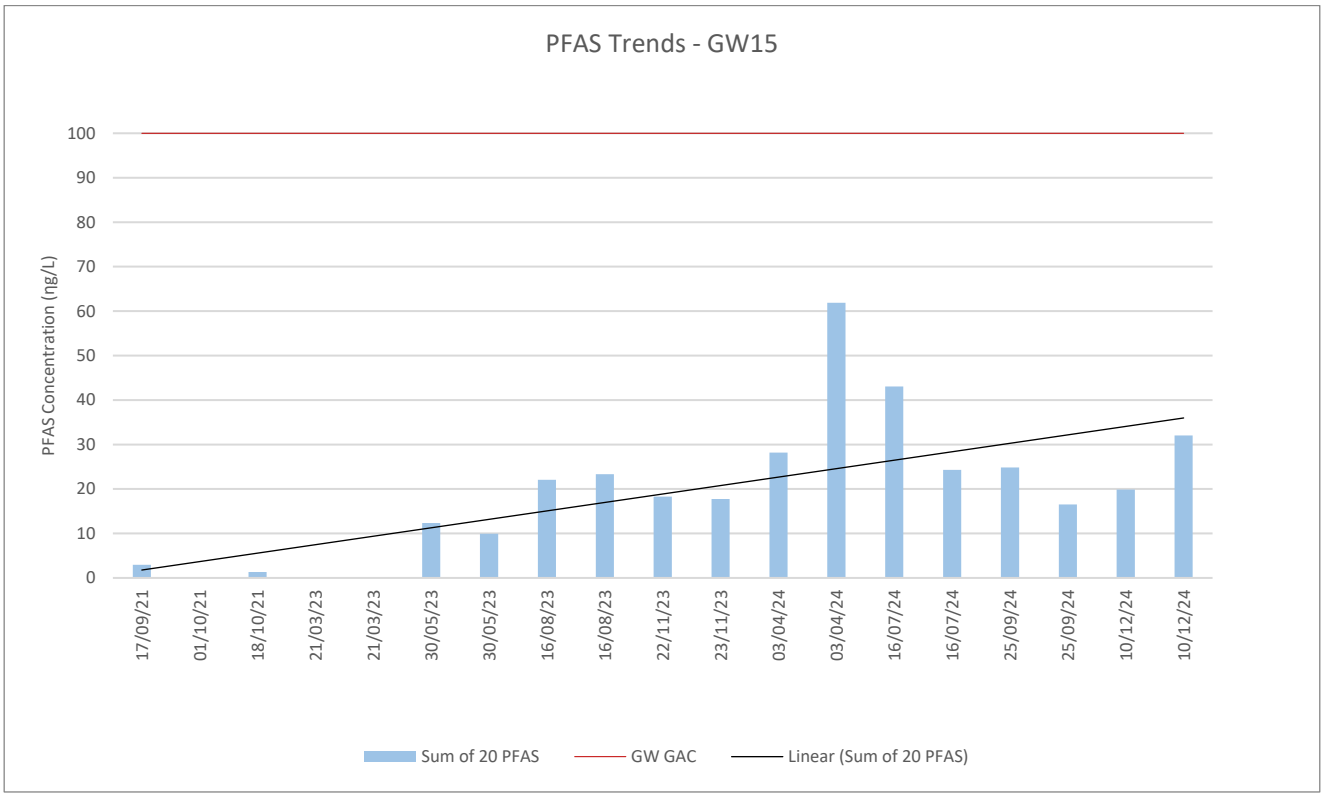


Sum of 20 PFAS Concentrations at GW13 (Below GAC)

North Runway/APEC 5 Groundwater Trends

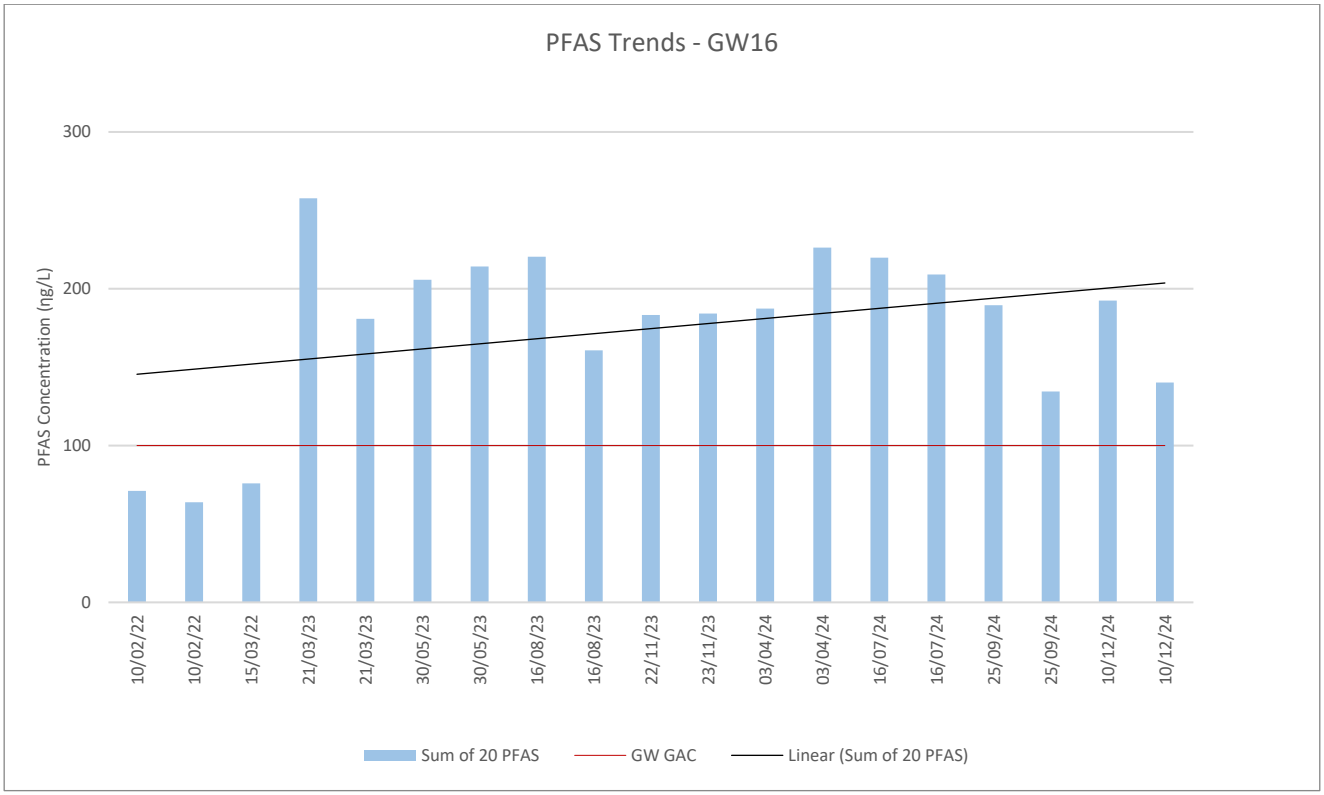


Sum of 20 PFAS Concentrations at GW14 (Above GAC)

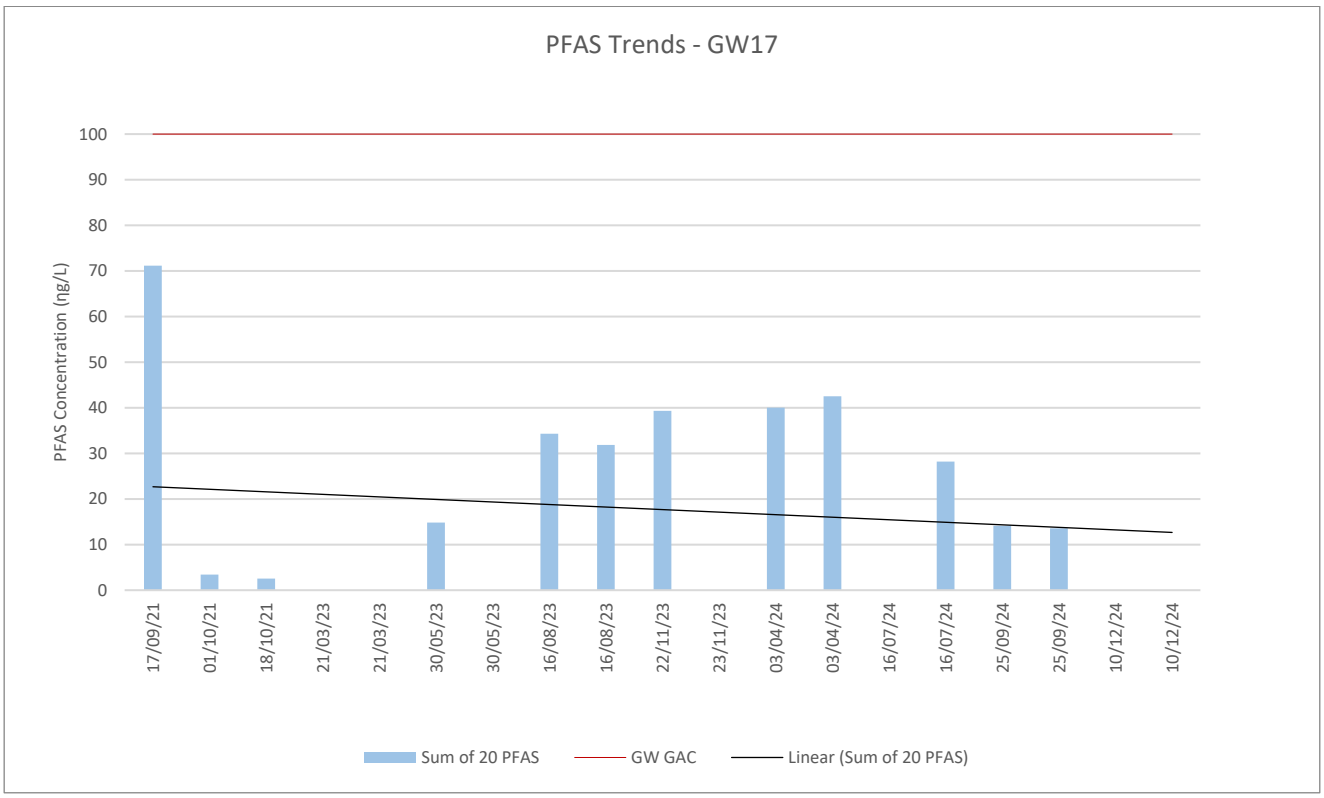


Sum of 20 PFAS Concentrations at GW15 (Below GAC)

North Runway/APEC 5 Groundwater Trends

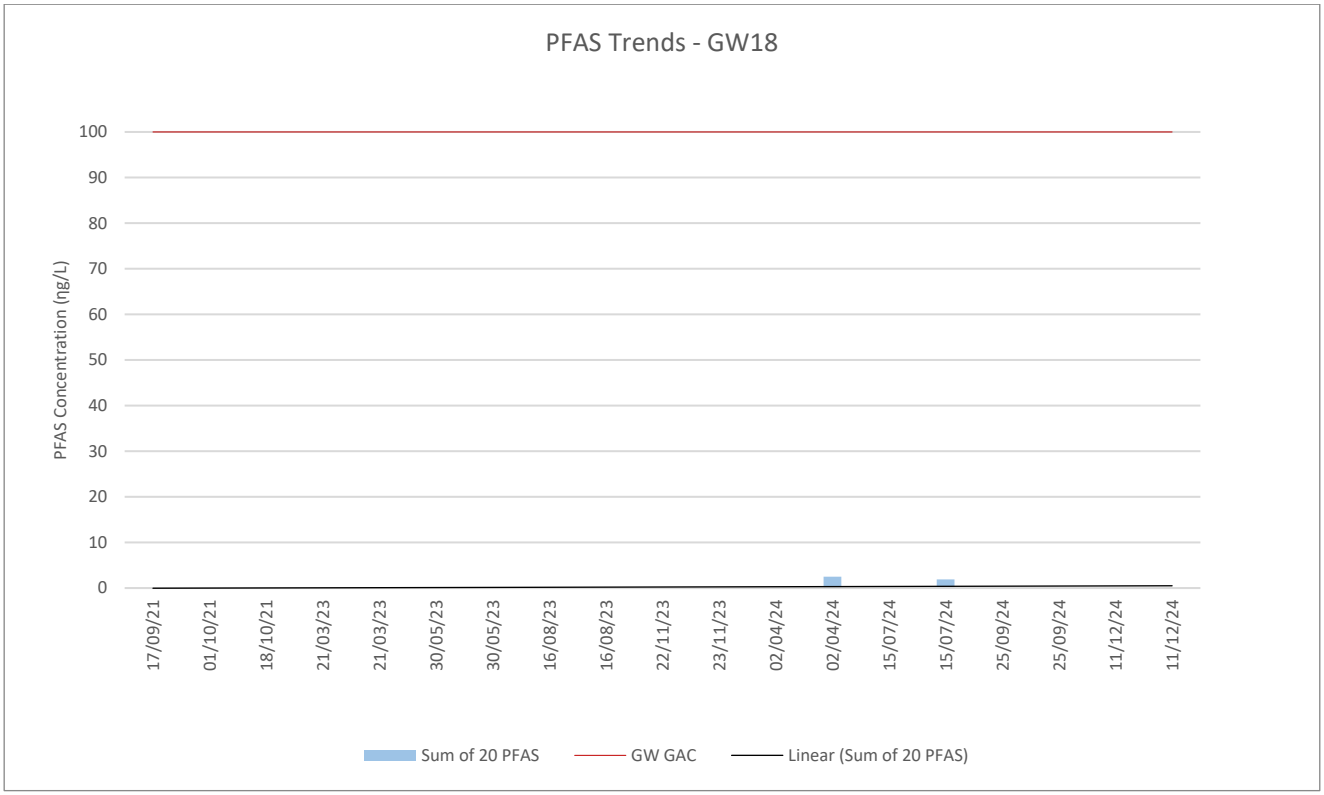


Sum of 20 PFAS Concentrations at GW16 (Above GAC)

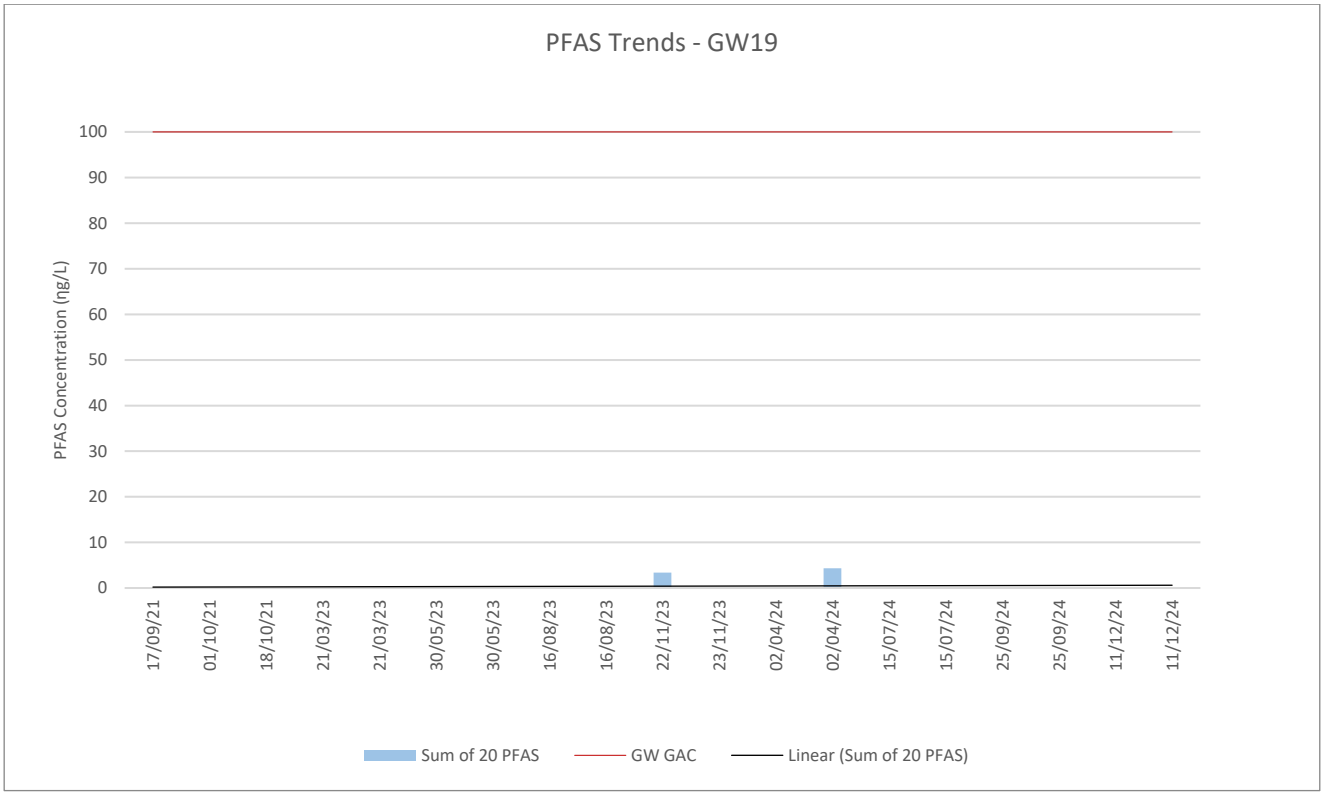


Sum of 20 PFAS Concentrations at GW17 (Below GAC)

North Runway/APEC 5 Groundwater Trends

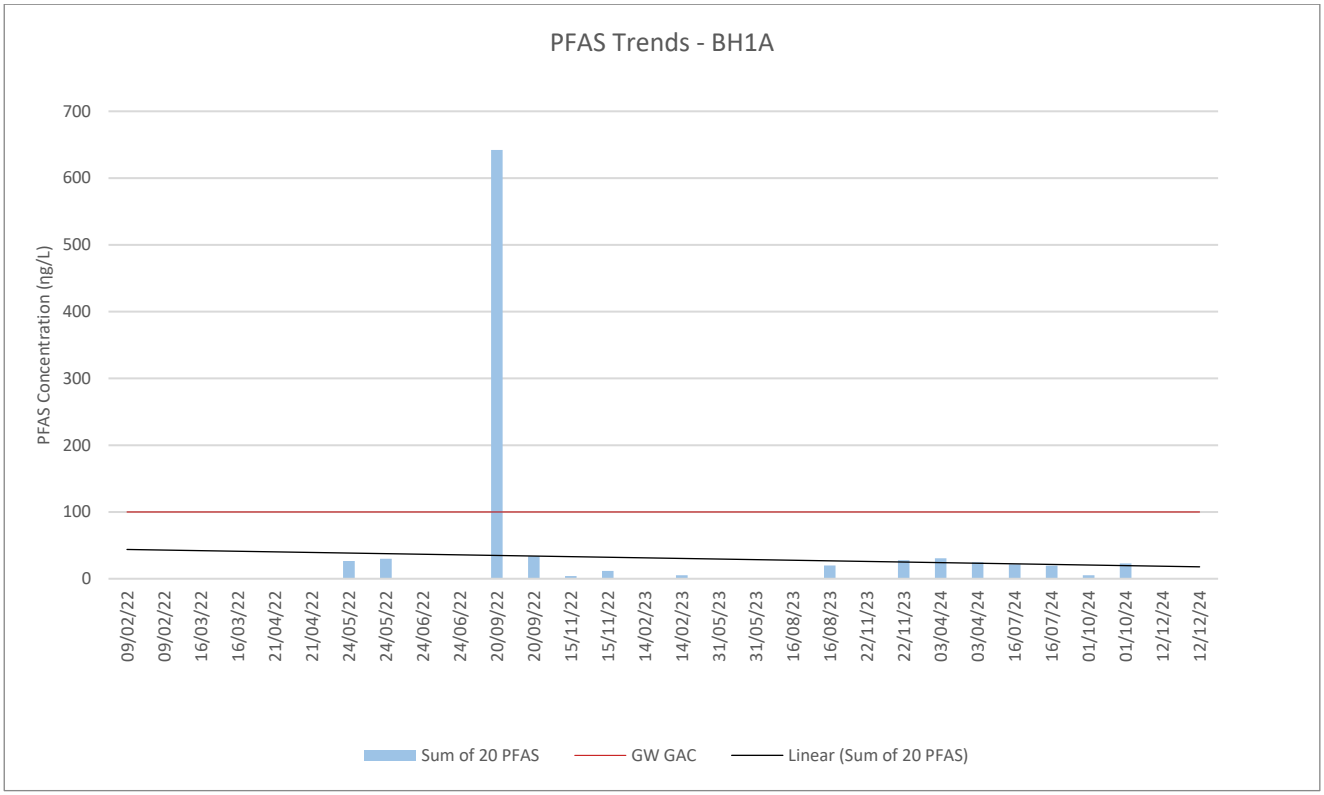


Sum of 20 PFAS Concentrations at GW18 (Below GAC)

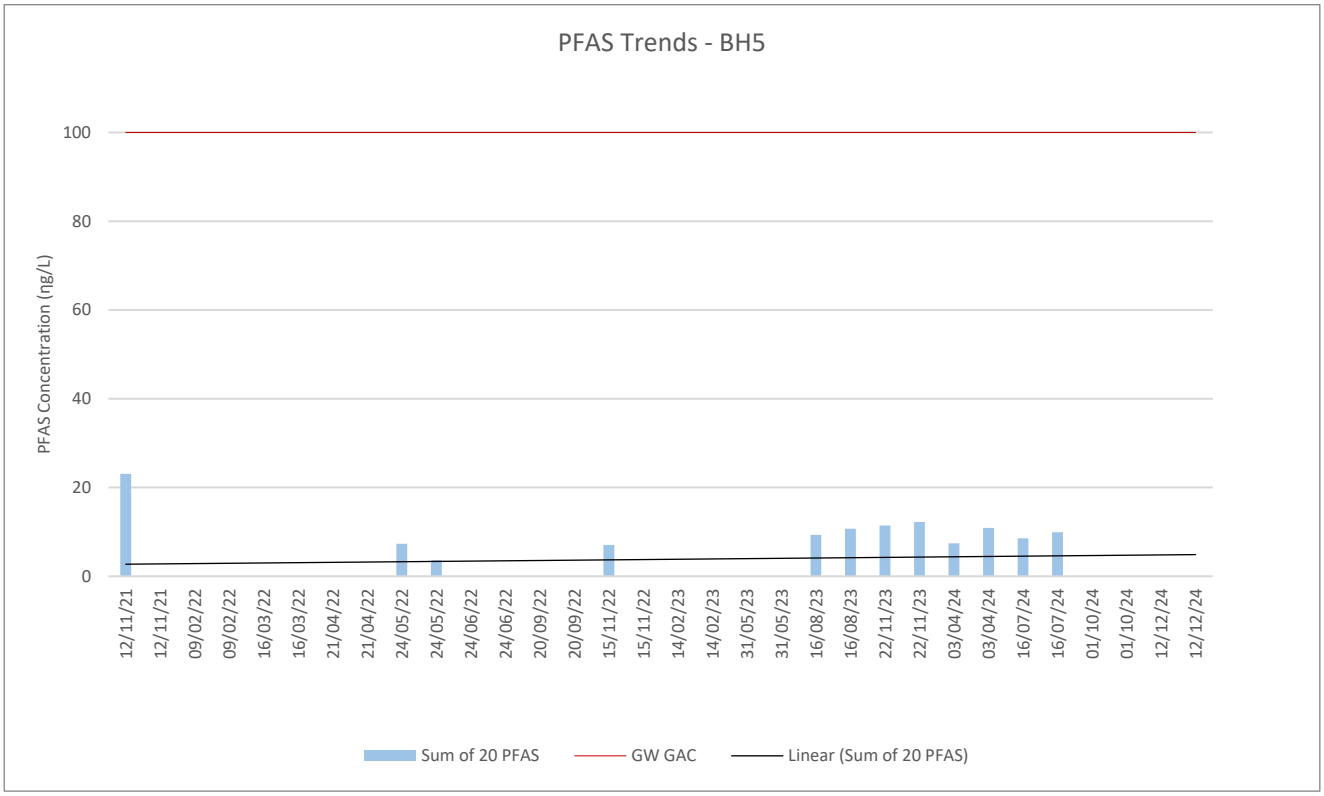


Sum of 20 PFAS Concentrations at GW19 (Below GAC)

Castlemoate House (Historic Unregulated Waste Disposal Site) Groundwater Trends

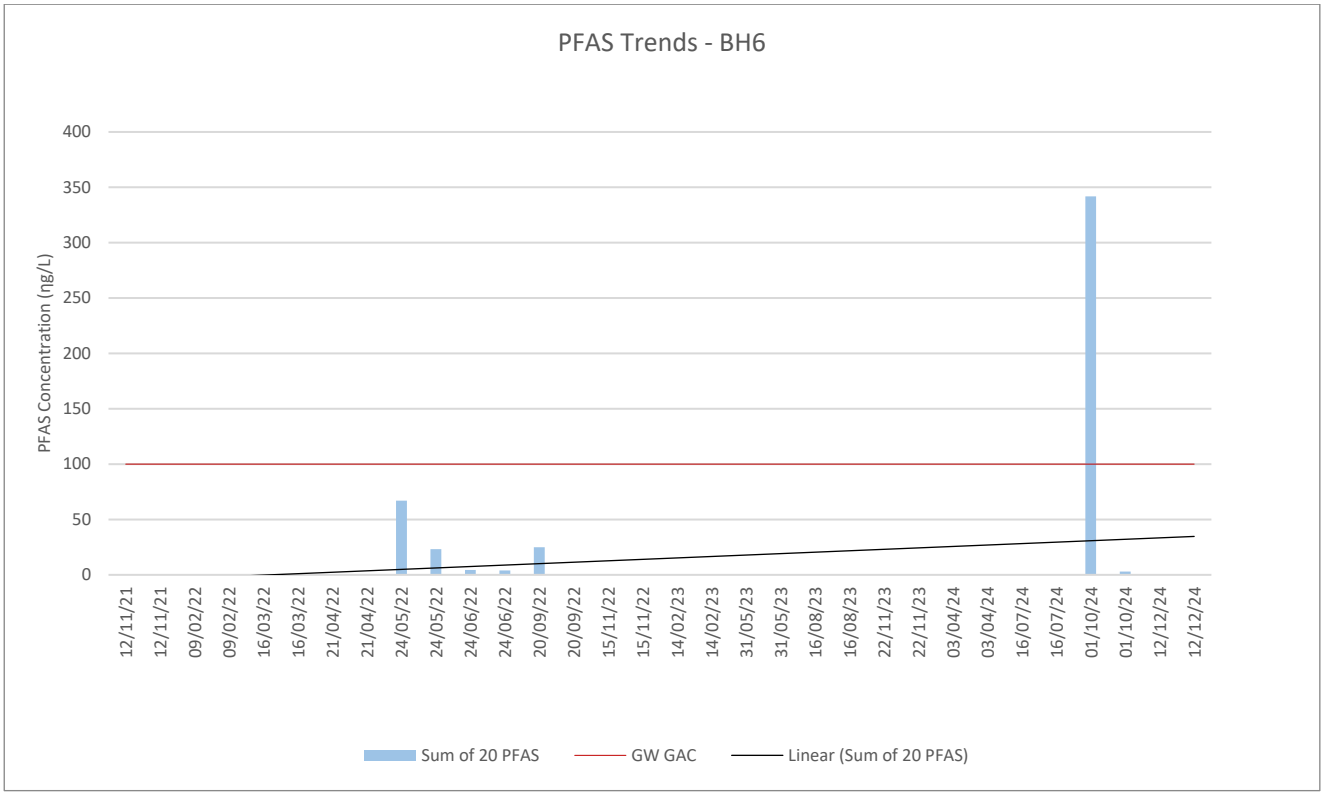


Sum of 20 PFAS Concentrations at BH1A (Below GAC)

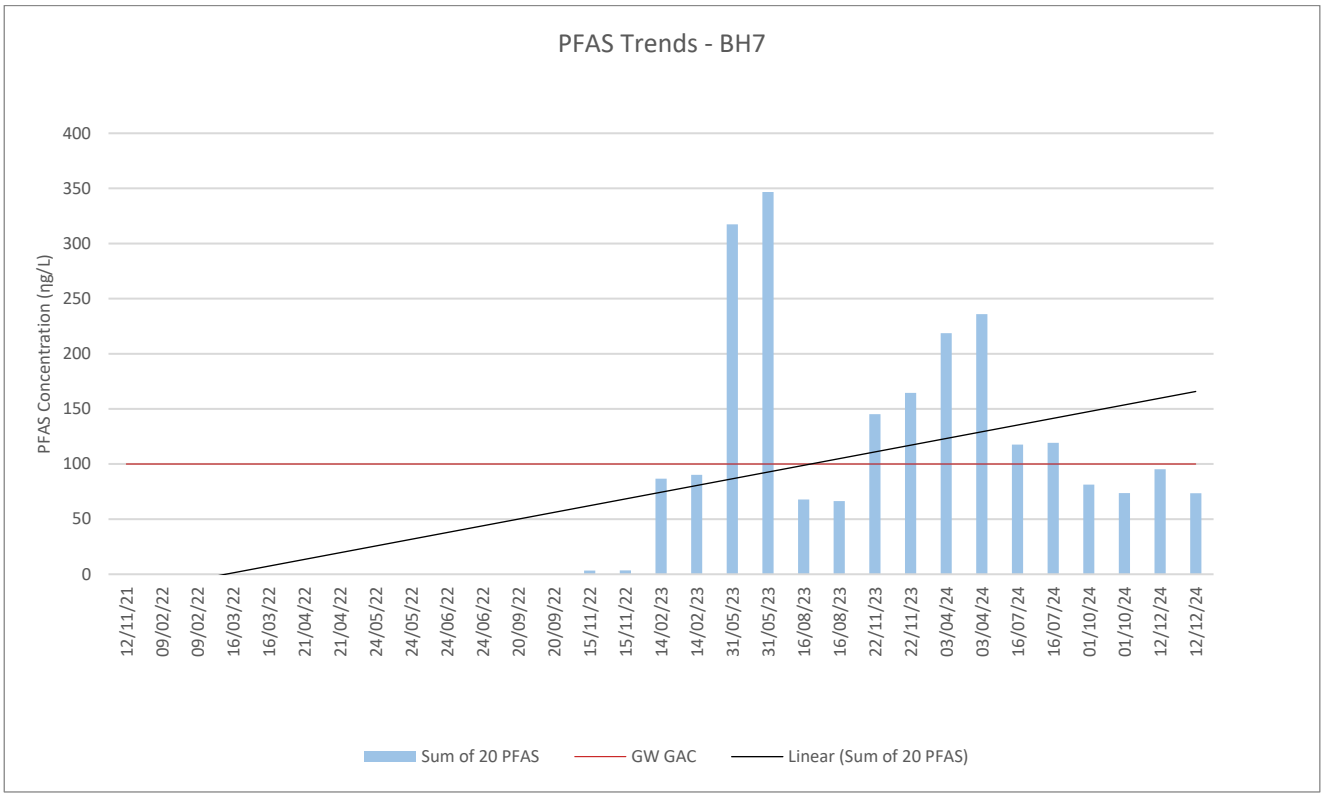


Sum of 20 PFAS Concentrations at BH5 (Below GAC)

Castlemoate House (Historic Unregulated Waste Disposal Site) Groundwater Trends

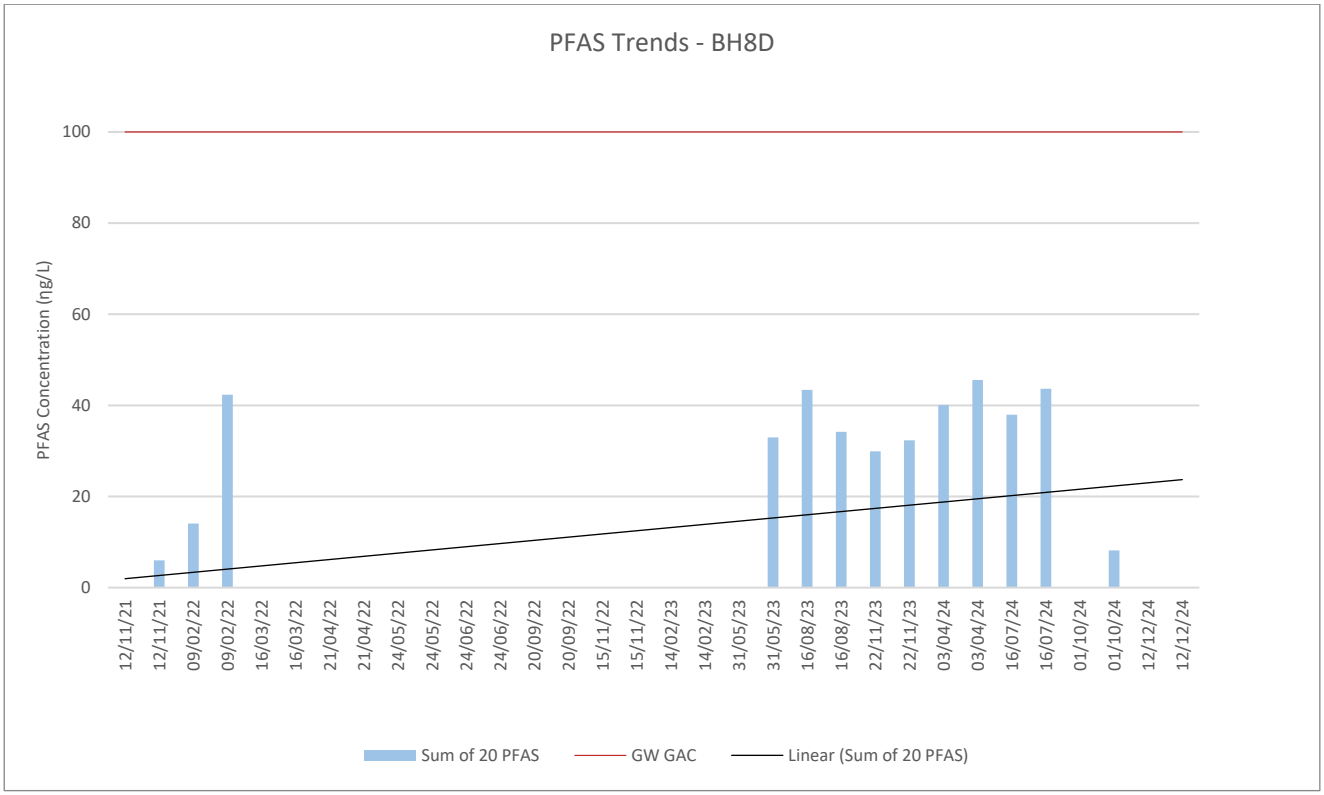


Sum of 20 PFAS Concentrations at BH6 (Below GAC)

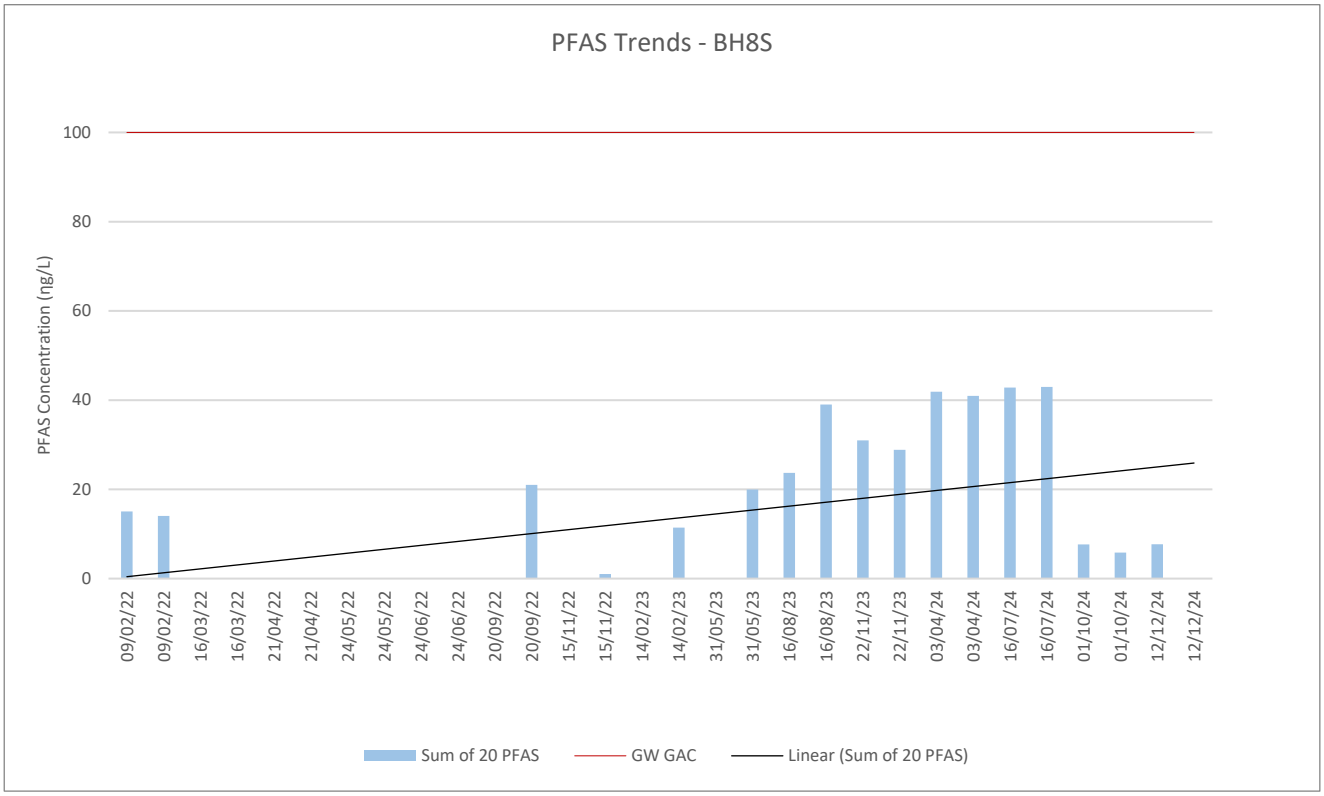


Sum of 20 PFAS Concentrations at BH7 (Above GAC)

Castlemoate House (Historic Unregulated Waste Disposal Site) Groundwater Trends

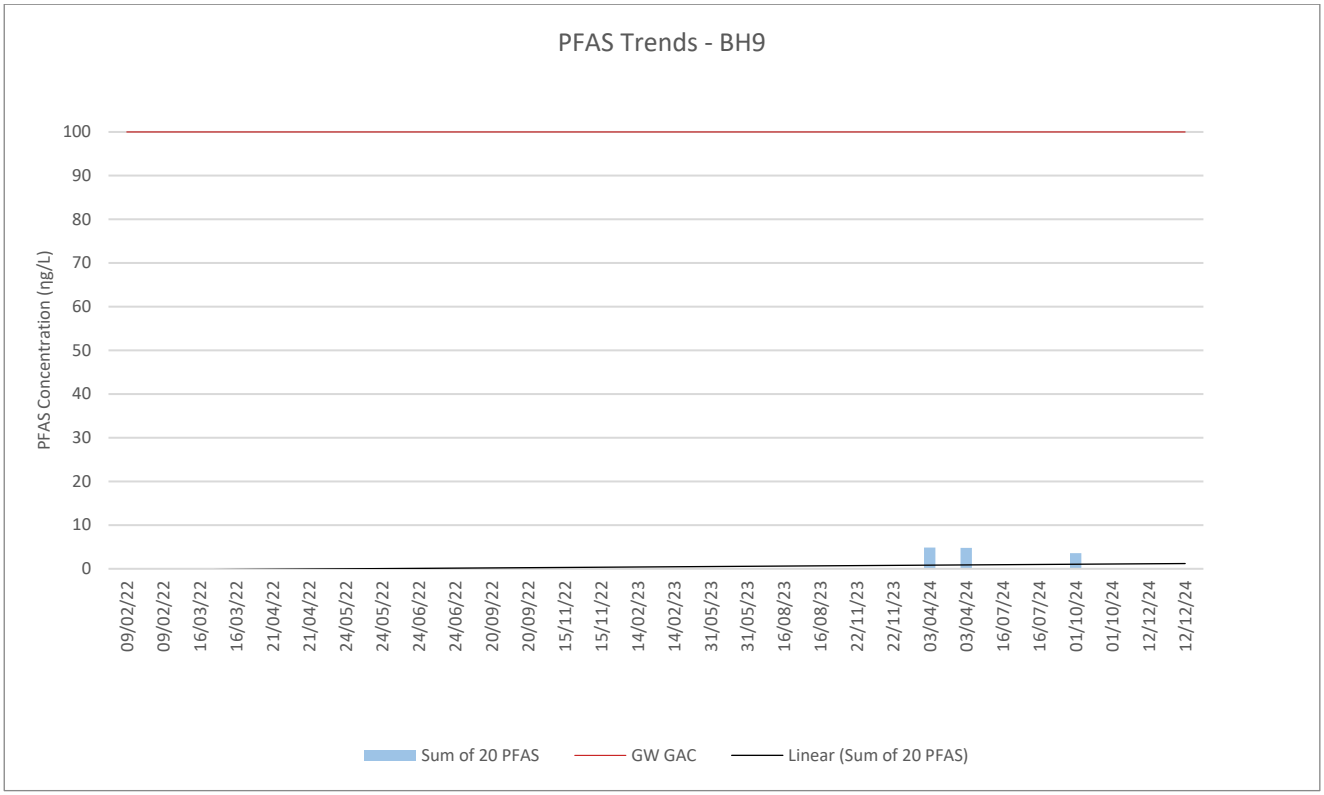


Sum of 20 PFAS Concentrations at BH8D (Below GAC)



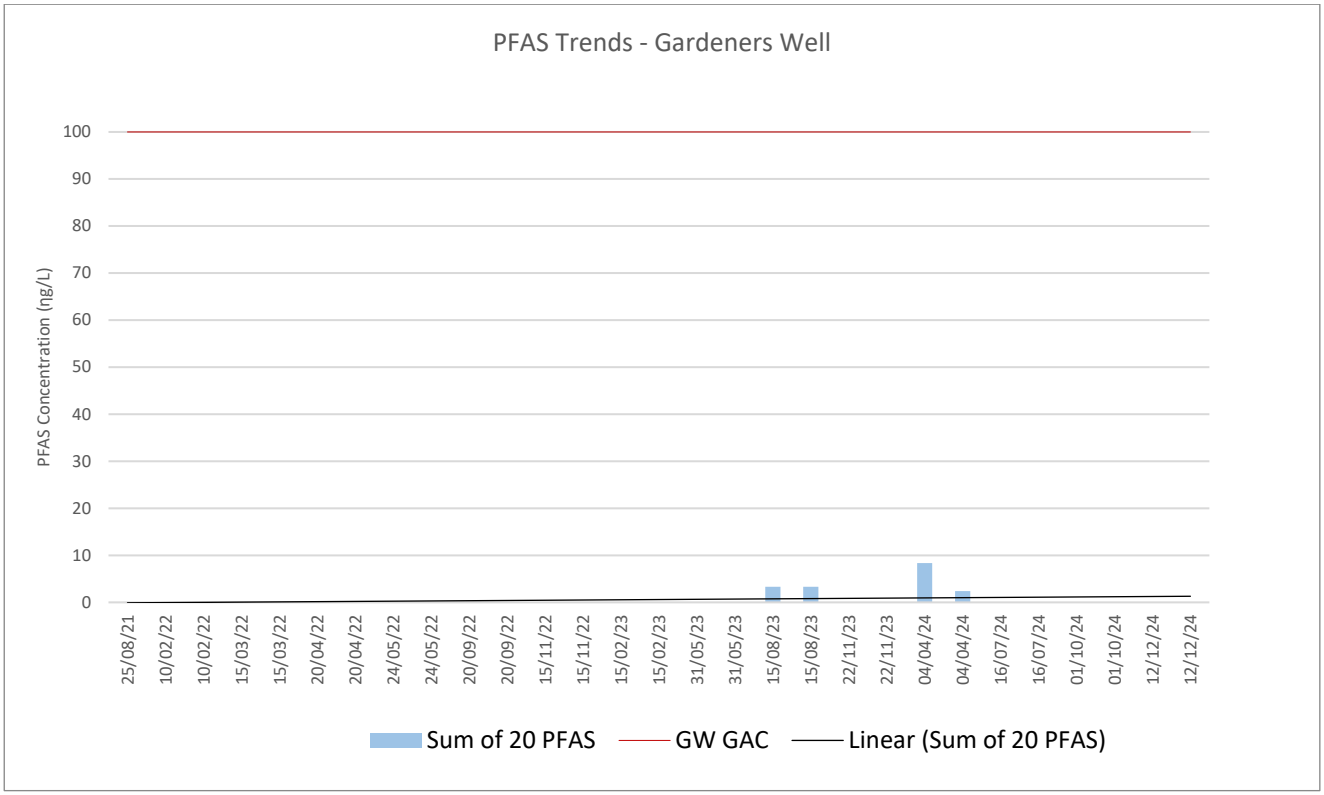
Sum of 20 PFAS Concentrations at BH8S (Below GAC)

Castlemoate House (Historic Unregulated Waste Disposal Site) Groundwater Trends



Sum of 20 PFAS Concentrations at BH9 (Below GAC)

Water Supply Well Groundwater Trends



Sum of 20 PFAS Concentrations at Gardeners Well (Below GAC)

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 6

Surface Water Results

Landside Surface Water Monitoring Results

Parameter	Unit	SL1																
		15/11/21	15/11/21	09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l	<2	<2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
5:3 FTCA (914637-49-3)	ng/l	<20	<20			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	8.64	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l	<2	<2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	<0.65	<0.65	0.92	0.938	<1	<0.65	<0.65	<0.65	<0.65	<0.65	0.665	<0.65	<0.65	5.96	0.865	0.677	0.766
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	0.777	0.749	0.824	<0.65	<0.65	0.771	0.77	0.779	0.819	1.11	0.844	0.704	3.62	0.853	0.859	0.827
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<3	5.03	10.7	11.2	2.61	2.95	4.41	5.19	7.66	7.65	<7	<3	<3.5	<14	<6	<8	6.14
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l					<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.12	2.75	7.97	7.87	1.74	2.21	2.5	1.62	1.03	1.48	1.28	<1	<1	2	2.43	2.74	2.58
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	2.01	4.29	13.1	13.1	3.21	4.04	3.19	3.72	2.42	2.7	1.74	1.4	<1	2.75	4.12	4.28	4.65
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	26.7	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	0.959	1.26	1.75	1.88	1.06	1.06	2.42	3.24	2.51	2.52	0.955	0.803	1.04	2.37	1.17	1.06	1.07
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	3.92	7.64	33.9	27.9	5.53	6.64	8.66	8.88	4.76	7.33	3.32	1.77	<1	<1	7.41	8.04	9.63
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3.13	<1	<1	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l					<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDS (174675-49-1)	ng/l					<2	<3	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l					<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total PFOS	ng/l	<0.65	0.777	1.67	1.76	<1	<0.65	0.771	0.77	0.779	0.819	1.77	0.844	0.704	9.58	1.72	1.54	1.59
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.39		1.72		0.00		0.77		0.80		1.31		5.14		1.63		1.51
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.78	1.67	1.76	0.00	0.00	0.77	0.77	0.78	0.82	1.77	0.84	0.70	9.58	1.72	1.54	1.59

Landside Surface Water Monitoring Results

Parameter	Unit	SL1														
		13/02/23	29/05/23	29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	0.686	<0.65	<0.65	0.824	0.832	<0.65	0.666	0.86	0.922	0.725	0.77	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.733	<0.65	<0.65	1.09	0.93	0.686	<0.65	1.18	1.05	1.09	1.2	<0.65	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l		<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	5.67	4.24	<2	6.98	8.2	6.35	6.93	8.04	9	3.2	3.89	3.93	3.62	5.83	5.12
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	1.02	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.08	<1	<1	<1
PFEESA (113507-82-7)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2.46	<1	<1	2.8	3.13	2.27	1.96	2.72	2.93	1.24	1.29	1.37	1.42	3.29	2.54
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	4.16	1.85	2.85	6.02	5.73	4.84	5.86	5.2	5.75	1.43	1.35	1.79	2.1	6.56	5.79
PFHxDA (67905-19-5)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	1.24	<1	1.04	<1	1.02	<1	<1	<1	<1	1.41	1.35
PFMOBA (863090-89-5)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	1.05	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	0.949	<0.65	0.894	1.91	1.74	1.23	1.38	1.63	1.85	1.3	1.24	1.21	<0.65	1.75	1.32
PFODA (16517-11-6)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	7.51	5.64	6.42	12.2	13.2	10.2	10.9	11.5	12.7	2.46	2.5	2.47	2.99	13.7	13.1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	1.42	<0.65	<0.65	1.91	1.76	0.686	0.666	2.04	1.97	1.82	1.97	<0.65	<0.65	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		0.00		1.84		0.68		2.01		1.90		0.00		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	1.42	0.00	0.00	1.91	1.76	0.69	0.67	2.04	1.97	1.82	1.97	0.00	0.00	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL2																
		15/11/21	15/11/21	09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l	<2	<2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
5:3 FTCA (914637-49-3)	ng/l	<20	<20			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	27.7	30.4	<1	<1	20	20.9	5.49	4.47	13.9	16.3	5.58	6.19	19.4	20	6.6	7.48	1.08
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l	<2	<2			2.39	2.03	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	9.43	9.62	<0.65	<0.65	12	10.5	4.83	4.89	5.14	6.73	4.84	5.05	9.56	10.2	3.98	4.75	1.16
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	9.19	10.7	<0.65	<0.65	13.1	12.9	10.6	10.3	6.99	8.81	8.34	9.84	9.74	10.3	5.81	7.4	1.09
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	16.5	18.8	<2	<2	9.19	11	21.1	18.7	15.5	20.8	<8.5	26.1	20.3	<60	<8	<9	3.17
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	1.11	<1	<1	<1	1.83	1.69	<1	<1	1.9	2.4	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.06	1.03	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l					<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	20	21.1	<1	<1.5	10.1	12.1	13.1	9.39	6.81	10.3	11.7	14.3	16.5	14.5	7.84	8	2.5
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	1.15	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	27.5	28.6	1.09	<1	15.8	16.4	9.95	8.74	19.3	21.6	18.5	21.6	29	36.7	13.2	14.6	3.28
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	12.5	12.5	<1	<1	8.03	8.4	4.28	3.89	7.24	8.67	6.46	6.97	10.6	12.2	4.38	4.07	1.82
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.99	2.4	<1	<1	2.32	2.79	1.72	1.64	1.34	1.66	1.7	1.89	1.98	2.28	1.28	1.42	<1
PFNS (68259-12-1)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	9.69	11.2	<0.65	<0.65	7.44	7.84	5.75	5.43	5.69	6.87	5.36	5.9	9.24	8.98	4.3	4.76	1.25
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	38.2	47.2	1.84	<5	26.2	22.4	37.1	36	27.8	57.8	43.2	67	64.3	45	56.9	34.8	4.8
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	1.08	1.35	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.01	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDS (174675-49-1)	ng/l					<4	<4	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total PFOS	ng/l	18.6	20.3	<0.65	<0.65	25.2	23.4	15.4	15.2	12.1	15.5	13.2	14.9	19.3	20.5	9.79	12.1	2.25
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	19.45		0.00		24.30		15.30		13.80		14.05		19.90		10.95		2.13
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	18.60	20.30	0.00	0.00	25.20	23.40	15.40	15.20	12.10	15.50	13.20	14.90	19.30	20.50	9.79	12.10	2.25

Landside Surface Water Monitoring Results

Parameter	Unit	SL2														
		13/02/23	29/05/23	29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l						18.7	26.8	16.2	14.5	20	21.7	<50	<10	23.4	25.3
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	2.08	2.05	4.13	3.41	3.13	3.5	2.68	2.15	3.2	4.16	<5	1.62	8.34	9.04
7:3 FTCA (812-70-4)	ng/l		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
ADONA (919005-14-4)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
Branched PFOS	ng/l	0.997	3.92	3.37	2.07	1.93	1.5	1.64	2.19	1.68	2.76	2.88	<3.25	1.25	3.03	2.4
EtFOSAA (2991-50-6)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
EtFOSE (1691-99-2)	ng/l		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
FBSA (30334-69-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
FHxSA (41997-13-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.01	3.28	2.34	2.36	2.31	1.7	1.96	2.8	2.67	4.07	4.41	3.92	1.61	2.04	2.15
MeFOSAA (2355-31-9)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
MeFOSE (24448-09-7)	ng/l		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
NFDHA (151772-58-6)	ng/l		<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<2	10.3	11.4	10.6	9.54	7.87	8.45	10.7	8.54	12.3	12.2	<10	3.64	9.11	8.13
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	1.22	1.34	<1	1.2	1.25	<1	1.35	1.17	<5	<1	1.4	1.53
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFecHS (133201-07-7)	ng/l		<1	<1	3.92	5.37	<1	<1	2.35	1.93	4.48	4.55	10.3	4.65	2.23	<1
PFEESA (113507-82-7)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2	5.1	6.27	4.9	4.65	4	3.65	4.49	3.8	5.23	5.72	<5	1.9	8.44	7.46
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	2.9	12.1	12.2	7.47	10.4	8.24	8.71	9.31	7.13	13	14.2	<5	3.54	14.6	14.4
PFHxDA (67905-19-5)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.64	4.76	4.58	3.34	2.91	1.91	1.99	2.26	2.03	3.34	3.15	<5	<1	3.35	3.38
PFMOBA (863090-89-5)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFMOPrA (377-73-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	1.01	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.26	3.86	3.83	2.77	2.39	2.03	2.15	2.73	2.5	3.42	4.19	3.92	1.66	4.13	3.49
PFODA (16517-11-6)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	4.24	25.6	24.1	20.1	19.9	16.7	16.9	18.8	15	20.6	21.2	8.42	4.62	33.9	31.3
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTeA (376-06-7)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
Total PFOS	ng/l	2.01	7.21	5.71	4.43	4.25	3.19	3.6	4.99	4.35	6.83	7.29	3.92	2.87	5.06	4.55
SW Threshold (as per S.I No. 77 of 2019.)																
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		6.46		4.34		3.40		4.67		7.06		3.40		4.81	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.01	7.21	5.71	4.43	4.25	3.19	3.60	4.99	4.35	6.83	7.29	3.92	2.87	5.06	4.55

Landside Surface Water Monitoring Results

Parameter	Unit	SL3																
		15/11/21	15/11/21	09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l	<2	<2			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
5:3 FTCA (914637-49-3)	ng/l	<20	<20			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	56.1	53.8	149	148	26.2	27.6	27.5	24.4	79.8	80.5	38.9	51.7	58	54.9	32.9	39.2	67.6
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l	21	19.5			4.73	4.32	<3	<4	15.7	16.6	4.69	11.2	11.4	16.7	<2	6.12	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	4.72	4.5	2.59	2.66	11.1	10.7	3.73	3.62	5.26	5.6	3.34	4.39	8.33	7.05	6.08	6.23	2.04
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	5.69	5.48	3.72	3.93	14.7	13.9	6.24	6.2	5.93	5.73	4.55	5.59	8.27	7.11	9.52	9.18	2.24
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<17.5	12.5	17.7	19.5	<9	<10	17.3	15.6	<16	<18	<5	11.5	<54	12.1	<8	9.04	17.3
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	1.05	<1	<1	<1	<1	<1	<2	<1.5	<1	<1	1.65	1.57	<1	1.17	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l					<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	11.4	10.6	13.1	13.6	9.88	9.4	32.5	34.5	8.24	9.44	9.21	13.9	7.57	9.13	7.98	6.8	10.7
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	14.3	13.1	31.8	31	12.1	12.1	18.3	17.5	18.3	19.6	16.6	20.4	24.1	18.8	12.4	13.4	31.2
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.64	2.36	2.52	2.31	7.68	8.16	3.13	3.05	3.99	4.29	3.61	4.57	5.83	5.09	5.77	7.07	1.5
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.82	1.57	1.43	1.59	2.06	2.29	2.19	2.36	1.27	1.33	1.33	1.66	2.08	1.86	1.05	1.19	1.1
PFNS (68259-12-1)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	4.44	4.33	3.93	4.56	5.89	5.65	8.02	8.15	5.65	5.63	3.99	5.25	5.95	5.54	4.31	3.82	4.42
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	20.5	18.9	98.8	110	17.4	26.6	45.8	67.3	32	37.5	34.4	26.6	29	27	23.4	22.4	51.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l					<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
PFTrDS (174675-49-1)	ng/l					<4	<4	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total PFOS	ng/l	10.4	9.98	6.31	6.59	25.8	24.6	9.97	9.82	11.2	11.3	7.89	9.98	16.6	14.2	15.6	15.4	4.28
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	10.19		6.45		25.20		9.90		11.25		8.94		15.40		15.50		4.06
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	10.40	9.98	6.31	6.59	25.80	24.60	9.97	9.82	11.20	11.30	7.89	9.98	16.60	14.20	15.60	15.40	4.28

Landside Surface Water Monitoring Results

Parameter	Unit	SL3														
		13/02/23	29/05/23	29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l						52.2	37.4	24.7	21.8	37.4	34.1	194	24.3	53	58.8
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	66.7	26.9	21.9	92.3	63.4	33	31.6	17.1	16.6	79.8	74.1	67.4	67.6	12.4	15.5
7:3 FTCA (812-70-4)	ng/l		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	4.89	2.24	6.35	4.37	4.12	4.38	3.56	3.35	4.2	4.03	3.27	3.46	2.12	<2
9Cl-PF3ONS (756426-58-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	1.61	25.4	9.48	4.09	2.78	6.52	5.82	5.67	4.91	3.54	3.37	1.77	1.84	2.71	3.1
EtFOSAA (2991-50-6)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l		<1	<1	<1	<1	<1	<1	1.29	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	2.21	25.2	10.9	5.8	4.24	7.15	6.95	4.25	3.59	3.34	2.99	2.45	2.32	2.78	2.89
MeFOSAA (2355-31-9)	ng/l		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l		<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	15.1	8.76	11.2	15.5	11.1	10.3	12.1	9.82	8.39	11.1	10.2	11.2	11.2	13.3	16.7
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	1.39	<1	<1	<1	1.16	1.54	1.52	1.23	<1	<1	1.41	1.86
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l		17.2	14.5	21.5	16.7	12.5	12.6	11.3	10	44.1	42.4	43.4	42.7	61.2	60.8
PFEESA (113507-82-7)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	9.9	8.27	6.52	9.13	6.19	7.68	6.64	5.17	5.25	6.88	6.36	6.27	7.32	12.3	15.2
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	31.8	17.2	16.5	24	16.3	17.9	16	10.4	10.8	15.9	16	15.1	16.2	19.3	22.2
PFHxDA (67905-19-5)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.5	10.7	10.6	6.27	4.33	7.6	7.21	6.92	6.67	4.38	3.78	1.68	1.53	2.45	2.63
PFMOBA (863090-89-5)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.19	1.76	1.19	2.01	1.36	<1	<1	<1	<1	1.13	1.14	<1	1.33	2.36	2.81
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	4.62	6.6	7.38	5.57	4.22	4.83	5.05	4.06	3.77	4.61	4.39	4.77	4.95	7.85	9.02
PFODA (16517-11-6)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	52.7	31.8	29.3	49.2	31.8	28.8	26.7	21.6	21	29	28.5	33.9	31.3	47.7	55.8
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	3.83	50.6	20.3	9.89	7.03	13.7	12.8	9.91	8.5	6.87	6.36	4.21	4.17	5.5	5.99
SW Threshold (as per S.I No. 77 of 2019.)																
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		35.45		8.46		13.25		9.21		6.62		4.19		5.75	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	3.83	50.60	20.30	9.89	7.03	13.70	12.80	9.91	8.50	6.87	6.36	4.21	4.17	5.50	5.99

Landside Surface Water Monitoring Results

Parameter	Unit	SL4																
		21/08/20	26/08/20	01/09/20	07/09/20	26/09/20	30/09/20	08/10/20	22/10/20	03/11/20	11/01/21	21/01/21	28/02/21	04/03/21	12/03/21	25/03/21	01/04/21	09/04/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	12.1	12.7	12	4.47	4.47	11	5.17	2.36	3.17	23.8	2.06	<1	<1	<1	<1	<1	2.4
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	3.89	4.09	7.86	4.93	4.93	4.05	2.72	6.82	2.36	1.42	1.89	1.72	2.53	1.34	2.31	2.11	2.29
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	3.29	3.91	9.63	5.65	5.65	3.07	1.93	5.25	1.88	4.1	1.19	0.791	1.27	0.991	1.25	1.06	2.02
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	28.9	30.4	28.2	16.6	16.6	27.9	<80	191	31.7	8.06	16.2	20.3	19.1	19.9	13.2	17.2	13.4
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	1.17	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	41.1	37.7	35.3	8.54	8.54	11.5	13.2	19.6	49	7.78	19.5	12	16.4	12.4	11.7	8.32	8.56
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	40	40.2	37.5	20.4	20.4	28.2	21.8	36.2	37.7	7.96	15	15.4	18.9	16.1	13.3	16.4	13.8
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	3.85	3.83	4.1	3.89	3.89	5.15	2.41	4.99	2.63	<1	1.96	2.99	3.82	2.08	3.13	3.26	2.5
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.24	1.28	1.77	<1	<1	1.19	<1	1.38	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	6.48	7.62	7.6	3.19	3.19	4.55	3.92	4.81	4.33	2.74	2.84	2.37	2.55	2.49	2.75	2.75	2.55
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	51.5	50	50.9	40.5	40.5	55.4	29.8	65.7	49.7	12.8	27	28.5	37.2	28.1	25.8	29.2	24.7
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	7.18	8	17.5	10.6	10.6	7.12	4.65	12.1	4.24	5.52	3.08	2.51	3.8	2.33	3.56	3.17	4.31
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	7.18	8.00	17.50	10.60	10.60	7.12	4.65	12.10	4.24	5.52	3.08	2.51	3.80	2.33	3.56	3.17	4.31

Landside Surface Water Monitoring Results

Parameter	Unit	SL4																
		16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21	08/06/21	11/06/21	18/06/21	24/06/21	06/08/21	13/08/21	03/11/21	12/11/21	22/11/21	03/12/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	2.75	<1	2.92	1	<1	<1	<1	<5	2.75	1.17	<5	<1	<10	<5
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	2.01	1.46	1.52	1.61	1.18	1.43	1.84	<2	2.74	2.61	<5	1.61	3.69	<3.25	1.61	<6.5	<3.25
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.09	1.02	1.46	1.06	1.21	1.61	1.54	<1	2.12	1.99	4.55	1.06	2.79	<3.25	0.789	<6.5	<3.25
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	26.3	11.4	<24	9.95	15.3	9.95	20.2	<18.5	16.3	15.3	13.3	9.95	18.4	10.5	9.9	<20	12
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<5	<1	<10	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2	<5	<1	<10	<5
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<5	<1	<10	<5
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l														<5	<1	<10	<5
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	9.26	8.08	7.99	10.8	6.44	7.01	12.3	9.26	9.61	10	7.25	10.8	11.6	8.57	8.47	<10	8.59
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<5	<1	<10	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	14.1	12	12	10.5	8.38	7.44	12	14.5	17.5	16	13	10.5	17.8	13.8	12.1	15.5	14.4
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.64	2.39	2.08	2.03	1.23	1.66	2.11	2.69	3.14	3.01	<5	2.03	3.37	<5	1.68	<10	<5
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<5	<1	<10	<5
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.22	1.67	2.5	1.83	1.63	1.95	1.82	2.37	3.34	2.56	<3.25	1.83	3.15	3.73	1.98	<6.5	<3.25
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<10	<2	<20	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	30.4	22.5	26.6	29.6	19.3	15.7	25.5	28.8	33.4	25.7	25	29.6	31.8	26.9	21.3	18.9	17
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l														<5	<1	<10	<5
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<5	<1	<10	<5
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	3.1	2.48	2.98	2.67	2.39	3.04	3.38	<3	4.87	4.61	<5	2.67	6.48	<3.25	2.4	<6.5	<3.25
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	3.10	2.48	2.98	2.67	2.39	3.04	3.38	0.00	4.87	4.61	0.00	2.67	6.48	0.00	2.40	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL4																
		10/12/21	15/11/21	15/11/21	09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l		<2	<10			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
5:3 FTCA (914637-49-3)	ng/l		<20	<100			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<10	<1	<5	<1	<1	<1	<1	1.02	1.21	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l		<2	<10			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	<6.5	1.46	<3.25	1.61	1.51	1.64	<1.5	1.1	1.17	1.06	1.04	0.741	0.72	1.99	2.06	0.772	1.45
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<6.5	<0.65	<3.25	<0.65	<0.65	1.34	<0.65	0.732	0.734	0.747	0.773	<0.65	0.702	1.08	1.06	0.828	0.828
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<20	12.8	15.5	18.8	14.4	14.8	11.4	8.21	8.37	10.4	11.1	<4.5	9.9	35.1	29.8	<10	<10
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<10	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<10	<1	<5	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l						<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<10	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	10.8	11.8	7.9	14.5	11.1	14.8	10.8	4.7	5.65	3	3.23	2.04	2.55	16.5	19.2	7.39	8.29
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	15.9	17.7	18.8	21.8	18.1	19.6	16	7.04	7.66	6.04	6.04	5.03	5.09	31.7	27.8	13.8	13.6
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	1.81	<5	1.98	1.42	1.24	1.01	1.5	1.67	1.08	1.03	<1	<1	2.62	2.45	2.25	2.17
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	6.58	2.25	4.88	2.48	1.94	2.98	2.16	3.12	2.6	3.14	2.98	1.01	0.896	3.79	3.73	2.01	1.96
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	29.3	28.2	29.4	51.5	48.5	26.3	27.3	10.1	17.1	21.5	13.6	7.9	13.3	71.1	22.7	32.7	39.8
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDS (174675-49-1)	ng/l						<4	<4	<2	<2	<1	<1	<1	<1	<3	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<10	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total PFOS	ng/l	<6.5	1.46	<3.25	1.61	1.51	2.98	<1.5	1.84	1.91	1.81	1.81	0.741	1.42	3.08	3.11	1.6	2.27
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		0.73		1.56		1.49		1.88		1.81		1.08		3.10		1.94	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	1.46	0.00	1.61	1.51	2.98	0.00	1.84	1.91	1.81	1.81	0.74	1.42	3.08	3.11	1.60	2.27

Landside Surface Water Monitoring Results

Parameter	Unit	SL4															
		13/02/23	13/02/23	29/05/23	29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
3:3 FTCA (356-02-5)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
6:2 FTAB (34455-29-3)	ng/l							<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
7:3 FTCA (812-70-4)	ng/l			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
ADONA (919005-14-4)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
Branched PFOS	ng/l	1.65	1.4	1.21	1.71	1.19	1.11	1.15	1.1	1.35	1.27	1.18	1.23	0.86	<4	2.12	<0.65
EtFOSAA (2991-50-6)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
EtFOSE (1691-99-2)	ng/l			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
FBSA (30334-69-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
FHxSA (41997-13-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
HFPO-DA (13252-13-6)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
HFPO-TA (13252-14-7)	ng/l			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.756	<0.65	1.2	1.72	<0.65	<0.65	<0.65	<0.65	0.85	1.03	0.968	0.786	1.33	<5	1.15	<0.65
MeFOSAA (2355-31-9)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
MeFOSE (24448-09-7)	ng/l			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
N-EtFOSA (4151-50-2)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
NFDHA (151772-58-6)	ng/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
N-MeFOSA (31506-32-8)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	9.52	11.6	11.7	11.6	12.1	11.6	20.1	18.7	27	21.9	12.5	13.2	5.44	<10	13.6	13.3
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	1.04	<1	<1	<1	<1	<1	<1	<1	<5	1.25	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDoS (79780-39-5)	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFecHS (133201-07-7)	ng/l			<1	<1	<1	<1	<1	<1	1.22	1.11	<1	<1	1.69	<5	<1	<1
PFEESA (113507-82-7)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	4.71	5.85	3.31	2.97	4.98	4.31	7.61	7.17	10.9	9.45	4.19	4.17	2.25	<5	13.1	13.9
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	10.2	10.3	8.19	8.36	10.5	9.74	17	15.8	22	17.3	9.59	9.77	3.32	<5	23.8	22.5
PFHxDA (67905-19-5)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.63	1.91	<1	1.34	2.65	2.5	2.04	1.75	1.92	1.67	1.75	1.75	<1	<5	3.06	2.88
PFMOBA (863090-89-5)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFMOPrA (377-73-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.66	1.42	1.27	1.08	2.05	1.81	2.33	1.99	3.27	2.83	2.7	2.46	1.79	<4	2.88	2.82
PFODA (16517-11-6)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	19.3	18.6	21.5	21	22.5	20.6	38.2	35.9	52.5	43.8	21.5	22	7.51	7.55	44.2	43.3
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFTeA (376-06-7)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFTrDA (72629-94-8)	ng/l	<1	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFUnDS (749786-16-1)	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
Total PFOS	ng/l	2.41	1.4	2.4	3.43	1.19	1.11	1.15	1.1	2.2	2.3	2.14	2.02	2.19	<5	3.27	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																	
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	1.91		2.92		1.15		1.13		2.25		2.08		1.10		1.64	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.41	1.40	2.40	3.43	1.19	1.11	1.15	1.10	2.20	2.30	2.14	2.02	2.19	0.00	3.27	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL5																
		09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2
3:3 FTCA (356-02-5)	ng/l																	<2
4:2 FTS (757124-72-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1
5:3 FTCA (914637-49-3)	ng/l			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	1.34	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l																	<5
8:2 FTS (39108-34-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1
ADONA (919005-14-4)	ng/l																	<1
Branched PFOS	ng/l	<0.65	<0.65	<0.65	1.34	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.706	0.689	<0.65	0.729	0.726
EtFOSAA (2991-50-6)	ng/l																	<2
EtFOSE (1691-99-2)	ng/l																	<10
FBSA (30334-69-1)	ng/l																	<1
FHxSA (41997-13-1)	ng/l																	<1
HFPO-DA (13252-13-6)	ng/l																	<2
HFPO-TA (13252-14-7)	ng/l																	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	1.92	0.778	0.812	0.897	1.32	0.801	1.02	<0.65	<0.65	0.893	0.865	0.684	0.858	0.716
MeFOSAA (2355-31-9)	ng/l																	<2
MeFOSE (24448-09-7)	ng/l																	<10
N-EtFOSA (4151-50-2)	ng/l																	<1
NFDHA (151772-58-6)	ng/l																	<3
N-MeFOSA (31506-32-8)	ng/l																	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	8.01	8.46	2.96	5	4.14	4.92	9.54	8.28	2.48	<11.5	<18	<3.5	<8	<13	4.63	3.64	4.39
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l			<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFecHS (133201-07-7)	ng/l																	<1
PFEESA (113507-82-7)	ng/l																	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	4.81	5.21	1.56	2.32	2.34	2.77	1.58	<1	1.04	1.41	<1	<1	2.22	2.08	1.94	1.75	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	7.29	7.17	3.2	3.36	2.76	3.35	2.57	2.35	1.38	1.94	<1	<1	4.22	4.11	3.68	3.78	1.32
PFHxDA (67905-19-5)	ng/l																	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	<1
PFMOPrA (377-73-1)	ng/l																	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.26	1.17	0.975	1.69	1.97	2.99	2.77	2.87	0.67	1.02	<0.7	0.977	1.34	1.24	0.695	1.05	<0.65
PFODA (16517-11-6)	ng/l																	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<20	25.9	4.96	5.37	6.06	4.74	7.57	4.38	1.88	3.39	<1	<1	8.88	10.3	9.27	6.66	3.13
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	<1
PFTrDA (72629-94-8)	ng/l			<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<3
PFTrDS (174675-49-1)	ng/l			<4	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
Total PFOS	ng/l	<0.65	<0.65	<0.65	3.26	0.778	0.812	0.897	1.32	0.801	1.02	<0.65	<0.65	1.6	1.55	0.684	1.59	1.44
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.00		1.63		0.80		1.11		0.91		0.00		1.58		1.14		1.48
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.00	3.26	0.78	0.81	0.90	1.32	0.80	1.02	0.00	0.00	1.60	1.55	0.68	1.59	1.44

Landside Surface Water Monitoring Results

Parameter	Unit	SL5												
		29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.16	1.14	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	0.764	0.779	0.894	0.773	<0.65	0.749	0.836	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.755	0.898	0.825	<0.65	<0.65	0.936	0.837	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	3.71	4.72	4.79	5.88	5.41	6.8	8.39	3.18	2.99	2.43	2.63	4.92	4.07
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	1.28	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.02	1.05	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	1.85	1.63	1.77	1.83	2.31	2.34	1.07	1.13	<1	<1	<1	2.5
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.41	3.16	3.3	4.24	4.2	4.56	4.68	1.31	1.44	<1	<1	5.52	4.67
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.2
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	1.02	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	1.27	1.17	1.45	1.05	1.56	1.54	0.781	1.31	1.31	1.48	1.37	1.14
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	4.28	6.57	5.56	8.61	8.2	10.5	10.4	1.51	1.57	1.9	1.6	12	10.7
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	1.52	1.68	1.72	0.773	<0.65	1.68	1.67	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)														
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		1.70		0.39		1.68		0.00		0.00		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	1.52	1.68	1.72	0.77	0.00	1.68	1.67	0.00	0.00	0.00	0.00	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL6																
		09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2
3:3 FTCA (356-02-5)	ng/l																	<2
4:2 FTS (757124-72-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1
5:3 FTCA (914637-49-3)	ng/l			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	6.59	7.74	12.4	10.7	7.26	5.03	5.89	6.81	4.11	3.99	16.3	17.6	5.55	4.95	3.37	2.94	<1
7:3 FTCA (812-70-4)	ng/l																	<5
8:2 FTS (39108-34-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1
ADONA (919005-14-4)	ng/l																	<1
Branched PFOS	ng/l	3.53	4.65	5.65	3.64	5.1	4	2.82	2.73	2.69	3.02	4.68	5.74	3.97	3.4	3.45	3.26	2.06
EtFOSAA (2991-50-6)	ng/l																	<2
EtFOSE (1691-99-2)	ng/l																	<10
FBSA (30334-69-1)	ng/l																	<1
FHxSA (41997-13-1)	ng/l																	<1
HFPO-DA (13252-13-6)	ng/l																	<2
HFPO-TA (13252-14-7)	ng/l																	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	5.37	5.83	5.29	4	7.29	6.03	3.82	4.17	4.6	5.1	4.89	5.52	5.47	4.69	7.01	6.61	3.47
MeFOSAA (2355-31-9)	ng/l																	<2
MeFOSE (24448-09-7)	ng/l																	<10
N-EtFOSA (4151-50-2)	ng/l																	<1
NFDHA (151772-58-6)	ng/l																	<3
N-MeFOSA (31506-32-8)	ng/l																	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	16.8	<15	10.6	9.26	34.8	21.2	13.8	20.3	<7.5	<10	22.9	<28	<10	<8	9.91	10.6	9.28
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	1.22	1.11	<1	<1	<1.5	1.24	<1	<1	1.78	1.88	1.73	1.19	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1.5	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFecHS (133201-07-7)	ng/l																	<1
PFEESA (113507-82-7)	ng/l																	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	8.89	7.76	11.7	7.91	17.9	11.3	10.5	11.4	16.1	16.4	21	16.1	9.46	9	12	10.4	4.67
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	14.1	15.4	27.6	23.4	19.4	12.1	44.5	51.8	61.5	59.6	67.6	86.7	19.5	19.4	22.1	20.6	17.6
PFHxDA (67905-19-5)	ng/l																	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	3.49	4.01	3.72	3.44	4.54	3.22	2.79	3.1	3.46	3.25	5.52	6.27	4.04	3.93	4.91	4.39	3.58
PFMOBA (863090-89-5)	ng/l																	<1
PFMOPrA (377-73-1)	ng/l																	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.73	1.45	1.21	1.27	2.18	1.52	1.08	1.19	1.17	1.34	1.24	1.56	1.72	1.45	2.3	2.32	<1
PFNS (68259-12-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.58	4.16	4.39	3.73	7.12	5.18	3.94	5.13	3.67	3.58	6.07	7.27	5.09	5.31	5.75	5.44	3.25
PFODA (16517-11-6)	ng/l																	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	32.6	28.2	24.5	28.4	58.6	36.4	49	63.4	49.2	53.8	64	60	27.3	56.3	36.2	18	23.9
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	<1
PFTrDA (72629-94-8)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<3
PFTrDS (174675-49-1)	ng/l			<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
Total PFOS	ng/l	8.9	10.5	10.9	7.64	12.4	10	6.64	6.9	7.29	8.12	9.57	11.3	9.44	8.09	10.5	9.87	5.53
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	9.70		9.27		11.20		6.77		7.71		10.44		8.77		10.19		5.88
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	8.90	10.50	10.90	7.64	12.40	10.00	6.64	6.90	7.29	8.12	9.57	11.30	9.44	8.09	10.50	9.87	5.53

Landside Surface Water Monitoring Results

Parameter	Unit	SL6												
		29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
6:2 FTAB (34455-29-3)	ng/l				24.1	17.8	<10	<10	10.8	11.2	<10	<50	18	13.7
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	3.83	3.12	3.56	3.3	1.26	1.09	1.29	1.3	2.06	<5	8.93	7.47
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
Branched PFOS	ng/l	2.74	2.52	2.07	1.89	1.67	2.03	1.9	1.78	1.59	1.75	4.82	3.21	2.53
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	3.48	3.46	2.62	1.91	1.57	3.12	2.05	3.08	2.34	2.47	5.19	2.24	1.79
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	9.1	13.1	9	11	7.9	6.6	6.12	9.84	9.46	5.92	<10	9.15	7.41
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	1.77	1.31	1.31	1.35	2.87	2.9	1.37	<1	<1	<5	1.6	1.22
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	2.6	2.65	2.36	2.04	1.94	6.59	5.88	10.2	15.8	3.11	4.23
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	4.91	7.13	5.31	4.34	4.02	3.18	2.79	3.89	4.05	3.76	7.38	7.86	6.15
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	17.8	23.3	16.7	12	10.5	6.33	5.96	17.5	18.2	10.2	12.6	19.1	15
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.83	3.12	3.75	2.27	2.04	1.58	1.59	2.12	1.9	1.34	<5	3.18	2.77
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.24	1.7	<1	<1	<1	<1	<1	<1	<1	<1	<5	1.27	1.03
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.54	4.76	3.08	2.86	2.19	2.49	2.36	2.84	2.09	2.42	5.35	3.34	2.73
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	20.3	31	19	19	16.5	10.7	9.59	13.7	14	11	15.4	31.2	26.9
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
Total PFOS	ng/l	6.23	5.98	4.69	3.8	3.24	5.15	3.96	4.86	3.93	4.21	10	5.44	4.32
SW Threshold (as per S.I No. 77 of 2019.)														
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		5.34		3.52		4.56		4.40		7.11		4.88	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	6.23	5.98	4.69	3.80	3.24	5.15	3.96	4.86	3.93	4.21	10.00	5.44	4.32

Landside Surface Water Monitoring Results

Parameter	Unit	SL7																
		09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2
3:3 FTCA (356-02-5)	ng/l																	<2
4:2 FTS (757124-72-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1
5:3 FTCA (914637-49-3)	ng/l			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	17.1	17.9	15.5	16.4	23.1	22.2	44.5	51.7	35.6	33	3.48	3.82	20.5	18.8	13.3	14.9	16.2
7:3 FTCA (812-70-4)	ng/l																	<5
8:2 FTS (39108-34-4)	ng/l			6.79	7.86	<3	<3	<6	<7.5	<2	<2	<2	<2	3.27	2.65	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1
ADONA (919005-14-4)	ng/l																	<1
Branched PFOS	ng/l	1.89	2.04	11.6	12.5	4.02	4.22	4.67	4.42	4.04	3.72	2.71	2.58	5.23	4.1	1.87	1.81	7.6
EtFOSAA (2991-50-6)	ng/l																	<2
EtFOSE (1691-99-2)	ng/l																	<10
FBSA (30334-69-1)	ng/l																	<1
FHxSA (41997-13-1)	ng/l																	<1
HFPO-DA (13252-13-6)	ng/l																	<2
HFPO-TA (13252-14-7)	ng/l																	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	3.22	3.37	9.79	11.2	7.71	8.15	5.87	5.44	3.08	2.92	3.8	4.39	12.3	10.8	2.31	2.34	10.7
MeFOSAA (2355-31-9)	ng/l																	<2
MeFOSE (24448-09-7)	ng/l																	<10
N-EtFOSA (4151-50-2)	ng/l																	<1
NFDHA (151772-58-6)	ng/l																	<3
N-MeFOSA (31506-32-8)	ng/l																	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	8.64	13.3	<9	9.04	13.9	15.2	13.2	19.6	32.4	<12.5	14.5	12.5	<8	<2	16.5	15	13.1
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<2	<1.5	<1	<1	1.03	1.11	<1	<1	<1	1.03	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	1.3	1.35	<1	<1	1.85	1.78	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1.5	<1.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFecHS (133201-07-7)	ng/l																	11.2
PFEESA (113507-82-7)	ng/l																	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	6.63	7.67	8.83	8.79	23.3	24.6	9.05	9.21	11.5	11.5	7.9	7.52	7.46	6.59	18.4	12.8	8.28
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	1.24	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	10.4	10.5	10.8	11.5	12.3	14	18.1	21.7	23.2	20.7	19.4	19.7	12.2	10.6	24.5	23.7	20
PFHxDA (67905-19-5)	ng/l																	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.13	1.37	8.94	8.76	3.45	3.49	3.54	3.56	3.37	3.12	3.29	3.75	4.43	4.79	1.38	1.28	6.32
PFMOBA (863090-89-5)	ng/l																	<1
PFMOPrA (377-73-1)	ng/l																	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.04	1.51	2.48	2.42	2.3	2.34	1.44	1.58	1.39	1.23	<1	<1	1.26	<1	1.13	1.27	2.04
PFNS (68259-12-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.21	3.54	6.74	6.53	7.71	7.48	6.07	6.86	4.82	4.08	3.99	4.25	4.29	3.58	5.21	5.42	6.4
PFODA (16517-11-6)	ng/l																	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	28	32.9	13.4	20.8	25.8	28.4	19.5	37.4	38.3	38	17.4	35.8	23.4	37.9	38.9	36.3	32.7
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	<1
PFTrDA (72629-94-8)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<3
PFTrDS (174675-49-1)	ng/l			<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
Total PFOS	ng/l	5.11	5.41	21.4	23.7	11.7	12.4	10.5	9.86	7.12	6.64	6.51	6.98	17.5	14.9	4.19	4.15	18.3
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	5.26		22.55		12.05		10.18		6.88		6.75		16.20		4.17		17.55
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	5.11	5.41	21.40	23.70	11.70	12.40	10.50	9.86	7.12	6.64	6.51	6.98	17.50	14.90	4.19	4.15	18.30

Landside Surface Water Monitoring Results

Parameter	Unit	SL7												
		29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
6:2 FTAB (34455-29-3)	ng/l				62.4	61.9	21.1	18.5	13.9	20	14.5	72.7	21.2	24.2
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	16.5	83.7	73.9	31.5	29	12.4	10.3	14.6	15.3	10.7	10.6	4.45	4.52
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
8:2 FTS (39108-34-4)	ng/l	2.33	3.6	3.11	3.23	3.06	2.65	2.39	<2	<2	<2	<10	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
Branched PFOS	ng/l	6.61	3.66	2.68	5.64	4.75	5.04	4.26	3.25	2.61	0.889	<3.25	1.92	2.18
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	10.2	6.6	6.41	5.61	4.62	3.9	3.21	3.11	2.87	1.46	<3.25	1.78	1.25
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	11	12.2	13.5	12.1	10	9.28	8.82	12.2	12.8	7.47	<10	14.6	8.8
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	1.23	<1	1.17	1.13	1.51	<1	1.37	1.62	<1	<5	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.31	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFecHS (133201-07-7)	ng/l	10.7	16.3	24.2	10.3	8.93	9.45	7.71	36.1	36.5	10.3	13	39	39.6
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	7.36	7.29	7.15	7.06	6.81	5.09	4.46	6.34	6.05	3.6	<5	9.5	9.95
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	19.5	21	18.8	17.3	14.1	10.8	8.84	14.8	14.8	7.51	7.16	12.5	13.7
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	6.89	6.52	5.3	6.61	6.18	5.84	4.57	3.42	3.44	<1	<5	1.87	1.74
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	2.07	<1	1.33	<1	<1	<1	<1	1.35	<1	<1	<5	1.34	1.61
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	6.41	4.87	4.94	4.01	3.46	4.02	3.36	4.75	4.13	4.19	3.63	7.97	8.1
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	34	32.5	40.2	30.8	28.8	21.7	17.5	25.5	21.4	12.7	9.46	31.2	34.3
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
Total PFOS	ng/l	16.8	10.3	9.09	11.3	9.36	8.94	7.47	6.36	5.48	2.35	<3.25	3.7	3.43
SW Threshold (as per S.I No. 77 of 2019.)														
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		9.70		10.33		8.21		5.92		1.18		3.57	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	16.80	10.30	9.09	11.30	9.36	8.94	7.47	6.36	5.48	2.35	0.00	3.70	3.43

Landside Surface Water Monitoring Results

Parameter	Unit	SL8																
		09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2
3:3 FTCA (356-02-5)	ng/l																	<2
4:2 FTS (757124-72-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1
5:3 FTCA (914637-49-3)	ng/l			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	2.27	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.15	1.06	<1
7:3 FTCA (812-70-4)	ng/l																	<5
8:2 FTS (39108-34-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1
ADONA (919005-14-4)	ng/l																	<1
Branched PFOS	ng/l	<0.65	<0.65	0.685	<0.65	<0.65	<0.65	0.699	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.664	<0.65	<0.65	0.777
EtFOSAA (2991-50-6)	ng/l																	<2
EtFOSE (1691-99-2)	ng/l																	<10
FBSA (30334-69-1)	ng/l																	<1
FHxSA (41997-13-1)	ng/l																	<1
HFPO-DA (13252-13-6)	ng/l																	<2
HFPO-TA (13252-14-7)	ng/l																	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	0.785	0.694	<0.65	<0.65	0.67	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.776	<0.65	<0.65	0.772
MeFOSAA (2355-31-9)	ng/l																	<2
MeFOSE (24448-09-7)	ng/l																	<10
N-EtFOSA (4151-50-2)	ng/l																	<1
NFDHA (151772-58-6)	ng/l																	<3
N-MeFOSA (31506-32-8)	ng/l																	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	5.47	5.43	3.24	3.3	4.43	3.27	<6.5	<8.5	2.03	10.9	4.98	<23	<3	<2	2.35	<2	2.96
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.14	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFecHS (133201-07-7)	ng/l																	<1
PFEESA (113507-82-7)	ng/l																	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	3.68	2.4	<1	<1	2.38	1.51	<1	<1	<1	1.11	2.54	2.41	1.05	1.17	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.96	1.68	1.08	<1	1.57	<1	1.79	<1.5	1.02	1.14	2.52	3.47	1.26	1.62	<1	<1	<1
PFHxDA (67905-19-5)	ng/l																	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	<1
PFMOPrA (377-73-1)	ng/l																	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	4.14	3.94	1.55	1.59	<2.8	<2.5	2.06	<2	<0.65	1.01	5.39	4.58	1.61	1.76	0.997	0.968	<0.65
PFODA (16517-11-6)	ng/l																	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<18	<6.5	1.39	2.18	3.39	2.08	<1	<1	1.4	2.09	2.17	2.38	1.23	1.43	1.11	<1	1.85
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	<1
PFTrDA (72629-94-8)	ng/l			<1	<1	<1	<1	<1	<1	<20	<1	<1	<1	<1	<1	<1	<1	<3
PFTrDS (174675-49-1)	ng/l			<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
Total PFOS	ng/l	<0.65	<0.65	1.47	0.694	<0.65	<0.65	1.37	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	1.44	<0.65	<0.65	1.55
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.00		1.08		0.00		0.69		0.00		0.00		0.72		0.00		0.78
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	1.47	0.69	0.00	0.00	1.37	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.00	1.55

Landside Surface Water Monitoring Results

Parameter	Unit	SL8												
		29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.16	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	5.33	<1	<1	<1	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	0.753	<0.65	<0.65	0.663	0.728	<0.65	<0.65	<0.65	<0.65	<0.65	0.738
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	1.23	<0.65	<0.65	0.877	0.986	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<2	4.77	3.53	4.42	5.06	4.92	4.12	3.05	3.32	4.36	3.48	2.44	2.7
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	1.12	<1	1.87	1.93	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	1.6	1.3	<1	<1	1.41	1.41	<1	<1	3.42	3.26	1.39	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	2.24	1.57	2.31	2.61	1.5	1.52	2.21	2.27	4.17	3.39	2.03	1.85
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.11	1.02
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	10.5	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	0.955	1.98	1.55	1.13	1.58	1.4	1.23	0.994	<0.65	<0.65	2.06	2.75	2.62
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	2.06	2.93	2.49	3.41	3.81	2.77	2.68	3.31	2.82	3.98	4.72	3.37	3.04
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	<0.65	<0.65	1.99	<0.65	<0.65	1.54	1.71	<0.65	<0.65	<0.65	<0.65	<0.65	0.738
SW Threshold (as per S.I No. 77 of 2019.)														
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		1.00		0.00		1.63		0.00		0.00		0.37	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	1.99	0.00	0.00	1.54	1.71	0.00	0.00	0.00	0.00	0.00	0.74

Landside Surface Water Monitoring Results

Parameter	Unit	SL9																
		09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2
3:3 FTCA (356-02-5)	ng/l																	<2
4:2 FTS (757124-72-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1
5:3 FTCA (914637-49-3)	ng/l			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	1.18	1.16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l																	<5
8:2 FTS (39108-34-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1
ADONA (919005-14-4)	ng/l																	<1
Branched PFOS	ng/l	<0.65	<0.65	<0.65	1.39	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.721	<0.65	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l																	<2
EtFOSE (1691-99-2)	ng/l																	<10
FBSA (30334-69-1)	ng/l																	<1
FHxSA (41997-13-1)	ng/l																	<1
HFPO-DA (13252-13-6)	ng/l																	<2
HFPO-TA (13252-14-7)	ng/l																	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	0.774	0.85	1.13	<0.65	<0.65	0.693	<0.65	<0.65	0.799	0.655	0.72	<0.65	<0.65	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l																	<2
MeFOSE (24448-09-7)	ng/l																	<10
N-EtFOSA (4151-50-2)	ng/l																	<1
NFDHA (151772-58-6)	ng/l																	<3
N-MeFOSA (31506-32-8)	ng/l																	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	3.08	3.37	2.71	<2	3.15	3.15	6.06	9.81	<6.5	<11.5	<13	6.04	<2	<2	2.45	2.15	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFecHS (133201-07-7)	ng/l																	<1
PFEESA (113507-82-7)	ng/l																	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	1.09	<1	<1	2.03	1.48	<1	1.47	1.69	1.86	1.82	1.75	<1	<1	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.27	1.26	1.29	<1.5	1.48	1.68	2.23	2.55	2.13	2.44	4.7	3.94	1.23	1.49	1.38	1.13	<1
PFHxDA (67905-19-5)	ng/l																	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	<1
PFMOPrA (377-73-1)	ng/l																	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	0.938	0.887	0.936	0.84	<1.5	<2.5	1.57	3.18	1.01	0.941	1.14	1.42	0.738	<0.65	<0.65	<0.65	<0.65
PFODA (16517-11-6)	ng/l																	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	2.45	2.58	1.82	<2	1.96	2.02	3.08	4.96	3.33	4.85	4.42	6.45	1.45	2.03	2.69	1.28	2.01
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	<1
PFTrDA (72629-94-8)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<3
PFTrDS (174675-49-1)	ng/l			<2	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
Total PFOS	ng/l	<0.65	0.774	0.85	2.51	<0.65	<0.65	0.693	<0.65	<0.65	0.799	0.655	1.44	<0.65	<0.65	<0.65	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.39		1.68		0.00		0.35		0.40		1.05		0.00		0.00		0.00
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.77	0.85	2.51	0.00	0.00	0.69	0.00	0.00	0.80	0.66	1.44	0.00	0.00	0.00	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL9												
		29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.17	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.16
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	0.708	<0.65	<0.65	0.689	<0.65	<0.65	<0.65	<0.65	0.793	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	1.1	<0.65	<0.65	<0.65	0.771	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	2.71	3.59	4.01	4.04	3.28	5.16	4.05	3.46	3.48	5.45	4.1	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.98	1.46	<1	1.08
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	1.28	<1	<1	1.29	1.38	1.64	1.44	1.86	1.06	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	1.32	1.8	1.86	1.78	2	1.63	3.17	3.52	3.54	3.04	1.17	1.28
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	0.972	1.25	1.09	1.1	1.17	1.23	1.03	1.04	1.72	1.42	<0.65	<0.65
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	1.65	1.75	2.51	2.38	2.07	3.8	3.09	4.29	4.47	6.52	5.64	1.81	1.42
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	<0.65	<0.65	0.708	<0.65	<0.65	0.689	1.1	<0.65	<0.65	<0.65	1.56	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)														
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		0.35		0.00		0.89		0.00		0.78		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.71	0.00	0.00	0.69	1.10	0.00	0.00	0.00	1.56	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL10																
		09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2
3:3 FTCA (356-02-5)	ng/l																	<2
4:2 FTS (757124-72-4)	ng/l			<2	<2	<10	<10	<10	<20	<10	<10	<2	<2	<2	<2	<2	<2	<1
5:3 FTCA (914637-49-3)	ng/l			<20	<20	<100	<100	<100	<200	<100	<100	<20	<20	<20	<20	<20	<20	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l																	<5
8:2 FTS (39108-34-4)	ng/l			<2	<2	<10	<10	<10	<20	<10	<10	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1
ADONA (919005-14-4)	ng/l																	<1
Branched PFOS	ng/l	<0.65	<0.65	<0.65	0.724	<3.25	<3.25	<3.25	<6.5	<3.25	<3.25	<0.65	<0.65	0.791	0.66	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l																	<2
EtFOSE (1691-99-2)	ng/l																	<10
FBSA (30334-69-1)	ng/l																	<1
FHxSA (41997-13-1)	ng/l																	<1
HFPO-DA (13252-13-6)	ng/l																	<2
HFPO-TA (13252-14-7)	ng/l																	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	0.808	<3.25	<3.25	<3.25	<6.5	<3.25	<3.25	0.77	0.657	0.86	0.963	0.772	0.761	<0.65
MeFOSAA (2355-31-9)	ng/l																	<2
MeFOSE (24448-09-7)	ng/l																	<10
N-EtFOSA (4151-50-2)	ng/l																	<1
NFDHA (151772-58-6)	ng/l																	<3
N-MeFOSA (31506-32-8)	ng/l																	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	5.34	5.29	<2	3.76	<10	<10	<10	<23.5	<10	<40	<3.5	<10	<7.5	<10	5.28	4.83	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l			<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<2
PFecHS (133201-07-7)	ng/l																	<1
PFEESA (113507-82-7)	ng/l																	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2.25	1.78	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	2.66	2.56	1.99	2.18	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	2.39	2.7	<1.5	1.21	<5	<5	<5	<10	<5	<5	<1	<1	4.17	4.22	3.59	3.85	<1
PFHxDA (67905-19-5)	ng/l																	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	<1
PFMOPrA (377-73-1)	ng/l																	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l			<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.43	1.4	<1	1.15	<11	<10	<5	<15	<3.25	<3.25	0.941	0.759	1.28	1.25	0.85	0.829	0.68
PFODA (16517-11-6)	ng/l																	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<10	<10	<10	<20	<10	<10	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<7	6.62	<2	1.83	<5	<5	<5	<10	<5	<5	<1	<1	8.23	8.83	6.06	8.01	1.4
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	<1
PFTrDA (72629-94-8)	ng/l			<1	<1	<5	<5	<5	<10	<10	<5	<1	<1	<1	<1	<1	<1	<3
PFTrDS (174675-49-1)	ng/l			<2	<2	<10	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l			<1	<1	<5	<5	<5	<10	<5	<5	<1	<1	<1	<1	<1	<1	<2
Total PFOS	ng/l	<0.65	<0.65	<0.65	1.53	<3.25	<3.25	<3.25	<6.5	<3.25	<3.25	0.77	0.657	1.65	1.62	0.772	0.761	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.00		0.77		0.00		0.00		0.00		0.71		1.64		0.77		0.00
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.00	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.66	1.65	1.62	0.77	0.76	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL10												
		29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.17	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	11.6	<1	<1	<1	<1
Branched PFOS	ng/l	<0.65	0.757	0.76	1.75	0.875	0.838	0.982	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	0.954	0.806	1.7	0.83	0.855	1.08	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	2.49	5	6.2	5.48	4.97	7.71	8.22	3.39	3.01	2.42	2.69	4.75	4.79
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	1.33	1.33	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.06	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	1.78	2.09	2.35	1.63	2.35	2.67	1.15	<1	1.2	1.13	2.62	2.14
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	3.07	3.96	4.28	3.69	4.56	4.7	1.38	1.51	<1	<1	4.97	5.1
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.28
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	20.2	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	1.35	1.47	1.67	1.36	1.55	1.7	1.34	0.817	<0.65	1.4	1.33	1.34
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	2.5	6.23	8.13	8.64	7.77	10.4	10.9	1.77	1.41	1.9	1.3	10.3	7.28
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	<0.65	1.71	1.57	3.45	1.7	1.69	2.06	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)														
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		1.64		2.58		1.88		0.00		0.00		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	1.71	1.57	3.45	1.70	1.69	2.06	0.00	0.00	0.00	0.00	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL11																
		09/02/22	09/02/22	14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2
3:3 FTCA (356-02-5)	ng/l																	<2
4:2 FTS (757124-72-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1
5:3 FTCA (914637-49-3)	ng/l			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	3.51	3.43	7.93	8.76	3.84	3.62	3.09	3.54	3.99	3.99	3.45	3.64	3.67	4.11	7.4	7.56	1.56
7:3 FTCA (812-70-4)	ng/l																	<5
8:2 FTS (39108-34-4)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1
ADONA (919005-14-4)	ng/l																	<1
Branched PFOS	ng/l	1.05	0.841	<1	1.44	1.85	1.66	1.98	1.74	2.91	2.81	2.78	2.92	1.2	1.03	1.05	1.16	2.15
EtFOSAA (2991-50-6)	ng/l																	<2
EtFOSE (1691-99-2)	ng/l																	<10
FBSA (30334-69-1)	ng/l																	<1
FHxSA (41997-13-1)	ng/l																	<1
HFPO-DA (13252-13-6)	ng/l																	<2
HFPO-TA (13252-14-7)	ng/l																	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.3	1.35	<0.65	1.3	2.26	2.18	2.36	2.26	3.74	3.6	3.67	4.34	1.2	1.28	1.36	1.28	2.14
MeFOSAA (2355-31-9)	ng/l																	<2
MeFOSE (24448-09-7)	ng/l																	<10
N-EtFOSA (4151-50-2)	ng/l																	<1
NFDHA (151772-58-6)	ng/l																	<3
N-MeFOSA (31506-32-8)	ng/l																	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	9.67	21.6	6.03	7.02	18.5	19	19.1	<20	27.3	29.2	11.5	12.5	<7	10	10.7	11.2	9.86
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1.5	<1.5	<1	<1	<1	1.17	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l			<1	<1	<1	<1	<1	<1	1.62	<1	<1	<1	<1	<1	<1	<1	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFecHS (133201-07-7)	ng/l																	<1
PFEESA (113507-82-7)	ng/l																	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	4.03	6.05	4.17	4.75	12.4	11.3	7.12	7.44	11.2	10.1	6.46	7.46	3.95	3.66	10.6	9.95	3.79
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	9.11	8.47	9.82	9.62	12.6	12.5	21	21.7	24.6	24	16.5	17.8	10.4	12	20.6	20.9	15.6
PFHxDA (67905-19-5)	ng/l																	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1.5	<1	<1	<1	2.22	1.98	2.21	2.28	3.44	3.51	3.41	3.36	<1	1.18	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	<1
PFMOPrA (377-73-1)	ng/l																	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	1.02	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.47	1.42	1.8	2.2	4.21	4.43	3.52	3.57	2.99	3.31	3.29	3.88	1.57	1.56	2.67	2.72	1.72
PFODA (16517-11-6)	ng/l																	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	24.9	40.6	20	15.4	65.4	66	50.3	51.1	66.2	86.4	29.8	34.8	26	22.1	31.2	28	30.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	<1
PFTrDA (72629-94-8)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<3
PFTrDS (174675-49-1)	ng/l			<2	<2	<2	<2	<1	<1	3.04	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
Total PFOS	ng/l	2.35	2.19	<1	2.74	4.11	3.84	4.34	3.99	6.65	6.41	6.45	7.26	2.39	2.32	2.41	2.44	4.29
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	2.27		1.37		3.98		4.17		6.53		6.86		2.36		2.43		3.77
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.35	2.19	0.00	2.74	4.11	3.84	4.34	3.99	6.65	6.41	6.45	7.26	2.39	2.32	2.41	2.44	4.29

Landside Surface Water Monitoring Results

Parameter	Unit	SL11												
		29/05/23	14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	14/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.21	<5	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
6:2 FTAB (34455-29-3)	ng/l				<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	1.31	2.91	3.64	3.2	3.35	5.51	7.25	2.32	2.17	<1	<5	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	1.08	<1	<1	<5	<1	<1
Branched PFOS	ng/l	1.6	1.25	<0.65	0.996	1.14	0.959	1.07	5.01	4.46	0.841	<3.25	<0.65	1.64
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	10.8	<10	<10	<50	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	5.05	<5	<5	<25	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.65	0.956	1.57	<0.65	0.678	1.06	1.01	4.6	3.81	1.31	<3.25	<0.65	0.71
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	10.2	<10	<10	<50	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	10.3	7.91	12.1	9.48	9.18	6.95	8.77	11.5	11.3	3.18	<10	6.13	5.75
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	1.35	1.71	1.66	<1	<5	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFecHS (133201-07-7)	ng/l	<1	8.71	10.7	2.35	2.33	2.26	2.67	23.6	23.2	5.49	10.9	6.22	6.91
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	3.68	3.15	3.84	3.41	3.05	2.65	3.33	5.54	5.48	1.72	<5	2.9	2.94
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	14.7	10.1	13.5	9.86	9.59	8.3	12.3	16.2	15.4	2.76	<5	8.58	8.72
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	1.4	1.21	<1	<5	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	2.5	<2	1.33	1.28	<1	1.35	6.16	6.19	<1	<5	1.82	1.88
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	1.38	1.16	<1	<5	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.32	2.19	3.26	2.09	1.79	1.61	1.94	3.54	3.35	2.54	4.09	1.79	1.64
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	1.31	1.35	<1	<5	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	29.5	32.4	29.9	17.5	17.8	18.1	24.5	32.4	30.7	5.31	7.98	19	20.8
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	1.41	1.26	<1	<5	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
Total PFOS	ng/l	3.25	2.2	1.57	0.996	1.81	2.01	2.07	9.61	8.28	2.15	<3.25	<0.65	2.35
SW Threshold (as per S.I No. 77 of 2019.)														
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		1.89		1.40		2.04		8.95		1.08		1.18	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	3.25	2.20	1.57	1.00	1.81	2.01	2.07	9.61	8.28	2.15	0.00	0.00	2.35

Landside Surface Water Monitoring Results

Parameter	Unit	SL12																
		14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	19/12/22	19/12/22	13/02/23	13/02/23	29/05/23	29/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																<2	<2
3:3 FTCA (356-02-5)	ng/l																<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	27.5	<1	1.02	<1	<1	<1	<1	<1	<1	<1	1.88	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l																<5	<5
8:2 FTS (39108-34-4)	ng/l	5.97	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																<1	<1
ADONA (919005-14-4)	ng/l																<1	<1
Branched PFOS	ng/l	13.6	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.688	0.706	<0.65	1.25	<0.65	<0.65	<0.65	<0.65	0.847	<0.65
EtFOSAA (2991-50-6)	ng/l																<2	<2
EtFOSE (1691-99-2)	ng/l																<10	<10
FBSA (30334-69-1)	ng/l																<1	<1
FHxSA (41997-13-1)	ng/l																<1	<1
HFPO-DA (13252-13-6)	ng/l																<2	<2
HFPO-TA (13252-14-7)	ng/l																<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	8.89	<0.65	<0.65	<0.65	0.691	<0.65	<0.65	<0.65	0.681	<0.65	1.66	<0.65	<0.65	<0.65	<0.65	0.837	<0.65
MeFOSAA (2355-31-9)	ng/l																<2	<2
MeFOSE (24448-09-7)	ng/l																<10	<10
N-EtFOSA (4151-50-2)	ng/l																<1	<1
NFDHA (151772-58-6)	ng/l																<3	<3
N-MeFOSA (31506-32-8)	ng/l																<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	9.51	2.62	2.63	7.69	8.62	<4.5	<12	<10	<22	<2	<2	<2	<2	2.11	<2	3.02	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2
PFDoS (79780-39-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2
PFecHS (133201-07-7)	ng/l																<1	<1
PFEESA (113507-82-7)	ng/l																<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	12.5	1.33	1.55	<1	1.05	1.56	1.55	1.82	2	<1	3.74	<1	<1	<1	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	16.3	1.55	1.47	2.25	2.38	1.92	2.2	4.17	4.03	1.21	8.8	<1	<1	1.14	1.03	<1	1.02
PFHxDA (67905-19-5)	ng/l																<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	8.99	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																<1	<1
PFMOPrA (377-73-1)	ng/l																<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	2.12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	7.18	2.09	<1.8	2.38	2.66	0.865	1.21	1.35	1.3	0.785	2.25	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
PFODA (16517-11-6)	ng/l																<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	30.9	3.88	3.91	2.46	2.24	2.66	4.09	4.18	4.44	1.5	16.5	<1	<1	1.35	1.2	2.24	<1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																<1	<1
PFTrDA (72629-94-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<3	<3
PFTrDS (174675-49-1)	ng/l	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2
PFUnDS (749786-16-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2
Total PFOS	ng/l	22.5	<0.65	<0.65	<0.65	0.691	<0.65	<0.65	0.688	1.39	<0.65	2.9	<0.65	<0.65	<0.65	<0.65	1.68	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		0.00		0.35		0.00		1.04		1.45		0.00		0.00		0.84	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	22.50	0.00	0.00	0.00	0.69	0.00	0.00	0.69	1.39	0.00	2.90	0.00	0.00	0.00	0.00	1.68	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL12											
		14/08/23	14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	1.14	<2	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<10	<10	<10	<10	<10	<10	<10	<20	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	0.77	0.717	0.917	0.835	<0.65	1.36	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	<0.65	1.14	0.931	1.39	1.04	<0.65	1.44	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<6	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	3.44	3.69	3.46	3.53	4.43	3.56	5.01	4.39	5.95	6.76	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	1.35	2.03	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	1.26	<1	<1	1.36	1.26	1.77	1.8	2.07	3	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.36	1.35	2.23	1.84	1.69	1.64	2.96	2.96	4.21	5.04	1.32	<1
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	1.06	1.08	<1	<2	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.14	1.02	<0.65	<0.65	1.32	1.27	1.36	1.36	1.8	1.88	<0.65	<0.65
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	2.02	1.98	2.44	3.1	2.95	4.68	4.48	7.66	8.06	2.12	1.55
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<6	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2
Total PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	1.91	1.65	2.31	1.88	<0.65	2.8	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)													
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.00		0.00		1.78		2.10		1.40		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.00	0.00	1.91	1.65	2.31	1.88	0.00	2.80	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL13																
		14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23	29/05/23	14/08/23	14/08/23
11Cl-PF3OUdS (763051-92-9)	ng/l														<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l														<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	29.2	30.2	24.3	41.6	42.3	20.6	19.5	40.7	43.4	<1	11.6	4.62	5.1	6.83	7.31	29.4	25.3
7:3 FTCA (812-70-4)	ng/l														<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	6.97	<2	<2	<2.5	<2	<2	<2	<2	4.26	<2	<2	<2	<2	<2	<2	3.81	4.09
9Cl-PF3ONS (756426-58-1)	ng/l														<1	<1	<1	<1
ADONA (919005-14-4)	ng/l														<1	<1	<1	<1
Branched PFOS	ng/l	13.9	3.32	2.8	3.54	3.89	2.94	3.99	6.62	5.7	0.689	4.53	1.1	1.25	4.3	3.59	3.84	4.93
EtFOSAA (2991-50-6)	ng/l														<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l														<10	<10	<10	<10
FBSA (30334-69-1)	ng/l														<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l														<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l														<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l														<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	9.18	7.89	6.43	4.13	4.01	2.41	2.8	5.13	4.51	0.724	7.91	1.35	1.55	2.96	3.06	5.77	6.17
MeFOSAA (2355-31-9)	ng/l														<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l														<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l														<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l														<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l														<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	9.79	15.9	12.5	16.7	25.9	11	22.5	<22	22.9	<5	<2	11.3	11	10.8	9.9	11.6	9.93
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1.3	<1	<1	<1	1.72	1.35	<1	<1	<1	<1	<1	<1	1.31	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	1.18	1.28	<1	<1	<1	<1	1.21	1.09	<1	<1	<1	<1	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l														7.38	9.01	26.2	31.6
PFEESA (113507-82-7)	ng/l														<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	12.3	28.2	21.8	9.17	8.71	13.4	12.8	12.1	16.1	<1	5.46	10.9	12.7	8.61	8.19	7.86	5.94
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	17.3	20.3	18.8	24.8	24.5	20.5	20.5	31.5	31.4	1.23	8.84	17.6	17.6	19.4	18.8	15.3	13.3
PFHxDA (67905-19-5)	ng/l														<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	9.23	2.77	2.35	2.83	2.81	3.12	3.39	5.51	5.26	<1	4.8	<1	<1	4.5	4.7	6.89	8.07
PFMOBA (863090-89-5)	ng/l														<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l														<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	2.34	3.31	2.71	1.61	1.44	1.15	1.16	2.1	2.18	<1	<1	<1	<1	<1	<1	1.8	1.23
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	6.84	8.2	7.33	6.2	6.76	4.28	4.83	7.04	7.42	0.789	3.13	2.73	3.2	4.73	5.22	5.65	4.84
PFODA (16517-11-6)	ng/l														<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	36.8	38.9	70.7	41.5	46.4	30.4	53.5	38.3	55.2	1.26	33.8	27.4	26.1	35.8	34.9	29.3	23.9
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l														<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
Total PFOS	ng/l	23.1	11.2	9.23	7.66	7.9	5.35	6.79	11.7	10.2	1.41	12.4	2.45	2.8	7.26	6.65	9.62	11.1
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		10.22		7.78		6.07		10.95		6.91		2.63		6.96		10.36	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	23.10	11.20	9.23	7.66	7.90	5.35	6.79	11.70	10.20	1.41	12.40	2.45	2.80	7.26	6.65	9.62	11.10

Landside Surface Water Monitoring Results

Parameter	Unit	SL13									
		21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	1.18	1.15	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	29.7	31.4	13.2	20.6	25.4	24.7	<10	<10	<10	15.7
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	19.6	20.2	11.1	14.8	24.5	23.7	39.7	39	1.14	3.66
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	3.31	3.61	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	3.9	4.56	2.72	3.31	3.02	2.8	1.43	1.65	<0.65	1.77
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	1.15	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	3.61	3.76	2.35	2.83	2.65	2.62	1.93	2.25	<0.65	1.27
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	9.81	10.9	7.81	9.85	16.7	16.5	11.6	14.9	13	7.52
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	1.25	1.63	1.61	1.5	1.57	1.61	1.55
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	7.88	8.52	6.47	8.64	46.3	45.9	41.1	44.6	<1	28.6
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	6.31	6.72	4.2	5.24	7.88	7.64	7.37	7.4	<1	7.99
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	14.8	14.3	8.11	10.9	21.4	19.6	13.5	12.3	<1	11.2
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	4.91	5.18	3.59	4.59	3.71	3.24	1.21	1.25	1.47	1.69
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	1.34	1.17	1.88	1.92	<1	1.24
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.6	3.32	2.79	3.62	5.69	5.71	6.79	7.25	1.23	5.32
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	27.4	28	16.7	22.7	34.1	34.8	31.5	31.2	<1	24.5
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	7.5	8.33	5.07	6.14	5.67	5.42	3.36	3.9	<0.65	3.05
SW Threshold (as per S.I No. 77 of 2019.)											
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	7.92		5.61		5.55		3.63		1.53	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	7.50	8.33	5.07	6.14	5.67	5.42	3.36	3.90	0.00	3.05

Landside Surface Water Monitoring Results

Parameter	Unit	SL14																
		14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23	29/05/23	14/08/23	14/08/23
11Cl-PF3OUdS (763051-92-9)	ng/l														<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l														<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	1.55	<1	<1	<1	<1	<1	<1	<1	12.5	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l														<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l														<1	<1	<1	<1
ADONA (919005-14-4)	ng/l														<1	<1	<1	<1
Branched PFOS	ng/l	<1	0.874	0.786	0.818	<0.65	<0.65	0.71	1.48	1.45	0.836	5.1	0.668	<0.65	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l														<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l														<10	<10	<10	<10
FBSA (30334-69-1)	ng/l														<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l														<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l														<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l														<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	0.873	0.834	0.901	0.728	0.751	0.692	1.14	1.12	0.836	8.14	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l														<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l														<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l														<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l														<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l														<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<2	7.32	6.64	13.5	7.66	<4	<5	9.1	8.31	<3	<2	3.76	3.66	3.58	4.65	6.87	4.46
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	1.33	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l														<1	<1	<1	2.19
PFEESA (113507-82-7)	ng/l														<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.44	4.31	3.88	2.19	1.27	1.82	2.13	3.35	3.3	1.74	5.24	1.77	1.52	<1	<1	1.77	1.58
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	2.47	3.42	3.12	4.58	4.12	4.14	4.28	6.22	6.06	2.66	8.92	2.53	2.52	2.41	2.44	2.89	2.35
PFHxDA (67905-19-5)	ng/l														<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5.11	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l														<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l														<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.06	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.32	3	2.7	3.48	2.11	1.33	1.42	4.11	3.68	1.54	3.45	1.23	1.11	<0.65	1.18	1.97	1.59
PFODA (16517-11-6)	ng/l														<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<5	6.23	5.31	11.2	5.65	6.53	7.66	6.74	8.55	5.64	31.7	3.64	3.4	6.34	5.12	4.9	3.64
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l														<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<2	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2
Total PFOS	ng/l	<1	1.75	1.62	1.72	0.728	0.751	1.4	2.62	2.56	1.67	13.2	0.668	<0.65	<0.65	<0.65	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		1.69		1.22		1.08		2.59		7.44		0.33		0.00		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	1.75	1.62	1.72	0.73	0.75	1.40	2.62	2.56	1.67	13.20	0.67	0.00	0.00	0.00	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	SL14									
		21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	33.7	<2	<10	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
Branched PFOS	ng/l	0.7	0.791	1.5	1.64	<0.65	1.89	<5	0.849	1.56	1.13
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	3.04	2.54	<0.65	1.02	<4	0.814	0.927	1.07
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<15	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	5.89	6.11	5.32	5.05	<2	4.51	<10	2.47	4.21	4.34
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	1.26	1.29	<1	<1	<5	<1	1.36	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	1.2	1.26	<1	<1	<5	1.23	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.33	<1	1.49	1.48	<1	1.27	<5	1.11	1.94	1.97
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	3.18	3.02	2.2	2.4	1.95	1.97	<5	2.02	3.23	3.78
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	1.2	<5	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.8	1.9	1.5	1.63	0.961	1.35	<4.5	1.69	2.9	2.94
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	4.96	4.42	4.76	5.09	2.75	3.39	<5	3.13	6.27	7.14
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<15	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
Total PFOS	ng/l	0.7	0.791	4.54	4.18	<0.65	2.91	<5	1.66	2.49	2.19
SW Threshold (as per S.I No. 77 of 2019.)											
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.75		4.36		1.46		0.83		2.34	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.70	0.79	4.54	4.18	0.00	2.91	0.00	1.66	2.49	2.19

Landside Surface Water Monitoring Results

Parameter	Unit	SL15																
		14/03/22	14/03/22	19/04/22	19/04/22	26/05/22	26/05/22	21/06/22	21/06/22	19/09/22	19/09/22	16/11/22	16/11/22	13/02/23	13/02/23	29/05/23	29/05/23	14/08/23
11Cl-PF3OUdS (763051-92-9)	ng/l															<2	<2	<2
3:3 FTCA (356-02-5)	ng/l															<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	4.56	3.41	<1	1.3	1.04	<1	<1	1.48	1	<1	1.52	6.81	6.13	<1	<1	1.84
7:3 FTCA (812-70-4)	ng/l															<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l															<1	<1	<1
ADONA (919005-14-4)	ng/l															<1	<1	<1
Branched PFOS	ng/l	<1	1.18	2.41	0.887	0.725	0.765	<0.65	<0.65	1.32	1.27	0.745	0.963	0.786	0.855	<0.65	1.33	1.12
EtFOSAA (2991-50-6)	ng/l															<2	<2	<2
EtFOSE (1691-99-2)	ng/l															<10	<10	<10
FBSA (30334-69-1)	ng/l															<1	<1	<1
FHxSA (41997-13-1)	ng/l															<1	<1	<1
HFPO-DA (13252-13-6)	ng/l															<2	<2	<2
HFPO-TA (13252-14-7)	ng/l															<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	1.45	3.01	0.977	0.976	0.995	0.831	0.85	1.69	1.57	0.764	1.15	0.992	0.912	<0.65	1.33	1.23
MeFOSAA (2355-31-9)	ng/l															<2	<2	<2
MeFOSE (24448-09-7)	ng/l															<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l															<1	<1	<1
NFDHA (151772-58-6)	ng/l															<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l															<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	5.73	<7	23.1	6.57	<11	<5	<4	<4	<66	7.34	<2	<2	5.35	4.97	5.81	4.85	7.66
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	1.49	<1	<1	<1	<1	<1	2.03	<1	<1	<1	<1	<1	<1	<1	1.22
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	1.22	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2
PFecHS (133201-07-7)	ng/l															<1	<1	<1
PFEESA (113507-82-7)	ng/l															<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.89	3.58	13.7	4.67	2.5	1.96	2.16	2.5	3.11	3.07	1.71	3.15	3.61	2.84	1.63	1.09	2.99
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	3.05	7.7	18.2	5.54	5.51	5.49	7.64	8.41	9.05	7.28	2.86	7.42	9.39	8.86	4.64	5.53	7.97
PFHxDA (67905-19-5)	ng/l															<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	1.67	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l															<1	<1	<1
PFMOPrA (377-73-1)	ng/l															<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	1.3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.17
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.63	1.8	10.2	3.21	3.18	3.03	1.47	1.53	2.55	2.37	1.85	1.71	1.2	1.45	1.42	1.15	2.48
PFODA (16517-11-6)	ng/l															<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	5.68	11.4	62.9	22.3	9.09	7.59	9.51	10.3	10.2	9.71	5.41	13.5	19.4	15.3	11.3	12.1	18.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l															<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<4	<4	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2
Total PFOS	ng/l	<1	2.63	5.41	1.86	1.7	1.76	0.831	0.85	3.01	2.84	1.51	2.11	1.78	1.77	<0.65	2.66	2.34
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	1.32		3.64		1.73		0.84		2.93		1.81		1.78		1.33		2.27
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	2.63	5.41	1.86	1.70	1.76	0.83	0.85	3.01	2.84	1.51	2.11	1.78	1.77	0.00	2.66	2.34

Landside Surface Water Monitoring Results

Parameter	Unit	SL15										
		14/08/23	21/11/23	21/11/23	03/04/24	03/04/24	17/07/24	17/07/24	30/09/24	30/09/24	09/12/24	09/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	1.12	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l		<10	<10	<10	<10	10.4	10.3	<50	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	1.7	1.38	1.49	1.6	1.4	1.15	<1	<5	1.44	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
Branched PFOS	ng/l	0.93	<0.65	0.836	1.19	0.996	0.896	0.973	<5	0.903	<0.65	1.73
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.27	<0.65	<0.65	1.26	1.28	1.19	1.06	<5	1.59	<0.65	0.935
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	6.87	7.26	7.3	7.17	6.28	5.45	5.26	<10	5.99	4.76	4.89
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.07	<1	<1	<1	<1	1.4	1.35	<5	<1	<1	1.35
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFecHS (133201-07-7)	ng/l	2.12	<1	<1	1.53	1.38	1.78	1.7	10.4	8.82	1.66	1.41
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	3.03	2.48	2.46	2.67	2.53	2.39	2.23	<5	2.73	2.19	2.34
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	8.42	7.55	7.38	7.09	6.23	5.89	6.28	5.76	4.43	5.43	5.71
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	1.11	1.07	<1	<1	<5	<1	1.63	1.54
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.32	<1	<1	<1	<1	<1	<1	<5	1.28	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.96	1.68	1.76	2.02	1.85	3.02	2.31	<5	3.63	1.81	1.74
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	21.6	12.4	14.7	14.2	12.4	9.58	9.79	10.2	9.95	11.5	13.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
Total PFOS	ng/l	2.2	<0.65	0.836	2.45	2.27	2.08	2.04	<5	2.49	<0.65	2.67
SW Threshold (as per S.I No. 77 of 2019.)												
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		0.42		2.36		2.06		1.25		1.34	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.20	0.00	0.84	2.45	2.27	2.08	2.04	0.00	2.49	0.00	2.67

Landside Surface Water Monitoring Results

Parameter	Unit	C1											
		16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	7.99	11.4	<1	<1	<1	<1
Branched PFOS	ng/l	0.784	0.769	<0.65	<0.65	<0.65	0.773	0.778	0.74	0.831	0.935	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.916	0.966	<0.65	<0.65	<0.65	0.806	0.713	0.691	1.01	0.688	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	3.84	3.61	<4	<2	3.69	<2	2.44	<2	8.58	6.83	3.67	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	1.04	1.07	1.87	1.91	2.54	2.29	<1	1.39
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.33	1.32	<1	<1	<1	1.1	<1	<1	1.89	1.82	1.44	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.64	1.87	<1	<1	1.08	1.02	<1	<1	2.82	2.8	1.81	1.74
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.34	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	18.4	27.2	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.26	1.3	<0.65	<0.65	0.828	1.09	0.972	0.856	1.05	1.03	<0.65	<0.65
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	3.42	2.24	<1	<1	2.05	1.9	1.12	<1	7.05	6.01	2.86	4.1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	1.7	1.74	<0.65	<0.65	<0.65	1.58	1.49	1.43	1.84	1.62	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)													
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	1.72		0.00		0.79		1.46		1.73		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	1.70	1.74	0.00	0.00	0.00	1.58	1.49	1.43	1.84	1.62	0.00	0.00

Parameter	Unit	C-2A							
		16/08/23	16/08/23	22/11/23	22/11/23	02/04/24	02/04/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<25	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<50	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	2.98	2.67	<5	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<25	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	<3.25	<0.65	1.51	1.71	<0.65	1.31
EtFOSAA (2991-50-6)	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<50	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<25	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.985	<0.65	<3.25	<0.65	1.08	1.46	<0.65	1.04
MeFOSAA (2355-31-9)	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<50	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<15	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	34.4	32.3	18.1	6.12	8.99	10.6	6.69	8.06
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	1	<5	<1	1.12	<1	<1	1.2
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<5	<1	1.27	1.01	<1	1.19
PFEESA (113507-82-7)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	13.3	12.3	<5	1.88	3.79	3.91	2.39	2.8
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	24.5	22.6	7.67	4.33	7.86	8.02	7.57	7.26
PFHxDA (67905-19-5)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<5	1.01	1.45	1.76	<1	1.22
PFMOBA (863090-89-5)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.87	1.55	<5	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	8.19	6.83	<3.25	1.31	2.35	2.42	1.26	2.82
PFODA (16517-11-6)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	73.1	69.9	13.7	8.18	17.9	18.3	15.6	19.4
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<15	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<5	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<10	<2	<2	<2	<2	<2
Total PFOS	ng/l	0.985	<0.65	<3.25	<0.65	2.59	3.16	<0.65	2.35
SW Threshold (as per S.I No. 77 of 2019.)									
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.49		0.00		2.88		1.18	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.99	0.00	0.00	0.00	2.59	3.16	0.00	2.35

Parameter	Unit	C-2B							
		16/08/23	16/08/23	22/11/23	22/11/23	02/04/24	02/04/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	1.31	1.48	<0.65	<0.65	0.668	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.05	1.09	<0.65	<0.65	0.708	0.837	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	15.2	14.9	10.6	13.9	8.45	9.4	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	1.05	<1	<1	<1	1.17	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	6.09	6.55	3.06	3.01	3.35	3.5	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	13.1	14.2	6.51	5.3	5.27	5.06	1.49	1.32
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.21	2.53	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	1.04	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.27	3.25	1.85	1.92	2.47	2.37	<0.65	<0.65
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	32	33.5	12.8	11	14.2	13.6	2.93	2.78
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	2.37	2.57	<0.65	<0.65	1.38	0.837	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)									
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	2.47		0.00		1.11		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.37	2.57	0.00	0.00	1.38	0.84	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	Kealy's Stream											
		16/08/23	16/08/23	22/11/23	22/11/23	02/04/24	02/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	30.2	23.3	<5	<5	<5	<5	<5	<25	<5	<5
6:2 FTAB (34455-29-3)	ng/l			118	105	40.5	41.8	24.2	29.7	50.6	137	37	46.3
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	12.4	12.3	20.1	23	4.43	5	4.36	5.45	7.42	11.2	6.74	7.78
7:3 FTCA (812-70-4)	ng/l	<5	<5	6.37	<5	<5	<5	<5	<5	<5	<25	<5	<5
8:2 FTS (39108-34-4)	ng/l	4.4	4.11	15.2	16.6	5.01	5.18	2.14	2.43	5.64	<10	7.96	7.19
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
Branched PFOS	ng/l	7.02	7.96	16	14.6	12.2	11	6.7	6.27	4.01	3.61	10.5	12.3
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
FBSA (30334-69-1)	ng/l	1.27	1.06	1.51	<1	<1	<1	<1	<1	<1	<5	<1	<1
FHxSA (41997-13-1)	ng/l	2.25	1.93	1.54	1.31	1.48	1.49	<1	<1	<1	<5	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	9.41	7.1	12.6	13.7	10.6	10.8	6.28	6.65	3.62	<3.25	5.47	6.54
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	27.6	25.9	34.6	53.1	14.6	13.5	20.2	20.9	14.2	16.2	18.5	18.6
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	2.2	2.08	2.41	2.6	2.22	2.22	2.57	2.89	1.23	<5	1.95	2.1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFecHS (133201-07-7)	ng/l	16.4	10.7	14.4	15.7	20.5	20.7	38.3	39.4	17	22.7	30.8	28.8
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	20.1	20.3	27.5	37.1	9.59	9.81	11.2	11.4	8.2	6.98	12.4	12.6
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	1.23	1.29	<1	<1	<1	<5	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	35.6	34.7	57.5	55.4	16.3	16.2	19.2	21.1	12.9	14.1	23.7	23.8
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	16.3	12	16.4	18.9	11.4	11.5	8.54	8.63	3.06	<5	10.7	10.7
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	3.69	3.8	6.15	7.98	1.98	1.84	1.74	1.69	1.54	<5	1.1	1.29
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	15.6	14.7	14.5	17.6	5.99	6.27	6.74	6.89	4.73	6.2	5.85	6.61
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	76.4	75.9	118	136	38.3	36.7	47.6	43.9	32.3	31.1	60.5	60.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	1.47	1.35	1.41	1.34	1.55	1.55	1.22	<1	<1	<10	1.25	1.08
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2
Total PFOS	ng/l	16.4	15.1	28.6	28.2	22.8	21.8	13	12.9	7.63	3.61	15.9	18.8
SW Threshold (as per S.I No. 77 of 2019.)													
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	15.75		28.40		22.30		12.95		5.62		17.35	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	16.40	15.10	28.60	28.20	22.80	21.80	13.00	12.90	7.63	3.61	15.90	18.80

Landside Surface Water Monitoring Results

Parameter	Unit	M5											
		16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	1.18	1.19	<1	<1	<1	<1	1.17	1.64	<5	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
Branched PFOS	ng/l	0.882	0.718	<0.65	<0.65	0.847	0.885	0.84	1.11	<3.25	0.763	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	0.652	<0.65	<0.65	0.953	0.913	<0.65	<0.65	<3.25	0.661	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	6.01	5.48	6.15	14	5.58	6.72	9.15	11.5	<10	4.26	7.02	7.29
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	1.14	1.35	1.28
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFecHS (133201-07-7)	ng/l	4.63	5.24	2.61	3.17	3.16	3.44	23.3	27.1	11.6	8.75	9.83	10.1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2.93	2.78	2.05	2.43	2.66	3.27	4.3	5	<5	1.41	4.73	5.26
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	5.5	6.86	3.74	5.71	5.8	6.13	12.2	13.5	<5	2.37	9.33	9.06
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.23	1.29	<1	<1	<1	<1	<1	1.25	<5	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.27	2.15	1.47	2.11	2.16	2.21	2.88	3.19	<3.25	1.53	3.46	6.8
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	9.93	12.4	8.4	8.35	11.8	13	19.4	23.1	<5	4.52	21	19.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2
Total PFOS	ng/l	0.882	1.37	<0.65	<0.65	1.8	1.8	0.84	1.11	<3.25	1.42	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)													
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	1.13		0.00		1.80		0.98		0.71		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.88	1.37	0.00	0.00	1.80	1.80	0.84	1.11	0.00	1.42	0.00	0.00

Parameter	Unit	S1							
		16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	0.675	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<4	4.63	12.3	9.86	5.84	6.42	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	1.1	1.02	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<1	1.05	1.5	1.29	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	<1	<1	<1	<1	1.1	<1	<1	<1
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.85	<0.65	1.17	0.972	2.74	2.77	<0.65	<0.65
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<1	<1	<1	<1	1.52	1.69	<1	<1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65	0.675	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)									
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.00		0.00		0.34		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	S3											
		16/08/23	16/08/23	22/11/23	22/11/23	04/04/24	04/04/24	16/07/24	16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	1.05	<1	1.15	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<10	<5	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	0.689	0.723	<0.65	<0.65	<0.65	0.884	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	<0.65	0.954	0.931	<0.65	<0.65	0.707	0.769	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	4.33	4.77	4.01	5.24	5.73	3.92	<2	<2	2.79	2.62	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	1.21	1.2	1.27	1.33	2.38	2.15	2.99	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.25	1.18	1.22	1.42	1.75	1.71	<1	<1	<1	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.57	1.53	2.43	2.31	2.32	2.13	1.22	1.18	1.62	2.21	3.24	3.42
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<20	<10	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.1	1.1	0.954	1.17	1.46	1.28	1.15	<0.65	0.864	0.92	0.943	<0.65
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	3.18	2.76	3.78	4.35	5.07	4.89	1.64	1.88	3.42	3.45	6.55	5.37
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	1.64	1.65	<0.65	<0.65	0.707	1.65	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)													
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.00		0.00		1.65		0.00		1.18		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.00	0.00	1.64	1.65	0.00	0.00	0.71	1.65	0.00	0.00

Landside Surface Water Monitoring Results

Parameter	Unit	WAD Stream											
		16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	15/07/24	15/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l			<10	<10	<10	<10	<10	12.4	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<10	<5	<1	<1
Branched PFOS	ng/l	1.01	1.25	0.795	0.783	1.9	1.84	1.93	2.5	2.6	1.44	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.23
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	1.02	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.41	1.59	<0.65	0.776	2.36	1.85	1.61	1.81	1.5	1.51	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<6	8.91	4.39	4.84	4.05	6	7.99	7.3	3.64	3.63	8.37	9.1
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.78	1.88	<1	<1	1.58	1.46	2	2.83	1.98	1.75	1.57	1.96
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	2.66	2.37	<1	<1	2.31	4.86	2.15	2.4	2.1	1.96	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	3.32	4	2.01	1.7	3.17	2.95	2.95	3.26	1.95	1.91	3.61	3.68
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	7.13	9.75	4.57	4.82	5.41	5.14	4.95	6.24	2.83	2.76	9.61	10.4
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.15	<2	1.52	1.57	2.18	1.84	2.54	3.47	1.67	1.36	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<20	<10	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	1.28	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.52	2.92	1.13	1.3	2.77	2.51	1.7	2.67	2.15	1.89	1.53	2.65
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	16.1	18.7	10.3	10.9	10.7	11.3	9.83	11.6	5.33	4.85	17.9	17.3
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	2.42	2.84	0.795	1.56	4.27	3.68	3.54	4.31	4.1	2.96	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)													
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	2.63		1.18		3.98		3.93		3.53		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.42	2.84	0.80	1.56	4.27	3.68	3.54	4.31	4.10	2.96	0.00	0.00

Parameter	Unit	M1					
		22/11/23	22/11/23	02/04/24	02/04/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	0.933	0.836	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<9	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	2.15	1.55	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	11.1	5.29	9.33	9.36	6.62	6.72
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	1.14	1.05
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	1.7	1.69	1.53	1.34
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2	1.33	2.6	2.54	2.76	3.34
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	4.13	3.63	3.98	4.51	6.8	5.87
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	1.17	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.36	1.26	2.34	2.21	1.3	1.3
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	5.94	4.55	11.4	12.1	18.7	12.9
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	<0.65	<0.65	3.09	2.39	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)							
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.00		2.74		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	3.09	2.39	0.00	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	P2																
		26/01/21	05/02/21	11/02/21	12/02/21	18/02/21	28/02/21	04/03/21	12/03/21	25/03/21	01/04/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	1.22	1.62	1.22	<1	<1	<1	<1	1.25	<1	1.52	<1	<1	<1	<1	1.31	<2	1.15
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	2.14	<1	2.14	<1	<1	1.08	1.54	1.18	1.47	1.79	1.33	1.32	1.27	1.31	1.71	<2	2.11
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.42	0.783	1.42	<0.65	<0.65	0.997	1.43	1.11	1.5	1.84	1.51	1.35	1.48	1.52	2.16	2	2.4
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	19.2	15.2	19.2	7.05	8.11	25.7	20.3	19	9.68	13.7	15	31.8	9.6	<16	12.6	45.9	21.5
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	19.5	5.39	19.5	5.11	4.08	9.36	13.5	13.4	7.46	9.74	8.48	8.91	8.58	10.7	16.5	6.6	19.7
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	19.6	6.16	19.6	3.16	3.55	10.2	14.1	14.8	7.33	9.63	9.35	8.93	8.01	9.51	11.3	5.72	13.5
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.56	<1	1.56	<1	<1	<1	1.06	1.31	1.04	1.11	<1	<1	1.02	<1	<1	<2	1.03
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.08	<2	1.4
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.59	1.31	2.59	1.46	1.48	1.92	2.13	2.25	2.24	2.62	2.07	1.86	1.94	2.13	2.79	2.88	3.33
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	24.6	13.4	24.6	4.32	4.89	16.2	23.7	18.9	11.3	14.7	14.9	12.4	12.8	17	24.3	10.4	22.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	3.56	<1	3.56	<1	<1	2.07	2.97	2.29	2.97	3.63	2.84	2.67	2.75	2.84	3.88	<2	4.51
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	3.56	0.00	3.56	0.00	0.00	2.07	2.97	2.29	2.97	3.63	2.84	2.67	2.75	2.84	3.88	0.00	4.51

Airside Surface Water Monitoring Results

Parameter	Unit	P2																
		27/05/21	08/06/21	11/06/21	18/06/21	24/06/21	05/07/21	23/07/21	30/07/21	06/08/21	13/08/21	20/08/21	27/08/21	10/09/21	17/09/21	24/09/21	01/10/21	07/10/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	1.22	1.48	<1	<1	<1	<1	1.95	1.64	1.84	4.14	<1	<1	<1	1.63	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	1.9	1.67	1.69	1.79	1.71	<1	5.11	2.5	3.75	4.45	2.16	1.12	2.19	1.75	2.87	2.64	1.76
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	2	1.64	1.58	1.59	1.94	1.27	8.45	2.31	3.03	4.33	2.52	1.66	2.31	2.01	2.48	2.44	2.26
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	27.5	<12.5	14.8	19.6	13.3	18.8	28.6	30.4	29.6	48.3	29.2	12.7	28.1	24.1	29.7	28.4	25.3
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2.5	<4	<7.5	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l											<1	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	20	14.7	13.8	14.7	12.6	10.6	35.4	27.4	34.3	47.3	20.6	5.6	20.3	16.8	25.4	24.2	20.3
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	12.8	10.7	9.05	10.1	10.2	7.5	29.1	32.6	33.7	52.9	31.3	10.2	30	28.2	30	28.2	22.7
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.05	<1	<1	<1	<1	<1	1.63	2.14	2.38	3.86	1.88	1.18	2	1.85	1.84	1.87	1.56
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.15	1.26	<1	<1	1.02	<1	5.61	1.38	1.33	2.14	1.48	<1	1.5	1.21	1.68	1.52	1.27
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.94	2.87	2.71	2.87	2.59	3.44	11	3.84	4.76	7.09	4.19	2.84	3.92	3.59	3.88	3.67	3.06
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	21.9	23.5	15.2	15.5	14.4	10.7	63.8	63.1	89.9	105	39.7	16.1	32.7	32.5	51.4	43.9	36.9
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l											<1	<1	<1	1.4	<1	<1	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	3.89	3.32	3.26	3.38	3.66	1.27	13.6	4.81	6.78	8.77	4.69	2.78	4.5	3.76	5.35	5.08	4.02
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	3.89	3.32	3.26	3.38	3.66	1.27	13.60	4.81	6.78	8.77	4.69	2.78	4.50	3.76	5.35	5.08	4.02

Airside Surface Water Monitoring Results

Parameter	Unit	P2																
		18/10/21	03/11/21	12/11/21	22/11/21	03/12/21	10/12/21	21/03/23	21/03/23	30/05/23	30/05/23	15/08/23	15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	16/07/24
11Cl-PF3OUdS (763051-92-9)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l							<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l							<20	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l													<10	<10	<10	<10	12.5
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l									<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l							<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	1.08
Branched PFOS	ng/l	2.41	1.88	1.95	2.22	2.14	2.28	1.05	1.04	2.44	1.05	1.18	0.989	1.08	1.04	1.32	1.35	2.08
EtFOSAA (2991-50-6)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l									<12.5	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l									<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	2.24	1.05	1.22	1.07	1.3	1.3	0.914	0.948	2.42	1	0.7	0.757	<0.65	<0.65	1.04	1.04	2.71
MeFOSAA (2355-31-9)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l									<10	<10	<10	<10	<10	<10	<10	<10	10.1
N-EtFOSA (4151-50-2)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l									<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	30.6	28.7	32	29.2	26.9	31.5	29.6	29.7	24.1	19.8	20.2	26.9	31.9	31.5	35.6	34.2	30.8
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.02	1.04	1.18	1.09	1.32	1.59	1.14
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l							<1	<1	<2.5	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	1.33
PFEESA (113507-82-7)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	1.08
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	21.9	33.9	28.7	31.3	29.9	28.2	13.2	14.8	8.48	8.33	6.85	9.43	12	10.6	10.6	11.2	14.9
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	24.1	41.4	46.3	43	41	47.6	33	32.3	20.6	19.3	21	25.7	37.6	35.9	33.4	31.7	28.4
PFHxDA (67905-19-5)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	1.32
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.47	1.72	1.53	1.74	1.78	1.99	1.24	1.35	<1	<1	<1	1.08	1.7	1.68	1.63	1.78	2.08
PFMOBA (863090-89-5)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.31	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.01	<1	<1	<1	<1	<1	1.47
PFNS (68259-12-1)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.42	2.58	2.91	3.08	3.24	3.08	2.48	2.47	2.52	3.17	2.3	3.29	3.19	2.93	3.15	3.3	5.99
PFODA (16517-11-6)	ng/l									<1	<1	<1	<1	<1	<1	<1	1.24	1.28
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	49.3	59	70	63.6	58.6	86.5	42.6	49.9	55.7	49.9	47.6	63.5	72.9	75.5	75	77	77.5
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	1.45
PFTrDA (72629-94-8)	ng/l							<1	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l							<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	4.65	2.94	3.18	3.29	3.44	3.58	1.97	1.99	4.85	2.05	1.88	1.75	1.08	1.04	2.36	2.39	4.79
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l							1.98		3.45		1.82		1.06		2.38		4.00
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	4.65	2.94	3.18	3.29	3.44	3.58	1.97	1.99	4.85	2.05	1.88	1.75	1.08	1.04	2.36	2.39	4.79

Airside Surface Water Monitoring Results

Parameter	Unit	P2				
		16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	14.4	10.7	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1
Branched PFOS	ng/l	1.67	2.04	2.31	1.73	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.54	2.03	2.47	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	28	12.9	16.3	31.6	25.4
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	1.56	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	1.05	1.16	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	11.7	7.61	8.46	15.5	14.1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	30.1	13.1	16.4	61.3	53.2
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.5	<1	<1	2.9	3.06
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.06	<1	1.38	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	4.56	3.58	3.92	3.16	3.12
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	66.2	32.2	43.1	115	98.1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2
Total PFOS	ng/l	3.21	4.07	4.78	1.73	<0.65
SW Threshold (as per S.I No. 77 of 2019.)						
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		4.43		0.87	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	3.21	4.07	4.78	1.73	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	P3																
		26/01/21	05/02/21	12/02/21	18/02/21	28/02/21	04/03/21	12/03/21	25/03/21	01/04/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	2.93	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	1.67	<1	<1	<1	1.87	2.51	1.39	2.26	2.67	2.01	1.83	1.64	1.95	1.66	1.06	1.14	1.6
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.964	1.45	0.9	1.05	0.764	1.12	0.988	1.36	1.33	1.17	1.01	0.975	1.15	1.22	1.19	0.962	0.892
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	13.2	7.9	7.69	12	24.3	25	24.9	16.3	18	17	37.5	11.5	<25	<10.5	15.8	15.2	13.7
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<3.5	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	12.7	7.98	8.69	7.63	11.3	17.2	13	11.2	13.4	9.53	9.39	9.26	9.11	11.9	4.87	6.2	12
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	15.7	6.9	7.37	8.52	14.7	23.3	16.4	15.5	17	14.8	15.7	13.8	16.8	12.8	5.99	8.44	15.5
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.73	<1	<1	1.06	3.06	4.36	2.37	3.26	3.42	2.79	2.99	2.5	3.01	2.25	<1	1.67	2.45
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.44	2.02	1.88	1.98	2.35	3.14	2.53	2.63	2.74	2.55	2.3	1.62	2.62	2.37	1.45	1.23	2.05
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	26.7	11	14.2	14.9	29.9	47.6	28.7	28	29.7	29.2	27.1	28.3	36.6	23.7	13.6	17.2	30.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	2.63	1.45	<1	1.05	2.63	3.63	2.38	3.62	4	3.17	2.84	2.61	3.1	2.87	2.24	2.1	2.5
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.63	1.45	0.00	1.05	2.63	3.63	2.38	3.62	4.00	3.17	2.84	2.61	3.10	2.87	2.24	2.10	2.50

Airside Surface Water Monitoring Results

Parameter	Unit	P3																
		08/06/21	11/06/21	18/06/21	24/06/21	05/07/21	23/07/21	30/07/21	06/08/21	13/08/21	20/08/21	27/08/21	10/09/21	17/09/21	24/09/21	01/10/21	07/10/21	18/10/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	19.6	1.04	1.36	1.28	1.65	<1	<1	1.9	2.02	1.4	1.1	<1	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	1.47	1.85	2.3	2.27	<5	2.23	1.44	1.92	1.72	0.961	1.26	1.33	1.05	1.56	1.45	0.938	0.932
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.908	1.29	1.45	1.39	9.37	2.7	2	2.54	2.38	1.41	1.74	3.94	1.51	2.17	1.88	1.64	1.73
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<14	14.9	14	13.3	30.2	14.4	11.3	10.8	12.7	8.59	12.2	<7.5	8.26	<15	<4.5	13.6	12.8
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<5	<1	<1.5	<2	<2	<1	<3.5	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l										<1	<1	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	8.35	8.06	8.66	5.59	14.3	9.59	6.21	7.07	9.15	5.23	5.39	7.89	6.09	4.97	3.93	4.52	4.7
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	13.1	12.6	14.7	13	16.4	12.4	9.07	9.03	12	9.05	10.2	10.1	9.67	7.27	7.83	7.54	7.6
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.29	2.49	2.42	2.67	<5	2.34	1.39	1.41	1.62	1.08	1.13	<1	1.09	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	1.28	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.19	2.16	2.17	2.23	6.11	3.7	2.19	2.18	2.36	1.92	1.69	2.86	1.75	1.41	1.6	1.5	1.46
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	25.6	25.5	32.8	30.4	28.9	22.7	18.1	17.7	24.4	15.5	16.6	14.7	18.6	12	11.6	11.5	9.04
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l										<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	2.38	3.14	3.75	3.67	9.37	4.93	3.44	4.46	4.11	2.37	3	5.27	2.56	3.73	3.33	2.58	2.66
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.38	3.14	3.75	3.67	9.37	4.93	3.44	4.46	4.11	2.37	3.00	5.27	2.56	3.73	3.33	2.58	2.66

Airside Surface Water Monitoring Results

Parameter	Unit	P3																
		03/11/21	12/11/21	22/11/21	03/12/21	10/12/21	21/03/23	21/03/23	30/05/23	30/05/23	15/08/23	15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	16/07/24	16/07/24
11Cl-PF3OUdS (763051-92-9)	ng/l								<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l								<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l						<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l						<20	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l												<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l								<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	1.56	1.73	1.63	1.82	1.76	1.16	1.13	0.809	0.905	1.67	1.6	0.956	1.22	1.8	1.56	1.26	1.57
EtFOSAA (2991-50-6)	ng/l								<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l								<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l								<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l								<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.665	<0.65	<0.65	0.691	0.656	<0.65	0.706	0.727	0.826	0.728	0.812	<0.65	<0.65	0.689	0.876	0.868	1.32
MeFOSAA (2355-31-9)	ng/l								<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l								<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l								<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	17.6	17.4	16.7	17.3	17	15.5	13.5	11.5	9.38	10.4	10.4	19.1	18.3	19.2	17.4	15.9	13.4
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.06	1.06	1.03	1.01	1.14	1.24	<1	1.02
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l						<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l								<1	<1	<1	<1	<1	<1	<1	1.07	<1	1.23
PFEESA (113507-82-7)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	18.3	15.2	17.2	16.2	16.6	6.35	6.06	3.35	3.01	4.15	4.43	7.19	7.08	6.56	6.25	5.2	5.3
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	24.2	23.1	22.5	22.7	23.4	12.7	11.5	9.11	7.83	9.58	11.5	17.7	17.4	16.7	15.2	12.4	11.3
PFHxDA (67905-19-5)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.94	1.99	1.84	1.88	1.84	1.9	1.76	1.54	2.1	2.17	3.53	2.5	2.01	2.75	2.86	2.03	2.43
PFMOBA (863090-89-5)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.38	2.29	2.07	2.38	2.22	1.69	1.56	1.17	0.783	1.82	1.67	1.98	1.93	1.89	2.11	1.67	2.54
PFODA (16517-11-6)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	45.2	37.6	36.6	40	38.5	17.7	14.6	23.7	22	20.5	22.2	35.6	34.5	38.4	36.2	28.2	28.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l								<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l						<1	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l						<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	2.23	1.73	1.63	2.51	2.41	1.16	1.84	1.54	1.73	2.4	2.41	0.956	1.22	2.49	2.43	2.12	2.89
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l						1.50		1.64		2.41		1.09		2.46		2.51	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.23	1.73	1.63	2.51	2.41	1.16	1.84	1.54	1.73	2.40	2.41	0.96	1.22	2.49	2.43	2.12	2.89

Airside Surface Water Monitoring Results

Parameter	Unit	P3			
		02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<10	<1	<1	<1
Branched PFOS	ng/l	1.41	1.25	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.03	0.805	0.674	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	7.06	6.01	14.2	12
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	1.03	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	1.23	1.15	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2.98	2.33	9.88	8.32
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	7.49	5.9	21.5	20.7
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.17	<1	2.64	1.15
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<20	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.63	1.42	3.92	2.3
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	15.1	14.1	43.6	35.4
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2
Total PFOS	ng/l	2.44	2.06	0.674	<0.65
SW Threshold (as per S.I No. 77 of 2019.)					
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	2.25		0.34	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.44	2.06	0.67	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	P4																
		28/02/21	04/03/21	12/03/21	25/03/21	01/04/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	08/06/21	11/06/21	18/06/21	24/06/21	05/07/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	31.9	126	31.4	8.99	15.3	7.01	9.41	5.26	6.35	24.9	14.9	4	11.4	3.09	3.06	3.64	3.64
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	7	11.8	4.7	4.51	5.7	4.77	4.92	4.67	2.94	10.7	7.63	2.31	5.95	1.69	2.27	1.54	1.56
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	7.17	16.4	6.16	4	4.45	4.18	4.06	3.43	2.48	9.86	8.46	3.62	6.87	3.2	4.01	2.45	3.16
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	25.6	40.3	25.1	25.8	45	29.7	46.8	18.3	<30	23.6	34.7	25.9	<20	14.2	14.6	14.9	17.3
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	1.26	1.03	1.06	1.37	1.54	1.27	1.44	<1	1.46	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	18.9	47.6	14.8	14.5	23.4	15.7	19.3	13	14.6	23.3	14.7	17.2	13.6	10.5	10.2	8.78	15.1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	29.7	68.7	28	35.3	48.8	49.2	42.5	35.1	43.7	39.2	44.3	21.8	33.6	19.2	21.9	15.4	15.7
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	4.7	9.55	4.91	4.81	6.2	5.3	5.35	4.2	4.2	5.85	6.31	2.85	5.64	1.73	1.82	1.54	1.19
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.39	2.52	1.38	1.2	1.55	1.47	1.34	1.44	1.39	2.95	1.76	1.43	1.72	1.26	1.21	1.2	1.22
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	4.18	9.27	3.92	3.89	6.44	4.65	4.99	4.23	5.48	7.93	4.65	4.78	3.95	2.94	3.06	3.54	4.08
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	66.5	136	53.5	71.9	92.4	96.8	83.9	72.1	96.6	100	91.6	50	73.9	56.2	43.4	26	25.2
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	14.2	28.2	10.9	8.51	10.1	8.95	8.99	8.09	5.41	20.5	16.1	5.94	12.8	4.89	6.28	4	4.72
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	14.20	28.20	10.90	8.51	10.10	8.95	8.99	8.09	5.41	20.50	16.10	5.94	12.80	4.89	6.28	4.00	4.72

Airside Surface Water Monitoring Results

Parameter	Unit	P4																
		23/07/21	30/07/21	06/08/21	13/08/21	27/08/21	10/09/21	24/09/21	01/10/21	07/10/21	18/10/21	03/11/21	12/11/21	22/11/21	03/12/21	10/12/21	16/08/23	16/08/23
11Cl-PF3OUdS (763051-92-9)	ng/l																<2	<2
3:3 FTCA (356-02-5)	ng/l																<2	<2
4:2 FTS (757124-72-4)	ng/l																<1	<1
5:3 FTCA (914637-49-3)	ng/l																<5	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	3.46	2.28	2.39	2.75	1.28	<1	1.99	<1	1.35	1.31	34.5	41.9	<1	1.24	<10	1.39	1.34
7:3 FTCA (812-70-4)	ng/l																<5	<5
8:2 FTS (39108-34-4)	ng/l																<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																<1	<1
ADONA (919005-14-4)	ng/l																<1	<1
Branched PFOS	ng/l	1.92	1.92	2.68	1.94	1.48	1.5	1.55	1.52	1.72	1.48	7.08	7.85	1.58	1.78	<6.5	1.27	0.942
EtFOSAA (2991-50-6)	ng/l																<2	<2
EtFOSE (1691-99-2)	ng/l																<10	<10
FBSA (30334-69-1)	ng/l																<1	<1
FHxSA (41997-13-1)	ng/l																<1	<1
HFPO-DA (13252-13-6)	ng/l																<2	<2
HFPO-TA (13252-14-7)	ng/l																<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	3.76	2.85	2.57	2.81	1.7	1.65	1.86	1.98	1.24	1.18	4.75	5.24	1.59	1.67	<6.5	1.45	1.31
MeFOSAA (2355-31-9)	ng/l																<2	<2
MeFOSE (24448-09-7)	ng/l																<10	<10
N-EtFOSA (4151-50-2)	ng/l																<1	<1
NFDHA (151772-58-6)	ng/l																<3	<3
N-MeFOSA (31506-32-8)	ng/l																<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	10.8	16.6	14.1	16.9	12.1	11.9	9.23	8.9	11.9	14.8	24.8	25.3	11	13	<20	12.3	15.5
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	1.17	1.11
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<2	<2
PFDoS (79780-39-5)	ng/l																<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<2	<2
PFecHS (133201-07-7)	ng/l																<1	<1
PFEESA (113507-82-7)	ng/l																<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	6.99	9.07	9.74	9.16	5.89	5.36	4.23	4.1	7.13	6.98	20.6	19.9	10.9	14.1	12.1	7.2	8.32
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	15.5	18.7	17.3	17.6	15.7	15.9	9.63	9.18	14.7	14.2	42	44.3	20.2	19.4	22.6	13.7	16
PFHxDA (67905-19-5)	ng/l																<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.53	1.63	1.6	1.64	1.31	1.43	<1	<1	<1	1.25	4.99	5.42	2.12	2.01	<10	5.52	2.76
PFMOBA (863090-89-5)	ng/l																<1	<1
PFMOPrA (377-73-1)	ng/l																<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.24	1.22	1.03	1.17	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1
PFNS (68259-12-1)	ng/l																<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.64	4.95	3.29	3.28	2.06	2.01	2.16	2.02	2.76	2.58	5.07	6.01	3.91	3.99	<6.5	4.3	5.25
PFODA (16517-11-6)	ng/l																<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	26.5	32.3	43.1	35.6	27.3	23.8	19.1	17.4	18.2	26.1	85.7	78.9	42.5	45.3	40.2	30.3	42.1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1
PFTeA (376-06-7)	ng/l																<1	<1
PFTrDA (72629-94-8)	ng/l																<3	<3
PFTrDS (174675-49-1)	ng/l																<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<2	<2
PFUnDS (749786-16-1)	ng/l																<2	<2
Total PFOS	ng/l	5.67	4.78	5.25	4.75	3.17	3.14	3.41	3.51	2.96	2.66	11.8	13.1	3.17	3.44	<6.5	2.72	2.25
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																2.49	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	5.67	4.78	5.25	4.75	3.17	3.14	3.41	3.51	2.96	2.66	11.80	13.10	3.17	3.44	0.00	2.72	2.25

Airside Surface Water Monitoring Results

Parameter	Unit	P4									
		22/11/23	22/11/23	02/04/24	02/04/24	16/07/24	16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	53	44.1	27.1	22.9	34.3	38.4	12.8	24.2	55.8	35.4
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	5.5	4.24	7.91	8.03	1.12	<1	<1	<1	22.4	18.7
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	2.06	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	1.61	1.65	2.75	3.03	1.78	1.46	1.94	1.89	4.76	6.2
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	1.24	1.21	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.27	0.951	3.81	3.57	1.54	1.34	1.57	1.84	2.57	2.78
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	14.7	15.3	14.1	15.5	14.6	12.7	9.25	9.66	18.1	21
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.06	1.08	1.36	<1	1.14	<1	<1	1.33	1.47	1.58
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	1.62	1.55	1.36	1.18	3.07	3.18	1.77	2.52
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	10.2	10.1	6.6	6.38	10.5	7.97	5.02	5.76	12.4	11.7
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	18.3	18.7	12.8	15.1	20.2	17.6	9	10.6	37.4	39.3
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.33	2.57	2.51	2.42	2.25	1.92	1.75	2.42	5.98	5.72
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	1.15	1.05	<1	1.12	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	4.31	4.39	3.47	3.62	5.02	3.87	3.1	3.44	6.16	6.27
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	41.4	44.4	31.5	32.8	36.8	34	23.2	23.9	79.4	91
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.13
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	2.88	2.6	6.57	6.6	3.32	2.8	3.51	3.73	7.33	8.97
SW Threshold (as per S.I No. 77 of 2019.)											
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	2.74		6.59		3.06		3.62		8.15	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.88	2.60	6.57	6.60	3.32	2.80	3.51	3.73	7.33	8.97

Airside Surface Water Monitoring Results

Parameter	Unit	P7																
		26/01/21	05/02/21	12/02/21	18/02/21	28/02/21	04/03/21	12/03/21	25/03/21	01/04/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	9.6	2.84	<1	<1	1.65	<1	<1	<1	<1	<1	<1	<1	1.32	<1	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	1.3	1.02	<1	1.03	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.4	1.17	1.22	1.53	0.833	0.819	0.734	1.02	0.764	1.38	1.12	1.18	1.37	0.816	1.9	1	0.931
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	9.73	22.4	<14	13.3	12.6	11.5	15.5	6.38	10.4	10.7	28.6	7.22	<23	<12.5	10.9	15.4	22.2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	1.58	<1	<1	<1	<1	<1	<1	1.14	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	8.85	9.76	16.1	11.9	2.97	3.53	7.39	2.94	2.89	3.4	4.95	9.14	8.24	24	6.02	12.4	12.1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	8.41	9.46	9.34	10.8	3.69	3.99	8.09	2.85	2.82	3.49	4.33	5.33	6.46	10.1	6.9	8.36	8.99
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	1.17	1.29	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.42	2.22	3.59	4.18	1.07	0.829	1.27	1.17	1.04	1.47	1.65	1.61	2.12	2.59	2.62	2.62	1.6
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	13.1	16.5	16.5	18.3	8.72	10.5	13.4	6.15	9.65	7.38	7.64	9.38	15.2	21.6	13.4	18.5	20.2
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	1.32	<1	<1	<1	<1	<1	<1	1.49	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	2.7	2.19	1.22	2.57	<1	<1	<1	1.02	<1	1.38	1.12	1.18	1.37	<1	1.9	1	<1
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.70	2.19	1.22	2.57	0.00	0.00	0.00	1.02	0.00	1.38	1.12	1.18	1.37	0.00	1.90	1.00	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	P7																
		08/06/21	11/06/21	18/06/21	24/06/21	23/07/21	30/07/21	06/08/21	13/08/21	20/08/21	27/08/21	10/09/21	17/09/21	24/09/21	01/10/21	07/10/21	18/10/21	03/11/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	1.27	1.42	1.41	1.48	1.55	5.31	6.53	8.07	2.12	1.81	1.59	1.86	1.37	1.4	4.23	5.09	1.6
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.873	0.957	0.941	1.84	2.09	1.42	1.55	2.19	3.37	3.02	2.76	3.03	1.85	2.05	1.65	1.45	0.681
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<17	22.3	22.1	16.5	11.5	143	131	214	24.7	25.7	18.9	19.6	<50	<15	79.7	80.9	22.8
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	1.57	1.41	2.57	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1.5	<3.5	<3	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	24.1	28.7	26.5	22.1	12.8	130	298	156	23.4	25	25.3	22.9	9.7	9.2	165	125	18.5
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	22	24.4	24.4	18.3	10.5	267	264	404	29.7	30.1	26.4	27.9	9.22	9.04	161	142	22.6
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.12	2.1	2.08	1.83	<1	13.7	13.4	21.4	1.93	1.49	1.53	1.59	<1	<1	8.7	8.17	1.49
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	1.14	1	<1	<1	1.17	2.3	2.25	1.9	2.25	1.43	1.39	<1	<1	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.94	2.2	2.09	2.92	3.15	8.82	9.24	12.9	5.38	4.78	4.93	4.91	2.75	2.75	9.41	8.59	1.8
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	41.5	38.1	33.7	28.2	29	341	384	797	45.2	51.7	43.8	46.3	14.9	17.4	226	218	44.7
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	2.14	2.37	2.35	3.32	3.64	6.73	8.08	10.3	5.5	4.83	4.35	4.89	3.22	3.45	5.89	6.54	2.28
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.14	2.37	2.35	3.32	3.64	6.73	8.08	10.30	5.50	4.83	4.35	4.89	3.22	3.45	5.89	6.54	2.28

Airside Surface Water Monitoring Results

Parameter	Unit	P7																
		12/11/21	22/11/21	03/12/21	10/12/21	21/03/23	21/03/23	30/05/23	30/05/23	15/08/23	15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	16/07/24	16/07/24	02/10/24
11Cl-PF3OUdS (763051-92-9)	ng/l							<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l							<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l					<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l					<20	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l											<10	<10	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.21	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l							<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l					<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	1.54	1.5	1.42	1.45	0.767	0.777	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.714	0.689	1.85	1.83	0.918
EtFOSAA (2991-50-6)	ng/l							<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l							<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l							<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l							<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.721	0.768	<0.65	0.663	<0.65	<0.65	<0.65	<0.65	<0.65	0.787	<0.65	<0.65	0.681	<0.65	1.83	1.94	0.933
MeFOSAA (2355-31-9)	ng/l							<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l							<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l							<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	25.3	24.7	23.1	23.9	35.6	27.8	27.2	20.7	21	21.9	28.8	28.2	24.9	30.3	19.4	21.4	8.7
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.16	1.12	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l					<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	1.63	1.71	<1
PFEESA (113507-82-7)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	21	20.3	18.4	17	8.89	7.45	4.37	4.39	3.84	4.21	6.35	5.89	4.69	5.27	7.65	8.18	1.91
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	25.8	24.6	23.7	25.3	16.4	14.2	8.44	8.22	7.37	6.56	15	16.8	10.7	11.6	14.6	15.7	5.38
PFHxDA (67905-19-5)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.63	1.54	1.59	1.47	1.09	1.08	<1	<1	1.21	1.06	<1	1.01	<1	<1	2.45	2.29	<1
PFMOBA (863090-89-5)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.23	1.33	<1
PFNS (68259-12-1)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.41	2.15	2.09	2.34	2.41	1.82	1.84	1.85	1.5	1.82	1.76	1.81	1.81	1.83	5.14	5.44	1.53
PFODA (16517-11-6)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	46.3	58.6	40.3	50.5	20.8	22.9	23.7	23.5	16.4	18.5	35.9	40.2	28.9	32	34.5	36.4	12.7
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l					<1	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l					<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	2.26	2.26	1.42	2.11	0.767	0.777	<0.65	<0.65	<0.65	0.787	<0.65	<0.65	1.39	0.689	3.69	3.76	1.85
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l					0.77		0.00		0.39		0.00		1.04		3.73		0.93
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.26	2.26	1.42	2.11	0.77	0.78	0.00	0.00	0.00	0.79	0.00	0.00	1.39	0.69	3.69	3.76	1.85

Airside Surface Water Monitoring Results

Parameter	Unit	P7		
		02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	13.3	13.2	13.2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2.89	5.91	5.9
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	7.37	12.9	12.8
PFHxDA (67905-19-5)	ng/l	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	1.5	1.22
PFMOBA (863090-89-5)	ng/l	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.95	1.63	1.66
PFODA (16517-11-6)	ng/l	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	18.7	27.8	28.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2
Total PFOS	ng/l	<0.65	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)				
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	P8																
		26/01/21	05/02/21	12/02/21	18/02/21	28/02/21	04/03/21	12/03/21	25/03/21	01/04/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	2.24	2.43	15	20.8	34.4	48.6	25.6	26.3	29.4	20.1	20.2	17.9	5.7	11.2	31.1	10.7	13.6
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	<1	<1	1.39	<5	2.12	2.85	1.1	1.53	1.71	1.71	1.91	1.76	<2	1.44	1.8	<1	<1
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.74	1.07	3.69	5.27	5.93	12.6	3.19	4.16	4.26	4.88	4.94	4.82	3.02	5.52	5.13	2.49	2.8
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	20.5	6.57	<13.5	<33	<24	<13.5	12.7	<10	<40.5	<10	<60	<33	<44	<11.5	21.8	13.7	24.5
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	12.4	5.19	21.9	9.87	9.71	13.8	5.19	7.67	11.3	11.9	9.18	10.1	7.45	14.9	14	5.73	5.82
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	27.3	4.47	13.7	17.4	6.76	9.01	5.29	6.71	7.75	7.48	8.35	6.96	3.83	6.61	7.92	3.46	4.53
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.05	<1	2.18	<5	1.05	1.67	<1	1.02	1.13	1.03	<1	1.03	<2	<1	1.03	<1	<1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	1.41	<5	1.23	1.08	<1	1	<1	1.4	1.12	1.38	<2	1.59	1.05	<1	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.24	0.97	3.49	5.12	3.7	4.12	1.99	2.86	3.02	3.47	3.02	3.01	2.43	3.3	3.07	1.44	1.37
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	49.2	6.2	25.8	27.9	13.4	17.9	8.59	9.82	12.1	15.4	10.4	10	7.69	10.4	11.9	5.99	8.13
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	1.74	1.07	5.08	5.27	8.05	15.4	4.29	5.69	5.97	6.58	6.85	6.59	3.02	6.96	6.94	2.49	2.8
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	1.74	1.07	5.08	5.27	8.05	15.40	4.29	5.69	5.97	6.58	6.85	6.59	3.02	6.96	6.94	2.49	2.80

Airside Surface Water Monitoring Results

Parameter	Unit	P8																
		08/06/21	11/06/21	18/06/21	24/06/21	23/07/21	30/07/21	06/08/21	13/08/21	20/08/21	27/08/21	10/09/21	24/09/21	01/10/21	07/10/21	18/10/21	03/11/21	12/11/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	20.6	9.37	11.9	6.73	7.2	13.5	12.7	21	1.9	1.49	1.57	1.45	1.48	<1	<1	<10	13
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	1.74	1.73	2.1	1.63	3.12	2.6	2.67	4.39	1.78	1.81	1.36	1.84	1.93	0.972	0.949	<6.5	<6.5
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	4.46	4.13	5.13	4.2	7.46	6.13	6.01	10.7	5.03	4.78	4.25	4.96	5.29	2.71	2.4	<6.5	<6.5
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<7	<10	10.4	6.23	12.4	11.5	9.75	17.8	<50	<20	<8	<21	<41	14.9	12.8	<20	<20
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1.5	<1.5	<2	<2.5	<3	<1.5	<1	<1	<1	<1	<1	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l									<1	<1	<	<1	<1	<1	<1	<10	<10
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	8.07	7.86	9.26	9.57	14.1	10.3	9.13	15	8.21	8.27	9.95	10.3	11.4	4.39	4.3	<10	<10
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	7.15	6.72	8.82	7.39	15	12.7	12.1	18.2	16.6	14.3	11.8	13.7	14.4	6.97	6.91	<10	<10
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.01	1.07	1.22	1.17	2.27	1.6	1.55	2.26	<1	<1	<1	<1	<1	<1	<1	<10	<10
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.03	1.24	1.44	1.67	2.01	1.29	1.39	2.81	1.62	1.45	1.31	1.33	1.24	<1	<1	<10	<10
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.88	2.95	3.2	3.43	4.32	3.78	3.55	5.41	3.83	4.11	3.55	3.94	4.18	1.58	1.45	<6.5	<6.5
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	19.8	10.2	11.7	7.39	37.1	24.4	23.4	36.6	24.1	23.6	21.5	27.9	28	10.1	11.2	<10	<10
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l									<1	<1	<1	<1	<1	<1	<1	<10	<10
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	6.19	5.86	7.22	5.83	10.6	8.73	8.68	15.1	6.82	6.59	5.61	6.8	7.21	3.68	3.35	<6.5	<6.5
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	6.19	5.86	7.22	5.83	10.60	8.73	8.68	15.10	6.82	6.59	5.61	6.80	7.21	3.68	3.35	0.00	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	P8																
		22/11/21	03/12/21	10/12/21	21/03/23	21/03/23	30/05/23	30/05/23	15/08/23	15/08/23	22/11/23	22/11/23	02/04/24	02/04/24	16/07/24	16/07/24	02/10/24	02/10/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
3:3 FTCA (356-02-5)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
4:2 FTS (757124-72-4)	ng/l				<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
5:3 FTCA (914637-49-3)	ng/l				<20	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25
6:2 FTAB (34455-29-3)	ng/l										<10	<10	<10	<10	<10	<10	<10	<50
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	11	<10	11.4	1.17	1.22	<1	<1	<1	<1	2.25	<1	<1	<1	<1	<1	<1	<5
7:3 FTCA (812-70-4)	ng/l						<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25
8:2 FTS (39108-34-4)	ng/l				<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
ADONA (919005-14-4)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<5
Branched PFOS	ng/l	0.87	<6.5	0.882	0.816	0.824	1.88	1.38	1.16	1.16	<0.65	<0.65	<0.65	<0.65	1.06	1.46	1.19	<3.25
EtFOSAA (2991-50-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
EtFOSE (1691-99-2)	ng/l						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50
FBSA (30334-69-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
FHxSA (41997-13-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
HFPO-DA (13252-13-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
HFPO-TA (13252-14-7)	ng/l						<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.41	<6.5	1.37	1.18	1.01	1.84	1.35	1.2	1.06	<0.65	<0.65	<0.65	<0.65	1.25	1.27	1.09	<3.25
MeFOSAA (2355-31-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
MeFOSE (24448-09-7)	ng/l						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50
N-EtFOSA (4151-50-2)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10
NFDHA (151772-58-6)	ng/l						<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15
N-MeFOSA (31506-32-8)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	5.71	<20	7.4	7.19	<4	5.2	3.24	7.29	6.76	6.51	6.52	3.2	5.35	4.61	5.68	2.73	<10
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<10	<1	<1	<1	<1	<1	1.09	1.09	<1	<1	<1	<1	<1	<1	<1	<5
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<10	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<10	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
PFDoS (79780-39-5)	ng/l				<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<10	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
PFecHS (133201-07-7)	ng/l						<1	<1	<1	<1	<1	<1	1.71	1.68	3.03	2.78	1.48	<5
PFEESA (113507-82-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	3.47	<10	3.75	2.32	2.09	2.32	1.14	4.11	5.17	2.37	2.43	1.84	1.89	2.21	2.03	<1	<5
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	6.06	<10	5.84	4.62	5.25	5.13	3.94	11.3	12.2	4.73	5.26	3.56	3.4	5.44	4.84	1.87	<5
PFHxDA (67905-19-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<10	<1	<1	<1	<1	<1	1.64	1.55	<1	<1	<1	<1	1.63	<1	<1	<5
PFMOBA (863090-89-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFMOPrA (377-73-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<15	<5
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<10	<1	<1	<1	<1	<1	1.06	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFNS (68259-12-1)	ng/l				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.51	<6.5	1.56	1.43	1.16	0.826	0.818	2.24	2.65	1.22	1.01	1.12	1.18	1.06	1.6	1.09	<3.25
PFODA (16517-11-6)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	6.82	<10	7.5	6.71	5.01	10.8	8.95	23.6	24.4	7.31	9.3	6.16	6.77	8.99	10.3	4.04	<5
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFTeA (376-06-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFTrDA (72629-94-8)	ng/l				<1	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15
PFTrDS (174675-49-1)	ng/l				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<10	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
PFUnDS (749786-16-1)	ng/l				<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10
Total PFOS	ng/l	2.28	<6.5	2.25	1.99	1.83	3.72	2.73	2.36	2.22	<0.65	<0.65	<0.65	<0.65	2.32	2.73	2.27	<3.25
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l				1.91		3.23		2.29		0.00		0.00		2.53		1.14	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.28	0.00	2.25	1.99	1.83	3.72	2.73	2.36	2.22	0.00	0.00	0.00	0.00	2.32	2.73	2.27	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	P8	
		11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5
6:2 FTAB (34455-29-3)	ng/l	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1
Branched PFOS	ng/l	1.04	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.794	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	4.5	3.51
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2
PFecHS (133201-07-7)	ng/l	2.75	1.5
PFEESA (113507-82-7)	ng/l	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2.16	1.52
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	3.13	3.91
PFHxDA (67905-19-5)	ng/l	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.17	<0.65
PFODA (16517-11-6)	ng/l	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	9.63	7.96
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2
Total PFOS	ng/l	1.84	<0.65
SW Threshold (as per S.I No. 77 of 2019.)			
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.92	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	1.84	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	R1																
		28/02/21	04/03/21	12/03/21	25/03/21	01/04/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21	08/06/21	11/06/21	18/06/21	24/06/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	8.79	14.7	27.4	7.5	21.7	11.2	8.93	6.67	<1	10.3	6.64	<1	<1	3.39	3.78	1.97	2.46
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	1.72	2.13	2.3	1.56	2.2	1.96	1.78	1.49	<1	1.87	1.91	<1	<1	2.28	<1	<1	<1
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	2.33	2.74	4.35	1.9	2.47	2.98	3.17	2.94	<0.65	2.81	3.99	<0.65	<0.65	3.97	1.46	1.57	2.04
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	14.9	15.7	23	13.4	17.1	15.7	45.3	12.7	<10	9.2	11	29.2	<2	<9	14.5	13.1	14.2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	7.87	11.5	7.54	6.81	13.2	7.17	7.23	8.63	<5	10.3	7.91	<1	<1.5	5.53	5.26	5.08	4.22
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	14.1	25	12.2	16.5	23	11.5	10.1	7.49	<5	11.8	7.53	<1	<1	8.19	3.68	3.63	4.18
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.28	2.91	1.87	2.12	2.85	1.68	1.49	1.25	<1	1.67	1.09	<1	<1	1.22	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	1.04	<1	<1	1.06	1.43	<1	<1	1.57	<1	<1	1.16	<1	1.19	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.6	3.89	2.28	3.02	2.92	2.84	2.28	2.25	1.41	2.68	3.46	<0.65	<0.65	1.89	1.72	1.57	2.59
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	26.5	47.2	20.6	27.9	42.6	22.1	13.8	10.1	<5	28.2	11.8	<1	<1	21.3	2.83	3.3	3.63
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	4.05	4.87	6.65	3.46	4.67	4.94	4.95	4.43	<1	4.68	5.9	<1	<1	6.25	1.46	1.57	2.04
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	4.05	4.87	6.65	3.46	4.67	4.94	4.95	4.43	0.00	4.68	5.90	0.00	0.00	6.25	1.46	1.57	2.04

Airside Surface Water Monitoring Results

Parameter	Unit	R1																
		05/07/21	23/07/21	30/07/21	06/08/21	13/08/21	27/08/21	10/09/21	07/10/21	18/10/21	03/11/21	12/11/21	22/11/21	03/12/21	10/12/21	22/03/23	22/03/23	30/05/23
11Cl-PF3OUdS (763051-92-9)	ng/l																	<2
3:3 FTCA (356-02-5)	ng/l																	<2
4:2 FTS (757124-72-4)	ng/l															<2	<2	<1
5:3 FTCA (914637-49-3)	ng/l															<20	<20	<5
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	3.24	3.77	3.47	3.92	4.8	1.63	1.48	<1	<1	11.2	19.9	13.6	15.6	12.4	8.06	9.15	4.87
7:3 FTCA (812-70-4)	ng/l																	<5
8:2 FTS (39108-34-4)	ng/l															<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l																	<1
ADONA (919005-14-4)	ng/l																	<1
Branched PFOS	ng/l	1.45	1.93	2.05	1.93	2.75	1.32	1.71	0.717	<0.65	3.68	5.27	3.53	4.13	3.32	1.61	1.57	4.08
EtFOSAA (2991-50-6)	ng/l																	<2
EtFOSE (1691-99-2)	ng/l																	<10
FBSA (30334-69-1)	ng/l																	<1
FHxSA (41997-13-1)	ng/l																	<1
HFPO-DA (13252-13-6)	ng/l																	<2
HFPO-TA (13252-14-7)	ng/l																	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	2.82	3.69	2.91	2.45	3.95	1.53	1.7	<0.65	<0.65	2.66	3.68	2.66	2.93	2.55	2.83	2.92	4.05
MeFOSAA (2355-31-9)	ng/l																	<2
MeFOSE (24448-09-7)	ng/l																	<10
N-EtFOSA (4151-50-2)	ng/l																	<1
NFDHA (151772-58-6)	ng/l																	<3
N-MeFOSA (31506-32-8)	ng/l																	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	16	11.9	17.4	16.7	22.9	11.2	12.6	6.16	<19	17.8	21.3	15.8	18	16.1	7.67	10.7	13.5
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l															<1	<1	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFecHS (133201-07-7)	ng/l																	<1
PFEESA (113507-82-7)	ng/l																	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	15.4	5.79	9.37	11.6	14.7	5.64	5.68	3.07	3.19	13.6	19.1	15.2	16.5	15.7	3.81	4.37	10.3
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	16	15.1	17.9	17.9	27.3	13.7	16.6	4.59	4.87	28	32.9	26.5	29.5	26.2	8.92	10.7	19.1
PFHxDA (67905-19-5)	ng/l																	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.16	1.62	1.91	1.56	2.55	1.23	1.46	<1	<1	2.71	3.88	2.91	3.38	3.05	1.42	1.4	2.16
PFMOBA (863090-89-5)	ng/l																	<1
PFMOPrA (377-73-1)	ng/l																	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.28	1.19	1.11	1.17	1.95	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l															<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.82	2.9	4.45	3.08	4.5	2.34	2.37	0.758	0.899	4.18	4.48	4.11	4.32	4.14	2.3	2.59	5.37
PFODA (16517-11-6)	ng/l																	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	24	25.7	36.5	46.3	54.3	27.7	27	10.4	11.4	57.1	64.8	59.7	70	59.8	14.1	13.2	49.5
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	<1
PFTrDA (72629-94-8)	ng/l															<1	<1	<3
PFTrDS (174675-49-1)	ng/l															<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l															<1	<1	<2
Total PFOS	ng/l	4.27	5.62	4.96	4.38	6.7	2.84	3.41	0.717	<0.65	6.35	8.95	6.19	7.06	5.87	4.44	4.49	8.13
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l															4.47		5.78
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	4.27	5.62	4.96	4.38	6.70	2.84	3.41	0.72	0.00	6.35	8.95	6.19	7.06	5.87	4.44	4.49	8.13

Airside Surface Water Monitoring Results

Parameter	Unit	R1													R2			
		30/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	02/10/24	02/10/24	11/12/24	11/12/24	04/03/21	12/03/21	25/03/21	01/04/21
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2				
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2				
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5				
6:2 FTAB (34455-29-3)	ng/l				75.2	74.7	28.7	23	126	132	53.2	38.8	31.8	28.5				
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	6.16	3.38	2.66	6.66	7.27	<2	1.47	21.6	23.5	1.8	2.24	5.73	6.86	130	53.9	78.5	142
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5				
8:2 FTS (39108-34-4)	ng/l	<2	2.13	<2	<2	<2	<4	<2	2.71	3.03	2.5	2.87	<2	<2				
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<2	<1	8.09	<1	<5	<1	<1	<1				
Branched PFOS	ng/l	1.72	2.45	2.12	1.78	1.63	2.34	1.66	4.78	4.38	2.98	2.23	4.9	4.22	9.66	3.42	5.06	7.88
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2				
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10				
FBSA (30334-69-1)	ng/l	<1	<1	<1	1.03	1.1	<2	<1	<1	<1	<1	<1	<1	<1				
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2				
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5				
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	1.7	2.28	2.15	1.48	1.3	3.03	2.73	9.65	9.66	4.73	6.15	4.1	2.89	22.1	9.23	11.9	16.5
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2				
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10				
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<6	<3	<3	<3	<3	<3	<3	<3				
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	12.8	13.3	12.9	13.8	14.1	14.4	12.3	17.5	17.3	9.15	10.4	20.2	15.7	41.1	22.7	22.3	34.1
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	1.11	<1	1.07	<2	1.04	<1	<1	<1	<1	1.62	1.3	<1	<1	<1	<2
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2				
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2				
PFecHS (133201-07-7)	ng/l	<1	2.38	<1	3.35	3.77	3.06	2.33	3.52	3.35	3.61	4.17	2.61	3.33				
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	7.68	7.27	6.88	7.08	6.76	5.93	4.53	13.1	12	5.63	5.7	10.4	10.3	52.4	14	29.2	35.8
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	18.3	19.6	17	21.3	20.8	9.47	8.1	31.2	28.5	10.7	11	29.1	27.6	36.8	15.4	22	33
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.77	3.18	5.6	2.88	2.83	2.87	1.52	3.44	3.46	1.51	1.67	5.08	4.5	12.3	4.65	7.12	9.74
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<2	<1	13.9	<1	<15	<1	<1	<1				
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<2	1.1	<2	1.41	1.39	1.44	<1	1.28	4.76	2.18	2.87	3.78
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	4.14	4.67	3.78	4.11	4	3.42	2.55	8.47	8.23	3.65	4.12	5.14	5.09	14.5	6.25	9.21	13.2
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	45.7	42.5	40.3	46	46.4	23	18.3	65.4	58	22.8	26.9	70.4	68.4	80	26.3	31.4	62.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<6	<3	<3	<3	<3	<3	<3	<3				
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1				
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2				
Total PFOS	ng/l	3.42	4.73	4.28	3.26	2.93	5.37	4.39	14.4	14	7.71	8.39	9.01	7.11	31.8	12.7	17	24.4
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		4.51		3.10		4.88		14.20		8.05		8.06					
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	3.42	4.73	4.28	3.26	2.93	5.37	4.39	14.40	14.00	7.71	8.39	9.01	7.11	31.80	12.70	17.00	24.40

Airside Surface Water Monitoring Results

Parameter	Unit	R2																
		09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21	08/06/21	11/06/21	18/06/21	24/06/21	05/07/21	23/07/21	30/07/21	06/08/21	13/08/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	153	155	140	3.84	87.6	156	51.7	87.7	128	147	182	151	137	207	204	189	280
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	7.32	7.6	6.38	<1	3.56	7.82	2.79	5.02	6.61	6.23	8.11	6.16	5.83	16	14.4	15.8	20.2
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	21.1	20.7	18.4	0.778	12.9	23.2	7.08	13.5	18.6	17.5	23	19.7	16.8	43.8	42.9	38.5	62.7
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	34.4	34.7	23	<10	<24.5	29.2	25.8	31.5	<24	<45	<50	22.1	25	38.1	37.8	31.4	54.8
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.02
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	2.15	<1	<1	<1	<1.2	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1.5	<1	<3
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	4.13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	41.6	55.7	42.8	<5	40.8	41.9	14.8	24	32.1	43.4	55.6	30.3	26.6	44.9	36.4	38.4	61.3
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	34.8	36.7	33.5	<5	20.7	36.6	14.6	20.1	27.4	30.7	40.7	26.4	29.1	57.1	48.1	48.3	70.7
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	8.49	8.18	6.72	<1	3.96	7	2.8	4.63	5.54	5.68	6.69	5.06	4.73	9.32	8.79	8.12	12.8
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	4.01	3.72	3.03	<1	2.56	3.53	1.58	2.24	3.04	2.6	2.98	3.03	2.57	11.4	4.47	3.55	6.4
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	11.6	13	10.9	1.44	7.77	11.7	4.43	7.51	10.4	11.4	15.8	8.43	8.55	16.6	16.7	12.7	22.7
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	62.9	74.5	53	<5	33.2	78.4	27.2	38.5	66.1	31.4	37.6	40.7	49.1	109	103	139	166
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	3.8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	28.4	28.3	24.8	<1	16.4	31	9.87	18.6	25.2	23.7	31.1	25.9	22.6	59.7	57.3	54.3	82.9
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	28.40	28.30	24.80	0.00	16.40	31.00	9.87	18.60	25.20	23.70	31.10	25.90	22.60	59.70	57.30	54.30	82.90

Airside Surface Water Monitoring Results

Parameter	Unit	R2																
		20/08/21	27/08/21	10/09/21	17/09/21	18/10/21	03/11/21	12/11/21	22/11/21	03/12/21	10/12/21	22/03/23	22/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23
11Cl-PF3OUdS (763051-92-9)	ng/l													<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l													<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l											<2	<2	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l											<20	<20	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l																	45.1
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	249	307	294	337	161	49.8	52.5	51.4	50.7	50.2	1.68	1.8	<1	<1	1.89	2.45	2.17
7:3 FTCA (812-70-4)	ng/l													<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l											<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l													<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l													<1	<1	<1	<1	<1
Branched PFOS	ng/l	13.4	12.6	13.9	14.1	9.81	4.27	4.21	4.24	4.21	4.02	1.44	1.57	1.13	1.29	1.45	1.97	0.825
EtFOSAA (2991-50-6)	ng/l													<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l													<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l													<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l													<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l													<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l													<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	36.7	36	39.9	40.8	31	10.8	10.6	10.6	9.8	9.79	1.52	1.69	2.1	1.33	1.54	1.86	0.844
MeFOSAA (2355-31-9)	ng/l													<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l													<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l													<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l													<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l													<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	53.5	49.5	43.3	54.4	17.4	19.9	28.5	28.4	19	23.5	13.7	12.7	8.41	9.21	13.2	12.3	12.5
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.17	<5	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.08	1.15	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<5	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<5	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l											<1	<1	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<5	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l													<1	<1	<1	<1	<1
PFEESA (113507-82-7)	ng/l													<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	33.8	27.8	24	25.5	15.3	14.8	12.1	12.4	15.1	15	10.6	10.7	7.45	7.89	10.6	11.2	9.89
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<5	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	69.9	63.5	58.1	64.1	36.1	19.9	22.7	21.7	19.3	19.5	14.6	15.7	14.1	12.8	18.8	22.2	12.5
PFHxDA (67905-19-5)	ng/l													<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	9.37	9.64	9.14	10.7	6.44	3.36	3.33	3.12	3.23	3.36	2.04	2.02	<1	1.68	1.83	2.99	1.58
PFMOBA (863090-89-5)	ng/l													<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l													<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	3.73	<5	<5	<10	<5	1.27	1.38	1.33	1.14	1.16	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l											<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	16.1	15.7	12.9	18.4	9.96	6.02	5.4	5.24	5.56	5.3	4.2	3.92	4.03	2.93	5.55	4.6	4.02
PFODA (16517-11-6)	ng/l													<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<10	<10	<20	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	99.3	123	103	81.6	51	43	66.6	68.8	34.2	42.8	19.4	23.7	36.6	33.4	46.2	44.8	29.9
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<5	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l													<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l											<1	<1	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l											<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<5	<5	<10	<5	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l											<1	<1	<2	<2	<2	<2	<2
Total PFOS	ng/l	50.1	48.7	53.8	54.9	40.8	15.1	14.9	14.8	14	13.8	2.95	3.26	3.23	2.62	2.99	3.83	1.67
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l											3.11		2.93		3.41		1.65
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	50.10	48.70	53.80	54.90	40.80	15.10	14.90	14.80	14.00	13.80	2.95	3.26	3.23	2.62	2.99	3.83	1.67

Airside Surface Water Monitoring Results

Parameter	Unit	R2								
		22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	35.4	18	16.3	45.4	43.5	19.3	137	22.3	18.7
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	1.59	1.28	1.09	1.02	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	0.677	1.3	1.5	1.78	1.6	2.46	0.914	3.79	3.28
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	1.05	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.95	2.25	2.35	1.83	1.45	1.81	1.26	3.29	2.76
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	11.6	12.9	11	13.5	12	5.47	9.1	8.92	10.2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	1.04	<1	<1	<1	1.16	1.36	<1	1.15
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	2.58	1.11	1.43	1.19	1.49	1.79	<1	1.32
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	7.37	6.54	6.95	9.69	8.25	3.96	4.83	6.31	7.27
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	11.3	9.5	11.5	17.3	17.4	6.77	8.52	15.9	15.4
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.33	1.58	1.64	1.72	1.91	2.88	1.98	<1	3.28
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.7	3.9	4.16	4.51	3.96	2.36	3.08	3.76	3.49
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	27.9	25	24.9	33.8	35.8	13.8	20.7	28.1	34.3
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	1.63	3.54	3.85	3.61	3.05	4.27	2.17	7.08	6.04
SW Threshold (as per S.I No. 77 of 2019.)										
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		3.70		3.33		3.22		6.56	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	1.63	3.54	3.85	3.61	3.05	4.27	2.17	7.08	6.04

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 3																
		03/11/20	28/02/21	04/03/21	12/03/21	25/03/21	01/04/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21	08/06/21	11/06/21	18/06/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	3.86	5.63	20.9	24.1	17.5	14.1	12.8	11.9	5.32	16.5	18.4	11.5	13.2	13.1	36.6	25.9
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	1.17	<1	<5	1.76	2.88	2.49	<5	3.52	2.77	<2	2.51	3.41	1.1	1.32	3.18	<10	<10
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	2.66	2.17	4.05	6.18	8.22	7.93	7.26	9.9	7.24	3.09	9.73	11.4	3.37	3.85	10.1	33.2	19.4
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	2.7	18.3	38.1	11.3	13.3	<13.5	28.6	17.2	10.1	<10	<12.5	20	17.5	26	<27	29.1	28.3
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<5	<1	<2	<1	<5	<1	<1	<2	<2	<2	<1	<1	<2	<10	<10
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<5	<1	<2	2.22	<5	<1	<1	<2	<2	<2	<1	<1	<2	<10	<10
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<5	<1	<2	5.84	<5	<1	<1	<2	<2	<2	<1	<1	<2	<10	<10
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.49	6.76	5.11	6.13	8.63	11.8	12	16.1	12.9	8.35	15.1	15.3	7.02	9.01	13.3	12.8	10.9
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<5	<1	<2	<1	<5	<1	<1	<2	<2	<2	<1	<1	<2	<10	<10
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.74	8.35	10.9	5.81	8.61	9.88	20.3	12.7	11.1	4.1	9.14	15.6	4.26	6.18	15.1	17	14.8
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<5	<1	<2	1.26	<5	1.8	1.6	<2	<2	<2	<1	<1	<2	<10	<10
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<5	<1	<2	1.76	<5	1.91	1.5	<2	2.07	<2	<1	<1	2.31	<10	<10
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.17	1.28	<3.25	1.97	3.69	3.48	5.77	4.71	3.25	2.64	3.82	4.97	1.82	2.03	4.48	7.28	<6.5
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<10	<2	<4	<2	<10	<2	<2	<4	<4	<4	<2	<2	<4	<20	<20
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	2.7	20.8	21.4	9.23	14.2	18.6	32.6	26.8	21.9	7.42	15	30.8	7.35	13.9	29.7	28.3	27.9
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<5	<1	<2	5.6	<5	<1	<1	<2	<2	<2	<1	<1	<2	<10	<10
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	3.83	2.17	<5	7.94	11.1	10.4	7.26	13.4	10	3.09	12.2	14.8	4.47	5.17	13.2	33.2	19.4
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	3.83	2.17	0.00	7.94	11.10	10.40	7.26	13.40	10.00	3.09	12.20	14.80	4.47	5.17	13.20	33.20	19.40

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 3																
		24/06/21	05/07/21	30/07/21	06/08/21	13/08/21	03/11/21	12/11/21	22/11/21	03/12/21	10/12/21	22/03/23	22/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23
11Cl-PF3OUdS (763051-92-9)	ng/l													<2	<2	<10	<2	<2
3:3 FTCA (356-02-5)	ng/l													<2	<2	<10	<2	<2
4:2 FTS (757124-72-4)	ng/l											<2	<2	<1	<1	<5	<1	<1
5:3 FTCA (914637-49-3)	ng/l											<20	<20	<5	<5	<25	<5	<5
6:2 FTAB (34455-29-3)	ng/l																	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	21.6	13.8	26.2	21.8	30.1	<10	<10	<10	<10	<10	2.29	2.32	2.2	1.99	5.89	1.43	<1
7:3 FTCA (812-70-4)	ng/l													<5	<5	<25	<5	<5
8:2 FTS (39108-34-4)	ng/l											<2	<2	<2	<2	<10	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l													<1	<1	<5	<1	<1
ADONA (919005-14-4)	ng/l													<1	<1	<5	<1	<1
Branched PFOS	ng/l	<10	<5	7.21	7.68	7.25	<6.5	<6.5	<6.5	<6.5	<6.5	0.957	1.05	1.03	1.59	<3.25	0.815	<0.65
EtFOSAA (2991-50-6)	ng/l													<2	<2	<10	<2	<2
EtFOSE (1691-99-2)	ng/l													<10	<10	<50	<10	<10
FBSA (30334-69-1)	ng/l													<1	<1	<5	<1	<1
FHxSA (41997-13-1)	ng/l													<1	<1	<5	<1	<1
HFPO-DA (13252-13-6)	ng/l													<2	<2	<10	<2	<2
HFPO-TA (13252-14-7)	ng/l													<5	<5	<25	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	34.2	8.61	26	15.4	24.3	<6.5	<6.5	7.84	6.53	12.1	1.62	1.95	4.52	4.4	<3.25	2.14	<0.65
MeFOSAA (2355-31-9)	ng/l													<2	<2	<10	<2	<2
MeFOSE (24448-09-7)	ng/l													<10	<10	<50	<10	<10
N-EtFOSA (4151-50-2)	ng/l													<1	<1	<5	<1	<1
NFDHA (151772-58-6)	ng/l													<3	<3	<15	<3	<3
N-MeFOSA (31506-32-8)	ng/l													<1	<1	<5	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	25.3	17.5	31.7	34.1	38.1	<20	<20	<20	<20	<20	<7	<7	7.07	10.3	<10	10.2	20.6
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<5	<5	<5	<2	<10	<10	<10	<10	<10	<1	<1	<1	<1	<5	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<10	<5	<6	<5	<4	<10	<10	<10	<10	<10	<1	<1	<2	<2	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<10	<5	<5	6.09	<2	<10	<10	<10	<10	<10	<1	<1	<2	<2	<10	<2	<2
PFDoS (79780-39-5)	ng/l											<1	<1	<2	<2	<10	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l						<10	<10	<10	<10	<10	<1	<1	<2	<2	<10	<2	<2
PFecHS (133201-07-7)	ng/l													<1	<1	<5	<1	<1
PFEESA (113507-82-7)	ng/l													<1	<1	<5	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	31.6	13.9	19.6	17.1	32.7	<10	<10	<10	<10	<10	2.8	3.95	3.26	3.24	8.04	3.97	3.68
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	<5	<5	<5	<2	<10	<10	<10	<10	<10	<1	<1	<1	<1	<5	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	33.4	15.3	30.7	29.9	40.8	10.2	<10	12.1	12.2	12.9	6.79	8.75	9.49	9.13	12.1	10	15.5
PFHxDA (67905-19-5)	ng/l													<1	<1	<5	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	<5	<5	<5	4.99	<10	<10	<10	<10	<10	<1	<1	<1	<1	5.63	1.48	1.54
PFMOBA (863090-89-5)	ng/l													<1	<1	<5	<1	<1
PFMOPrA (377-73-1)	ng/l													<1	<1	<5	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<10	<5	<5	<5	3.88	<10	<10	<10	<10	<10	<1	<1	<1	<1	<5	<1	<1
PFNS (68259-12-1)	ng/l											<1	<1	<1	<1	<5	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	14.4	5.27	8.99	9.22	10.6	<6.5	<6.5	<6.5	6.52	9.15	1.45	1.69	2.29	2.74	5.63	2.43	<0.65
PFODA (16517-11-6)	ng/l													<1	<1	<5	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<10	<10	<10	<4	<20	<20	<20	<20	<20	<2	<2	<2	<2	<10	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	54.1	27.4	49.6	60.4	90.1	11.6	<10	18	13.1	16.6	8.36	13.8	23.2	22.2	26.7	21.3	35.5
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l						<10	<10	<10	<10	<10	<1	<1	<1	<1	<5	<1	<1
PFTeA (376-06-7)	ng/l													<1	<1	<5	<1	<1
PFTrDA (72629-94-8)	ng/l											<1	<1	<3	<3	<15	<3	<3
PFTrDS (174675-49-1)	ng/l											<1	<1	<1	<1	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<10	<5	<5	<5	<2	<10	<10	<10	<10	<10	<1	<1	<2	<2	<10	<2	<2
PFUnDS (749786-16-1)	ng/l											<1	<1	<2	<2	<10	<2	<2
Total PFOS	ng/l	34.2	8.61	33.2	23.1	31.6	<6.5	<6.5	7.84	6.53	12.1	2.58	3	5.55	5.98	<3.25	2.96	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l											2.79		5.77		1.48		0.00
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	34.20	8.61	33.20	23.10	31.60	0.00	0.00	7.84	6.53	12.10	2.58	3.00	5.55	5.98	0.00	2.96	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 3								
		22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	<10	<10	<10	24.2	25.3	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	1.38	1.51	3.65	4.75	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	<0.65	0.887	1.03	1.59	1.69	1.27	1.7	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	0.919	0.881	2.5	2.9	2.19	2.45	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	17.8	8.14	7.83	6.56	7.46	8.17	10	6.76	6.11
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	3.08	3.44	1.37	1.48	1.39	2	1.29	1.51
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	3.14	2.78	2.64	3.59	3.59	3.16	3.5	2.45	2.64
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	11.8	4.07	3.47	8.08	8.74	8.01	7.64	5.5	6.38
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.15	1.24	1.26	1.99	1.98	1.02	1.08	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	<0.65	1.44	1.65	2.25	2.23	2.02	2.08	1.52	1.32
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	31.5	6.84	6.85	17.1	16.4	16.1	19.5	14.6	13.8
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	<0.65	1.81	1.91	4.09	4.59	3.46	4.16	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)										
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		1.86		4.34		3.81		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	1.81	1.91	4.09	4.59	3.46	4.16	0.00	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 4																
		30/06/20	02/07/20	10/07/20	16/07/20	28/07/20	07/08/20	14/08/2020	18/08/20	01/09/20	11/09/20	23/09/20	30/09/20	08/10/20	15/10/20	22/10/20	03/12/20	11/01/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	16.9	16.9	32.9	37	506	126	236	103	55.2	8.27	195	119	31.5	159	47.7	9.54	23.2
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	3.94	3.94	4.13	3.74	46	13.2	20.3	9.08	8.53	3.01	19.9	17.1	4.19	12.8	9.83	2.47	4.59
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	7	7	4.48	4	88.9	49.2	52.9	21.3	26.2	6.57	47.2	48.1	8.27	36.2	19.4	3.05	4.13
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	142	142	30	24.1	<34	22.1	39	25	20.9	22.1	73.7	29.8	13.9	30.1	309	17	18.5
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	1.25	1.16	<1	<2	1.28	<2	<1	<1	<1	<1	<1	<1	1.17	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	1.5	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	11.1	11.1	24	19	51	15.8	39.4	25.1	21.2	19.3	24.7	21.7	8.24	52.1	17.2	21.1	21.3
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	2.82	<2	<1	<2	<1	<1	<1.5	<1.5	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	26.9	26.9	49.2	42.1	78.9	35.6	66.8	44.5	41.4	36.5	62.9	52.9	18	54.3	40.6	28.8	28.2
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.21	2.21	5.8	5.21	18.3	4.78	9.89	5.08	5.75	4.27	8.35	6.3	2.97	8.03	5.41	3.26	3.81
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.82	1.82	2.12	1.71	12.4	3.21	5.15	4.65	3.15	1.49	4.77	5.53	1.07	4.37	2.52	1.07	1.07
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	6.86	6.86	7.86	6.7	40.5	14.1	17.9	13.6	8.23	7.11	16.3	13.8	2.67	16.4	8.37	3.96	5.13
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<4	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	39	39	73	65.3	70.4	57.2	77.5	62.7	55.6	60.5	106	99.1	23.9	77.3	73.6	63	59.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	10.9	10.9	8.61	7.74	135	62.4	73.2	30.3	34.7	9.58	67.1	65.2	12.5	49	29.2	5.52	8.73
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	10.90	10.90	8.61	7.74	135.00	62.40	73.20	30.30	34.70	9.58	67.10	65.20	12.50	49.00	29.20	5.52	8.73

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 4																
		21/01/21	26/01/21	05/02/21	12/02/21	18/02/21	28/02/21	04/03/21	12/03/21	25/03/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	17.5	14.9	399	78.4	39.9	9.13	17.6	13.6	3.87	3.56	3.65	2.91	<1	4.8	2.85	<1	2.46
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	2.3	3.12	37.6	5.5	3.21	2.37	2.89	2	3.03	1.64	1.99	1.63	<1	1.94	2.3	<1	2.47
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	4.36	4.07	100	14.4	6.55	3.39	4.18	3.23	4.56	2.48	2.57	3.01	0.678	2.49	2.67	<0.65	2.68
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	14.1	14.8	56.9	<18	<17.5	19.3	23	19.2	15.3	15.3	41	11.9	<12.5	11.2	23.2	5.9	20.8
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	15.6	19.3	88.3	26.4	16.2	13.2	19.6	10.5	12.9	14	11.3	13.1	3.79	14.5	12.7	2.05	13.6
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	2.14	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	14.6	22.2	66.7	22.2	20.2	17.5	25.5	16.2	16.8	20	18	17.3	2.15	16.2	21.7	1.95	19.7
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.62	8.7	16.1	3.32	2.94	2.28	3.12	2.42	2.49	2.24	2.22	1.99	<1	2	2.33	<1	2.32
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	10.5	2.79	1.35	<1	1.16	1.07	1.24	1.33	1.1	1.45	1.01	1.21	1.13	<1	1.16
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.83	4.24	25.3	7.49	5.39	3.8	4.88	3.52	4.29	3.92	4.38	3.64	1.49	3.67	3.73	0.788	3.28
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	33.4	46.1	126	48.8	42	35.6	52.1	31.1	31.4	42.2	29.8	34.6	2.46	41.9	45.4	4.05	44.4
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	6.66	7.19	138	19.9	9.76	5.76	7.06	5.23	7.59	4.12	4.56	4.64	<1	4.43	4.97	<1	5.15
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	6.66	7.19	138.00	19.90	9.76	5.76	7.06	5.23	7.59	4.12	4.56	4.64	0.00	4.43	4.97	0.00	5.15

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 4																
		08/06/21	11/06/21	18/06/21	24/06/21	05/07/21	23/07/21	30/07/21	06/08/21	13/08/21	20/08/21	27/08/21	10/09/21	17/09/21	07/10/21	18/10/21	03/11/21	12/11/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<2	2.02	2.12	2.84	39.9	3.41	2.05	2.37	2.49	1.23	1.51	1.71	1.9	<1	<1	20.9	20
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	<2	<2	1.42	1.26	3.21	2.06	2.36	2.15	2.23	1.38	1.26	1.09	1.55	<0.65	<0.65	4.94	5.28
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	2.46	2.82	2.55	2.01	6.55	3.82	2.29	2.34	2.85	1.62	1.43	1.48	1.74	<0.65	<0.65	3.52	3.53
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<29	15.9	18	15.4	<17.5	13.1	16.8	16.1	15.6	10.8	13.1	11.8	12.3	10.6	8.49	18.1	19.4
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l										<1	<1	<1	<1	<1	<1	<1	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	9.66	8.41	11.1	10.2	16.2	7.12	8.42	11.3	10.3	5.81	5.5	4.44	5.15	2.27	2.07	15.4	12.2
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	18.1	18.7	18.1	14.5	20.2	16.9	16	17.2	19.3	13.1	15.3	14.2	16.5	3.68	2.79	30.5	33
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.15	<2	1.64	1.41	2.94	1.75	1.54	1.63	1.82	1.35	1.45	1.22	1.42	<1	<1	3.64	3.2
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<2	<2	1.1	<1	1.35	1.28	1.12	<1	1.14	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.8	2.33	3	2.89	5.39	2.59	2.78	3.14	3.27	2.19	2.21	1.83	2.56	<0.65	0.727	4.61	4.01
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<4	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	40.8	52	40.1	23.7	42	28.5	39.8	62.7	37.6	24.6	20.7	17.8	19.6	7.24	4.65	69.8	57.8
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l										<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	2.46	2.82	3.97	3.28	9.76	5.88	4.65	4.49	5.09	3	2.69	2.57	3.28	<0.65	<0.65	8.45	8.8
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.46	2.82	3.97	3.28	9.76	5.88	4.65	4.49	5.09	3.00	2.69	2.57	3.28	0.00	0.00	8.45	8.80

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 4																
		22/11/21	03/12/21	10/12/21	22/03/23	22/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	02/10/24	02/10/24
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l				<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l				<20	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l										50.1	48.7	42.6	28	97	148	43.1	31
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	19.3	34.9	19.4	7.92	9.18	4.11	2.96	1.85	1.74	4.65	3.8	12.3	12.5	20	20.6	1.21	1.43
7:3 FTCA (812-70-4)	ng/l						<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l				<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.64	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1
Branched PFOS	ng/l	6.33	7.35	4.76	2.41	3.14	1.33	1.29	1.94	1.54	1.21	1.33	2.99	3.03	3.7	5.34	2.32	2.18
EtFOSAA (2991-50-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	1.23	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l						<5	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	4.32	5.1	3.18	2.03	4.07	2.41	1.95	1.52	1.39	1.24	1.07	4.08	4.35	6.88	9.25	3.6	3.42
MeFOSAA (2355-31-9)	ng/l						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l						<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	16	27.5	15.8	14.7	<15	17.3	12.1	13.9	13.3	16.2	14.1	13.7	13.7	19.3	17.2	8.7	9.19
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<5	1.4	<1	<1	<1	<1	<1	<1	1.08	<1	<1	1.24	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l				<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l						<1	<1	<1	<1	<1	<1	1.46	1.48	3.2	3.6	2.82	2.85
PFEESA (113507-82-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	10.4	20.3	11.9	8.27	9.18	10.2	9.76	9.8	8.99	9.04	9.06	6.23	6.53	11.7	11.2	5.39	5.38
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	31.9	55.4	30.2	16.3	19	21	21.1	20.3	21.4	18.6	16.3	13.2	12.6	27.4	28.3	9.61	9.93
PFHxDA (67905-19-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<5	5.13	2.97	2.37	2.29	1.82	1.47	3.49	2.03	2.27	2.18	2.25	2.1	3.33	3.27	1.78	1.93
PFMOBA (863090-89-5)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<15	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<5	1.18	<1	<1	<1	<1	<1	<1	1.18	<1	<1	1.13	<1	1.41	1.53	<1	1.21
PFNS (68259-12-1)	ng/l				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	5.92	6.98	3.76	4.39	3.78	5.88	3.68	4.84	4.32	4	3.91	4.09	3.84	8.18	8.4	3.4	3.5
PFODA (16517-11-6)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	92.5	108	58.2	22.5	31.2	50.1	49.6	44.3	45.2	37.4	37	31	32.1	60.9	60.1	20	24.1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<5	1.13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l				<1	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l				<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	10.6	12.4	7.95	4.44	7.2	3.74	3.23	3.47	2.92	2.45	2.4	7.08	7.38	10.6	14.6	5.93	5.6
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l				5.82		3.49		3.20		2.43		7.23		12.60		5.77	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	10.60	12.40	7.95	4.44	7.20	3.74	3.23	3.47	2.92	2.45	2.40	7.08	7.38	10.60	14.60	5.93	5.60

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 4	
		11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5
6:2 FTAB (34455-29-3)	ng/l	34.3	30.2
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	5.4	4.09
7:3 FTCA (812-70-4)	ng/l	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1
Branched PFOS	ng/l	3.52	4.36
EtFOSAA (2991-50-6)	ng/l	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	2.28	2.15
MeFOSAA (2355-31-9)	ng/l	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	15.4	13.7
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.48	1.53
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2
PFecHS (133201-07-7)	ng/l	3.39	2.56
PFEESA (113507-82-7)	ng/l	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	10.3	10.9
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	25.9	22.2
PFHxDA (67905-19-5)	ng/l	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	4.4	3.68
PFMOBA (863090-89-5)	ng/l	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	4.86	5.94
PFODA (16517-11-6)	ng/l	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	62.6	53.3
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2
Total PFOS	ng/l	5.8	6.51
SW Threshold (as per S.I No. 77 of 2019.)			
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	6.16	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	5.80	6.51

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 5a																
		30/06/20	10/07/20	16/07/20	14/08/20	18/08/20	17/09/20	03/11/20	03/12/20	11/01/21	21/01/21	26/01/21	05/02/21	12/02/21	18/02/21	28/02/21	25/03/21	09/04/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	13.8	38	35.7	92	86.6	18.6	42.6	50	52.6	35.4	35.2	32.9	48.3	47.8	39.7	37	55.7
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	15.9	3.72	3.48	9.08	11.3	3.62	4.55	15.8	24.8	32.1	38.5	34	17.4	18.3	21.4	12.5	7.97
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	11.2	4.21	3.68	19.7	26.3	6.34	11.1	20.7	25.7	43.3	46.7	37.1	22.7	24.2	21.4	14.2	12.8
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	152	31.1	30.7	27.4	27	30.2	16.9	23.6	24.1	20.9	23.9	32	<19	<19.5	34.5	22.5	23.1
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	1.07	1.19	<2	<2	<1	<1	<1	1.04	1.14	1.27	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	10.5	22.8	20.2	24.8	26	35.7	25.4	44.8	46.3	36.5	56.5	47	44.9	29.7	30.9	34.4	33.1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<2	<2	<1	<1	1.53	2.22	3.3	3.52	3.11	1.19	1.31	1.79	1.31	1.12
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	25.3	45.3	38.3	40.1	38.9	41	24.1	34.8	32.3	25.7	35.2	31.2	24.5	23.2	27.1	26	25.3
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	2.95	5.76	5.08	5.08	4.92	5.59	4.5	17.9	28.3	27.8	43.3	33.6	17.1	17.1	23.3	16.6	14.1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.68	2.23	1.8	3.78	4.39	1.76	1.5	5.07	7.91	12.6	15.9	13.1	5.01	4.98	6.64	4.8	3.87
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	5.92	7.26	7.36	13.3	14.5	8.89	5.45	15.3	22.1	25.7	36.4	29.8	14	14.2	16.8	14.2	11.7
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<4	<4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	64	63.4	55.4	53	52.2	71.2	43.1	67.9	57.7	39.9	55.8	59.7	39.6	41	43.4	35.6	42.6
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	15.9	7.93	7.15	28.8	37.6	9.97	15.6	36.5	50.5	75.4	85.2	71.1	40	42.5	42.8	26.7	20.8
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	15.90	7.93	7.15	28.80	37.60	9.97	15.60	36.50	50.50	75.40	85.20	71.10	40.00	42.50	42.80	26.70	20.80

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 5a															
		29/04/21	07/05/21	14/05/21	21/05/21	27/05/21	08/06/21	11/06/21	18/06/21	24/06/21	22/03/23	22/03/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24
11Cl-PF3OUdS (763051-92-9)	ng/l												<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l												<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l										<2	<2	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l										<20	<20	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l														53.2	60.3	39.7
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	3.78	52.8	60.3	5.68	49.9	60.2	58.1	61.1	60.9	29.1	28.9	24.7	24.3	6.56	7.47	13
7:3 FTCA (812-70-4)	ng/l												<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l										3.11	2.63	2.31	2.26	2.03	<2	2.31
9Cl-PF3ONS (756426-58-1)	ng/l												<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l												<1	<1	<1	<1	<1
Branched PFOS	ng/l	2.07	8.27	11.8	2.24	9.98	12	10.7	7.69	12.5	13.3	12.9	2.62	2.43	2.27	2.1	3.07
EtFOSAA (2991-50-6)	ng/l												<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l												<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l												<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l												<1	<1	<1	<1	1.37
HFPO-DA (13252-13-6)	ng/l												<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l												<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	2.88	12.2	15.1	3.84	14.4	17.5	19.8	20	19.2	17.9	16.4	3.62	3.72	3.25	3.56	5.37
MeFOSAA (2355-31-9)	ng/l												<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l												<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l												<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l												<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l												<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<14	18.6	43.1	22.8	19.1	<20	<39.5	<42	28.4	22	22.8	17	14.8	20	17.5	20.9
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<3	<1	1.2	<1	<1	<1	<1	<1	<5	2.15	1.59	1.53	1.22	<1	1.25	1.38
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1.5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l										<1	<1	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l										<1	<1	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l												2.83	<1	3.86	4.34	3.74
PFEESA (113507-82-7)	ng/l												<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	9.65	35.8	28.2	5.17	29	27.1	53	58.4	25.5	16.6	14.9	9.44	10.3	7.21	8.61	8.93
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	1.01	<1	<1	<1	<1	<1	<5	1.19	1.07	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	4.29	23.3	32.6	5.45	25.1	26.9	29	31.8	28	24	22	20.7	19.9	15.7	18.5	16.4
PFHxDA (67905-19-5)	ng/l												<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.43	12.3	18.4	2.5	13.7	18.7	17.6	18.3	17.6	17.6	16.3	7.04	6.8	2.62	3.29	3.13
PFMOBA (863090-89-5)	ng/l												<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l												<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.87	2.94	4.4	<1	3.67	4.29	5.49	6.27	5.07	3.57	3.37	1.15	<1	<1	<1	1.5
PFNS (68259-12-1)	ng/l										<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	3.41	9.79	14	2.31	10.2	13.3	17.6	22.1	14.8	14	14.1	6.09	7.45	3.72	4.27	5.48
PFODA (16517-11-6)	ng/l												<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	4.45	37.7	57.6	6.04	39.6	48.8	33.3	37	29.8	34	31.4	41.2	39.5	34.3	36.6	44.1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l										1.56	1.3	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l												<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l										<1	<1	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l										<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l										<1	<1	<2	<2	<2	<2	<2
Total PFOS	ng/l	4.95	20.5	26.8	6.07	24.4	29.5	30.4	27.7	31.7	31.2	29.4	6.24	6.15	5.52	5.67	8.43
SW Threshold (as per S.I No. 77 of 2019.)																	
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l										30.30		6.20		5.60		8.67
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	4.95	20.50	26.80	6.07	24.40	29.50	30.40	27.70	31.70	31.20	29.40	6.24	6.15	5.52	5.67	8.43

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 5a						
		03/04/24	16/07/24	16/07/24	02/10/24	02/10/24	10/12/24	10/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	44.8	48.6	57.1	38.4	39.4	103	69.9
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	13.3	12.9	14.1	6.56	5.5	54.8	57.8
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	3.08	2.94	2.98	<2	2.08	3.17	4.36
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<5	<1	<1
Branched PFOS	ng/l	3.11	3.52	3.87	2.64	2.96	7.14	6.35
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	1.32	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	5.79	7.45	7.58	5.79	4.47	8.92	9.61
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	21.1	12	13.8	8.51	7.81	25.8	23.6
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	1.37	1.08	1.08	1.45	1.02	1.84	1.36
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	4.35	6.79	6.22	13.8	12.4	5.88	3.87
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	9.84	6.99	6.4	5.1	4.93	19.5	17.7
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	16.2	17.3	20.3	14	12.7	49.4	50
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	3.2	3.15	3.08	3.92	2.24	6.58	6
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<15	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.45	1.29	1.46	<1	<1	1.93	1.84
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	5.18	5.44	5.22	3.74	3.26	11.5	10.6
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	43.9	32.4	35	21.7	18.4	121	107
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	1.17	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	8.91	11	11.5	8.44	7.43	16.1	16
SW Threshold (as per S.I No. 77 of 2019.)								
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		11.25		7.94		16.05	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	8.91	11.00	11.50	8.44	7.43	16.10	16.00

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 5b																
		30/06/20	10/07/20	16/07/20	14/08/20	18/08/20	17/09/20	03/12/20	11/01/21	21/01/21	26/01/21	05/02/21	28/02/21	25/03/21	09/04/21	29/04/21	07/05/21	14/05/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	5.27	25.2	30.1	8.02	13.8	63	5.19	54.2	23.5	43.2	51.8	20.8	32.2	28.3	32.6	24.5	46.2
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	3.23	2.21	2.81	7.4	8.44	144	19.2	697	5.4	299	361	111	135	50.4	21.4	36.8	43.4
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	5.85	3.25	3.25	11.4	11.9	135	32.8	702	12.5	318	337	95.7	97.7	44	25.2	33.8	42.8
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	360	33	40	40.3	43.6	48.6	<40	109	60.2	79.2	142	84.7	46.1	30.5	<29	23.1	59
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	2.44	2.53	13.5	1.28	22.6	5.07	10.3	14.2	5.76	10.9	4.31	1.61	3.16	6.23
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<2	<2	1.11	1.29	3.67	<1	1.63	2.96	<1	<2	1.3	1.95	<1.5	1.05
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<2	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	5.3	14.1	16.3	22.2	25.6	136	94.6	360	198	222	359	90	95	91.1	54.8	75.3	47.8
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<2	<2	15.2	1.23	63.5	<1	32	46	9.52	14.5	5.96	2.83	3.83	4.03
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	11	19.7	23	29.5	32.2	112	53.1	246	105	154	222	56.4	80.9	51.4	57.9	48	57.1
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.99	2.22	2.51	6.6	7.58	235	31.7	621	25.4	339	541	124	186	98.3	41.5	68.9	74.5
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.52	1.67	1.9	2.26	2.64	41.6	8.34	180	5.39	136	203	30.2	43.2	21.6	9.27	13.8	13.7
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	4.12	4.96	5.58	10.4	11.2	106	30.9	462	24.1	264	458	78.9	106	55.1	25.3	36	41.7
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<4	<4	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	262	28.3	31.4	34	36.7	116	116	266	202	176	303	48.6	64.7	45.9	25.4	36.8	42.3
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<2	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	9.08	5.46	6.06	18.8	20.3	280	52	1400	17.9	617	698	207	233	94.4	46.6	70.6	86.3
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	9.08	5.46	6.06	18.80	20.30	280.00	52.00	1400.00	17.90	617.00	698.00	207.00	233.00	94.40	46.60	70.60	86.30

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 5b																
		21/07/21	27/07/21	08/06/21	11/06/21	18/06/21	24/06/21	15/02/22	15/02/22	15/03/22	15/03/22	20/04/22	20/04/22	24/05/22	24/05/22	21/06/22	21/06/22	20/09/22
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l							<2	<2	<2	<2	<2	<2			<20	<20	<10
5:3 FTCA (914637-49-3)	ng/l							<20	<20	<20	<20	<20	<20			<200	<200	<100
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	12.2	22.4	35	24.2	25	41	3.73	3.54	44.7	52.1	3.31	<10	45.2	47.7	79.8	68.1	25.8
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l							<2	<2	16.3	4.26	<2	<2			40.8	35.6	<10
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	12.9	41.9	52	27.9	29.4	29	7.46	5.94	737	742	13	16.6	83.3	90.8	106	95.4	93.3
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	17.6	36.8	70.7	26.6	26.9	30.9	10	8.46	544	687	37.4	41.2	84.2	89.8	103	95.9	87.4
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	39.4	46.9	74.6	28.5	27.7	58.7	<10	<5	70.4	85.7	71.7	<80	9.6	7.61	386	313	161
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	4.74	6.78	3.74	3.67	4.55	1.45	1.2	15.2	24.4	1.12	<10	13	13.9	26.3	23	10.6
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	2.77	3.27	<1	<10	1.58	1.78	<10	<10	<5
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<10	<10	<5
PFDoS (79780-39-5)	ng/l											<1	<1			<10	<10	<10
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l							<1	<1	<1	<1	<1	<10	<1	<1	<10	<10	<5
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	9.32	60.4	60.7	57.7	52.9	49.4	3.38	3.74	203	242	8.33	<10	49.8	49.9	77.2	66.6	44.5
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	4.26	3.67	3.36	3.25	2.98	<1	<1	52.3	42.2	<1	<10	8.1	8.74	<10	<10	5.93
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	10.2	57.3	56.6	41.1	39.9	59.7	4.05	3.92	185	211	4.53	<10	66.3	69	129	111	54.3
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	9.5	83.9	73.6	75.6	68	54.4	3.99	3.73	463	510	9.44	11.6	168	178	260	224	114
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	2.45	13.8	20.8	10.1	11.6	9.51	<1	<1	122	160	4.13	<10	24.1	23.5	25.6	21.7	18
PFNS (68259-12-1)	ng/l											<1	<1			<10	<10	<5
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	7.17	42	54.9	32.4	32.3	33.2	1.67	1.85	304	357	7.93	13.8	72.8	77	89.7	71.9	55.5
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	2.35	<2	<2	<2	<2	<2	<2	<2	4.08	<20	<2	<2	<20	<20	<10
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	6.59	43.2	56.4	32.2	35.2	28.1	6.05	4.48	172	135	6.19	<10	54.2	59.2	107	92.8	44
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l							<1	<1	25.7	42.1	<1	<10	15	15.5	21.7	18.6	8.87
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l											<1	<1			<10	<10	<10
PFTrDS (174675-49-1)	ng/l							<1	<1			<1	<1			<10	<10	<10
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1			<1	<1	<1	<10	<1	<1	<10	<10	<5
PFUnDS (749786-16-1)	ng/l											<1	<1			<10	<10	<10
Total PFOS	ng/l	30.5	78.7	123	54.5	56.3	59.9	17.5	14.4	1280	1430	50.5	57.8	167	181	210	191	181
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l							15.95		1355.00		54.15		174.00		200.50		201.00
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	30.50	78.70	123.00	54.50	56.30	59.90	17.50	14.40	1280.00	1430.00	50.50	57.80	167.00	181.00	210.00	191.00	181.00

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 5b										
		20/09/22	15/11/22	15/11/22	22/03/23	22/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	22/11/23
11Cl-PF3OUdS (763051-92-9)	ng/l						<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l						<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<10	<2	<2	<2	<2	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<100	<20	<20	<20	<20	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l										<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	34.2	45.6	37.6	46.9	43.5	39.3	39.5	17.9	24.2	<1	<1
7:3 FTCA (812-70-4)	ng/l						<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<10	10.9	11.2	8.19	6.23	3.81	4.51	4.82	5.96	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l						<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l						<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	113	147	113	160	173	116	141	10.1	14.6	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l						<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l						<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l						4.78	4.64	2.02	2.16	<1	<1
FHxSA (41997-13-1)	ng/l						4.46	4.58	2.77	3.1	<1	<1
HFPO-DA (13252-13-6)	ng/l						<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l						<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	108	138	113	168	153	116	139	18.9	22.2	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l						<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l						<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l						<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l						<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l						<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	107	60.4	<43	104	92.8	70.2	66.8	40.3	64.4	2.95	4.83
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	14.5	12.3	8.99	19.4	18.2	9.57	9.1	3.45	5.25	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<5	1.7	1.35	1.5	1.62	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<10	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l						43.6	38.1	13.6	36.2	<1	<1
PFEESA (113507-82-7)	ng/l						<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	60.7	63.2	77.3	135	132	49.3	42.6	12.6	18.6	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	7.49	8.7	10.3	15.3	15.7	6.45	5.65	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	74.9	78.8	64.4	137	121	59.9	59.7	27.1	39	2.19	1.98
PFHxDA (67905-19-5)	ng/l						<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	149	171	139	297	266	140	126	27	27.4	<1	<1
PFMOBA (863090-89-5)	ng/l						<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l						<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	25.3	36.2	33.6	47	45	21	27.5	3.96	4.87	<1	<1
PFNS (68259-12-1)	ng/l	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	82.8	109	98.3	173	185	69.7	69.4	12.9	18.5	<0.65	<0.65
PFODA (16517-11-6)	ng/l						<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	61.1	86.7	120	152	140	71.8	80.6	41.1	62.1	3.74	3.96
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	12.1	13.8	12.6	24.6	22.4	8.57	7.45	2.11	2.46	<1	<1
PFTeA (376-06-7)	ng/l						<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<10	<1	<1	<1	<1	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<10	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	221	285	227	327	326	231	280	29.1	36.8	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)												
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		256.00		326.50		255.50		32.95		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	221.00	285.00	227.00	327.00	326.00	231.00	280.00	29.10	36.80	0.00	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 7a																
		07/08/20	14/08/20	18/08/20	01/09/20	11/09/20	17/09/20	23/09/20	08/10/20	15/10/20	22/10/20	26/01/21	05/02/21	15/02/21	18/02/21	28/02/21	04/03/21	12/03/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	12.3	<1	<1	3.39	<1	<1	3.39	<1	<1	<1	<1	<1	<1	<1	<1	1.08	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	<1	1.71	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.1	<1
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	3.98	4.01	1.06	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.735	0.735	<0.65	0.957	0.971	<0.65
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	5.15	6.48	3.33	5.7	4.05	4.17	5.7	7.34	3.81	157	3.63	10.9	10.9	8.27	<21	15.4	10.1
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	2.45	1.34	<1	1.45	1.14	1.03	1.45	1.02	<1	<1	<1	1.36	1.36	<1	9.88	5.94	1.11
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	6.11	3.43	1.64	5.2	3	2.44	5.2	4.77	1.95	2.16	3.03	5.33	5.33	4.48	5.14	6.88	1.48
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.58	1.86	<0.65	0.976	<0.65	<0.65	0.976	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	2.46	1.45	0.848
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	9.24	5.97	2.8	7.85	5.53	5.75	7.85	5.5	3.44	3.08	5.45	9.5	9.5	9	8.51	13.8	2.18
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	3.98	5.72	1.06	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2.07	<1
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	3.98	5.72	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.07	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 7a																
		25/03/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21	08/06/21	11/06/21	18/06/21	24/06/21	05/07/21	30/07/21	06/08/21	13/08/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<2	<1	<5	<2	<1	<1	<1	<1	<2	<5	<5	<5	<1	1.94	<5	2.97
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	<1	<2	<1	<5	<2	<1	<1	<1	<1	<2	<5	<5	<5	<1	1.11	<3.25	1.25
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	0.843	<1.3	0.726	<3.25	<1.3	1.29	1.02	1.17	<0.65	<1.3	<3.25	<3.25	6.84	1.6	3.7	4.78	5.96
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	6.08	9.41	7.45	217	30	<13.5	<13	<12.5	15.5	60.3	23.1	29	<20	20	15.5	14.3	19.7
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<2	<1	<5	<2	<1	<1	<1	<1	<2	<5	<5	<5	<1	<1	<5	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<2	<1	<5	<2	<1	<1	<1	<1	<2	<5	<5	<5	<1	<1.5	<5	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<2	<1	<5	<2	<1	<1	<1	<1	<2	<5	<5	<5	<1	<1	<5	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	3.1	2.56	1.85	8.31	12.9	21	15.9	15.6	2.92	10.5	11.4	13	22	13.4	21.9	16.8	30
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<2	<1	<5	<2	<1	<1	<1	<1	<2	<5	<5	<5	<1	<1	<5	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	4.06	2.83	2.3	6.39	11	9.32	6.27	7.56	3.58	6.02	8.56	8.69	12.4	7.43	18.7	19.8	27.3
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<2	<1	<5	<2	<1	<1	<1	<1	<2	<5	<5	<5	<1	1	<5	1.35
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<2	<1	<5	<2	1.06	<1	<1	<1	<2	<5	<5	<5	<1	8.57	9.76	11.8
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.39	<1.3	0.901	<3.25	4.6	3.14	3.56	3.21	0.831	3.66	4.16	3.92	9.21	3.56	9.68	9.92	11.4
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<4	<2	<10	<4	<2	<2	<2	<2	<4	<10	<10	<10	<2	<2	<10	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	6.64	5.27	3.86	7.62	13	14.9	<7.5	<10.5	6.68	10.3	16.5	19.9	13.9	10.2	36.3	37.1	59.7
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<2	<1	<5	<2	<1	<1	<1	<1	<2	<5	<5	<5	<1	<1	<5	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	<1	<2	<1	<5	<2	1.29	1.02	1.17	<1	<2	<5	<5	6.84	1.6	4.81	4.78	7.22
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.00	0.00	0.00	1.29	1.02	1.17	0.00	0.00	0.00	0.00	6.84	1.60	4.81	4.78	7.22

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 7a																
		10/09/21	03/11/21	12/11/21	22/11/21	03/12/21	10/12/21	22/03/23	22/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24
11Cl-PF3OUdS (763051-92-9)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l							<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l							<20	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l													<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	29.4	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l									<5	<5	<5	<5	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l							<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
Branched PFOS	ng/l	2.08	<3.25	0.781	<3.25	0.686	0.812	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.896	<0.65
EtFOSAA (2991-50-6)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l									<10	<10	<10	<10	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l									<5	<5	<5	<5	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	4.27	<3.25	<0.65	<3.25	1.05	0.717	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	0.817	<0.65
MeFOSAA (2355-31-9)	ng/l									<2	<2	<2	<2	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l									<10	<10	<10	<10	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l									<3	<3	<3	<3	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<7.5	<10	6.88	<10	6.22	10.4	5.25	<5	<2	<2	2.71	3.31	2.95	4.83	4.13	5.63	3.03
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.02	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	1.37	<5	<1	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<5	<1	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l							<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<5	<1	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFEESA (113507-82-7)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	5.39	<5	4.84	<5	4.8	4.46	<1	<1	<1	<1	<1	<1	<1	<1	1.36	1.45	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	6.3	8.04	7.55	8.45	7.1	8.02	2.13	2.5	<1	<1	2.14	2.31	2.19	1.98	3.75	4.38	2.1
PFHxDA (67905-19-5)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	1.85	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	1.14	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	2.61	<3.25	0.861	<3.25	0.927	1.09	1.04	<0.65	<0.65	<0.65	0.727	0.854	<0.65	<0.65	1.04	1.17	<0.65
PFODA (16517-11-6)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<10	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	<3.5	16.5	12.5	20.5	11	13.5	2.56	3.64	2.62	2.8	3.76	3.88	3.74	3.96	8.9	10.1	4.83
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	1.13	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l									<1	<1	<1	<1	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l							<1	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l							<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<5	<1	<5	<1	<1	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l							<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total PFOS	ng/l	6.35	<3.25	0.781	<3.25	1.73	1.53	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	<0.65	1.71	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l							0.00		0.00		0.00		0.00		0.86		0.00
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	6.35	0.00	0.78	0.00	1.73	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.71	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 7a				
		16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l	<2	<2	<2	<2	<2
3:3 FTCA (356-02-5)	ng/l	<2	<2	<2	<2	<2
4:2 FTS (757124-72-4)	ng/l	<1	<1	<1	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<5	<5	<5	<5	<5
6:2 FTAB (34455-29-3)	ng/l	<10	<10	<10	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1
7:3 FTCA (812-70-4)	ng/l	<5	<5	<5	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l	<1	<1	<1	<1	<1
ADONA (919005-14-4)	ng/l	<1	<1	<1	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l	<2	<2	<2	<2	<2
EtFOSE (1691-99-2)	ng/l	<10	<10	<10	<10	<10
FBSA (30334-69-1)	ng/l	<1	<1	<1	<1	<1
FHxSA (41997-13-1)	ng/l	<1	<1	<1	<1	<1
HFPO-DA (13252-13-6)	ng/l	<2	<2	<2	<2	<2
HFPO-TA (13252-14-7)	ng/l	<5	<5	<5	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l	<2	<2	<2	<2	<2
MeFOSE (24448-09-7)	ng/l	<10	<10	<10	<10	<10
N-EtFOSA (4151-50-2)	ng/l	<1	<1	<1	<1	<1
NFDHA (151772-58-6)	ng/l	<3	<3	<3	<3	<3
N-MeFOSA (31506-32-8)	ng/l	<1	<1	<1	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	2.56	<2	4.27	<2	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<2	<2
PFDoS (79780-39-5)	ng/l	<2	<2	<2	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<2	<2	<2	<2	<2
PFecHS (133201-07-7)	ng/l	<1	<1	<1	<1	<1
PFEESA (113507-82-7)	ng/l	<1	<1	<1	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<1	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	2.13	<1	<1	<1	<1
PFHxDA (67905-19-5)	ng/l	<1	<1	<1	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	<1	<1
PFMOBA (863090-89-5)	ng/l	<1	<1	<1	<1	<1
PFMOPrA (377-73-1)	ng/l	<1	<1	<1	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.42	<0.65	<0.65	<0.65	<0.65
PFODA (16517-11-6)	ng/l	<1	<1	<1	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	4.93	<1	1.5	<1	<1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1
PFTeA (376-06-7)	ng/l	<1	<1	<1	<1	<1
PFTrDA (72629-94-8)	ng/l	<3	<3	<3	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<2	<2
PFUnDS (749786-16-1)	ng/l	<2	<2	<2	<2	<2
Total PFOS	ng/l	<0.65	<0.65	<0.65	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)						
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		0.00		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.00	0.00	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 7b																
		15/10/20	22/10/22	03/11/20	26/01/21	12/02/21	18/02/21	28/02/21	04/03/21	25/03/21	09/04/21	16/04/21	24/04/21	29/04/21	07/05/21	14/05/21	21/05/21	27/05/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	44	<1	<1	<1	1.28	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	<1	<1	5.31	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	0.682	12.7	<0.65	<0.65	0.797	<0.65	<0.65	0.924	1.05	0.901	1.01	0.926	<0.65	1.42	4.51	0.871
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	6.56	168	17.2	3.37	4.4	4.4	14	5.47	4	9.04	7.52	3.95	<15	<8.5	<9.5	<11.5	19.3
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l																	
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	1.62	<1	26.4	1.01	1.11	1.1	1.02	<1	1.28	1.81	1.73	1.68	1.63	3.06	2.79	4.12	3.52
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.15	<2	24.5	1.34	1.54	2.36	1.48	2.22	1.71	2.18	2.25	1.59	1.93	1.91	1.98	<2	2.48
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	4.37	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	1.57	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.05	1.03	5.33	0.781	0.724	3.69	0.861	1.11	1.57	1.56	1.03	0.996	1.65	1.39	1.76	3.11	1.26
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	1.64	<1.5	17.2	2.42	2.79	3.44	2.69	3.31	2.45	2.6	2.53	1.63	2.05	3.25	<2	<19	3.54
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l																	
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	<1	<1	18	<1	<1	<1	<1	<1	<1	1.05	<1	1.01	<1	<1	1.42	4.51	<1
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.00	1.01	0.00	0.00	1.42	4.51	0.00

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 7b																
		08/06/21	11/06/21	18/06/21	24/06/21	05/07/21	30/07/21	06/08/21	13/08/21	20/08/21	27/08/21	10/09/21	17/09/21	03/11/21	12/11/21	22/11/21	03/12/21	10/12/21
11Cl-PF3OUdS (763051-92-9)	ng/l																	
3:3 FTCA (356-02-5)	ng/l																	
4:2 FTS (757124-72-4)	ng/l																	
5:3 FTCA (914637-49-3)	ng/l																	
6:2 FTAB (34455-29-3)	ng/l																	
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<2	<2	<2	1.25	<1	<5	<2	<1	<1	<10	<10	<10	<1	<1	<5	<5	<1
7:3 FTCA (812-70-4)	ng/l																	
8:2 FTS (39108-34-4)	ng/l																	
9Cl-PF3ONS (756426-58-1)	ng/l																	
ADONA (919005-14-4)	ng/l																	
Branched PFOS	ng/l	2.21	<2	<2	1.65	1.17	<3.25	<1.3	1.51	<0.65	<6.5	<6.5	<6.5	<0.65	<0.65	<3.25	<3.25	0.897
EtFOSAA (2991-50-6)	ng/l																	
EtFOSE (1691-99-2)	ng/l																	
FBSA (30334-69-1)	ng/l																	
FHxSA (41997-13-1)	ng/l																	
HFPO-DA (13252-13-6)	ng/l																	
HFPO-TA (13252-14-7)	ng/l																	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<1.3	<1.3	1.57	3.35	1.3	<3.25	1.38	2.21	1.47	<6.5	<6.5	<6.5	<0.65	<0.65	<3.25	<3.25	1.14
MeFOSAA (2355-31-9)	ng/l																	
MeFOSE (24448-09-7)	ng/l																	
N-EtFOSA (4151-50-2)	ng/l																	
NFDHA (151772-58-6)	ng/l																	
N-MeFOSA (31506-32-8)	ng/l																	
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	<24	44.1	10.4	<11.5	5.11	10.2	6.13	10.1	13.8	<20	<38	<20	4.21	3.53	<10	<10	3.39
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<2	<2	<2	<1	<1	<5	<2	<1	<1	<10	<10	<10	<1	<1	<5	<5	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<2	<2	<2	<1	<1	<7	<2	<2.5	<2	<10	<10	<10	<1	<1	<5	<5	<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<2	<2	<2	<1	<1	<5	<2	<1	<1	<10	<10	<10	<1	<1	<5	<5	<1
PFDoS (79780-39-5)	ng/l																	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l									<1	<10	<10	<10	<1	<1	<5	<5	<1
PFecHS (133201-07-7)	ng/l																	
PFEESA (113507-82-7)	ng/l																	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	3.08	<2	2.41	5.13	3.75	<5	<2	2.92	1.12	<10	<10	<10	<1	1.08	<5	<5	1.12
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<2	<2	<2	<1	<1	<5	<2	<1	<1	<10	<10	<10	<1	<1	<5	<5	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	2.3	<2	<2	4.51	2.96	<5	<2	3.73	1.37	<10	<10	<10	1.32	1.16	<5	<5	1.26
PFHxDA (67905-19-5)	ng/l																	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<2	<2	<2	<1	<1	<5	<2	<1	<1	<10	<10	<10	<1	<1	<5	<5	<1
PFMOBA (863090-89-5)	ng/l																	
PFMOPrA (377-73-1)	ng/l																	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<2	<2	<2	<1	<1	<5	<2	<1	<1	<10	<10	<10	<1	<1	<5	<5	<1
PFNS (68259-12-1)	ng/l																	
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.86	1.6	2.04	3.16	2.15	<3.25	2.42	2.94	0.968	<6.5	<6.5	<6.5	0.981	1.04	<3.25	<3.25	1.1
PFODA (16517-11-6)	ng/l																	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<4	<4	<4	<2	<2	<10	<4	<2	<2	<20	<20	<20	<2	<2	<10	<10	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	4.18	<2	<2.5	6.55	5.76	<5	3.39	4.1	1.5	<10	<10	<10	1.92	1.91	<5	<5	2.36
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l									<1	<10	<10	<10	<1	<1	<5	<5	<1
PFTeA (376-06-7)	ng/l																	
PFTrDA (72629-94-8)	ng/l																	
PFTrDS (174675-49-1)	ng/l																	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<2	<2	<2	<1	<1	<5	<2	<1	<1	<10	<10	<10	<1	<1	<5	<5	<1
PFUnDS (749786-16-1)	ng/l																	
Total PFOS	ng/l	2.21	<2	<2	5.01	2.46	<3.25	1.38	3.72	1.47	<6.5	<6.5	<6.5	<0.65	<0.65	<3.25	<3.25	2.03
SW Threshold (as per S.I No. 77 of 2019.)																		
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l																	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	2.21	0.00	0.00	5.01	2.46	0.00	1.38	3.72	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03

Airside Surface Water Monitoring Results

Parameter	Unit	SWML 7b															
		22/03/23	22/03/23	30/05/23	30/05/23	16/08/23	16/08/23	22/11/23	22/11/23	03/04/24	03/04/24	16/07/24	16/07/24	02/10/24	02/10/24	11/12/24	11/12/24
11Cl-PF3OUdS (763051-92-9)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
3:3 FTCA (356-02-5)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
4:2 FTS (757124-72-4)	ng/l	<2	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<20	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<25	<5	<5
6:2 FTAB (34455-29-3)	ng/l							<10	<10	<10	<10	<10	<10	<50	<50	<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	<1	<1	<1	<1	<1	<1	<1	1.02	1.17	<1	<1	<1	<5	<5	<1	<1
7:3 FTCA (812-70-4)	ng/l			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<25	<5	<5
8:2 FTS (39108-34-4)	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
ADONA (919005-14-4)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
Branched PFOS	ng/l	<0.65	<0.65	0.709	2.59	1.1	<0.65	<0.65	<0.65	1.12	1.09	0.66	0.687	<5	<4	<0.65	<0.65
EtFOSAA (2991-50-6)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
EtFOSE (1691-99-2)	ng/l			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<50	<10	<10
FBSA (30334-69-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
FHxSA (41997-13-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
HFPO-DA (13252-13-6)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
HFPO-TA (13252-14-7)	ng/l			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<25	<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	<0.65	<0.65	<0.65	4.91	0.872	<0.65	<0.65	<0.65	1.26	1.04	0.783	<0.65	<4	<4	<0.65	<0.65
MeFOSAA (2355-31-9)	ng/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
MeFOSE (24448-09-7)	ng/l			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<50	<10	<10
N-EtFOSA (4151-50-2)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
NFDHA (151772-58-6)	ng/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<15	<3	<3
N-MeFOSA (31506-32-8)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	3.88	<3.5	<2	<2	6.32	2.76	4.29	3.06	<2	6.23	<2	<2	<10	<10	<2	3.15
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	1.23	1.09	<1	<1	<5	<5	<1	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
PFDoS (79780-39-5)	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
PFecHS (133201-07-7)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFEESA (113507-82-7)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	<1	<1	<1	<1	1.6	<1	1.22	1.01	1.71	1.5	<1	<1	<5	<5	<1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	1.41	1.39	1.06	1.56	3.03	<1	1.96	1.41	2.35	1.89	1.58	1.32	5.95	6.35	1.83	1.69
PFHxDA (67905-19-5)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<1	<1	<1	4.35	<1	<1	<1	<1	<1	1.18	1.18	1.06	<5	<5	<1	<1
PFMOBA (863090-89-5)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFMOPrA (377-73-1)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	<1	<1	<1	<1	1.09	<1	<1	<1	1.19	<1	<1	<1	<5	<5	<1	<1
PFNS (68259-12-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	1.08	1.38	0.69	0.793	1.95	1.05	1.19	1.05	2.33	2.09	0.871	0.762	<4	<4	0.845	<0.65
PFODA (16517-11-6)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	1.92	1.44	<1	<1	4.73	1.86	2.62	2.26	3.37	2.87	<1	<1	8	8.16	2.63	3.63
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFTeA (376-06-7)	ng/l			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFTrDA (72629-94-8)	ng/l	<1	<1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<15	<3	<3
PFTrDS (174675-49-1)	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<5	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
PFUnDS (749786-16-1)	ng/l	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<10	<2	<2
Total PFOS	ng/l	<0.65	<0.65	0.709	7.49	1.97	<0.65	<0.65	<0.65	2.38	2.13	1.44	0.687	<5	<4	<0.65	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																	
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l	0.00		4.10		0.99		0.00		2.26		1.06		0.00		0.00	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	0.00	0.00	0.71	7.49	1.97	0.00	0.00	0.00	2.38	2.13	1.44	0.69	0.00	0.00	0.00	0.00

Fire Station and Fire Fighting Training Ground Surface Water Monitoring Results

Parameter	Unit	ACO					Interceptor						Sewer				
		24/05/22	21/06/22	21/06/22	02/04/24	02/04/24	24/05/22	24/05/22	21/06/22	21/06/22	02/04/24	02/04/24	24/05/22	21/06/22	21/06/22	02/04/24	02/04/24
11Cl-PF3OUdS (763051-92-9)	ng/l				<2	<2					<2	<2				<2	<2
3:3 FTCA (356-02-5)	ng/l				<2	<2					<2	<2				<2	<2
4:2 FTS (757124-72-4)	ng/l	<20	<4	6.12	2.32	2.78	<10	<2	<2	<2	<1	<1	<20	<20	<20	<1	<1
5:3 FTCA (914637-49-3)	ng/l	<200	<40	<40	19.2	19.3	<100	<20	<20	<20	<5	<5	<200	<200	<200	<5	<5
6:2 FTAB (34455-29-3)	ng/l				362	496					367	295				<10	<10
6:2FTS (27619-97-2) Perfluoro-octane sulfonate 6:2	ng/l	455	1780	1860	560	720	520	343	318	291	148	160	<10	<10	<10	<1	<1
7:3 FTCA (812-70-4)	ng/l				<5	<5					<5	<5				<5	<5
8:2 FTS (39108-34-4)	ng/l	353	1110	886	23.5	41.2	205	152	153	152	127	138	<20	<20	<20	<2	<2
9Cl-PF3ONS (756426-58-1)	ng/l				<1	<1					<1	<1				<1	<1
ADONA (919005-14-4)	ng/l				<1	<1					<1	<1				<1	<1
Branched PFOS	ng/l	10.1	39.1	28.4	0.705	0.852	5.75	4.34	4.36	3.84	1.17	1.19	<6.5	<6.5	<6.5	0.651	<0.65
EtFOSAA (2991-50-6)	ng/l				<2	<2					<2	<2				<2	<2
EtFOSE (1691-99-2)	ng/l				<10	<10					<10	<10				<10	<10
FBSA (30334-69-1)	ng/l				<1	<1					<1	<1				<1	<1
FHxSA (41997-13-1)	ng/l				1.21	1.02					<1	<1				<1	<1
HFPO-DA (13252-13-6)	ng/l				<2	<2					<2	<2				<2	<2
HFPO-TA (13252-14-7)	ng/l				<5	<5					<5	<5				<5	<5
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	ng/l	28.5	77.1	67	0.99	0.986	10.8	8	10.3	8.75	3.22	4.02	<6.5	<6.5	<6.5	0.772	<0.65
MeFOSAA (2355-31-9)	ng/l				<2	<2					<2	<2				<2	<2
MeFOSE (24448-09-7)	ng/l				<10	<10					<10	<10				<10	<10
N-EtFOSA (4151-50-2)	ng/l				<1	<1					<1	<1				<1	<1
NFDHA (151772-58-6)	ng/l				<3	<3					<3	<3				<3	<3
N-MeFOSA (31506-32-8)	ng/l				<1	<1					<1	<1				<1	<1
PFBA (375-22-4) Perfluoro-n-butanoic acid	ng/l	80.5	<24	29.2	23.2	25.5	36.8	32.6	17.2	16.6	9.07	8.54	42	188	<20	2.75	<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	ng/l	<10	<2	<2	<1	<1	<5	<1	<1	<1	<1	<1	<10	<10	<10	1.39	<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	ng/l	<10	5.06	4.9	<2	<2	<5	1.61	2.08	1.75	<2	2.89	<10	<10	<10	<2	<2
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	ng/l	<10	<2	<2	<2	<2	<5	<1	<1	<1	<2	<2	<10	<10	<10	<2	<2
PFDoS (79780-39-5)	ng/l	<10	<2	<2	<2	<2	<40	<1	<1	<1	<2	<2	<10	<10	<10	<2	<2
PFDS (335-73-3) Perfluoro-1-decanesulfonate	ng/l	<10	<2	<2	<2	<2	<5	<1	<1	<1	<2	<2	<10	<10	<10	<2	<2
PFecHS (133201-07-7)	ng/l				1.24	1.29					<1	<1				<1	<1
PFEESA (113507-82-7)	ng/l				<1	<1					<1	<1				<1	<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	ng/l	50.6	70.9	27.4	18.8	22.2	40.6	37.6	40	35.3	9.23	10.3	<10	<10	<10	1.1	<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	ng/l	<10	3.02	3.38	<1	<1	<5	<1	<1	<1	<1	<1	<10	<10	<10	<1	<1
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	ng/l	43.6	113	95	256	287	81.4	61.2	32.9	28.7	17.8	19.9	<10	<10	<10	1.04	<1
PFHxDA (67905-19-5)	ng/l				<1	<1					<1	<1				1.28	<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	ng/l	<10	32.8	31.7	1.24	1.92	<5	2.29	1.97	1.77	<1	<1	<10	<10	<10	<1	<1
PFMOBA (863090-89-5)	ng/l				<1	<1					<1	<1				<1	<1
PFMOPrA (377-73-1)	ng/l				<1	<1					<1	<1				<1	<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	ng/l	34.7	14.5	12.1	1.05	1.11	6.19	4.62	3.65	3.31	2.82	3.41	<10	<10	<10	<1	<1
PFNS (68259-12-1)	ng/l	<10	<2	<2	<1	<1	<5	<1	<1	<1	<1	<1	<10	<10	<10	<1	<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	ng/l	23.8	40.1	40.2	12.8	16.1	38.9	26.1	15.3	12.6	8.77	9.46	15.3	15.2	<6.5	1.5	1.25
PFODA (16517-11-6)	ng/l				<1	<1					<1	<1				2.3	<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	ng/l	<20	<4	<4	<2	<2	<10	<2	<2	<2	<2	2.82	<20	<20	<20	4.82	5.03
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	ng/l	21.6	53.9	66.8	117	141	126	90.8	32.8	29.5	25	28.7	18.2	<10	<10	1.56	1.31
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	ng/l	<10	2.24	3.08	<1	<1	<5	<1	<1	<1	<1	<1	<10	<10	<10	<1	<1
PFTeA (376-06-7)	ng/l				<1	<1					<1	<1				1.1	<1
PFTrDA (72629-94-8)	ng/l	<10	<2	<2	<3	<3	<15	<1	<1	<1	<3	<3	<10	<10	<10	<3	<3
PFTrDS (174675-49-1)	ng/l	<10	<2	4.9	<1	<1	<40	<2	<1	<1	<1	<1	<10	29.6	<10	<1	<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	ng/l	<10	3.36	3.25	<2	<2	<5	<1	1.26	1.02	<2	<2	<10	<10	<10	<2	<2
PFUnDS (749786-16-1)	ng/l	<10	<2	<2	<2	<2	<10	<1	<1	<1	<2	<2	<10	<10	<10	<2	<2
Total PFOS	ng/l	38.5	116	95.4	1.69	1.84	16.5	12.3	14.6	12.6	4.39	5.22	<6.5	<6.5	<6.5	1.42	<0.65
SW Threshold (as per S.I No. 77 of 2019.)																	
AA EQS (PFOS) (average duplicates total PFOS)	0.65 ng/l		105.70		1.77		14.40		13.60		4.81			0.00		0.71	
MAC EQS (PFOS) (total PFOS)	36,000 ng/l	38.50	116.00	95.40	1.69	1.84	16.50	12.30	14.60	12.60	4.39	5.22	0.00	0.00	0.00	1.42	0.00

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 7

Surface Water Laboratory Certificates

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	22 April 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240408-38
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	726462
Order Number:	Z4323

We received 32 samples on Monday April 08, 2024 and 32 of these samples were scheduled for analysis which was completed on Monday April 22, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan
Operations Manager

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29617880	SL1-A		0.00 - 0.00	03/04/2024
29617887	SL2-A		0.00 - 0.00	03/04/2024
29617895	SL3-A		0.00 - 0.00	03/04/2024
29617903	SL4-A		0.00 - 0.00	03/04/2024
29617861	SL5-A		0.00 - 0.00	03/04/2024
29617854	SL6-A		0.00 - 0.00	03/04/2024
29617848	SL7-A		0.00 - 0.00	03/04/2024
29617841	SL8-A		0.00 - 0.00	03/04/2024
29617834	SL9-A		0.00 - 0.00	03/04/2024
29617827	SL10-A		0.00 - 0.00	03/04/2024
29617907	SL11-A		0.00 - 0.00	03/04/2024
29617928	SL12-A		0.00 - 0.00	03/04/2024
29617931	SL13-A		0.00 - 0.00	03/04/2024
29617934	SL14-A		0.00 - 0.00	03/04/2024
29617938	SL15-A		0.00 - 0.00	03/04/2024
29617884	SL1-B		0.00 - 0.00	03/04/2024
29617890	SL2-B		0.00 - 0.00	03/04/2024
29617899	SL3-B		0.00 - 0.00	03/04/2024
29617911	SL4-B		0.00 - 0.00	03/04/2024
29617858	SL5-B		0.00 - 0.00	03/04/2024
29617851	SL6-B		0.00 - 0.00	03/04/2024
29617845	SL7-B		0.00 - 0.00	03/04/2024
29617837	SL8-B		0.00 - 0.00	03/04/2024
29617830	SL9-B		0.00 - 0.00	03/04/2024
29617865	SL10-B		0.00 - 0.00	03/04/2024
29617924	SL11-B		0.00 - 0.00	03/04/2024
29617877	SL12-B		0.00 - 0.00	03/04/2024
29617873	SL13-B		0.00 - 0.00	03/04/2024
29617869	SL14-B		0.00 - 0.00	03/04/2024
29617942	SL15-B		0.00 - 0.00	03/04/2024
29617915	SWFB		0.00 - 0.00	04/04/2024
29617921	SWTB		0.00 - 0.00	04/04/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

	Lab Sample No(s)		29617880	29617887	29617895	29617903	29617861	29617854	29617848	29617841	29617834	29617827	29617907	29617928	29617931	29617934	29617938	29617884	29617890	29617899	29617911
	Customer Sample Reference		SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A	SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A	SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B	SL4-B
	AGS Reference																				
	Depth (m)		0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	Container		Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
	Sample Type		SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

29617921	SWTB		0.00 - 0.00	500ml Plastic (ALE208)	SW		X
29617915	SWFB		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617942	SL15-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617869	SL14-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617873	SL13-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617877	SL12-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617924	SL11-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617865	SL10-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617830	SL9-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617837	SL8-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617845	SL7-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617851	SL6-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617858	SL5-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617880	29617887	29617895	29617903	29617861	29617854
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	8.04 #	10.7 #	9.82 #	27 #	6.8 #	6.6 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	11.5 #	18.8 #	21.6 #	52.5 #	10.5 #	10.7 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	1.25 #	1.16 #	<1 #	1.28 #	2.87 #
PFHxA (307-24-4)	<1 ng/l	TM434	5.2 #	9.31 #	10.4 #	22 #	4.56 #	6.33 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	2.72 #	4.49 #	5.17 #	10.9 #	2.31 #	3.18 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	2.68 #	17.1 #	<1 #	<1 #	1.26 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.63 #	2.73 #	4.06 #	3.27 #	1.56 #	2.49 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	2.26 #	6.92 #	1.92 #	<1 #	1.58 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	2.35 #	11.3 #	1.22 #	<1 #	2.04 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	3.56 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.18 #	2.8 #	4.25 #	0.85 #	0.936 #	3.12 #
Branched PFOS	<0.65 ng/l	TM434	0.86 #	2.19 #	5.67 #	1.35 #	0.749 #	2.03 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

10:06:48 22/04/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617880	29617887	29617895	29617903	29617861	29617854
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	1.29 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	16.2	24.7	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	2.04 #	4.99 #	9.91 #	2.2 #	1.68 #	5.15 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617848	29617841	29617834	29617827	29617907	29617928
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	9.28 #	4.92 #	5.16 #	7.71 #	6.95 #	4.43 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	21.7 #	2.77 #	3.8 #	10.4 #	18.1 #	3.1 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.51 #	<1 #	<1 #	1.33 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	10.8 #	1.5 #	2 #	4.56 #	8.3 #	1.69 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	5.09 #	1.41 #	1.29 #	2.35 #	2.65 #	1.36 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	12.4 #	<1 #	<1 #	<1 #	5.51 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	4.02 #	1.4 #	1.17 #	1.55 #	1.61 #	1.32 #
PFHxS (355-46-4)	<1 ng/l	TM434	5.84 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	9.45 #	<1 #	<1 #	<1 #	2.26 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	2.65 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	3.9 #	0.877 #	<0.65 #	0.855 #	1.06 #	1.14 #
Branched PFOS	<0.65 ng/l	TM434	5.04 #	0.663 #	0.689 #	0.838 #	0.959 #	0.77 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617848	29617841	29617834	29617827	29617907	29617928
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	21.1	<10	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	8.94 #	1.54 #	0.689 #	1.69 #	2.01 #	1.91 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617931	29617934	29617938	29617884	29617890	29617899
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	7.81 #	5.32 #	7.17 #	9 #	8.54 #	8.39 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	16.7 #	4.76 #	14.2 #	12.7 #	15 #	21 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	1.26 #	<1 #	<1 #	<1 #	1.54 #
PFHxA (307-24-4)	<1 ng/l	TM434	8.11 #	2.2 #	7.09 #	5.75 #	7.13 #	10.8 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	4.2 #	1.49 #	2.67 #	2.93 #	3.8 #	5.25 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	11.1 #	<1 #	1.6 #	<1 #	2.15 #	16.6 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.79 #	1.5 #	2.02 #	1.85 #	2.5 #	3.77 #
PFHxS (355-46-4)	<1 ng/l	TM434	3.59 #	<1 #	1.11 #	1.02 #	2.03 #	6.67 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	6.47 #	1.2 #	1.53 #	<1 #	1.93 #	10 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	3.35 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	2.35 #	3.04 #	1.26 #	1.05 #	2.67 #	3.59 #
Branched PFOS	<0.65 ng/l	TM434	2.72 #	1.5 #	1.19 #	0.922 #	1.68 #	4.91 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617931	29617934	29617938	29617884	29617890	29617899
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	13.2	<10	<10	<10	14.5	21.8
Total PFOS	<0.65 ng/l	TM434	5.07 #	4.54 #	2.45 #	1.97 #	4.35 #	8.5 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL4-B	SL5-B	SL6-B	SL7-B	SL8-B	SL9-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617911	29617858	29617851	29617845	29617837	29617830
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	21.9 #	8.39 #	6.12 #	8.82 #	4.12 #	4.05 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	43.8 #	10.4 #	9.59 #	17.5 #	2.68 #	3.09 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	2.9 #	<1 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	17.3 #	4.68 #	5.96 #	8.84 #	1.52 #	1.63 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	9.45 #	2.34 #	2.79 #	4.46 #	1.41 #	1.38 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	1.09 #	10.3 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.83 #	1.54 #	2.36 #	3.36 #	1.23 #	1.23 #
PFHxS (355-46-4)	<1 ng/l	TM434	1.67 #	<1 #	1.59 #	4.57 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.11 #	<1 #	1.94 #	7.71 #	<1 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	2.39 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.03 #	0.837 #	2.05 #	3.21 #	0.986 #	1.1 #
Branched PFOS	<0.65 ng/l	TM434	1.27 #	0.836 #	1.9 #	4.26 #	0.728 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL4-B	SL5-B	SL6-B	SL7-B	SL8-B	SL9-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617911	29617858	29617851	29617845	29617837	29617830
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<10	18.5	<10	<10
Total PFOS	<0.65 ng/l	TM434	2.3 #	1.67 #	3.96 #	7.47 #	1.71 #	1.1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617865	29617924	29617877	29617873	29617869	29617942
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	8.22 #	8.77 #	3.56 #	9.85 #	5.05 #	6.28 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	10.9 #	24.5 #	2.95 #	22.7 #	5.09 #	12.4 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.33 #	1.35 #	<1 #	1.25 #	1.29 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	4.7 #	12.3 #	1.64 #	10.9 #	2.4 #	6.23 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	2.67 #	3.33 #	1.26 #	5.24 #	1.48 #	2.53 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	7.25 #	<1 #	14.8 #	<1 #	1.4 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.7 #	1.94 #	1.27 #	3.62 #	1.63 #	1.85 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	1.35 #	<1 #	4.59 #	<1 #	1.07 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	2.67 #	<1 #	8.64 #	1.26 #	1.38 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.08 #	1.01 #	0.931 #	2.83 #	2.54 #	1.28 #
Branched PFOS	<0.65 ng/l	TM434	0.982 #	1.07 #	0.717 #	3.31 #	1.64 #	0.996 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024	08/04/2024
SDG Ref			240408-38	240408-38	240408-38	240408-38	240408-38	240408-38
Lab Sample No.(s)			29617865	29617924	29617877	29617873	29617869	29617942
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	1.15 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<10	20.6	<10	<10
Total PFOS	<0.65 ng/l	TM434	2.06 #	2.07 #	1.65 #	6.14 #	4.18 #	2.27 #

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CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWFB	SWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			04/04/2024	04/04/2024				
Sample Time			.	.				
Date Received			08/04/2024	08/04/2024				
SDG Ref			240408-38	240408-38				
Lab Sample No.(s)			29617915	29617921				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 #	<2 2 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 2 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 2 #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 #	<1 2 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 2 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 2 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 2 #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 2 #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 #	<1 2 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 2 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 2 #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 #	<1 2 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 2 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 2 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 2 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 2 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 2 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 2 #				
PFHxS (355-46-4)	<1 ng/l	TM434	1.19 #	<1 2 #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 2 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<1 2 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 2 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 2 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 2 #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 2 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 2 #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 2 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.779 #	<0.65 2 #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 2 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 2 #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 2 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 2 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 2 #				

Validated

CERTIFICATE OF ANALYSIS

SDG: 240408-38 **Report Number:** 726462 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SWFB	SWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			04/04/2024	04/04/2024				
Sample Time			.	.				
Date Received			08/04/2024	08/04/2024				
SDG Ref			240408-38	240408-38				
Lab Sample No.(s)			29617915	29617921				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 2 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 2 #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 2 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 2 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 2 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 2 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 2 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 2 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 2 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 2 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 2 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 2 #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 2 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 2 #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 2 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 2 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10 2				
Total PFOS	<0.65 ng/l	TM434	0.779 #	<0.65 2 #				

10:06:48 22/04/2024

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	29617880	29617887	29617895	29617903	29617861	29617854	29617848	29617841	29617834	29617827
Customer Sample Ref.	SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A	SL7-A	SL8-A	SL9-A	SL10-A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	22-Apr-2024	16-Apr-2024	16-Apr-2024	16-Apr-2024	18-Apr-2024	22-Apr-2024	18-Apr-2024	22-Apr-2024	16-Apr-2024	18-Apr-2024

Lab Sample No(s)	29617907	29617928	29617931	29617934	29617938	29617884	29617890	29617899	29617911	29617858
Customer Sample Ref.	SL11-A	SL12-A	SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B	SL4-B	SL5-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	22-Apr-2024	22-Apr-2024	22-Apr-2024	18-Apr-2024	22-Apr-2024	22-Apr-2024	22-Apr-2024	18-Apr-2024	22-Apr-2024	16-Apr-2024

Lab Sample No(s)	29617851	29617845	29617837	29617830	29617865	29617924	29617877	29617873	29617869	29617942
Customer Sample Ref.	SL6-B	SL7-B	SL8-B	SL9-B	SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	22-Apr-2024	22-Apr-2024	22-Apr-2024	22-Apr-2024	18-Apr-2024	18-Apr-2024	22-Apr-2024	16-Apr-2024	18-Apr-2024	22-Apr-2024

Lab Sample No(s)	29617915	29617921
Customer Sample Ref.	SWFB	SWTB
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water
PFAS Liquids (Full Suite)	18-Apr-2024	22-Apr-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
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Deeside
CH5 3US
Tel: (01244) 528777
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Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	20 June 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240405-112
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	732208
Order Number:	Z4323

This report has been revised and directly supersedes 726461 in its entirety.

We received 48 samples on Friday April 05, 2024 and 48 of these samples were scheduled for analysis which was completed on Monday April 22, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan
Operations Manager

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29606830	ACO Drain A		0.00 - 0.00	02/04/2024
29606833	ACO Drain B		0.00 - 0.00	02/04/2024
29606725	C1 A		0.00 - 0.00	03/04/2024
29606749	C-2A (A)		0.00 - 0.00	02/04/2024
29606758	C-2A (B)		0.00 - 0.00	02/04/2024
29606728	C1 B		0.00 - 0.00	03/04/2024
29606697	C-2B (A)		0.00 - 0.00	02/04/2024
29606731	C-2B (B)		0.00 - 0.00	02/04/2024
29606836	Interceptor A		0.00 - 0.00	02/04/2024
29606839	Interceptor B		0.00 - 0.00	02/04/2024
29606843	K Stream A		0.00 - 0.00	02/04/2024
29606849	K Stream B		0.00 - 0.00	02/04/2024
29606752	M1 (A)		0.00 - 0.00	02/04/2024
29606734	M5 A		0.00 - 0.00	03/04/2024
29606755	M1(B)		0.00 - 0.00	02/04/2024
29606737	M5 B		0.00 - 0.00	03/04/2024
29606768	P2 A		0.00 - 0.00	02/04/2024
29606818	P3 A		0.00 - 0.00	02/04/2024
29606719	P4 A		0.00 - 0.00	02/04/2024
29606810	P7 A		0.00 - 0.00	02/04/2024
29606802	P8 A		0.00 - 0.00	02/04/2024
29606772	P2 B		0.00 - 0.00	02/04/2024
29606814	P3 B		0.00 - 0.00	02/04/2024
29606722	P4 B		0.00 - 0.00	02/04/2024
29606806	P7 B		0.00 - 0.00	02/04/2024
29606798	P8 B		0.00 - 0.00	02/04/2024
29606700	R1 A		0.00 - 0.00	03/04/2024
29606706	R2 A		0.00 - 0.00	03/04/2024
29606703	R1 B		0.00 - 0.00	03/04/2024
29606710	R2 B		0.00 - 0.00	03/04/2024
29606741	S1 A		0.00 - 0.00	03/04/2024
29617795	S3-A			04/04/2024
29606745	S1 B		0.00 - 0.00	03/04/2024
29617791	S3-B			04/04/2024
29606823	Sewer A		0.00 - 0.00	02/04/2024
29606827	Sewer B		0.00 - 0.00	02/04/2024
29606784	SWML3 A		0.00 - 0.00	03/04/2024
29606794	SWML4 A		0.00 - 0.00	03/04/2024
29606713	SWML5(A) A		0.00 - 0.00	03/04/2024
29606778	SWML7(A) A		0.00 - 0.00	03/04/2024
29606716	SWML5(A) B		0.00 - 0.00	03/04/2024
29606775	SWML7(A) B		0.00 - 0.00	03/04/2024
29606781	SWML3 B		0.00 - 0.00	03/04/2024
29606789	SWML4 B		0.00 - 0.00	03/04/2024
29606764	SWML7(B) A		0.00 - 0.00	03/04/2024
29606867	SWML7(B) B		0.00 - 0.00	03/04/2024
29606856	WAD Stream A		0.00 - 0.00	03/04/2024
29606861	WAD Stream B		0.00 - 0.00	03/04/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

		Lab Sample No(s)	29606830	29606833	29606725	29606749	29606758	29606728	29606697	29606731	29606836	29606839	29606843	29606849	29606752	29606734	29606755	29606737	29606768	29606818	29606719
		Customer Sample Reference	ACO Drain A	ACO Drain B	C1 A	C-2A (A)	C-2A (B)	C1 B	C-2B (A)	C-2B (B)	Interceptor A	Interceptor B	K Stream A	K Stream B	M1 (A)	M5 A	M1(B)	M5 B	P2 A	P3 A	P4 A
		AGS Reference																			
		Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
		Container	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
		Sample Type	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

29606778	SWML7(A) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606713	SWML5(A) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606794	SWML4 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606784	SWML3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606827	Sewer B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606823	Sewer A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617791	S3-B			Digitube fo PFAS analysis.	GW		X
29606745	S1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29617795	S3-A			Digitube fo PFAS analysis.	GW		X
29606741	S1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606710	R2 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606703	R1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606706	R2 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606700	R1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606798	P8 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606806	P7 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606722	P4 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606814	P3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606772	P2 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606802	P8 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
29606810	P7 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			29606716	29606775	29606781	29606789	29606764	29606867	29606856	29606861
Customer Sample Reference			SWML5(A) B	SWML7(A) B	SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B	WAD Stream A	WAD Stream B
AGS Reference										
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			SW	SW	SW	SW	SW	SW	SW	SW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 48	X	X	X	X	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			ACO Drain A	ACO Drain B	C1 A	C-2A (A)	C-2A (B)	C1 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	02/04/2024	03/04/2024	02/04/2024	02/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606830	29606833	29606725	29606749	29606758	29606728
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	23.2 #	25.5 #	3.69 #	8.99 #	10.6 #	<2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	117 #	141 #	2.05 #	17.9 #	18.3 #	1.9 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	2.32 #	2.78 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	1.12 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	256 #	287 #	1.08 #	7.86 #	8.02 #	1.02 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	18.8 #	22.2 #	<1 #	3.79 #	3.91 #	1.1 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	19.2 #	19.3 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	560 #	720 #	<1 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	12.8 #	16.1 #	0.828 #	2.35 #	2.42 #	1.09 #
PFHxS (355-46-4)	<1 ng/l	TM434	1.24 #	1.92 #	<1 #	1.45 #	1.76 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	1.05 #	1.11 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.24 #	1.29 #	1.04 #	1.27	1.01 #	1.07 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	23.5 #	41.2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.99 #	0.986 #	<0.65 #	1.08 #	1.46 #	0.806 #
Branched PFOS	<0.65 ng/l	TM434	0.705 #	0.852 #	<0.65 #	1.51 #	1.71 #	0.773 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			ACO Drain A	ACO Drain B	C1 A	C-2A (A)	C-2A (B)	C1 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	02/04/2024	03/04/2024	02/04/2024	02/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606830	29606833	29606725	29606749	29606758	29606728
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	1.21 #	1.02 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	362	496	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	1.69 #	1.84 #	<0.65 #	2.59 #	3.16 #	1.58 #

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CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			C-2B (A)	C-2B (B)	Interceptor A	Interceptor B	K Stream A	K Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606697	29606731	29606836	29606839	29606843	29606849
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	8.45 #	9.4 #	9.07 #	8.54 #	14.6 #	13.5 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	14.2 #	13.6 #	25 #	28.7 #	38.3 #	36.7 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	1.17 #	<1 #	<1 #	2.22 #	2.22 #
PFHxA (307-24-4)	<1 ng/l	TM434	5.27 #	5.06 #	17.8 #	19.9 #	16.3 #	16.2 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	3.35 #	3.5 #	9.23 #	10.3 #	9.59 #	9.81 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	1.55 #	1.55 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	148 #	160 #	4.43 #	5 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.47 #	2.37 #	8.77 #	9.46 #	5.99 #	6.27 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	11.4 #	11.5 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	2.82 #	3.41 #	1.98 #	1.84 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<1	<1	<1 #	20.5 #	20.7 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	1.23 #	1.29 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	127 #	138 #	5.01 #	5.18 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	2.89 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.708 #	0.837 #	3.22 #	4.02 #	10.6 #	10.8 #
Branched PFOS	<0.65 ng/l	TM434	0.668 #	<0.65 #	1.17 #	1.19 #	12.2 #	11 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			C-2B (A)	C-2B (B)	Interceptor A	Interceptor B	K Stream A	K Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606697	29606731	29606836	29606839	29606843	29606849
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	1.48 #	1.49 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	2.82 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	367	295	40.5	41.8
Total PFOS	<0.65 ng/l	TM434	1.38 #	0.837 #	4.39 #	5.22 #	22.8 #	21.8 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			M1 (A)	M5 A	M1(B)	M5 B	P2 A	P3 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	03/04/2024	02/04/2024	03/04/2024	02/04/2024	02/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606752	29606734	29606755	29606737	29606768	29606818
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	9.33 #	5.58 #	9.36 #	6.72 #	35.6 #	19.2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	11.4 #	11.8 #	12.1 #	13 #	75 #	38.4 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	1.32 #	1.14 #
PFHxA (307-24-4)	<1 ng/l	TM434	3.98 #	5.8 #	4.51 #	6.13 #	33.4 #	16.7 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	2.6 #	2.66 #	2.54 #	3.27 #	10.6 #	6.56 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.34 #	2.16 #	2.21 #	2.21 #	3.15 #	1.89 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #	1.17 #	<1 #	1.63 #	2.75 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.7 #	3.16 #	1.69 #	3.44 #	<1	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<9 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	2.15 #	0.953 #	1.55 #	0.913 #	1.04 #	0.689 #
Branched PFOS	<0.65 ng/l	TM434	0.933 #	0.847 #	0.836 #	0.885 #	1.32 #	1.8 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			M1 (A)	M5 A	M1(B)	M5 B	P2 A	P3 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	03/04/2024	02/04/2024	03/04/2024	02/04/2024	02/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606752	29606734	29606755	29606737	29606768	29606818
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	3.09 #	1.8 #	2.39 #	1.8 #	2.36 #	2.49 #

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CERTIFICATE OF ANALYSIS

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Results Legend
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- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
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- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			P4 A	P7 A	P8 A	P2 B	P3 B	P4 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606719	29606810	29606802	29606772	29606814	29606722
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	14.1 #	24.9 #	3.2 #	34.2 #	17.4 #	15.5 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	31.5 #	28.9 #	6.16 #	77 #	36.2 #	32.8 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.36 #	1.16 #	<1 #	1.59 #	1.24 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	12.8 #	10.7 #	3.56 #	31.7 #	15.2 #	15.1 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	6.6 #	4.69 #	1.84 #	11.2 #	6.25 #	6.38 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	7.91 #	<1 #	<1 #	<1 #	<1 #	8.03 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	3.47 #	1.81 #	1.12 #	3.3 #	2.11 #	3.62 #
PFHxS (355-46-4)	<1 ng/l	TM434	2.51 #	<1 #	<1 #	1.78 #	2.86 #	2.42 #
PFNA (375-95-1)	<1 ng/l	TM434	1.15 #	<1 #	<1 #	<1 #	<1 #	1.05 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.62 #	<1	1.71 #	<1 #	1.07 #	1.55 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	3.81 #	0.681 #	<0.65 #	1.04 #	0.876 #	3.57 #
Branched PFOS	<0.65 ng/l	TM434	2.75 #	0.714 #	<0.65 #	1.35 #	1.56 #	3.03 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
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- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			P4 A	P7 A	P8 A	P2 B	P3 B	P4 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024	02/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606719	29606810	29606802	29606772	29606814	29606722
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	1.24 #	<1 #	<1 #	<1 #	<1 #	1.21 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	1.24 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	27.1	<10	<10	<10	<10	22.9
Total PFOS	<0.65 ng/l	TM434	6.57 #	1.39 #	<0.65 #	2.39 #	2.43 #	6.6 #

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- # ISO17025 accredited.
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- aq Aqueous / settled sample.
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- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			P7 B	P8 B	R1 A	R2 A	R1 B	R2 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	02/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606806	29606798	29606700	29606706	29606703	29606710
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	30.3 #	5.35 #	14.4 #	12.9 #	12.3 #	11 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	32 #	6.77 #	23 #	25 #	18.3 #	24.9 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<6 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.12 #	<1 #	<2 #	1.04 #	1.04 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	11.6 #	3.4 #	9.47 #	9.5 #	8.1 #	11.5 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	5.27 #	1.89 #	5.93 #	6.54 #	4.53 #	6.95 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<10 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	<2 #	1.28 #	1.47 #	1.09 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.83 #	1.18 #	3.42 #	3.9 #	2.55 #	4.16 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #	2.87 #	1.58 #	1.52 #	1.64 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	1.1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1	1.68 #	3.06 #	2.58	2.33 #	1.11 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<10 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<10 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #	3.03 #	2.25 #	2.73 #	2.35 #
Branched PFOS	<0.65 ng/l	TM434	0.689 #	<0.65 #	2.34 #	1.3 #	1.66 #	1.5 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #

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Customer Sample Ref.			P7 B	P8 B	R1 A	R2 A	R1 B	R2 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/04/2024	02/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606806	29606798	29606700	29606706	29606703	29606710
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<2 #	1.05 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<6 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<4 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<20 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<20 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<2 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	28.7	18	23	16.3
Total PFOS	<0.65 ng/l	TM434	0.689 #	<0.65 #	5.37 #	3.54 #	4.39 #	3.85 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			S1 A	S3-A	S1 B	S3-B	Sewer A	Sewer B
Depth (m)			0.00 - 0.00	.	0.00 - 0.00	.	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Ground Water (GW)	Surface Water (SW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	04/04/2024	03/04/2024	04/04/2024	02/04/2024	02/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606741	29617795	29606745	29617791	29606823	29606827
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	5.84 #	5.73 #	6.42 #	3.92 #	2.75 #	<2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	1.52 #	5.07 #	1.69 #	4.89 #	1.56 #	1.31 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.1 #	<1 #	1.02 #	<1 #	1.39 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	1.1 #	2.32 #	<1 #	2.13 #	1.04 #	<1 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	1.5 #	1.75 #	1.29 #	1.71 #	1.1 #	<1 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.74 #	1.46 #	2.77 #	1.28 #	1.5 #	1.25 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	1.21 #	<1	1.2 #	<1 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	0.954 #	0.675 #	0.931 #	0.772 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	0.689 #	<0.65 #	0.723 #	0.651 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			S1 A	S3-A	S1 B	S3-B	Sewer A	Sewer B
Depth (m)			0.00 - 0.00	.	0.00 - 0.00	.	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Ground Water (GW)	Surface Water (SW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	04/04/2024	03/04/2024	04/04/2024	02/04/2024	02/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606741	29617795	29606745	29617791	29606823	29606827
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	1.1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	4.82 #	5.03 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	1.28 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	2.3 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	<0.65 #	1.64 #	0.675 #	1.65 #	1.42 #	<0.65 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A	SWML5(A) B	SWML7(A) B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606784	29606794	29606713	29606778	29606716	29606775
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	8.14 #	13.7 #	20.9 #	4.13 #	21.1 #	5.63 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	6.84 #	31 #	44.1 #	8.9 #	43.9 #	10.1 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	1.24 #	1.38 #	1.02 #	1.37 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	4.07 #	13.2 #	16.4 #	3.75 #	16.2 #	4.38 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	2.78 #	6.23 #	8.93 #	1.36 #	9.84 #	1.45 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	12.3 #	13 #	<1 #	13.3 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.44 #	4.09 #	5.48 #	1.04 #	5.18 #	1.17 #
PFHxS (355-46-4)	<1 ng/l	TM434	1.24 #	2.25 #	3.13 #	<1 #	3.2 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	1.13 #	1.5 #	<1 #	1.45 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	3.08	1.46 #	3.74 #	<1 #	4.35 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	2.31 #	<2 #	3.08 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.919 #	4.08 #	5.37 #	<0.65 #	5.79 #	0.817 #
Branched PFOS	<0.65 ng/l	TM434	0.887 #	2.99 #	3.07 #	<0.65 #	3.11 #	0.896 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A	SWML5(A) B	SWML7(A) B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606784	29606794	29606713	29606778	29606716	29606775
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	1.37 #	<1 #	1.32 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	42.6	39.7	<10	44.8	<10
Total PFOS	<0.65 ng/l	TM434	1.81 #	7.08 #	8.43 #	<0.65 #	8.91 #	1.71 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B	WAD Stream A	WAD Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			-	-	-	-	-	-
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606781	29606789	29606764	29606867	29606856	29606861
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	7.83 #	13.7 #	<2 #	6.23 #	4.05 #	6 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	6.85 #	32.1 #	3.37 #	2.87 #	10.7 #	11.3 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	1.23 #	1.09 #	1.58 #	1.46 #
PFHxA (307-24-4)	<1 ng/l	TM434	3.47 #	12.6 #	2.35 #	1.89 #	5.41 #	5.14 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	2.64 #	6.53 #	1.71 #	1.5 #	3.17 #	2.95 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	12.5 #	1.17 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.65 #	3.84 #	2.33 #	2.09 #	2.77 #	2.51 #
PFHxS (355-46-4)	<1 ng/l	TM434	1.26 #	2.1 #	<1 #	1.18 #	2.18 #	1.84 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	1.19 #	<1 #	1.28 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	3.44	1.48 #	<1 #	<1	2.31 #	4.86
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<10 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.881 #	4.35 #	1.26 #	1.04 #	2.36 #	1.85 #
Branched PFOS	<0.65 ng/l	TM434	1.03 #	3.03 #	1.12 #	1.09 #	1.9 #	1.84 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240405-112 **Report Number:** 732208 **Superseded Report:** 726461
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B	WAD Stream A	WAD Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024	03/04/2024
Sample Time			.	.	.	.	.	.
Date Received			05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
SDG Ref			240405-112	240405-112	240405-112	240405-112	240405-112	240405-112
Lab Sample No.(s)			29606781	29606789	29606764	29606867	29606856	29606861
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	1 #	1.23 #	<1 #	<1 #	<1 #	1.02 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	28	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	1.91 #	7.38 #	2.38 #	2.13 #	4.27 #	3.68 #

14:38:41 20/06/2024

Data Amendment

Sample No. : 29606706 **Date of Amendment :** 17/06/2024 **Authorised:** Sonia McWhan

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
R2 A	Analytical/Quality Issue	PFAS Liquids (Full Suite)	PFecHS (133201-07-7)	ng/l	1.29	2.58

Sample No. : 29606781 **Date of Amendment :** 17/06/2024 **Authorised:** Sonia McWhan

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
SWML3 B	Analytical/Quality Issue	PFAS Liquids (Full Suite)	PFecHS (133201-07-7)	ng/l	1.72	3.44

Sample No. : 29606784 **Date of Amendment :** 17/06/2024 **Authorised:** Sonia McWhan

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
SWML3 A	Analytical/Quality Issue	PFAS Liquids (Full Suite)	PFecHS (133201-07-7)	ng/l	1.54	3.08

Sample No. : 29606861 **Date of Amendment :** 17/06/2024 **Authorised:** Sonia McWhan

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
WAD Stream B	Analytical/Quality Issue	PFAS Liquids (Full Suite)	PFecHS (133201-07-7)	ng/l	2.43	4.86

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	29606830	29606833	29606725	29606728	29606749	29606758	29606697	29606731	29606836	29606839
Customer Sample Ref.	ACO Drain A	ACO Drain B	C1 A	C1 B	C-2A (A)	C-2A (B)	C-2B (A)	C-2B (B)	Interceptor A	Interceptor B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	16-Apr-2024	17-Apr-2024	16-Apr-2024	16-Apr-2024	10-Apr-2024	16-Apr-2024	17-Apr-2024	10-Apr-2024	10-Apr-2024	17-Apr-2024

Lab Sample No(s)	29606843	29606849	29606752	29606734	29606737	29606755	29606768	29606818	29606719	29606810
Customer Sample Ref.	K Stream A	K Stream B	M1 (A)	M5 A	M5 B	M1(B)	P2 A	P3 A	P4 A	P7 A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	16-Apr-2024	16-Apr-2024	17-Apr-2024	16-Apr-2024	17-Apr-2024	17-Apr-2024	10-Apr-2024	17-Apr-2024	11-Apr-2024	10-Apr-2024

Lab Sample No(s)	29606802	29606772	29606814	29606722	29606806	29606798	29606700	29606706	29606703	29606710
Customer Sample Ref.	P8 A	P2 B	P3 B	P4 B	P7 B	P8 B	R1 A	R2 A	R1 B	R2 B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	16-Apr-2024	17-Apr-2024	16-Apr-2024	16-Apr-2024	10-Apr-2024	16-Apr-2024	11-Apr-2024	09-Apr-2024	11-Apr-2024	16-Apr-2024

Lab Sample No(s)	29606741	29606745	29617795	29617791	29606823	29606827	29606784	29606794	29606713	29606778
Customer Sample Ref.	S1 A	S1 B	S3-A	S3-B	Sewer A	Sewer B	SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Ground Water	Ground Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	11-Apr-2024	09-Apr-2024	22-Apr-2024	22-Apr-2024	17-Apr-2024	17-Apr-2024	09-Apr-2024	11-Apr-2024	11-Apr-2024	11-Apr-2024

Lab Sample No(s)	29606781	29606789	29606716	29606775	29606764	29606867	29606856	29606861
Customer Sample Ref.	SWML3 B	SWML4 B	SWML5(A) B	SWML7(A) B	SWML7(B) A	SWML7(B) B	WAD Stream A	WAD Stream B
AGS Ref.								
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	09-Apr-2024	16-Apr-2024	11-Apr-2024	16-Apr-2024	16-Apr-2024	09-Apr-2024	11-Apr-2024	09-Apr-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	06 November 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240719-95
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	745996
Order Number:	Z4448

This report has been revised and directly supersedes 736362 in its entirety.

We received 32 samples on Friday July 19, 2024 and 32 of these samples were scheduled for analysis which was completed on Wednesday July 31, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30104525	SL1-A		0.00 - 0.00	17/07/2024
30104532	SL2-A		0.00 - 0.00	17/07/2024
30104540	SL3-A		0.00 - 0.00	17/07/2024
30104549	SL4-A		0.00 - 0.00	17/07/2024
30104510	SL5-A		0.00 - 0.00	17/07/2024
30104503	SL6-A		0.00 - 0.00	17/07/2024
30104496	SL7-A		0.00 - 0.00	17/07/2024
30104490	SL8-A		0.00 - 0.00	17/07/2024
30104480	SL9-A		0.00 - 0.00	17/07/2024
30104467	SL10-A		0.00 - 0.00	17/07/2024
30104554	SL11-A		0.00 - 0.00	17/07/2024
30104573	SL12-A		0.00 - 0.00	17/07/2024
30104576	SL13-A		0.00 - 0.00	17/07/2024
30104579	SL14-A		0.00 - 0.00	17/07/2024
30104582	SL15-A		0.00 - 0.00	17/07/2024
30104528	SL1-B		0.00 - 0.00	17/07/2024
30104536	SL2-B		0.00 - 0.00	17/07/2024
30104544	SL3-B		0.00 - 0.00	17/07/2024
30104559	SL4-B		0.00 - 0.00	17/07/2024
30104506	SL5-B		0.00 - 0.00	17/07/2024
30104500	SL6-B		0.00 - 0.00	17/07/2024
30104493	SL7-B		0.00 - 0.00	17/07/2024
30104483	SL8-B		0.00 - 0.00	17/07/2024
30104474	SL9-B		0.00 - 0.00	17/07/2024
30104513	SL10-B		0.00 - 0.00	17/07/2024
30104570	SL11-B		0.00 - 0.00	17/07/2024
30104522	SL12-B		0.00 - 0.00	17/07/2024
30104519	SL13-B		0.00 - 0.00	17/07/2024
30104516	SL14-B		0.00 - 0.00	17/07/2024
30104587	SL15-B		0.00 - 0.00	17/07/2024
30104564	SWFB		0.00 - 0.00	17/07/2024
30104567	SWTB		0.00 - 0.00	17/07/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30104525	30104532	30104540	30104549	30104510	30104503	30104496	30104490	30104480	30104467	30104554	30104573	30104576	30104579	30104582	30104528	30104536	30104544	30104559
Customer Sample Reference			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A	SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A	SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B	SL4-B
AGS Reference																					
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

30104567	SWTB		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104564	SWFB		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104587	SL15-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104516	SL14-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104519	SL13-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104522	SL12-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104570	SL11-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104513	SL10-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104474	SL9-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104483	SL8-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104493	SL7-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104500	SL6-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104506	SL5-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104525	30104532	30104540	30104549	30104510	30104503
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	3.2 #	12.3 #	11.1 #	12.5 #	3.18 #	9.84 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	2.46 #	20.6 #	29 #	21.5 #	1.51 #	13.7 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	1.35 #	1.52 #	<1 #	<1 #	1.37 #
PFHxA (307-24-4)	<1 ng/l	TM434	1.43 #	13 #	15.9 #	9.59 #	1.31 #	17.5 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	1.24 #	5.23 #	6.88 #	4.19 #	1.07 #	3.89 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	3.2 #	79.8 #	<1 #	<1 #	1.29 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.3 #	3.42 #	4.61 #	2.7 #	0.781 #	2.84 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	3.34 #	4.38 #	1.75 #	<1 #	2.12 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	1.13 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	4.48 #	44.1 #	<1 #	<1 #	6.59 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	4.2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.09 #	4.07 #	3.34 #	0.968 #	<0.65 #	3.08 #
Branched PFOS	<0.65 ng/l	TM434	0.725 #	2.76 #	3.54 #	1.18 #	<0.65 #	1.78 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104525	30104532	30104540	30104549	30104510	30104503
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	20	37.4	<10	<10	10.8
Total PFOS	<0.65 ng/l	TM434	1.82 #	6.83 #	6.87 #	2.14 #	<0.65 #	4.86 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104496	30104490	30104480	30104467	30104554	30104573
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	12.2 #	3.05 #	3.46 #	3.39 #	11.5 #	5.01 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	10.5 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	25.5 #	3.31 #	4.29 #	1.77 #	32.4 #	4.68 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.37 #	<1 #	<1 #	<1 #	1.71 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	14.8 #	2.21 #	3.17 #	1.38 #	16.2 #	2.96 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	6.34 #	<1 #	1.64 #	1.15 #	5.54 #	1.77 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	5.33 #	<1 #	<1 #	1.08 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	14.6 #	<1 #	<1 #	<1 #	2.32 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	4.75 #	0.994 #	1.03 #	1.34 #	3.54 #	1.36 #
PFHxS (355-46-4)	<1 ng/l	TM434	3.42 #	<1 #	<1 #	<1 #	6.16 #	1.06 #
PFNA (375-95-1)	<1 ng/l	TM434	1.35 #	<1 #	<1 #	<1 #	1.38 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	36.1 #	1.12 #	<1 #	<1 #	23.6 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	5.05 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	3.11 #	<0.65 #	<0.65 #	<0.65 #	4.6 #	1.39 #
Branched PFOS	<0.65 ng/l	TM434	3.25 #	<0.65 #	<0.65 #	<0.65 #	5.01 #	0.917 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104496	30104490	30104480	30104467	30104554	30104573
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	1.41 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	1.4 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	10.2 0 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	10.8 0 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	1.31 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	13.9	<10	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	6.36 #	<0.65 #	<0.65 #	<0.65 #	9.61 #	2.31 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104576	30104579	30104582	30104528	30104536	30104544
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	16.7 #	<2 #	5.45 #	3.89 #	12.2 #	10.2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	33.7 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	34.1 #	2.75 #	9.58 #	2.5 #	21.2 #	28.5 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.63 #	<1 #	1.4 #	<1 #	1.17 #	1.23 #
PFHxA (307-24-4)	<1 ng/l	TM434	21.4 #	1.95 #	5.89 #	1.35 #	14.2 #	16 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	7.88 #	<1 #	2.39 #	1.29 #	5.72 #	6.36 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	24.5 #	<1 #	1.15 #	<1 #	4.16 #	74.1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	5.69 #	0.961 #	3.02 #	1.24 #	4.19 #	4.39 #
PFHxS (355-46-4)	<1 ng/l	TM434	3.71 #	<1 #	<1 #	<1 #	3.15 #	3.78 #
PFNA (375-95-1)	<1 ng/l	TM434	1.34 #	<1 #	<1 #	<1 #	<1 #	1.14 #
PFecHS (133201-07-7)	<1 ng/l	TM434	46.3 #	<1 #	1.78 #	<1 #	4.55 #	42.4 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	4.03 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	2.65 #	<0.65 #	1.19 #	1.2 #	4.41 #	2.99 #
Branched PFOS	<0.65 ng/l	TM434	3.02 #	<0.65 #	0.896 #	0.77 #	2.88 #	3.37 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104576	30104579	30104582	30104528	30104536	30104544
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	25.4	<10	10.4	<10	21.7	34.1
Total PFOS	<0.65 ng/l	TM434	5.67 #	<0.65 #	2.08 #	1.97 #	7.29 #	6.36 #

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CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL4-B	SL5-B	SL6-B	SL7-B	SL8-B	SL9-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104559	30104506	30104500	30104493	30104483	30104474
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	13.2 #	2.99 #	9.46 #	12.8 #	3.32 #	3.48 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	22 #	1.57 #	14 #	21.4 #	2.82 #	4.47 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	1.62 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	9.77 #	1.44 #	18.2 #	14.8 #	2.27 #	3.52 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	4.17 #	1.13 #	4.05 #	6.05 #	<1 #	1.44 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	1.3 #	15.3 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.46 #	1.31 #	2.09 #	4.13 #	<0.65 #	1.04 #
PFHxS (355-46-4)	<1 ng/l	TM434	1.75 #	<1 #	1.9 #	3.44 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<1 #	5.88 #	36.5 #	<1 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.786 #	<0.65 #	2.34 #	2.87 #	<0.65 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	1.23 #	<0.65 #	1.59 #	2.61 #	<0.65 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL4-B	SL5-B	SL6-B	SL7-B	SL8-B	SL9-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104559	30104506	30104500	30104493	30104483	30104474
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	11.2	20	<10	<10
Total PFOS	<0.65 ng/l	TM434	2.02 #	<0.65 #	3.93 #	5.48 #	<0.65 #	<0.65 #

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Results Legend
- # ISO17025 accredited.
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- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
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- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104513	30104570	30104522	30104519	30104516	30104587
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	3.01 #	11.3 #	4.39 #	16.5 #	4.51 #	5.26 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	20.2 #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	1.41 #	30.7 #	4.48 #	34.8 #	3.39 #	9.79 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	1.66 #	<1 #	1.61 #	<1 #	1.35 #
PFHxA (307-24-4)	<1 ng/l	TM434	1.51 #	15.4 #	2.96 #	19.6 #	1.97 #	6.28 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	<1 #	5.48 #	1.8 #	7.64 #	1.27 #	2.23 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	11.6 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	2.17 #	<1 #	23.7 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	0.817 #	3.35 #	1.36 #	5.71 #	1.35 #	2.31 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	6.19 #	1.08 #	3.24 #	1.2 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	1.16 #	<1 #	1.17 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	23.2 #	<1 #	45.9 #	<1 #	1.7 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	3.81 #	1.04 #	2.62 #	1.02 #	1.06 #
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	4.46 #	0.835 #	2.8 #	1.89 #	0.973 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024	17/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-95	240719-95	240719-95	240719-95	240719-95	240719-95
Lab Sample No.(s)			30104513	30104570	30104522	30104519	30104516	30104587
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	1.26 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	1.21 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	1.35 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<10	24.7	<10	10.3
Total PFOS	<0.65 ng/l	TM434	<0.65 #	8.28 #	1.88 #	5.42 #	2.91 #	2.04 #

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CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWFB	SWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			17/07/2024	17/07/2024				
Sample Time			.	.				
Date Received			19/07/2024	19/07/2024				
SDG Ref			240719-95	240719-95				
Lab Sample No.(s)			30104564	30104567				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 #	<2 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 #	<1 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 #	<1 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 #	<1 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	<1 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #				

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-95 **Report Number:** 745996 **Superseded Report:** 736362
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SWFB	SWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			17/07/2024	17/07/2024				
Sample Time			.	.				
Date Received			19/07/2024	19/07/2024				
SDG Ref			240719-95	240719-95				
Lab Sample No.(s)			30104564	30104567				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10				
Total PFOS	<0.65 ng/l	TM434	<0.65 #	<0.65 #				

16:27:53 06/11/2024

Data Amendment

Sample No. : 30104554 **Date of Amendment :** 05/11/2024 **Authorised:** Mantas Rogulis

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
SL11-A	Deviation Issue	PFAS Liquids (Full Suite)	EtFOSE (1691-99-2)	N/A	Not non-conformed	Non-conformed for holding time
SL11-A	Deviation Issue	PFAS Liquids (Full Suite)	MeFOSE (24448-09-7)	N/A	Not non-conformed	Non-conformed for holding time

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30104525	30104532	30104540	30104549	30104510	30104503	30104496	30104490	30104480	30104467
Customer Sample Ref.	SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A	SL7-A	SL8-A	SL9-A	SL10-A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	29-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	31-Jul-2024	29-Jul-2024	29-Jul-2024	31-Jul-2024	31-Jul-2024	31-Jul-2024

Lab Sample No(s)	30104554	30104573	30104576	30104579	30104582	30104528	30104536	30104544	30104559	30104506
Customer Sample Ref.	SL11-A	SL12-A	SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B	SL4-B	SL5-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	29-Jul-2024	29-Jul-2024	29-Jul-2024	31-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	31-Jul-2024

Lab Sample No(s)	30104500	30104493	30104483	30104474	30104513	30104570	30104522	30104519	30104516	30104587
Customer Sample Ref.	SL6-B	SL7-B	SL8-B	SL9-B	SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	29-Jul-2024	31-Jul-2024	31-Jul-2024	31-Jul-2024	31-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024

Lab Sample No(s)	30104564	30104567
Customer Sample Ref.	SWFB	SWTB
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water
PFAS Liquids (Full Suite)	31-Jul-2024	31-Jul-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
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Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	06 November 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	240719-91
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	746001
Order Number:	Z4448

This report has been revised and directly supersedes 736707 in its entirety.

We received 36 samples on Friday July 19, 2024 and 36 of these samples were scheduled for analysis which was completed on Friday August 02, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30104122	C1 A		0.00 - 0.00	16/07/2024
30104118	C1 B		0.00 - 0.00	16/07/2024
30104229	GWMP5 A		0.00 - 0.00	16/07/2024
30104233	GWMP5 B		0.00 - 0.00	16/07/2024
30104174	K Stream A		0.00 - 0.00	15/07/2024
30104171	K Stream B		0.00 - 0.00	15/07/2024
30104160	M5 A		0.00 - 0.00	16/07/2024
30104201	M5 B		0.00 - 0.00	16/07/2024
30104245	P2 A		0.00 - 0.00	16/07/2024
30104225	P3 A		0.00 - 0.00	16/07/2024
30104132	P4 A		0.00 - 0.00	16/07/2024
30104216	P7 A		0.00 - 0.00	16/07/2024
30104204	P8 A		0.00 - 0.00	16/07/2024
30104250	P2 B		0.00 - 0.00	16/07/2024
30104221	P3 B		0.00 - 0.00	16/07/2024
30104127	P4 B		0.00 - 0.00	16/07/2024
30104210	P7 B		0.00 - 0.00	16/07/2024
30104197	P8 B		0.00 - 0.00	16/07/2024
30104152	R1 A		0.00 - 0.00	16/07/2024
30104144	R2 A		0.00 - 0.00	16/07/2024
30104148	R1 B		0.00 - 0.00	16/07/2024
30104141	R2 B		0.00 - 0.00	16/07/2024
30104180	S3 A		0.00 - 0.00	16/07/2024
30104177	S3 B		0.00 - 0.00	16/07/2024
30104184	SWML3 A		0.00 - 0.00	16/07/2024
30104193	SWML4 A		0.00 - 0.00	16/07/2024
30104138	SWML5(A) A		0.00 - 0.00	16/07/2024
30104263	SWML7(A) A		0.00 - 0.00	16/07/2024
30104135	SWML5(A) B		0.00 - 0.00	16/07/2024
30104257	SWML7(A) B		0.00 - 0.00	16/07/2024
30104268	SWML3 B		0.00 - 0.00	16/07/2024
30104190	SWML4 B		0.00 - 0.00	16/07/2024
30104240	SWML7(B) A		0.00 - 0.00	16/07/2024
30104156	SWML7(B) B		0.00 - 0.00	16/07/2024
30104168	WAD Stream A		0.00 - 0.00	15/07/2024
30104164	WAD Stream B		0.00 - 0.00	15/07/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
30104122	C1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104118	C1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104229	GWMP5 A		0.00 - 0.00	Digitube fo PFAS analysis.	GW
30104233	GWMP5 B		0.00 - 0.00	Digitube fo PFAS analysis.	GW
30104174	K Stream A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104171	K Stream B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104160	M5 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104201	M5 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104245	P2 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104225	P3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104132	P4 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104216	P7 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104204	P8 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104250	P2 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104221	P3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104127	P4 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104210	P7 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104197	P8 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30104152	R1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW

PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

30104164	WAD Stream B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104168	WAD Stream A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104156	SWML7(B) B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104240	SWML7(B) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104190	SWML4 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104268	SWML3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104257	SWML7(A) B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104135	SWML5(A) B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104263	SWML7(A) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104138	SWML5(A) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104193	SWML4 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104184	SWML3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104177	S3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104180	S3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104141	R2 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104148	R1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30104144	R2 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			C1 A	C1 B	GWMP5 A	GWMP5 B	K Stream A	K Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	15/07/2024	15/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104122	30104118	30104229	30104233	30104174	30104171
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	2.44 @ #	<2 @ #	<10 @ #	3 @ #	20.2 #	20.9 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	18.4 @ #	27.2 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	1.12 @ #	<1 @ #	<5 @ #	<1 @ #	47.6 #	43.9 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 @ #	<3 @ #	<15 @ #	<3 @ #	<3 #	<3 @ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	2.57 #	2.89 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	19.2 #	21.1 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	11.2 #	11.4 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	1.22 #	<1 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<5 #	<5 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	7.99 @ #	11.4 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	4.36 #	5.45 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	0.972 @ #	0.856 @ #	7.79 @ #	<0.65 @ #	6.74 #	6.89 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	8.54 #	8.63 @ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	1.74 #	1.69 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.87 @ #	1.91 @ #	<5 @ #	<1 @ #	38.3 #	39.4 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	2.14 #	2.43 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<5 #	<5 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 @ #	<5 @ #	<25 @ #	<5 @ #	<5 #	<5 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.713 @ #	0.691 @ #	<3.25 @ #	<0.65 @ #	6.28 #	6.65 @ #
Branched PFOS	<0.65 ng/l	TM434	0.778 @ #	0.74 @ #	<3.25 @ #	<0.65 @ #	6.7 #	6.27 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #

16:31:43 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			C1 A	C1 B	GWMP5 A	GWMP5 B	K Stream A	K Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	15/07/2024	15/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104122	30104118	30104229	30104233	30104174	30104171
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 @ #	<3 @ #	<15 @ #	<3 @ #	<3 #	<3 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 @ #	<2 @ #	<10 @ #	<2 @ #	<2 #	<2 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<10 #	<10 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 @ #	<10 @ #	<50 @ #	<10 @ #	<10 #	<10 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 @ #	<1 @ #	<5 @ #	<1 @ #	<1 #	<1 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 @	<10 @	<50 @	<10 @	24.2	29.7 @
Total PFOS	<0.65 ng/l	TM434	1.49 @ #	1.43 @ #	<3.25 @ #	<0.65 @ #	13 #	12.9 @ #

16:31:43 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

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Results Legend
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- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			M5 A	M5 B	P2 A	P3 A	P4 A	P7 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104160	30104201	30104245	30104225	30104132	30104216
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	9.15 #	11.5 #	30.8 #	15.9 #	14.6 @ #	19.4 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	19.4 #	23.1 #	77.5 #	28.2 #	36.8 @ #	34.5 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 @ #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	1.14 #	<1 #	1.14 @ #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	12.2 #	13.5 #	28.4 #	12.4 #	20.2 @ #	14.6 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	1.08 #	<1 #	<1 @ #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	4.3 #	5 #	14.9 #	5.2 #	10.5 @ #	7.65 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 @ #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	1.08 #	<1 #	<1 @ #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	1.17 #	1.64 #	<1 #	<1 #	1.12 @ #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.88 #	3.19 #	5.99 #	1.67 #	5.02 @ #	5.14 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	1.25 #	2.08 #	2.03 #	2.25 @ #	2.45 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	1.47 #	<1 #	<1 @ #	1.23 #
PFecHS (133201-07-7)	<1 ng/l	TM434	23.3 #	27.1 #	1.33 #	<1 #	1.36 @ #	1.63 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 @ #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 @ #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<0.65 #	2.71 #	0.868 #	1.54 @ #	1.83 #
Branched PFOS	<0.65 ng/l	TM434	0.84 #	1.11 #	2.08 #	1.26 #	1.78 @ #	1.85 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			M5 A	M5 B	P2 A	P3 A	P4 A	P7 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104160	30104201	30104245	30104225	30104132	30104216
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 @ #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	1.45 #	<1 #	<1 @ #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 @ #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	1.32 #	<1 #	<1 @ #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	10.1 0 #	<10 #	<10 @ #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 @ #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	1.28 #	<1 #	<1 @ #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 @ #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	12.5	<10	34.3 @	<10
Total PFOS	<0.65 ng/l	TM434	0.84 #	1.11 #	4.79 #	2.12 #	3.32 @ #	3.69 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			P8 A	P2 B	P3 B	P4 B	P7 B	P8 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104204	30104250	30104221	30104127	30104210	30104197
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	4.61 #	28 #	13.4 #	12.7 @ #	21.4 #	5.68 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	8.99 #	66.2 #	28.6 #	34 @ #	36.4 #	10.3 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 @ #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	1.02 #	<1 @ #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	5.44 #	30.1 #	11.3 #	17.6 @ #	15.7 #	4.84 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	2.21 #	11.7 #	5.3 #	7.97 @ #	8.18 #	2.03 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 @ #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.06 #	4.56 #	2.54 #	3.87 @ #	5.44 #	1.6 #
PFHxS (355-46-4)	<1 ng/l	TM434	1.63 #	1.5 #	2.43 #	1.92 @ #	2.29 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	1.06 #	<1 #	1.12 @ #	1.33 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	3.03 #	<1 #	1.23 #	1.18 @ #	1.71 #	2.78 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 @ #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 @ #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.25 #	1.54 #	1.32 #	1.34 @ #	1.94 #	1.27 #
Branched PFOS	<0.65 ng/l	TM434	1.06 #	1.67 #	1.57 #	1.46 @ #	1.83 #	1.46 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			P8 A	P2 B	P3 B	P4 B	P7 B	P8 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104204	30104250	30104221	30104127	30104210	30104197
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 @ #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 @ #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 @ #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 @ #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 @ #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	14.4	<10	38.4 @	<10	<10
Total PFOS	<0.65 ng/l	TM434	2.32 #	3.21 #	2.89 #	2.8 @ #	3.76 #	2.73 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			R1 A	R2 A	R1 B	R2 B	S3 A	S3 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104152	30104144	30104148	30104141	30104180	30104177
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	17.5 @ #	13.5 @ #	17.3 @ #	12 @ #	<2 #	<2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	13.9 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	65.4 @ #	33.8 @ #	58 @ #	35.8 @ #	1.64 #	1.88 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 @ #	<3 @ #	<3 @ #	<3 @ #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	31.2 @ #	17.3 @ #	28.5 @ #	17.4 @ #	1.22 #	1.18 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	13.1 @ #	9.69 @ #	12 @ #	8.25 @ #	<1 #	<1 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<5 @ #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	8.09 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	21.6 @ #	1.02 @ #	23.5 @ #	<1 @ #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	8.47 @ #	4.51 @ #	8.23 @ #	3.96 @ #	1.15 #	<0.65 #
PFHxS (355-46-4)	<1 ng/l	TM434	3.44 @ #	1.72 @ #	3.46 @ #	1.91 @ #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<2 @ #	<1 @ #	1.41 @ #	<1 @ #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	3.52 @ #	1.43 @ #	3.35 @ #	1.19 @ #	1.27 #	1.33 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	2.71 @ #	<2 @ #	3.03 @ #	<2 @ #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<5 @ #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<5 @ #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	9.65 @ #	1.83 @ #	9.66 @ #	1.45 @ #	<0.65 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	4.78 @ #	1.78 @ #	4.38 @ #	1.6 @ #	<0.65 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #

16:31:43 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			R1 A	R2 A	R1 B	R2 B	S3 A	S3 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104152	30104144	30104148	30104141	30104180	30104177
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 @ #	<3 @ #	<3 @ #	<3 @ #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	126 @	45.4 @	132 @	43.5 @	<10	<10
Total PFOS	<0.65 ng/l	TM434	14.4 @ #	3.61 @ #	14 @ #	3.05 @ #	<0.65 #	<0.65 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A	SWML5(A) B	SWML7(A) B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104184	30104193	30104138	30104263	30104135	30104257
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	6.56 @ #	19.3 @ #	12 #	3.03 @ #	13.8 #	2.56 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	17.1 @ #	60.9 @ #	32.4 #	4.83 @ #	35 #	4.93 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 @ #	<3 @ #	<3 #	<3 @ #	<3 #	<3 @ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	1.08 #	<1 @ #	1.08 #	<1 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	8.08 @ #	27.4 @ #	17.3 #	2.1 @ #	20.3 #	2.13 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	3.59 @ #	11.7 @ #	6.99 #	<1 @ #	6.4 #	<1 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 #	<5 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	1.38 @ #	20 @ #	12.9 #	<1 @ #	14.1 #	<1 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.25 @ #	8.18 @ #	5.44 #	<0.65 @ #	5.22 #	1.42 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	1.99 @ #	3.33 @ #	3.15 #	<1 @ #	3.08 #	<1 @ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 @ #	1.41 @ #	1.29 #	<1 @ #	1.46 #	<1 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.37 @ #	3.2 @ #	6.79 #	<1 @ #	6.22 #	<1 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 @ #	<2 @ #	2.94 #	<2 @ #	2.98 #	<2 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 #	<5 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 @ #	<5 @ #	<5 #	<5 @ #	<5 #	<5 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	2.5 @ #	6.88 @ #	7.45 #	<0.65 @ #	7.58 #	<0.65 @ #
Branched PFOS	<0.65 ng/l	TM434	1.59 @ #	3.7 @ #	3.52 #	<0.65 @ #	3.87 #	<0.65 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A	SWML5(A) B	SWML7(A) B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024	16/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104184	30104193	30104138	30104263	30104135	30104257
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 @ #	<3 @ #	<3 #	<3 @ #	<3 #	<3 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 #	<2 @ #	<2 #	<2 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 #	<10 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 @ #	<10 @ #	<10 #	<10 @ #	<10 #	<10 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 #	<1 @ #	<1 #	<1 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	24.2 @	97 @	48.6	<10 @	57.1	<10 @
Total PFOS	<0.65 ng/l	TM434	4.09 @ #	10.6 @ #	11 #	<0.65 @ #	11.5 #	<0.65 @ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B	WAD Stream A	WAD Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	15/07/2024	15/07/2024
Sample Time			-	-	-	-	-	-
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104268	30104190	30104240	30104156	30104168	30104164
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	7.46 @ #	17.2 @ #	<2 @ #	<2 @ #	7.99 @ #	7.3 @ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
PFPA (2706-90-3)	<1 ng/l	TM434	16.4 @ #	60.1 @ #	<1 @ #	<1 @ #	9.83 @ #	11.6 @ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 @ #	<3 @ #	<3 @ #	<3 @ #	<3 @ #	<3 @ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	2 @ #	2.83 @ #
PFHxA (307-24-4)	<1 ng/l	TM434	8.74 @ #	28.3 @ #	1.58 @ #	1.32 @ #	4.95 @ #	6.24 @ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
PFHpA (375-85-9)	<1 ng/l	TM434	3.59 @ #	11.2 @ #	<1 @ #	<1 @ #	2.95 @ #	3.26 @ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<5 @ #	<5 @ #	<5 @ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	1.51 @ #	20.6 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.23 @ #	8.4 @ #	0.871 @ #	0.762 @ #	1.7 @ #	2.67 @ #
PFHxS (355-46-4)	<1 ng/l	TM434	1.98 @ #	3.27 @ #	1.18 @ #	1.06 @ #	2.54 @ #	3.47 @ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 @ #	1.53 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.48 @ #	3.6 @ #	<1 @ #	<1 @ #	2.15 @ #	2.4 @ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 @ #	2.64 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<5 @ #	<5 @ #	<5 @ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 @ #	<5 @ #	<5 @ #	<5 @ #	<5 @ #	<5 @ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	2.9 @ #	9.25 @ #	0.783 @ #	<0.65 @ #	1.61 @ #	1.81 @ #
Branched PFOS	<0.65 ng/l	TM434	1.69 @ #	5.34 @ #	0.66 @ #	0.687 @ #	1.93 @ #	2.5 @ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #

16:31:43 06/11/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 240719-91 **Report Number:** 746001 **Superseded Report:** 736707
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B	WAD Stream A	WAD Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			16/07/2024	16/07/2024	16/07/2024	16/07/2024	15/07/2024	15/07/2024
Sample Time			.	.	.	.	.	.
Date Received			19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024	19/07/2024
SDG Ref			240719-91	240719-91	240719-91	240719-91	240719-91	240719-91
Lab Sample No.(s)			30104268	30104190	30104240	30104156	30104168	30104164
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 @ #	<3 @ #	<3 @ #	<3 @ #	<3 @ #	<3 @ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #	<2 @ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 @ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 @ #	<10 @ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #	<1 @ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	25.3 @	148 @	<10 @	<10 @	<10 @	12.4 @
Total PFOS	<0.65 ng/l	TM434	4.59 @ #	14.6 @ #	1.44 @ #	0.687 @ #	3.54 @ #	4.31 @ #

16:31:43 06/11/2024

Data Amendment

Sample No. : 30104245 **Date of Amendment :** 05/11/2024 **Authorised:** Mantas Rogulis

Sample Ref.	Reason	Test Name	Result Name	Units	Previous	Amended
P2 A	Deviation Issue	PFAS Liquids (Full Suite)	MeFOSE (24448-09-7)	N/A	Not non-conformed	Non-conformed for holding time

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30104122	30104118	30104229	30104233	30104174	30104171	30104160	30104201	30104245	30104225
Customer Sample Ref.	C1 A	C1 B	GWMP5 A	GWMP5 B	K Stream A	K Stream B	M5 A	M5 B	P2 A	P3 A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Ground Water	Ground Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	31-Jul-2024	31-Jul-2024	31-Jul-2024	31-Jul-2024	29-Jul-2024	30-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024	29-Jul-2024

Lab Sample No(s)	30104132	30104216	30104204	30104250	30104221	30104127	30104210	30104197	30104152	30104144
Customer Sample Ref.	P4 A	P7 A	P8 A	P2 B	P3 B	P4 B	P7 B	P8 B	R1 A	R2 A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	31-Jul-2024	29-Jul-2024	29-Jul-2024	30-Jul-2024	29-Jul-2024	31-Jul-2024	29-Jul-2024	29-Jul-2024	31-Jul-2024	02-Aug-2024

Lab Sample No(s)	30104148	30104141	30104180	30104177	30104184	30104193	30104138	30104263	30104135	30104257
Customer Sample Ref.	R1 B	R2 B	S3 A	S3 B	SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A	SWML5(A) B	SWML7(A) B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	31-Jul-2024	31-Jul-2024	29-Jul-2024	29-Jul-2024	31-Jul-2024	31-Jul-2024	30-Jul-2024	31-Jul-2024	30-Jul-2024	31-Jul-2024

Lab Sample No(s)	30104268	30104190	30104240	30104156	30104168	30104164
Customer Sample Ref.	SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B	WAD Stream A	WAD Stream B
AGS Ref.						
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	31-Jul-2024	31-Jul-2024	31-Jul-2024	31-Jul-2024	02-Aug-2024	30-Jul-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
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Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	25 October 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241004-31
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	744834
Order Number:	Z4534

This report has been revised and directly supersedes 744358 in its entirety.

We received 30 samples on Thursday October 03, 2024 and 30 of these samples were scheduled for analysis which was completed on Friday October 25, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30463471	SL1-A		0.00 - 0.00	30/09/2024
30463520	SL2-A		0.00 - 0.00	30/09/2024
30463568	SL3-A		0.00 - 0.00	30/09/2024
30463576	SL4-A		0.00 - 0.00	30/09/2024
30463580	SL5-A		0.00 - 0.00	30/09/2024
30463586	SL6-A		0.00 - 0.00	30/09/2024
30463590	SL7-A		0.00 - 0.00	30/09/2024
30463594	SL8-A		0.00 - 0.00	30/09/2024
30463599	SL9-A		0.00 - 0.00	30/09/2024
30463475	SL10-A		0.00 - 0.00	30/09/2024
30463479	SL11-A		0.00 - 0.00	30/09/2024
30463484	SL12-A		0.00 - 0.00	30/09/2024
30463488	SL13-A		0.00 - 0.00	30/09/2024
30463492	SL14-A		0.00 - 0.00	30/09/2024
30463496	SL15-A		0.00 - 0.00	30/09/2024
30463501	SL1-B		0.00 - 0.00	30/09/2024
30463507	SL2-B		0.00 - 0.00	30/09/2024
30463511	SL3-B		0.00 - 0.00	30/09/2024
30463516	SL4-B		0.00 - 0.00	30/09/2024
30463524	SL5-B		0.00 - 0.00	30/09/2024
30463528	SL6-B		0.00 - 0.00	30/09/2024
30463532	SL7-B		0.00 - 0.00	30/09/2024
30463537	SL8-B		0.00 - 0.00	30/09/2024
30463542	SL9-B		0.00 - 0.00	30/09/2024
30463547	SL10-B		0.00 - 0.00	30/09/2024
30463551	SL11-B		0.00 - 0.00	30/09/2024
30463555	SL12-B		0.00 - 0.00	30/09/2024
30463559	SL13-B		0.00 - 0.00	30/09/2024
30463563	SL14-B		0.00 - 0.00	30/09/2024
30463572	SL15-B		0.00 - 0.00	30/09/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

	Lab Sample No(s)		30463471	30463520	30463568	30463576	30463580	30463586	30463590	30463594	30463599	30463475	30463479	30463484	30463488	30463492	30463496	30463501	30463507	30463511	30463516
	Customer Sample Reference		SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A	SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A	SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B	SL4-B
	AGS Reference																				
	Depth (m)		0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
	Container		Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
	Sample Type		SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

30463572	SL15-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463563	SL14-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463559	SL13-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463555	SL12-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463551	SL11-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463547	SL10-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463542	SL9-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463537	SL8-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463532	SL7-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463528	SL6-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30463524	SL5-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			-	-	-	-	-	-
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463471	30463520	30463568	30463576	30463580	30463586
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	3.93 #	<10 @ #	11.2 #	5.44 #	2.43 #	5.92 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 @ #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	2.47 #	8.42 @ #	33.9 #	7.51 #	1.9 #	11 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	1.16 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<15 @ #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	1.79 #	<5 @ #	15.1 #	3.32 #	<1 #	10.2 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	1.37 #	<5 @ #	6.27 #	2.25 #	<1 #	3.76 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<25 @ #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 @ #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<5 @ #	67.4 #	<1 #	<1 #	2.06 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.21 #	3.92 @ #	4.77 #	1.79 #	1.31 #	2.42 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<5 @ #	1.68 #	<1 #	<1 #	1.34 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.08 #	10.3 @ #	43.4 #	1.69 #	1.02 #	10.2 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<10 @ #	3.27 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<25 @ #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<25 @ #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	3.92 @ #	2.45 #	1.33 #	<0.65 #	2.47 #
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	<3.25 @ #	1.77 #	0.86 #	<0.65 #	1.75 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			.	.	.	.	.	.
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463471	30463520	30463568	30463576	30463580	30463586
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<15 @ #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<10 @ #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<50 @ #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<50 @ #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<5 @ #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<50 @	194	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	<0.65 #	3.92 @ #	4.21 #	2.19 #	<0.65 #	4.21 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			-	-	-	-	-	-
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463590	30463594	30463599	30463475	30463479	30463484
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	7.47 #	4.36 #	5.45 #	2.42 #	3.18 #	5.95 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	12.7 #	3.98 #	6.52 #	1.9 #	5.31 #	7.66 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	1.17 #	<1 #	1.21 #	1.14 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	1.98 #	<1 #	<1 #	1.35 #
PFHxA (307-24-4)	<1 ng/l	TM434	7.51 #	4.17 #	3.54 #	<1 #	2.76 #	4.21 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	3.6 #	3.42 #	1.86 #	1.2 #	1.72 #	2.07 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 @ #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	10.7 #	<1 #	<1 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	4.19 #	<0.65 #	1.72 #	<0.65 #	2.54 #	1.8 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	10.3 #	1.87 #	<1 #	<1 #	5.49 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	2.31 #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.46 #	<0.65 #	<0.65 #	<0.65 #	1.31 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	0.889 #	<0.65 #	<0.65 #	<0.65 #	0.841 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			.	.	.	.	.	.
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463590	30463594	30463599	30463475	30463479	30463484
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	14.5	<10	<10	<10	<10	<10
Total PFOS	<0.65 ng/l	TM434	2.35 #	<0.65 #	<0.65 #	<0.65 #	2.15 #	<0.65 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			-	-	-	-	-	-
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463488	30463492	30463496	30463501	30463507	30463511
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	11.6 #	<10 #	<10 #	3.62 #	3.64 #	11.2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	31.5 #	<5 #	10.2 #	2.99 #	4.62 #	31.3 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	1.18 #	<5 #	<5 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<15 #	<15 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	1.5 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	13.5 #	<5 #	5.76 #	2.1 #	3.54 #	16.2 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	7.37 #	<5 #	<5 #	1.42 #	1.9 #	7.32 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<25 #	<25 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	39.7 #	<5 #	<5 #	<1 #	1.62 #	67.6 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	6.79 #	<4.5 #	<5 #	<0.65 #	1.66 #	4.95 #
PFHxS (355-46-4)	<1 ng/l	TM434	1.21 #	<5 #	<5 #	<1 #	<1 #	1.53 #
PFNA (375-95-1)	<1 ng/l	TM434	1.88 #	<5 #	<5 #	<1 #	<1 #	1.33 #
PFecHS (133201-07-7)	<1 ng/l	TM434	41.1 #	<5 #	10.4 #	<1 #	4.65 #	42.7 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	3.31 #	<10 #	<10 #	<2 #	<2 #	3.46 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<25 #	<25 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<10 @ #	<10 @ #	<2 #	<2 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<25 #	<25 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.93 #	<4 #	<5 #	<0.65 #	1.61 #	2.32 #
Branched PFOS	<0.65 ng/l	TM434	1.43 #	<5 #	<5 #	<0.65 #	1.25 #	1.84 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<10 @ #	<10 @ #	<2 #	<2 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			.	.	.	.	.	.
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463488	30463492	30463496	30463501	30463507	30463511
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<15 #	<15 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<10 #	<10 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<50 @ #	<50 @ #	<10 #	<10 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<50 @ #	<50 @ #	<10 #	<10 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<5 #	<5 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<50	<50	<10	<10	24.3
Total PFOS	<0.65 ng/l	TM434	3.36 #	<5 #	<5 #	<0.65 #	2.87 #	4.17 #

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CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Component	LOD/Units	Method	SL4-B	SL5-B	SL6-B	SL7-B	SL8-B	SL9-B
Customer Sample Ref.			SL4-B	SL5-B	SL6-B	SL7-B	SL8-B	SL9-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			-	-	-	-	-	-
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463516	30463524	30463528	30463532	30463537	30463542
AGS Reference								
PFBA (375-22-4)	<2 ng/l	TM434	<10 #	2.63 #	<10 @ #	<10 3 #	3.48 #	4.1 3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
PFPA (2706-90-3)	<1 ng/l	TM434	7.55 #	1.6 #	15.4 @ #	9.46 3 #	4.72 #	5.64 3 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 #	1.14 #	<5 @ #	<5 3 #	1.16 #	<1 3 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 #	<3 #	<15 @ #	<15 3 #	<3 #	<3 3 #
PFBS (375-73-5)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	1.46 3 #
PFHxA (307-24-4)	<1 ng/l	TM434	<5 #	<1 #	12.6 @ #	7.16 3 #	3.39 #	3.04 3 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
PFHpA (375-85-9)	<1 ng/l	TM434	<5 #	<1 #	7.38 @ #	<5 3 #	3.26 #	1.06 3 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 #	<5 #	<25 @ #	<25 3 #	<5 #	<5 3 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	10.6 3 #	<1 #	<1 3 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
PFOA (335-67-1)	<0.65 ng/l	TM434	<4 #	1.48 #	5.35 @ #	3.63 3 #	2.06 #	1.42 3 #
PFHxS (355-46-4)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
PFNA (375-95-1)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<5 #	1.05 #	15.8 @ #	13 3 #	1.93 #	<1 3 #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 #	<5 #	<25 @ #	<25 3 #	<5 #	<5 3 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 @ #	<2 #	<10 @ #	<10 3 @ #	<2 #	<2 3 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 #	<5 #	<25 @ #	<25 3 #	<5 #	<5 3 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<5 #	<0.65 #	5.19 @ #	<3.25 3 #	<0.65 #	0.771 3 #
Branched PFOS	<0.65 ng/l	TM434	<4 #	<0.65 #	4.82 @ #	<3.25 3 #	<0.65 #	0.793 3 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 @ #	<2 #	<10 @ #	<10 3 @ #	<2 #	<2 3 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL4-B	SL5-B	SL6-B	SL7-B	SL8-B	SL9-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			.	.	.	.	.	.
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463516	30463524	30463528	30463532	30463537	30463542
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 #	<3 #	<15 @ #	<15 3 #	<3 #	<3 3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 #	<2 #	<10 @ #	<10 3 #	<2 #	<2 3 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 @ #	<10 #	<50 @ #	<50 3 @ #	<10 #	<10 3 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 @ #	<10 #	<50 @ #	<50 3 @ #	<10 #	<10 3 #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 #	<1 #	<5 @ #	<5 3 #	<1 #	<1 3 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50	<10	<50 @	72.7 3	<10	<10 3
Total PFOS	<0.65 ng/l	TM434	<5 #	<0.65 #	10 @ #	<3.25 3 #	<0.65 #	1.56 3 #

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CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			-	-	-	-	-	-
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463547	30463551	30463555	30463559	30463563	30463572
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	2.69 #	<10 @ #	6.76 #	14.9 #	2.47 3 #	5.99 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	1.3 #	7.98 @ #	8.06 #	31.2 #	3.13 3 #	9.95 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	1.17 #	<5 @ #	<2 #	1.15 #	<1 3 #	1.12 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<15 @ #	<6 #	<3 #	<3 3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<5 @ #	2.03 #	1.57 #	<1 3 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	<1 #	<5 @ #	5.04 #	12.3 #	2.02 3 #	4.43 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	1.13 #	<5 @ #	3 #	7.4 #	1.11 3 #	2.73 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<25 @ #	<10 #	<5 #	<5 3 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	39 #	<1 3 #	1.44 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.4 #	4.09 @ #	1.88 #	7.25 #	1.69 3 #	3.63 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	1.25 #	<1 3 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	1.92 #	<1 3 #	1.28 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.06 #	10.9 @ #	<2 #	44.6 #	1.23 3 #	8.82 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	3.61 #	<2 3 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<25 @ #	<10 #	<5 #	<5 3 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<25 @ #	<10 #	<5 #	<5 3 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	<3.25 @ #	1.44 #	2.25 #	0.814 3 #	1.59 #
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	<3.25 @ #	1.36 #	1.65 #	0.849 3 #	0.903 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-31 **Report Number:** 744834 **Superseded Report:** 744358
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024	30/09/2024
Sample Time			.	.	.	.	.	.
Date Received			03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024	03/10/2024
SDG Ref			241004-31	241004-31	241004-31	241004-31	241004-31	241004-31
Lab Sample No.(s)			30463547	30463551	30463555	30463559	30463563	30463572
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<15 @ #	<6 #	<3 #	<3 3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<10 @ #	<4 #	<2 #	<2 3 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<50 @ #	<20 #	<10 #	<10 3 #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<50 @ #	<20 #	<10 #	<10 3 #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<5 @ #	<2 #	<1 #	<1 3 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<50 @	<20	<10	<10 3	<10
Total PFOS	<0.65 ng/l	TM434	<0.65 #	<3.25 @ #	2.8 #	3.9 #	1.66 3 #	2.49 #

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Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30463471	30463520	30463568	30463576	30463580	30463586	30463590	30463594	30463599	30463475
Customer Sample Ref.	SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A	SL7-A	SL8-A	SL9-A	SL10-A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	17-Oct-2024	22-Oct-2024	18-Oct-2024	23-Oct-2024	11-Oct-2024	18-Oct-2024	23-Oct-2024	18-Oct-2024	11-Oct-2024	18-Oct-2024

Lab Sample No(s)	30463479	30463484	30463488	30463492	30463496	30463501	30463507	30463511	30463516	30463524
Customer Sample Ref.	SL11-A	SL12-A	SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B	SL4-B	SL5-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	11-Oct-2024	11-Oct-2024	11-Oct-2024	25-Oct-2024	25-Oct-2024	17-Oct-2024	18-Oct-2024	18-Oct-2024	25-Oct-2024	11-Oct-2024

Lab Sample No(s)	30463528	30463532	30463537	30463542	30463547	30463551	30463555	30463559	30463563	30463572
Customer Sample Ref.	SL6-B	SL7-B	SL8-B	SL9-B	SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	22-Oct-2024	25-Oct-2024	11-Oct-2024	24-Oct-2024	11-Oct-2024	22-Oct-2024	18-Oct-2024	11-Oct-2024	24-Oct-2024	11-Oct-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
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Tel: (01244) 528777
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Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	25 October 2024
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241004-98
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	744837
Order Number:	Z4534

We received 38 samples on Friday October 04, 2024 and 38 of these samples were scheduled for analysis which was completed on Friday October 25, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30467088	C1 A		0.00 - 0.00	02/10/2024
30467083	C1 B		0.00 - 0.00	02/10/2024
30467210	GWMP5 A		0.00 - 0.00	02/10/2024
30467215	GWMP5 B		0.00 - 0.00	02/10/2024
30467150	K Stream A		0.00 - 0.00	02/10/2024
30467146	K Stream B		0.00 - 0.00	02/10/2024
30467133	M5 A		0.00 - 0.00	02/10/2024
30467182	M5 B		0.00 - 0.00	02/10/2024
30467238	P2 A		0.00 - 0.00	02/10/2024
30467205	P3 A		0.00 - 0.00	02/10/2024
30467097	P4 A		0.00 - 0.00	02/10/2024
30467197	P7 A		0.00 - 0.00	02/10/2024
30467186	P8 A		0.00 - 0.00	02/10/2024
30467243	P2 B		0.00 - 0.00	02/10/2024
30467201	P3 B		0.00 - 0.00	02/10/2024
30467092	P4 B		0.00 - 0.00	02/10/2024
30467191	P7 B		0.00 - 0.00	02/10/2024
30467178	P8 B		0.00 - 0.00	02/10/2024
30467124	R1 A		0.00 - 0.00	02/10/2024
30467115	R2 A		0.00 - 0.00	02/10/2024
30467120	R1 B		0.00 - 0.00	02/10/2024
30467110	R2 B		0.00 - 0.00	02/10/2024
30467159	S3 A		0.00 - 0.00	02/10/2024
30467155	S3 B		0.00 - 0.00	02/10/2024
30467224	SWFB		0.00 - 0.00	02/10/2024
30467163	SWML3 A		0.00 - 0.00	02/10/2024
30467173	SWML4 A		0.00 - 0.00	02/10/2024
30467106	SWML5(A) A		0.00 - 0.00	02/10/2024
30467251	SWML7(A) A		0.00 - 0.00	02/10/2024
30467102	SWML5(A) B		0.00 - 0.00	02/10/2024
30467247	SWML7(A) B		0.00 - 0.00	02/10/2024
30467255	SWML3 B		0.00 - 0.00	02/10/2024
30467168	SWML4 B		0.00 - 0.00	02/10/2024
30467230	SWML7(B) A		0.00 - 0.00	02/10/2024
30467128	SWML7(B) B		0.00 - 0.00	02/10/2024
30467220	SWTB		0.00 - 0.00	02/10/2024
30467141	WAD Stream A		0.00 - 0.00	02/10/2024
30467137	WAD Stream B		0.00 - 0.00	02/10/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
30467088	C1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467083	C1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467210	GWMP5 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467215	GWMP5 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467150	K Stream A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467146	K Stream B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467133	M5 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467182	M5 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467238	P2 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467205	P3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467097	P4 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467197	P7 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467186	P8 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467243	P2 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467201	P3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467092	P4 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467191	P7 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467178	P8 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30467124	R1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW

PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

30467137	WAD Stream B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467141	WAD Stream A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467220	SWTB		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467128	SWML7(B) B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467230	SWML7(B) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467168	SWML4 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467255	SWML3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467247	SWML7(A) B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467102	SWML5(A) B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467251	SWML7(A) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467106	SWML5(A) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467173	SWML4 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467163	SWML3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467224	SWFB		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467155	S3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467159	S3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467110	R2 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467120	R1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30467115	R2 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			C1 A	C1 B	GWMP5 A	GWMP5 B	K Stream A	K Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467088	30467083	30467210	30467215	30467150	30467146
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	8.58 #	6.83 #	2.66 #	2.56 3 #	14.2 3 #	16.2 3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<10 #	<25 3 #	<1 3 #	<5 3 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
PFPA (2706-90-3)	<1 ng/l	TM434	7.05 #	6.01 #	1.01 #	<1 3 #	32.3 3 #	31.1 3 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 3 #	<3 3 #	<15 3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	1.08 #	1 3 #	1.23 3 #	<5 3 #
PFHxA (307-24-4)	<1 ng/l	TM434	2.82 #	2.8 #	<1 #	<1 3 #	12.9 3 #	14.1 3 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
PFHpA (375-85-9)	<1 ng/l	TM434	1.89 #	1.82 #	<1 #	<1 3 #	8.2 3 #	6.98 3 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<10 3 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 3 #	<5 3 #	<25 3 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<10 #	<10 3 #	<1 3 #	<5 3 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	7.42 3 #	11.2 3 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.05 #	1.03 #	0.867 #	0.948 3 #	4.73 3 #	6.2 3 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	3.06 3 #	<5 3 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	1.54 3 #	<5 3 #
PFecHS (133201-07-7)	<1 ng/l	TM434	2.54 #	2.29 #	<1 #	<1 3 #	17 3 #	22.7 3 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	5.64 3 #	<10 3 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 3 #	<5 3 #	<25 3 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 ♦ #	<2 3 ♦ #	<2 3 #	<10 3 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<5 3 #	<5 3 #	<25 3 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.01 #	0.688 #	<0.65 #	0.728 3 #	3.62 3 #	<3.25 3 #
Branched PFOS	<0.65 ng/l	TM434	0.831 #	0.935 #	1.23 #	0.96 3 #	4.01 3 #	3.61 3 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 ♦ #	<2 3 ♦ #	<2 3 #	<20 3 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #

15:27:49 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			C1 A	C1 B	GWMP5 A	GWMP5 B	K Stream A	K Stream B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467088	30467083	30467210	30467215	30467150	30467146
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<3 3 #	<3 3 #	<15 3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<2 3 #	<2 3 #	<10 3 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 ♦ #	<10 3 ♦ #	<10 3 #	<50 3 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 ♦ #	<10 3 ♦ #	<10 3 #	<50 3 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<1 3 #	<1 3 #	<5 3 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	<10	<10 3	50.6 3	137 3
Total PFOS	<0.65 ng/l	TM434	1.84 #	1.62 #	1.23 #	1.69 3 #	7.63 3 #	3.61 3 #

15:27:49 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			M5 A	M5 B	P2 A	P3 A	P4 A	P7 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467133	30467182	30467238	30467205	30467097	30467197
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<10 3 #	4.26 3 #	12.9 3 #	7.06 #	9.25 #	8.7 3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<20 #	<1 #	<1 3 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
PFPA (2706-90-3)	<1 ng/l	TM434	<5 3 #	4.52 3 #	32.2 3 #	15.1 #	23.2 #	12.7 3 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 3 #	<3 3 #	<3 3 #	<3 #	<3 #	<3 3 #
PFBS (375-73-5)	<1 ng/l	TM434	<5 3 #	1.14 3 #	<1 3 #	<1 #	<1 #	<1 3 #
PFHxA (307-24-4)	<1 ng/l	TM434	<5 3 #	2.37 3 #	13.1 3 #	7.49 #	9 #	5.38 3 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
PFHpA (375-85-9)	<1 ng/l	TM434	<5 3 #	1.41 3 #	7.61 3 #	2.98 #	5.02 #	1.91 3 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 3 #	<5 3 #	<5 3 #	<5 #	<5 #	<5 3 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<10 #	<1 #	<1 3 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
PFOA (335-67-1)	<0.65 ng/l	TM434	<3.25 3 #	1.53 3 #	3.58 3 #	1.63 #	3.1 #	1.53 3 #
PFHxS (355-46-4)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	1.17 #	1.75 #	<1 3 #
PFNA (375-95-1)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
PFecHS (133201-07-7)	<1 ng/l	TM434	11.6 3 #	8.75 3 #	1.05 3 #	1.23 #	3.07 #	<1 3 #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 3 #	<5 3 #	<5 3 #	<5 #	<5 #	<5 3 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 3 ♦ #	<2 3 #	<2 3 #	<2 ♦ #	<2 #	<2 3 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 3 #	<5 3 #	<5 3 #	<5 #	<5 #	<5 3 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<3.25 3 #	0.661 3 #	2.03 3 #	1.03 #	1.57 #	0.933 3 #
Branched PFOS	<0.65 ng/l	TM434	<3.25 3 #	0.763 3 #	2.04 3 #	1.41 #	1.94 #	0.918 3 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 3 ♦ #	<2 3 #	<2 3 #	<2 ♦ #	<2 #	<2 3 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			M5 A	M5 B	P2 A	P3 A	P4 A	P7 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467133	30467182	30467238	30467205	30467097	30467197
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 3 #	<3 3 #	<3 3 #	<3 #	<3 #	<3 3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 3 #	<2 3 #	<2 3 #	<2 #	<2 #	<2 3 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 3 ♦ #	<10 3 #	<10 3 #	<10 ♦ #	<10 #	<10 3 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 3 ♦ #	<10 3 #	<10 3 #	<10 ♦ #	<10 #	<10 3 #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 3 #	<1 3 #	<1 3 #	<1 #	<1 #	<1 3 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50 3	<10 3	10.7 3	<10	12.8	<10 3
Total PFOS	<0.65 ng/l	TM434	<3.25 3 #	1.42 3 #	4.07 3 #	2.44 #	3.51 #	1.85 3 #

15:27:49 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			P8 A	P2 B	P3 B	P4 B	P7 B	P8 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			-	-	-	-	-	-
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467186	30467243	30467201	30467092	30467191	30467178
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	2.73 3 #	16.3 #	6.01 3 #	9.66 #	13.3 #	<10 3 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<15 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
PFPA (2706-90-3)	<1 ng/l	TM434	4.04 3 #	43.1 #	14.1 3 #	23.9 #	18.7 #	<5 3 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 3 #	<3 #	<3 3 #	<3 #	<3 #	<15 3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	1.33 #	<1 #	<5 3 #
PFHxA (307-24-4)	<1 ng/l	TM434	1.87 3 #	16.4 #	5.9 3 #	10.6 #	7.37 #	<5 3 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
PFHpA (375-85-9)	<1 ng/l	TM434	<1 3 #	8.46 #	2.33 3 #	5.76 #	2.89 #	<5 3 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 3 #	<5 #	<5 3 #	<5 #	<5 #	<25 3 #
ADONA (919005-14-4)	<1 ng/l	TM434	<10 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.09 3 #	3.92 #	1.42 3 #	3.44 #	1.95 #	<3.25 3 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	2.42 #	<1 #	<5 3 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 3 #	1.38 #	<1 3 #	<1 #	<1 #	<5 3 #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.48 3 #	1.16 #	1.15 3 #	3.18 #	<1 #	<5 3 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 3 #	<5 #	<5 3 #	<5 #	<5 #	<25 3 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 3 ♦ #	<2 #	<2 3 #	<2 #	<2 #	<10 3 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 3 #	<5 #	<5 3 #	<5 #	<5 #	<25 3 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.09 3 #	2.47 #	0.805 3 #	1.84 #	<0.65 #	<3.25 3 #
Branched PFOS	<0.65 ng/l	TM434	1.19 3 #	2.31 #	1.25 3 #	1.89 #	<0.65 #	<3.25 3 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 3 ♦ #	<2 #	<2 3 #	<2 #	<2 #	<10 3 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #

15:27:49 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4♦§@	Sample deviation (see appendix)

Customer Sample Ref.			P8 A	P2 B	P3 B	P4 B	P7 B	P8 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467186	30467243	30467201	30467092	30467191	30467178
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 3 #	<3 #	<3 3 #	<3 #	<3 #	<15 3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 3 #	<2 #	<2 3 #	<2 #	<2 #	<10 3 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 3 ♦ #	<10 #	<10 3 #	<10 #	<10 #	<50 3 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 3 ♦ #	<10 #	<10 3 #	<10 #	<10 #	<50 3 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<5 3 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 3 #	<1 #	<1 3 #	<1 #	<1 #	<10 3 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 3	<10	<10 3	24.2	<10	<50 3
Total PFOS	<0.65 ng/l	TM434	2.27 3 #	4.78 #	2.06 3 #	3.73 #	<0.65 #	<3.25 3 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			R1 A	R2 A	R1 B	R2 B	S3 A	S3 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			-	-	-	-	-	-
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467124	30467115	30467120	30467110	30467159	30467155
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	9.15 #	5.47 3 #	10.4 #	9.1 #	2.79 #	2.62 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<15 #	<1 3 #	<1 #	<1 ♦ #	<20 #	<10 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	22.8 #	13.8 3 #	26.9 #	20.7 #	3.42 #	3.45 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	1.16 3 #	<1 #	1.36 #	<1 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	10.7 #	6.77 3 #	11 #	8.52 #	1.62 #	2.21 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	5.63 #	3.96 3 #	5.7 #	4.83 #	<1 #	<1 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 3 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 #	<1 3 #	<1 #	<1 ♦ #	<10 #	<5 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	1.8 #	<1 3 #	2.24 #	<1 #	<1 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	3.65 #	2.36 3 #	4.12 #	3.08 #	0.864 #	0.92 #
PFHxS (355-46-4)	<1 ng/l	TM434	1.51 #	2.88 3 #	1.67 #	1.98 #	<1 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	1.39 #	<1 3 #	1.44 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	3.61 #	1.49 3 #	4.17 #	1.79 #	2.38 #	2.15 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	2.5 #	<2 3 #	2.87 #	<2 #	<2 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 3 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 3 #	<2 #	<2 #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 3 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	4.73 #	1.81 3 #	6.15 #	1.26 #	0.707 #	0.769 #
Branched PFOS	<0.65 ng/l	TM434	2.98 #	2.46 3 #	2.23 #	0.914 #	<0.65 #	0.884 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 3 #	<2 #	<2 #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			R1 A	R2 A	R1 B	R2 B	S3 A	S3 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467124	30467115	30467120	30467110	30467159	30467155
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 3 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 3 #	<10 #	<10 #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 3 #	<10 #	<10 #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 3 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	53.2	19.3 3	38.8	137	<10	<10
Total PFOS	<0.65 ng/l	TM434	7.71 #	4.27 3 #	8.39 #	2.17 #	0.707 #	1.65 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWFB	SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A	SWML5(A) B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			-	-	-	-	-	-
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467224	30467163	30467173	30467106	30467251	30467102
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<10 ♦ #	8.17 #	8.7 #	8.51 #	<2 #	7.81 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<5 ♦ #	<1 #	<15 #	<1 #	<1 #	<15 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	<5 ♦ #	16.1 #	20 #	21.7 #	<1 #	18.4 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<15 ♦ #	<3 #	<3 #	<3 #	<3 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	1.45 #	<1 #	1.02 #
PFHxA (307-24-4)	<1 ng/l	TM434	<5 ♦ #	8.01 #	9.61 #	14 #	<1 #	12.7 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	<5 ♦ #	3.16 #	5.39 #	5.1 #	<1 #	4.93 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<25 ♦ #	<5 #	<5 #	<5 #	<5 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<5 ♦ #	<1 #	<5 #	<1 #	<1 #	<5 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<5 ♦ #	3.65 #	1.21 #	6.56 #	<1 #	5.5 #
FBSA (30334-69-1)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	<3.25 ♦ #	2.02 #	3.4 #	3.74 #	<0.65 #	3.26 #
PFHxS (355-46-4)	<1 ng/l	TM434	<5 ♦ #	1.02 #	1.78 #	3.92 #	<1 #	2.24 #
PFNA (375-95-1)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<5 ♦ #	1.39 #	2.82 #	13.8 #	<1 #	12.4 #
PFHpS (375-92-8)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	2.08 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<25 ♦ #	<5 #	<5 #	<5 #	<5 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 ♦ #	<2 #	<2 #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<25 ♦ #	<5 #	<5 #	<5 #	<5 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<3.25 ♦ #	2.19 #	3.6 #	5.79 #	<0.65 #	4.47 #
Branched PFOS	<0.65 ng/l	TM434	<3.25 ♦ #	1.27 #	2.32 #	2.64 #	<0.65 #	2.96 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 ♦ #	<2 #	<2 #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWFB	SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A	SWML5(A) B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467224	30467163	30467173	30467106	30467251	30467102
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<15 ♦ #	<3 #	<3 #	<3 #	<3 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<10 ♦ #	<2 #	<2 #	<2 #	<2 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<50 ♦ #	<10 #	<10 ♦ #	<10 #	<10 #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<50 ♦ #	<10 #	<10 ♦ #	<10 #	<10 #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<5 ♦ #	<1 #	<1 #	<1 #	<1 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<50 ♦	<10	43.1	38.4	<10	39.4
Total PFOS	<0.65 ng/l	TM434	<3.25 ♦ #	3.46 #	5.93 #	8.44 #	<0.65 #	7.43 #

15:27:49 25/10/2024

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML7(A) B	SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B	SWTB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467247	30467255	30467168	30467230	30467128	30467220
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	4.27 #	10 #	9.19 #	<10 #	<10 #	<2 #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
PFPA (2706-90-3)	<1 ng/l	TM434	1.5 #	19.5 #	24.1 #	8 #	8.16 #	<1 #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<15 #	<15 #	<3 #
PFBS (375-73-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
PFHxA (307-24-4)	<1 ng/l	TM434	<1 #	7.64 #	9.93 #	5.95 #	6.35 #	<1 #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
PFHpA (375-85-9)	<1 ng/l	TM434	<1 #	3.5 #	5.38 #	<5 #	<5 #	<1 #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<25 #	<25 #	<5 #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	4.75 #	1.43 #	<5 #	<5 #	<1 #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 #	2.08 #	3.5 #	<4 #	<4 #	<0.65 #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 #	1.08 #	1.93 #	<5 #	<5 #	<1 #
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 #	1.21 #	<5 #	<5 #	<1 #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 #	2 #	2.85 #	<5 #	<5 #	<1 #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<25 #	<25 #	<5 #
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 #	<5 #	<25 #	<25 #	<5 #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 #	2.45 #	3.42 #	<4 #	<4 #	<0.65 #
Branched PFOS	<0.65 ng/l	TM434	<0.65 #	1.7 #	2.18 #	<5 #	<4 #	<0.65 #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 ♦ #	<10 ♦ #	<2 #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML7(A) B	SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B	SWTB
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024	02/10/2024
Sample Time			.	.	.	.	.	.
Date Received			04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024	04/10/2024
SDG Ref			241004-98	241004-98	241004-98	241004-98	241004-98	241004-98
Lab Sample No.(s)			30467247	30467255	30467168	30467230	30467128	30467220
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 #	<3 #	<15 #	<15 #	<3 #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 #	<2 #	<10 #	<10 #	<2 #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<50 ♦ #	<50 ♦ #	<10 #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 #	<10 #	<10 #	<50 ♦ #	<50 ♦ #	<10 #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 #	<1 #	<5 #	<5 #	<1 #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10	31	<50	<50	<10
Total PFOS	<0.65 ng/l	TM434	<0.65 #	4.16 #	5.6 #	<5 #	<4 #	<0.65 #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
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- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			WAD Stream A	WAD Stream B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			02/10/2024	02/10/2024				
Sample Time			.	.				
Date Received			04/10/2024	04/10/2024				
SDG Ref			241004-98	241004-98				
Lab Sample No.(s)			30467141	30467137				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	3.64 #	3.63 3 #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<20 #	<10 3 #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 #	<2 3 #				
PFPA (2706-90-3)	<1 ng/l	TM434	5.33 #	4.85 3 #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 #	<1 3 #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 #	<1 3 #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 #	<3 3 #				
PFBS (375-73-5)	<1 ng/l	TM434	1.98 #	1.75 3 #				
PFHxA (307-24-4)	<1 ng/l	TM434	2.83 #	2.76 3 #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 #	<2 3 #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 #	<1 3 #				
PFHpA (375-85-9)	<1 ng/l	TM434	1.95 #	1.91 3 #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 #	<1 3 #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 #	<5 3 #				
ADONA (919005-14-4)	<1 ng/l	TM434	<10 #	<5 3 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 #	<1 3 #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 #	<1 3 #				
PFOA (335-67-1)	<0.65 ng/l	TM434	2.15 #	1.89 3 #				
PFHxS (355-46-4)	<1 ng/l	TM434	1.67 #	1.36 3 #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 #	<1 3 #				
PFecHS (133201-07-7)	<1 ng/l	TM434	2.1 #	1.96 3 #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 #	<1 3 #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 #	<2 3 #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 #	<5 3 #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 #	<2 3 #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 3 ♦ #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 #	<5 3 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.5 #	1.51 3 #				
Branched PFOS	<0.65 ng/l	TM434	2.6 #	1.44 3 #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 3 ♦ #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 #	<2 3 #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 #	<1 3 #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 #	<1 3 #				

Validated

CERTIFICATE OF ANALYSIS

SDG: 241004-98 **Report Number:** 744837 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
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- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			WAD Stream A	WAD Stream B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			02/10/2024	02/10/2024				
Sample Time			.	.				
Date Received			04/10/2024	04/10/2024				
SDG Ref			241004-98	241004-98				
Lab Sample No.(s)			30467141	30467137				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 #	<1 3 #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 #	<2 3 #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 #	<2 3 #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 #	<3 3 #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 #	<2 3 #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 #	<2 3 #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 #	<1 3 #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 #	<2 3 #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 #	<2 3 #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 #	<1 3 #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 #	<1 3 #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 3 ♦ #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 #	<1 3 #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 3 ♦ #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 #	<1 3 #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 #	<1 3 #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10	<10 3				
Total PFOS	<0.65 ng/l	TM434	4.1 #	2.96 3 #				

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Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30467088	30467083	30467210	30467215	30467150	30467146	30467133	30467182	30467238	30467205
Customer Sample Ref.	C1 A	C1 B	GWMP5 A	GWMP5 B	K Stream A	K Stream B	M5 A	M5 B	P2 A	P3 A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	18-Oct-2024	18-Oct-2024	25-Oct-2024	25-Oct-2024	24-Oct-2024	25-Oct-2024	25-Oct-2024	24-Oct-2024	24-Oct-2024	25-Oct-2024

Lab Sample No(s)	30467097	30467197	30467186	30467243	30467201	30467092	30467191	30467178	30467124	30467115
Customer Sample Ref.	P4 A	P7 A	P8 A	P2 B	P3 B	P4 B	P7 B	P8 B	R1 A	R2 A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	18-Oct-2024	24-Oct-2024	25-Oct-2024	18-Oct-2024	24-Oct-2024	14-Oct-2024	15-Oct-2024	25-Oct-2024	25-Oct-2024	24-Oct-2024

Lab Sample No(s)	30467120	30467110	30467159	30467155	30467224	30467163	30467173	30467106	30467251	30467102
Customer Sample Ref.	R1 B	R2 B	S3 A	S3 B	SWFB	SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A	SWML5(A) B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	18-Oct-2024	23-Oct-2024	25-Oct-2024	25-Oct-2024	22-Oct-2024	18-Oct-2024	25-Oct-2024	14-Oct-2024	18-Oct-2024	25-Oct-2024

Lab Sample No(s)	30467255	30467168	30467247	30467230	30467128	30467220	30467141	30467137
Customer Sample Ref.	SWML3 B	SWML4 B	SWML7(A) B	SWML7(B) A	SWML7(B) B	SWTB	WAD Stream A	WAD Stream B
AGS Ref.								
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	18-Oct-2024	18-Oct-2024	18-Oct-2024	25-Oct-2024	25-Oct-2024	15-Oct-2024	25-Oct-2024	25-Oct-2024

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	16 January 2025
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241211-52
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	752945
Order Number:	Z4628

We received 32 samples on Wednesday December 11, 2024 and 32 of these samples were scheduled for analysis which was completed on Thursday January 16, 2025. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30812623	SL1-A		0.00 - 0.00	09/12/2024
30812674	SL2-A		0.00 - 0.00	09/12/2024
30812733	SL3-A		0.00 - 0.00	09/12/2024
30812750	SL4-A		0.00 - 0.00	09/12/2024
30812754	SL5-A		0.00 - 0.00	09/12/2024
30812759	SL6-A		0.00 - 0.00	09/12/2024
30812765	SL7-A		0.00 - 0.00	09/12/2024
30812772	SL8-A		0.00 - 0.00	09/12/2024
30812778	SL9-A		0.00 - 0.00	09/12/2024
30812628	SL10-A		0.00 - 0.00	09/12/2024
30812632	SL11-A		0.00 - 0.00	09/12/2024
30812636	SL12-A		0.00 - 0.00	09/12/2024
30812640	SL13-A		0.00 - 0.00	09/12/2024
30812644	SL14-A		0.00 - 0.00	09/12/2024
30812648	SL15-A		0.00 - 0.00	09/12/2024
30812654	SL1-B		0.00 - 0.00	09/12/2024
30812658	SL2-B		0.00 - 0.00	09/12/2024
30812662	SL3-B		0.00 - 0.00	09/12/2024
30812667	SL4-B		0.00 - 0.00	09/12/2024
30812679	SL5-B		0.00 - 0.00	09/12/2024
30812683	SL6-B		0.00 - 0.00	09/12/2024
30812689	SL7-B		0.00 - 0.00	09/12/2024
30812693	SL8-B		0.00 - 0.00	09/12/2024
30812699	SL9-B		0.00 - 0.00	09/12/2024
30812706	SL10-B		0.00 - 0.00	09/12/2024
30812712	SL11-B		0.00 - 0.00	09/12/2024
30812717	SL12-B		0.00 - 0.00	09/12/2024
30812723	SL13-B		0.00 - 0.00	09/12/2024
30812728	SL14-B		0.00 - 0.00	09/12/2024
30812737	SL15-B		0.00 - 0.00	09/12/2024
30812742	SWFB		0.00 - 0.00	09/12/2024
30812746	SWTB		0.00 - 0.00	09/12/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30812623	30812674	30812733	30812750	30812754	30812759	30812765	30812772	30812778	30812628	30812632	30812636	30812640	30812644	30812648	30812654	30812658	30812662	30812667
Customer Sample Reference			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A	SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A	SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B	SL4-B
AGS Reference																					
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

30812746	SWTB		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812742	SWFB		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812737	SL15-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812728	SL14-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812723	SL13-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812717	SL12-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812712	SL11-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812706	SL10-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812699	SL9-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812693	SL8-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812689	SL7-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812683	SL6-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30812679	SL5-B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			-	-	-	-	-	-
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812623	30812674	30812733	30812750	30812754	30812759
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	5.83 ♦ #	9.11 ♦ #	13.3 ♦ #	13.6 ♦ #	4.92 ♦ #	9.15 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	13.7 ♦ #	33.9 ♦ #	47.7 ♦ #	44.2 ♦ #	12 ♦ #	31.2 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	1.4 ♦ #	1.41 ♦ #	1.25 ♦ #	<1 ♦ #	1.6 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	6.56 ♦ #	14.6 ♦ #	19.3 ♦ #	23.8 ♦ #	5.52 ♦ #	19.1 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	3.29 ♦ #	8.44 ♦ #	12.3 ♦ #	13.1 ♦ #	<1 ♦ #	7.86 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	8.34 ♦ #	12.4 ♦ #	<1 ♦ #	<1 ♦ #	8.93 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.75 ♦ #	4.13 ♦ #	7.85 ♦ #	2.88 ♦ #	1.37 ♦ #	3.34 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	1.41 ♦ #	3.35 ♦ #	2.45 ♦ #	3.06 ♦ #	<1 ♦ #	3.18 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	1.01 ♦ #	2.36 ♦ #	<1 ♦ #	<1 ♦ #	1.27 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	2.23 ♦ #	61.2 ♦ #	<1 ♦ #	<1 ♦ #	3.11 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	2.12 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	2.04 ♦ #	2.78 ♦ #	1.15 ♦ #	<0.65 ♦ #	2.24 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	3.03 ♦ #	2.71 ♦ #	2.12 ♦ #	<0.65 ♦ #	3.21 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			.	.	.	.	.	.
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812623	30812674	30812733	30812750	30812754	30812759
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	23.4 ♦	53 ♦	<10 ♦	<10 ♦	18 ♦
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	5.06 ♦ #	5.5 ♦ #	3.27 ♦ #	<0.65 ♦ #	5.44 ♦ #

08:36:27 16/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			.	.	.	.	.	.
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812765	30812772	30812778	30812628	30812632	30812636
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	14.6 ♦ #	2.44 ♦ #	<2 ♦ #	4.75 ♦ #	6.13 ♦ #	<2 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	31.2 ♦ #	3.37 ♦ #	1.81 ♦ #	10.3 ♦ #	19 ♦ #	2.12 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	12.5 ♦ #	2.03 ♦ #	1.17 ♦ #	4.97 ♦ #	8.58 ♦ #	1.32 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	9.5 ♦ #	1.39 ♦ #	<1 ♦ #	2.62 ♦ #	2.9 ♦ #	<1 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	4.45 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	7.97 ♦ #	2.75 ♦ #	<0.65 ♦ #	1.33 ♦ #	1.79 ♦ #	<0.65 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	1.87 ♦ #	1.11 ♦ #	<1 ♦ #	<1 ♦ #	1.82 ♦ #	<1 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	1.34 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	39 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	6.22 ♦ #	<1 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	1.78 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #
Branched PFOS	<0.65 ng/l	TM434	1.92 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Customer Sample Ref.			SL7-A	SL8-A	SL9-A	SL10-A	SL11-A	SL12-A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			.	.	.	.	.	.
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812765	30812772	30812778	30812628	30812632	30812636
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	21.2 ♦	<10 ♦	<10 ♦	<10 ♦	<10 ♦	<10 ♦
Total PFOS	<0.65 ng/l	TM434	3.7 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			-	-	-	-	-	-
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812640	30812644	30812648	30812654	30812658	30812662
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	13 ♦ #	4.21 ♦ #	4.76 ♦ #	5.12 ♦ #	8.13 ♦ #	16.7 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 3 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	<1 ♦ #	6.27 ♦ #	11.5 ♦ #	13.1 ♦ #	31.3 ♦ #	55.8 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	1.61 ♦ #	1.36 ♦ #	<1 ♦ #	<1 ♦ #	1.53 ♦ #	1.86 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	<1 ♦ #	3.23 ♦ #	5.43 ♦ #	5.79 ♦ #	14.4 ♦ #	22.2 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	<1 ♦ #	1.94 ♦ #	2.19 ♦ #	2.54 ♦ #	7.46 ♦ #	15.2 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	1.14 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	9.04 ♦ #	15.5 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.23 ♦ #	2.9 ♦ #	1.81 ♦ #	1.32 ♦ #	3.49 ♦ #	9.02 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	1.47 ♦ #	<1 ♦ #	1.63 ♦ #	1.35 ♦ #	3.38 ♦ #	2.63 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	2.81 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.66 ♦ #	<1 ♦ #	<1 ♦ #	60.8 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	0.927 ♦ #	<0.65 ♦ #	<0.65 ♦ #	2.15 ♦ #	2.89 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	1.56 ♦ #	<0.65 ♦ #	<0.65 ♦ #	2.4 ♦ #	3.1 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Customer Sample Ref.			SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			.	.	.	.	.	.
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812640	30812644	30812648	30812654	30812658	30812662
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦	<10 ♦	<10 ♦	25.3 ♦	58.8 ♦
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	2.49 ♦ #	<0.65 ♦ #	<0.65 ♦ #	4.55 ♦ #	5.99 ♦ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL4-B	SL5-B	SL6-B	SL7-B	SL8-B	SL9-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			-	-	-	-	-	-
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812667	30812679	30812683	30812689	30812693	30812699
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	13.3 ♦ #	4.07 ♦ #	7.41 ♦ #	8.8 ♦ #	2.7 ♦ #	<2 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	43.3 ♦ #	10.7 ♦ #	26.9 ♦ #	34.3 ♦ #	3.04 ♦ #	1.42 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.22 ♦ #	<1 ♦ #	<1 ♦ #	1.08 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	22.5 ♦ #	4.67 ♦ #	15 ♦ #	13.7 ♦ #	1.85 ♦ #	1.28 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	13.9 ♦ #	2.5 ♦ #	6.15 ♦ #	9.95 ♦ #	<1 ♦ #	<1 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	7.47 ♦ #	4.52 ♦ #	<1 ♦ #	1.16 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	2.82 ♦ #	1.14 ♦ #	2.73 ♦ #	8.1 ♦ #	2.62 ♦ #	<0.65 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	2.88 ♦ #	1.2 ♦ #	2.77 ♦ #	1.74 ♦ #	1.02 ♦ #	<1 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.03 ♦ #	1.61 ♦ #	<1 ♦ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	4.23 ♦ #	39.6 ♦ #	<1 ♦ #	<1 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	1.79 ♦ #	1.25 ♦ #	<0.65 ♦ #	<0.65 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	2.53 ♦ #	2.18 ♦ #	0.738 ♦ #	<0.65 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL4-B	SL5-B	SL6-B	SL7-B	SL8-B	SL9-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			.	.	.	.	.	.
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812667	30812679	30812683	30812689	30812693	30812699
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦	13.7 ♦	24.2 ♦	<10 ♦	<10 ♦
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	4.32 ♦ #	3.43 ♦ #	0.738 ♦ #	<0.65 ♦ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			.	.	.	.	.	.
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812706	30812712	30812717	30812723	30812728	30812737
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	4.79 ♦ #	5.75 ♦ #	<2 ♦ #	7.52 ♦ #	4.34 ♦ #	4.89 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	7.28 ♦ #	20.8 ♦ #	1.55 ♦ #	24.5 ♦ #	7.14 ♦ #	13.6 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	1.55 ♦ #	<1 ♦ #	1.35 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	5.1 ♦ #	8.72 ♦ #	<1 ♦ #	11.2 ♦ #	3.78 ♦ #	5.71 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	2.14 ♦ #	2.94 ♦ #	<1 ♦ #	7.99 ♦ #	1.97 ♦ #	2.34 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	3.66 ♦ #	<1 ♦ #	<1 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.34 ♦ #	1.64 ♦ #	<0.65 ♦ #	5.32 ♦ #	2.94 ♦ #	1.74 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	1.28 ♦ #	1.88 ♦ #	<1 ♦ #	1.69 ♦ #	<1 ♦ #	1.54 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	1.24 ♦ #	<1 ♦ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	6.91 ♦ #	<1 ♦ #	28.6 ♦ #	<1 ♦ #	1.41 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	0.71 ♦ #	<0.65 ♦ #	1.27 ♦ #	1.07 ♦ #	0.935 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	1.64 ♦ #	<0.65 ♦ #	1.77 ♦ #	1.13 ♦ #	1.73 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Sample Time			.	.	.	.	.	.
Date Received			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
SDG Ref			241211-52	241211-52	241211-52	241211-52	241211-52	241211-52
Lab Sample No.(s)			30812706	30812712	30812717	30812723	30812728	30812737
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦	<10 ♦	15.7 ♦	<10 ♦	<10 ♦
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	2.35 ♦ #	<0.65 ♦ #	3.05 ♦ #	2.19 ♦ #	2.67 ♦ #

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CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWFB	SWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			09/12/2024	09/12/2024				
Sample Time			.	.				
Date Received			11/12/2024	11/12/2024				
SDG Ref			241211-52	241211-52				
Lab Sample No.(s)			30812742	30812746				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFPA (2706-90-3)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #				
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHxA (307-24-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHpA (375-85-9)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				

Validated

CERTIFICATE OF ANALYSIS

SDG: 241211-52 **Report Number:** 752945 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWFB	SWTB				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			09/12/2024	09/12/2024				
Sample Time			.	.				
Date Received			11/12/2024	11/12/2024				
SDG Ref			241211-52	241211-52				
Lab Sample No.(s)			30812742	30812746				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦				
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #				

08:36:27 16/01/2025

Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30812623	30812674	30812733	30812750	30812754	30812759	30812765	30812772	30812778	30812628
Customer Sample Ref.	SL1-A	SL2-A	SL3-A	SL4-A	SL5-A	SL6-A	SL7-A	SL8-A	SL9-A	SL10-A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	14-Jan-2025	13-Jan-2025	13-Jan-2025	14-Jan-2025	16-Jan-2025	14-Jan-2025	13-Jan-2025	13-Jan-2025	13-Jan-2025	14-Jan-2025

Lab Sample No(s)	30812632	30812636	30812640	30812644	30812648	30812654	30812658	30812662	30812667	30812679
Customer Sample Ref.	SL11-A	SL12-A	SL13-A	SL14-A	SL15-A	SL1-B	SL2-B	SL3-B	SL4-B	SL5-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	13-Jan-2025	13-Jan-2025	10-Jan-2025	14-Jan-2025	13-Jan-2025	13-Jan-2025	13-Jan-2025	15-Jan-2025	14-Jan-2025	13-Jan-2025

Lab Sample No(s)	30812683	30812689	30812693	30812699	30812706	30812712	30812717	30812723	30812728	30812737
Customer Sample Ref.	SL6-B	SL7-B	SL8-B	SL9-B	SL10-B	SL11-B	SL12-B	SL13-B	SL14-B	SL15-B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	13-Jan-2025	13-Jan-2025	13-Jan-2025	13-Jan-2025	14-Jan-2025	13-Jan-2025	13-Jan-2025	14-Jan-2025	14-Jan-2025	13-Jan-2025

Lab Sample No(s)	30812742	30812746
Customer Sample Ref.	SWFB	SWTB
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water
PFAS Liquids (Full Suite)	13-Jan-2025	14-Jan-2025

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Potentially respirable fibres are identified by using a Phase Contrast Microscope.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

21. 6:2 FTAB

Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Fehily Timoney
Unit 3/4
Northwood House
Northwood Crescent
Northwood
Dublin
Dublin
DO9 X899

Attention: Declan Morrisey

CERTIFICATE OF ANALYSIS

Date of report Generation:	24 January 2025
Customer:	Fehily Timoney
Sample Delivery Group (SDG):	241213-116
Your Reference:	P21-195
Location:	Dublin Airport
Report No:	753717
Order Number:	Z4628

We received 44 samples on Friday December 13, 2024 and 44 of these samples were scheduled for analysis which was completed on Friday January 24, 2025. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis
General Manager Western Europe Environmental

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30832944	C1 A		0.00 - 0.00	11/12/2024
30833138	C2-A (A)		0.00 - 0.00	11/12/2024
30833155	C2-A (B)		0.00 - 0.00	11/12/2024
30832938	C1 B		0.00 - 0.00	11/12/2024
30833123	C2-B (A)		0.00 - 0.00	11/12/2024
30833131	C2-B (B)		0.00 - 0.00	11/12/2024
30833114	GWMP5 A		0.00 - 0.00	11/12/2024
30833119	GWMP5 B		0.00 - 0.00	11/12/2024
30833020	K Stream A		0.00 - 0.00	10/12/2024
30833016	K Stream B		0.00 - 0.00	10/12/2024
30833163	M1 A		0.00 - 0.00	11/12/2024
30833004	M5 A		0.00 - 0.00	11/12/2024
30833171	M1 B		0.00 - 0.00	11/12/2024
30833074	M5 B		0.00 - 0.00	11/12/2024
30833199	P2 A		0.00 - 0.00	11/12/2024
30833109	P3 A		0.00 - 0.00	11/12/2024
30832959	P4 A		0.00 - 0.00	11/12/2024
30833100	P7 A		0.00 - 0.00	11/12/2024
30833088	P8 A		0.00 - 0.00	11/12/2024
30833208	P2 B		0.00 - 0.00	11/12/2024
30833105	P3 B		0.00 - 0.00	11/12/2024
30832950	P4 B		0.00 - 0.00	11/12/2024
30833093	P7 B		0.00 - 0.00	11/12/2024
30833061	P8 B		0.00 - 0.00	11/12/2024
30832995	R1 A		0.00 - 0.00	11/12/2024
30832984	R2 A		0.00 - 0.00	11/12/2024
30832989	R1 B		0.00 - 0.00	11/12/2024
30832978	R2 B		0.00 - 0.00	11/12/2024
30833179	S1 A		0.00 - 0.00	11/12/2024
30833029	S3 A		0.00 - 0.00	11/12/2024
30833189	S1 B		0.00 - 0.00	11/12/2024
30833024	S3 B		0.00 - 0.00	11/12/2024
30833033	SWML3 A		0.00 - 0.00	11/12/2024
30833048	SWML4 A		0.00 - 0.00	11/12/2024
30832972	SWML5(A) A		0.00 - 0.00	10/12/2024
30833232	SWML7(A) A		0.00 - 0.00	11/12/2024
30832965	SWML5(A) B		0.00 - 0.00	10/12/2024
30833220	SWML7(A) B		0.00 - 0.00	11/12/2024
30833242	SWML3 B		0.00 - 0.00	11/12/2024
30833037	SWML4 B		0.00 - 0.00	11/12/2024
30833146	SWML7(B) A		0.00 - 0.00	11/12/2024
30832999	SWML7(B) B		0.00 - 0.00	11/12/2024
30833012	WAD Stream A		0.00 - 0.00	10/12/2024
30833008	WAD Stream B		0.00 - 0.00	10/12/2024

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
30832944	C1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833138	C2-A (A)		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833155	C2-A (B)		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30832938	C1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833123	C2-B (A)		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833131	C2-B (B)		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833114	GWMP5 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833119	GWMP5 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833020	K Stream A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833016	K Stream B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833163	M1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833004	M5 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833171	M1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833074	M5 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833199	P2 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833109	P3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30832959	P4 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833100	P7 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW
30833088	P8 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW

PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

30833037	SWML4 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833242	SWML3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833220	SWML7(A) B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30832965	SWML5(A) B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833232	SWML7(A) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30832972	SWML5(A) A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833048	SWML4 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833033	SWML3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833024	S3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833189	S1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833029	S3 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833179	S1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30832978	R2 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30832989	R1 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30832984	R2 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30832995	R1 A		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833061	P8 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833093	P7 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30832950	P4 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833105	P3 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X
30833208	P2 B		0.00 - 0.00	Digitube fo PFAS analysis.	SW		X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			30833146	30832999	30833012	30833008
Customer Sample Reference			SWML7(B) A	SWML7(B) B	WAD Stream A	WAD Stream B
AGS Reference						
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container			Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.	Digitube fo PFAS analysis.
Sample Type			SW	SW	SW	SW
PFAS Liquids (Full Suite)	All	NDPs: 0 Tests: 44	X	X	X	X

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			C1 A	C2-A (A)	C2-A (B)	C1 B	C2-B (A)	C2-B (B)
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30832944	30833138	30833155	30832938	30833123	30833131
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	3.67 ♦ #	6.69 ♦ #	8.06 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	2.86 ♦ #	15.6 ♦ #	19.4 ♦ #	4.1 ♦ #	2.93 ♦ #	2.78 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.2 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	1.81 ♦ #	7.57 ♦ #	7.26 ♦ #	1.74 ♦ #	1.49 ♦ #	1.32 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	1.44 ♦ #	2.39 ♦ #	2.8 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 ♦ #	1.26 ♦ #	2.82 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	1.34 ♦ #	<1 ♦ #	1.22 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.19 ♦ #	1.39 ♦ #	<1 ♦ #	<1 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	1.04 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	1.31 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

15:38:25 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			C1 A	C2-A (A)	C2-A (B)	C1 B	C2-B (A)	C2-B (B)
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30832944	30833138	30833155	30832938	30833123	30833131
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦	<10 ♦	<10 ♦	<10 ♦	<10 ♦
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	2.35 ♦ #	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #

15:38:25 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			GWMP5 A	GWMP5 B	K Stream A	K Stream B	M1 A	M5 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	10/12/2024	10/12/2024	11/12/2024	11/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30833114	30833119	30833020	30833016	30833163	30833004
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	6.44 ♦ #	6.24 ♦ #	18.5 @ #	18.6 @ #	6.62 ♦ #	7.02 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	3.61 ♦ #	3.81 ♦ #	60.5 @ #	60.6 @ #	18.7 ♦ #	21 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 @ #	<3 @ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.95 @ #	2.1 @ #	1.14 ♦ #	1.35 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	1.65 ♦ #	1.63 ♦ #	23.7 @ #	23.8 @ #	6.8 ♦ #	9.33 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	12.4 @ #	12.6 @ #	2.76 ♦ #	4.73 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.25 @ #	1.08 @ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 @ #	<5 @ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	6.74 @ #	7.78 @ #	<1 ♦ #	<1 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	0.807 ♦ #	<0.65 ♦ #	5.85 @ #	6.61 @ #	1.3 ♦ #	3.46 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	10.7 @ #	10.7 @ #	<1 ♦ #	<1 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.1 @ #	1.29 @ #	<1 ♦ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	30.8 @ #	28.8 @ #	1.53 ♦ #	9.83 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	7.96 @ #	7.19 @ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 @ #	<5 @ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 @ #	<5 @ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	10.5 ♦ #	5.47 @ #	6.54 @ #	<0.65 ♦ #	<0.65 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	11.6 ♦ #	10.5 @ #	12.3 @ #	<0.65 ♦ #	<0.65 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Customer Sample Ref.			GWMP5 A	GWMP5 B	K Stream A	K Stream B	M1 A	M5 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	10/12/2024	10/12/2024	11/12/2024	11/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30833114	30833119	30833020	30833016	30833163	30833004
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 @ #	<3 @ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 @ #	<2 @ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 @ #	<10 @ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 @ #	<10 @ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 @ #	<1 @ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦	37 @	46.3 @	<10 ♦	<10 ♦
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	22 ♦ #	15.9 @ #	18.8 @ #	<0.65 ♦ #	<0.65 ♦ #

15:38:25 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			M1 B	M5 B	P2 A	P3 A	P4 A	P7 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30833171	30833074	30833199	30833109	30832959	30833100
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	6.72 ♦ #	7.29 ♦ #	31.6 ♦ #	14.2 ♦ #	18.1 ♦ #	13.2 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	12.9 ♦ #	19.6 ♦ #	115 ♦ #	43.6 ♦ #	79.4 ♦ #	27.8 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	1.05 ♦ #	1.28 ♦ #	1.56 ♦ #	1.03 ♦ #	1.47 ♦ #	<1 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	5.87 ♦ #	9.06 ♦ #	61.3 ♦ #	21.5 ♦ #	37.4 ♦ #	12.9 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	3.34 ♦ #	5.26 ♦ #	15.5 ♦ #	9.88 ♦ #	12.4 ♦ #	5.91 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	22.4 ♦ #	<1 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.3 ♦ #	6.8 ♦ #	3.16 ♦ #	3.92 ♦ #	6.16 ♦ #	1.63 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	2.9 ♦ #	2.64 ♦ #	5.98 ♦ #	1.5 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	1.34 ♦ #	10.1 ♦ #	<1 ♦ #	<1 ♦ #	1.77 ♦ #	<1 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	2.06 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	0.674 ♦ #	2.57 ♦ #	<0.65 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	1.73 ♦ #	<0.65 ♦ #	4.76 ♦ #	<0.65 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			M1 B	M5 B	P2 A	P3 A	P4 A	P7 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30833171	30833074	30833199	30833109	30832959	30833100
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦	<10 ♦	<10 ♦	55.8 ♦	<10 ♦
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	1.73 ♦ #	0.674 ♦ #	7.33 ♦ #	<0.65 ♦ #

15:38:25 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			P8 A	P2 B	P3 B	P4 B	P7 B	P8 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30833088	30833208	30833105	30832950	30833093	30833061
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	4.5 ♦ #	25.4 ♦ #	12 ♦ #	21 ♦ #	13.2 ♦ #	3.51 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	9.63 ♦ #	98.1 ♦ #	35.4 ♦ #	91 ♦ #	28.6 ♦ #	7.96 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	1.58 ♦ #	<1 ♦ #	<1 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	3.13 ♦ #	53.2 ♦ #	20.7 ♦ #	39.3 ♦ #	12.8 ♦ #	3.91 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	2.16 ♦ #	14.1 ♦ #	8.32 ♦ #	11.7 ♦ #	5.9 ♦ #	1.52 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	1.13 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	18.7 ♦ #	<1 ♦ #	<1 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	1.17 ♦ #	3.12 ♦ #	2.3 ♦ #	6.27 ♦ #	1.66 ♦ #	<0.65 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 ♦ #	3.06 ♦ #	1.15 ♦ #	5.72 ♦ #	1.22 ♦ #	<1 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	2.75 ♦ #	<1 ♦ #	<1 ♦ #	2.52 ♦ #	<1 ♦ #	1.5 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	0.794 ♦ #	<0.65 ♦ #	<0.65 ♦ #	2.78 ♦ #	<0.65 ♦ #	<0.65 ♦ #
Branched PFOS	<0.65 ng/l	TM434	1.04 ♦ #	<0.65 ♦ #	<0.65 ♦ #	6.2 ♦ #	<0.65 ♦ #	<0.65 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Customer Sample Ref.			P8 A	P2 B	P3 B	P4 B	P7 B	P8 B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30833088	30833208	30833105	30832950	30833093	30833061
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦	<10 ♦	35.4 ♦	<10 ♦	<10 ♦
Total PFOS	<0.65 ng/l	TM434	1.84 ♦ #	<0.65 ♦ #	<0.65 ♦ #	8.97 ♦ #	<0.65 ♦ #	<0.65 ♦ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			R1 A	R2 A	R1 B	R2 B	S1 A	S3 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30832995	30832984	30832989	30832978	30833179	30833029
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	20.2 ♦ #	8.92 ♦ #	15.7 ♦ #	10.2 ♦ #	<2 ♦ #	<2 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	70.4 ♦ #	28.1 ♦ #	68.4 ♦ #	34.3 ♦ #	<1 ♦ #	6.55 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	1.62 ♦ #	<1 ♦ #	1.3 ♦ #	1.15 ♦ #	<1 ♦ #	<1 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	29.1 ♦ #	15.9 ♦ #	27.6 ♦ #	15.4 ♦ #	<1 ♦ #	3.24 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	10.4 ♦ #	6.31 ♦ #	10.3 ♦ #	7.27 ♦ #	<1 ♦ #	<1 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	5.73 ♦ #	<1 ♦ #	6.86 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	5.14 ♦ #	3.76 ♦ #	5.09 ♦ #	3.49 ♦ #	<0.65 ♦ #	0.943 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	5.08 ♦ #	<1 ♦ #	4.5 ♦ #	3.28 ♦ #	<1 ♦ #	<1 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.28 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	2.61 ♦ #	<1 ♦ #	3.33 ♦ #	1.32 ♦ #	<1 ♦ #	2.99 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	4.1 ♦ #	3.29 ♦ #	2.89 ♦ #	2.76 ♦ #	<0.65 ♦ #	<0.65 ♦ #
Branched PFOS	<0.65 ng/l	TM434	4.9 ♦ #	3.79 ♦ #	4.22 ♦ #	3.28 ♦ #	<0.65 ♦ #	<0.65 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			R1 A	R2 A	R1 B	R2 B	S1 A	S3 A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30832995	30832984	30832989	30832978	30833179	30833029
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	31.8 ♦	22.3 ♦	28.5 ♦	18.7 ♦	<10 ♦	<10 ♦
Total PFOS	<0.65 ng/l	TM434	9.01 ♦ #	7.08 ♦ #	7.11 ♦ #	6.04 ♦ #	<0.65 ♦ #	<0.65 ♦ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			S1 B	S3 B	SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	10/12/2024	11/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30833189	30833024	30833033	30833048	30832972	30833232
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	6.76 ♦ #	15.4 ♦ #	25.8 @ #	<2 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	<1 ♦ #	5.37 ♦ #	14.6 ♦ #	62.6 ♦ #	121 @ #	<1 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 @ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	1.48 ♦ #	1.84 @ #	<1 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	<1 ♦ #	3.42 ♦ #	5.5 ♦ #	25.9 ♦ #	49.4 @ #	<1 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	2.45 ♦ #	10.3 ♦ #	19.5 @ #	<1 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	1.17 @ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 @ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	5.4 ♦ #	54.8 @ #	<1 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	1.52 ♦ #	4.86 ♦ #	11.5 @ #	<0.65 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	4.4 ♦ #	6.58 @ #	<1 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	1.93 @ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	1.29 ♦ #	3.39 ♦ #	5.88 @ #	<1 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	3.17 @ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 @ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 @ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	2.28 ♦ #	8.92 @ #	<0.65 ♦ #
Branched PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	3.52 ♦ #	7.14 @ #	<0.65 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #

15:38:25 24/01/2025

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			S1 B	S3 B	SWML3 A	SWML4 A	SWML5(A) A	SWML7(A) A
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			11/12/2024	11/12/2024	11/12/2024	11/12/2024	10/12/2024	11/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30833189	30833024	30833033	30833048	30832972	30833232
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 @ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 @ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 @ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 @ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 @ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 ♦	<10 ♦	<10 ♦	34.3 ♦	103 @	<10 ♦
Total PFOS	<0.65 ng/l	TM434	<0.65 ♦ #	<0.65 ♦ #	<0.65 ♦ #	5.8 ♦ #	16.1 @ #	<0.65 ♦ #

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Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			SWML5(A) B	SWML7(A) B	SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			10/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			-	-	-	-	-	-
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30832965	30833220	30833242	30833037	30833146	30832999
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	23.6 @ #	<2 ♦ #	6.11 ♦ #	13.7 ♦ #	<2 ♦ #	3.15 ♦ #
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFPA (2706-90-3)	<1 ng/l	TM434	107 @ #	<1 ♦ #	13.8 ♦ #	53.3 ♦ #	2.63 ♦ #	3.63 ♦ #
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 @ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
PFBS (375-73-5)	<1 ng/l	TM434	1.36 @ #	<1 ♦ #	<1 ♦ #	1.53 ♦ #	<1 ♦ #	<1 ♦ #
PFHxA (307-24-4)	<1 ng/l	TM434	50 @ #	<1 ♦ #	6.38 ♦ #	22.2 ♦ #	1.83 ♦ #	1.69 ♦ #
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHpA (375-85-9)	<1 ng/l	TM434	17.7 @ #	<1 ♦ #	2.64 ♦ #	10.9 ♦ #	<1 ♦ #	<1 ♦ #
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 @ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
ADONA (919005-14-4)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTS (27619-97-2)	<1 ng/l	TM434	57.8 @ #	<1 ♦ #	<1 ♦ #	4.09 ♦ #	<1 ♦ #	<1 ♦ #
FBSA (30334-69-1)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOA (335-67-1)	<0.65 ng/l	TM434	10.6 @ #	<0.65 ♦ #	1.32 ♦ #	5.94 ♦ #	0.845 ♦ #	<0.65 ♦ #
PFHxS (355-46-4)	<1 ng/l	TM434	6 @ #	<1 ♦ #	<1 ♦ #	3.68 ♦ #	<1 ♦ #	<1 ♦ #
PFNA (375-95-1)	<1 ng/l	TM434	1.84 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFecHS (133201-07-7)	<1 ng/l	TM434	3.87 @ #	<1 ♦ #	1.51 ♦ #	2.56 ♦ #	<1 ♦ #	<1 ♦ #
PFHpS (375-92-8)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
8:2 FTS (39108-34-4)	<2 ng/l	TM434	4.36 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 @ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
PFDA (335-76-2)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 @ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #	<5 ♦ #
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	9.61 @ #	<0.65 ♦ #	<0.65 ♦ #	2.15 ♦ #	<0.65 ♦ #	<0.65 ♦ #
Branched PFOS	<0.65 ng/l	TM434	6.35 @ #	<0.65 ♦ #	<0.65 ♦ #	4.36 ♦ #	<0.65 ♦ #	<0.65 ♦ #
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFNS (68259-12-1)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Customer Sample Ref.			SWML5(A) B	SWML7(A) B	SWML3 B	SWML4 B	SWML7(B) A	SWML7(B) B
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type			Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
Date Sampled			10/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024	11/12/2024
Sample Time			.	.	.	.	.	.
Date Received			13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024	13/12/2024
SDG Ref			241213-116	241213-116	241213-116	241213-116	241213-116	241213-116
Lab Sample No.(s)			30832965	30833220	30833242	30833037	30833146	30832999
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFDoA (307-55-1)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDS (335-77-3)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 @ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTeA (376-06-7)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFOSA (754-91-6)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 @ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #	<2 ♦ #
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 @ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 @ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #	<10 ♦ #
PFODA (16517-11-6)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 @ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	69.9 @	<10 ♦	<10 ♦	30.2 ♦	<10 ♦	<10 ♦
Total PFOS	<0.65 ng/l	TM434	16 @ #	<0.65 ♦ #	<0.65 ♦ #	6.51 ♦ #	<0.65 ♦ #	<0.65 ♦ #

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CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4♦§@ Sample deviation (see appendix)

Customer Sample Ref.			WAD Stream A	WAD Stream B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			10/12/2024	10/12/2024				
Sample Time			-	-				
Date Received			13/12/2024	13/12/2024				
SDG Ref			241213-116	241213-116				
Lab Sample No.(s)			30833012	30833008				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFBA (375-22-4)	<2 ng/l	TM434	8.37 @ #	9.1 @ #				
PFMOPrA (377-73-1)	<1 ng/l	TM434	<1 @ #	<1 @ #				
3:3 FTCA (356-02-5)	<2 ng/l	TM434	<2 @ #	<2 @ #				
PFPA (2706-90-3)	<1 ng/l	TM434	17.9 @ #	17.3 @ #				
PFMOBA (863090-89-5)	<1 ng/l	TM434	<1 @ #	<1 @ #				
4:2 FTS (757124-72-4)	<1 ng/l	TM434	<1 @ #	<1 @ #				
NFDHA (151772-58-6)	<3 ng/l	TM434	<3 @ #	<3 @ #				
PFBS (375-73-5)	<1 ng/l	TM434	1.57 @ #	1.96 @ #				
PFHxA (307-24-4)	<1 ng/l	TM434	9.61 @ #	10.4 @ #				
HFPO-DA (13252-13-6)	<2 ng/l	TM434	<2 @ #	<2 @ #				
PFEESA (113507-82-7)	<1 ng/l	TM434	<1 @ #	<1 @ #				
PFHpA (375-85-9)	<1 ng/l	TM434	3.61 @ #	3.68 @ #				
PFPeS (2706-91-4)	<1 ng/l	TM434	<1 @ #	<1 @ #				
5:3 FTCA (914637-49-3)	<5 ng/l	TM434	<5 @ #	<5 @ #				
ADONA (919005-14-4)	<1 ng/l	TM434	<1 @ #	<1 @ #				
6:2 FTS (27619-97-2)	<1 ng/l	TM434	<1 @ #	<1 @ #				
FBSA (30334-69-1)	<1 ng/l	TM434	<1 @ #	1.23 @ #				
PFOA (335-67-1)	<0.65 ng/l	TM434	1.53 @ #	2.65 @ #				
PFHxS (355-46-4)	<1 ng/l	TM434	<1 @ #	<1 @ #				
PFNA (375-95-1)	<1 ng/l	TM434	<1 @ #	<1 @ #				
PFecHS (133201-07-7)	<1 ng/l	TM434	<1 @ #	<1 @ #				
PFHpS (375-92-8)	<1 ng/l	TM434	<1 @ #	<1 @ #				
8:2 FTS (39108-34-4)	<2 ng/l	TM434	<2 @ #	<2 @ #				
HFPO-TA (13252-14-7)	<5 ng/l	TM434	<5 @ #	<5 @ #				
PFDA (335-76-2)	<2 ng/l	TM434	<2 @ #	<2 @ #				
MeFOSAA (2355-31-9)	<2 ng/l	TM434	<2 @ #	<2 @ #				
7:3 FTCA (812-70-4)	<5 ng/l	TM434	<5 @ #	<5 @ #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM434	<0.65 @ #	<0.65 @ #				
Branched PFOS	<0.65 ng/l	TM434	<0.65 @ #	<0.65 @ #				
EtFOSAA (2991-50-6)	<2 ng/l	TM434	<2 @ #	<2 @ #				
PFUnA (2058-94-8)	<2 ng/l	TM434	<2 @ #	<2 @ #				
9Cl-PF3ONS (756426-58-1)	<1 ng/l	TM434	<1 @ #	<1 @ #				
PFNS (68259-12-1)	<1 ng/l	TM434	<1 @ #	<1 @ #				

Validated

CERTIFICATE OF ANALYSIS

SDG: 241213-116 **Report Number:** 753717 **Superseded Report:**
Client Ref.: P21-195 **Location:** Dublin Airport

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			WAD Stream A	WAD Stream B				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Surface Water (SW)	Surface Water (SW)				
Date Sampled			10/12/2024	10/12/2024				
Sample Time			.	.				
Date Received			13/12/2024	13/12/2024				
SDG Ref			241213-116	241213-116				
Lab Sample No.(s)			30833012	30833008				
AGS Reference								
Component	**LOD/Units**	**Method**						
FHxSA (41997-13-1)	<1 ng/l	TM434	<1 @ #	<1 @ #				
PFDoA (307-55-1)	<2 ng/l	TM434	<2 @ #	<2 @ #				
PFDS (335-77-3)	<2 ng/l	TM434	<2 @ #	<2 @ #				
PFTrDA (72629-94-8)	<3 ng/l	TM434	<3 @ #	<3 @ #				
11Cl-PF3OUdS (763051-92-9)	<2 ng/l	TM434	<2 @ #	<2 @ #				
PFUnDS (749786-16-1)	<2 ng/l	TM434	<2 @ #	<2 @ #				
PFTeA (376-06-7)	<1 ng/l	TM434	<1 @ #	<1 @ #				
PFOSA (754-91-6)	<2 ng/l	TM434	<2 @ #	<2 @ #				
PFDoS (79780-39-5)	<2 ng/l	TM434	<2 @ #	<2 @ #				
PFTrDS (174675-49-1)	<1 ng/l	TM434	<1 @ #	<1 @ #				
PFHxDA (67905-19-5)	<1 ng/l	TM434	<1 @ #	<1 @ #				
MeFOSE (24448-09-7)	<10 ng/l	TM434	<10 @ #	<10 @ #				
N-MeFOSA (31506-32-8)	<1 ng/l	TM434	<1 @ #	<1 @ #				
EtFOSE (1691-99-2)	<10 ng/l	TM434	<10 @ #	<10 @ #				
PFODA (16517-11-6)	<1 ng/l	TM434	<1 @ #	<1 @ #				
N-EtFOSA (4151-50-2)	<1 ng/l	TM434	<1 @ #	<1 @ #				
6:2 FTAB (34455-29-3)	<10 ng/l	TM434	<10 @	<10 @				
Total PFOS	<0.65 ng/l	TM434	<0.65 @ #	<0.65 @ #				

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Table of Results - Appendix

Method No	Description
TM434	Analysis of PFAS

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

Test Completion Dates

Lab Sample No(s)	30832944	30832938	30833138	30833155	30833123	30833131	30833114	30833119	30833020	30833016
Customer Sample Ref.	C1 A	C1 B	C2-A (A)	C2-A (B)	C2-B (A)	C2-B (B)	GWMP5 A	GWMP5 B	K Stream A	K Stream B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	23-Jan-2025	20-Jan-2025	17-Jan-2025	20-Jan-2025	20-Jan-2025	22-Jan-2025	17-Jan-2025	21-Jan-2025	22-Jan-2025	21-Jan-2025

Lab Sample No(s)	30833163	30833004	30833171	30833074	30833199	30833109	30832959	30833100	30833088	30833208
Customer Sample Ref.	M1 A	M5 A	M1 B	M5 B	P2 A	P3 A	P4 A	P7 A	P8 A	P2 B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	20-Jan-2025	20-Jan-2025	20-Jan-2025	20-Jan-2025	17-Jan-2025	22-Jan-2025	17-Jan-2025	22-Jan-2025	22-Jan-2025	20-Jan-2025

Lab Sample No(s)	30833105	30832950	30833093	30833061	30832995	30832984	30832989	30832978	30833179	30833029
Customer Sample Ref.	P3 B	P4 B	P7 B	P8 B	R1 A	R2 A	R1 B	R2 B	S1 A	S3 A
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	20-Jan-2025	21-Jan-2025	21-Jan-2025	17-Jan-2025	23-Jan-2025	21-Jan-2025	23-Jan-2025	23-Jan-2025	21-Jan-2025	20-Jan-2025

Lab Sample No(s)	30833189	30833024	30833033	30833048	30833242	30833037	30832972	30833232	30832965	30833220
Customer Sample Ref.	S1 B	S3 B	SWML3 A	SWML4 A	SWML3 B	SWML4 B	SWML5(A) A	SWML7(A) A	SWML5(A) B	SWML7(A) B
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	21-Jan-2025	21-Jan-2025	20-Jan-2025	23-Jan-2025	20-Jan-2025	20-Jan-2025	21-Jan-2025	16-Jan-2025	17-Jan-2025	24-Jan-2025

Lab Sample No(s)	30833146	30832999	30833012	30833008
Customer Sample Ref.	SWML7(B) A	SWML7(B) B	WAD Stream A	WAD Stream B
AGS Ref.				
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water
PFAS Liquids (Full Suite)	17-Jan-2025	20-Jan-2025	21-Jan-2025	21-Jan-2025

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Potentially respirable fibres are identified by using a Phase Contrast Microscope.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

21. 6:2 FTAB

Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

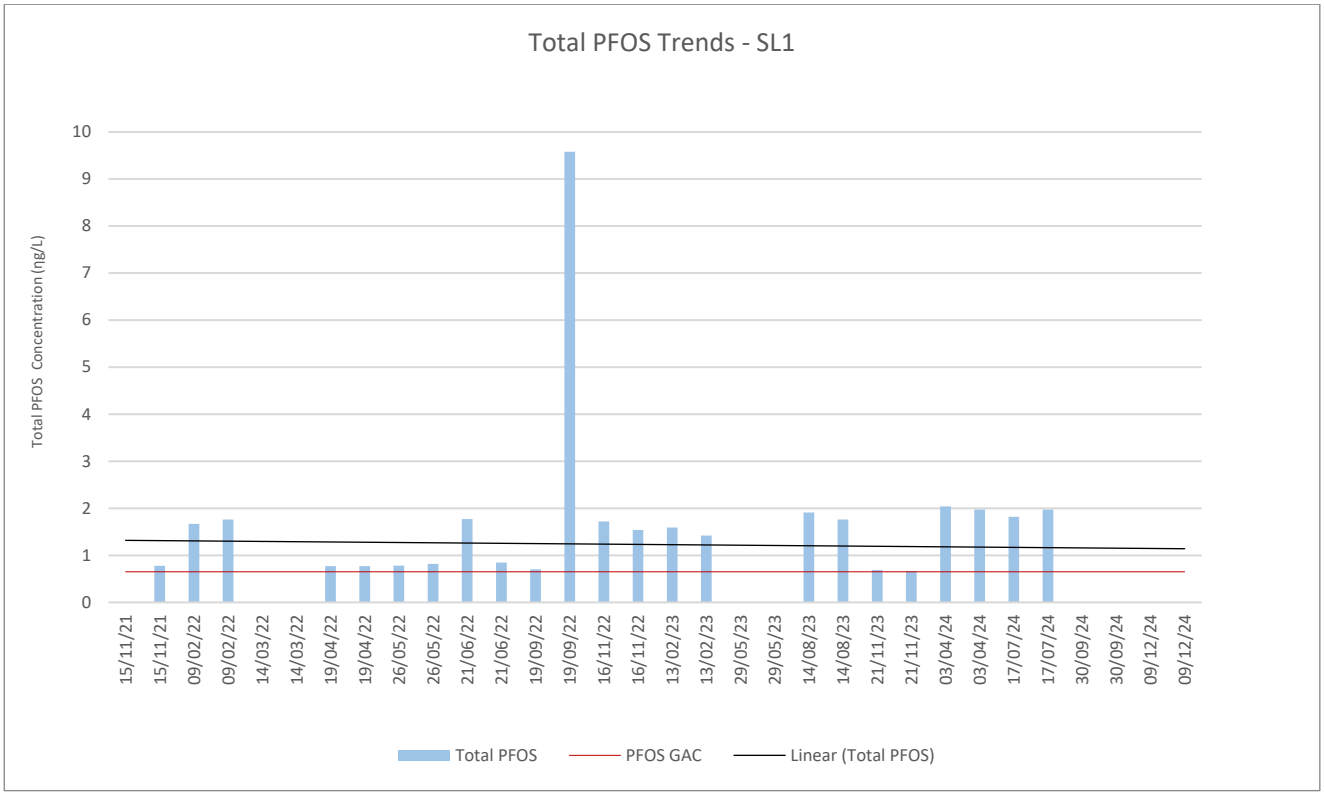
FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

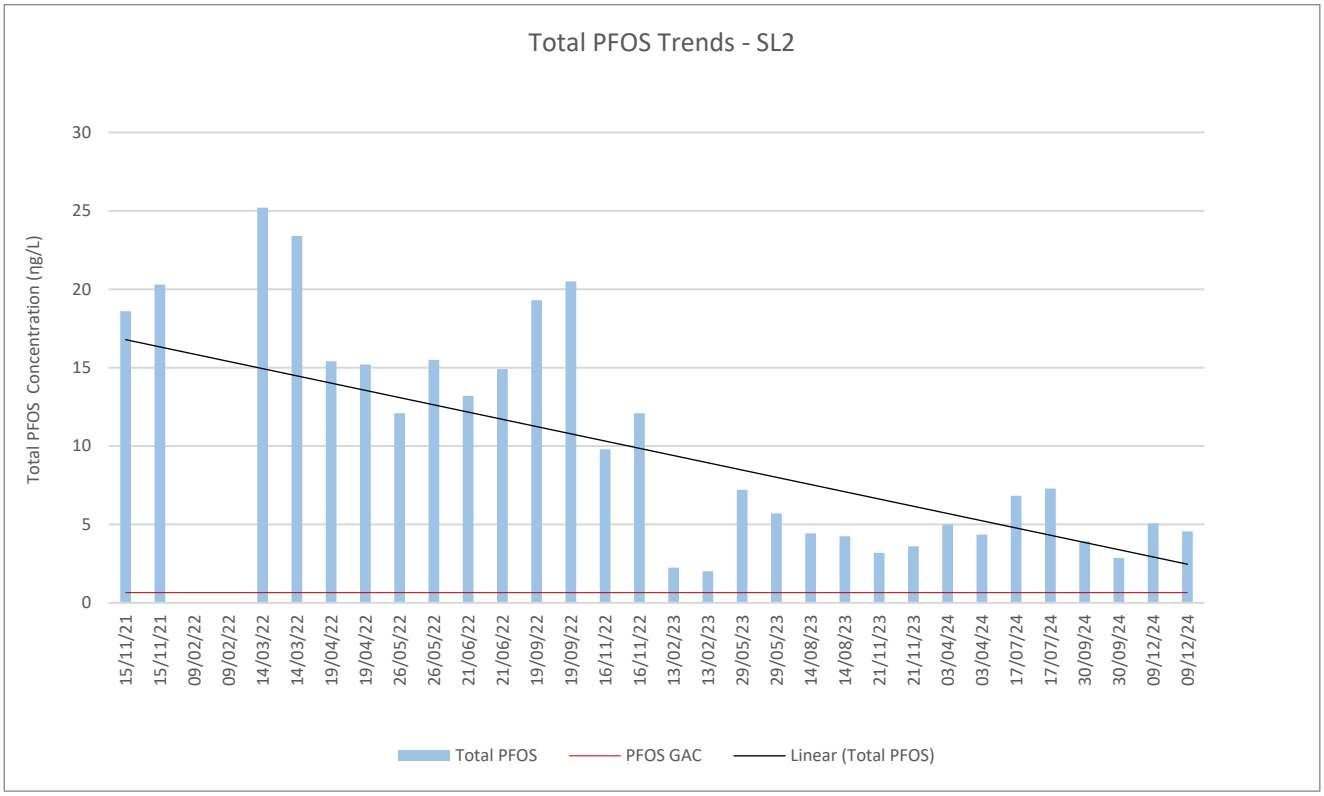
APPENDIX 8

Surface Water Trends

Landside Surface Water Trends

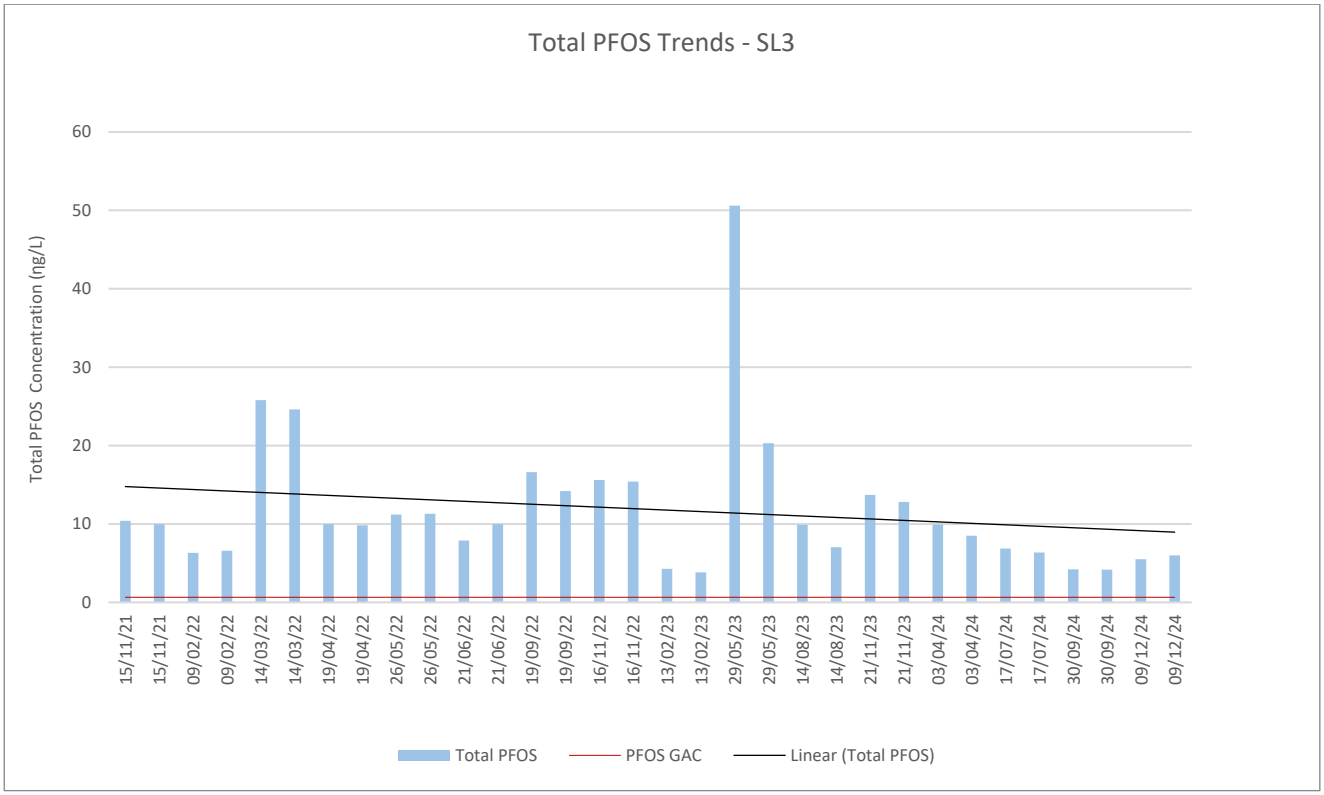


Total PFOS Concentrations at SL1 (Above GAC)

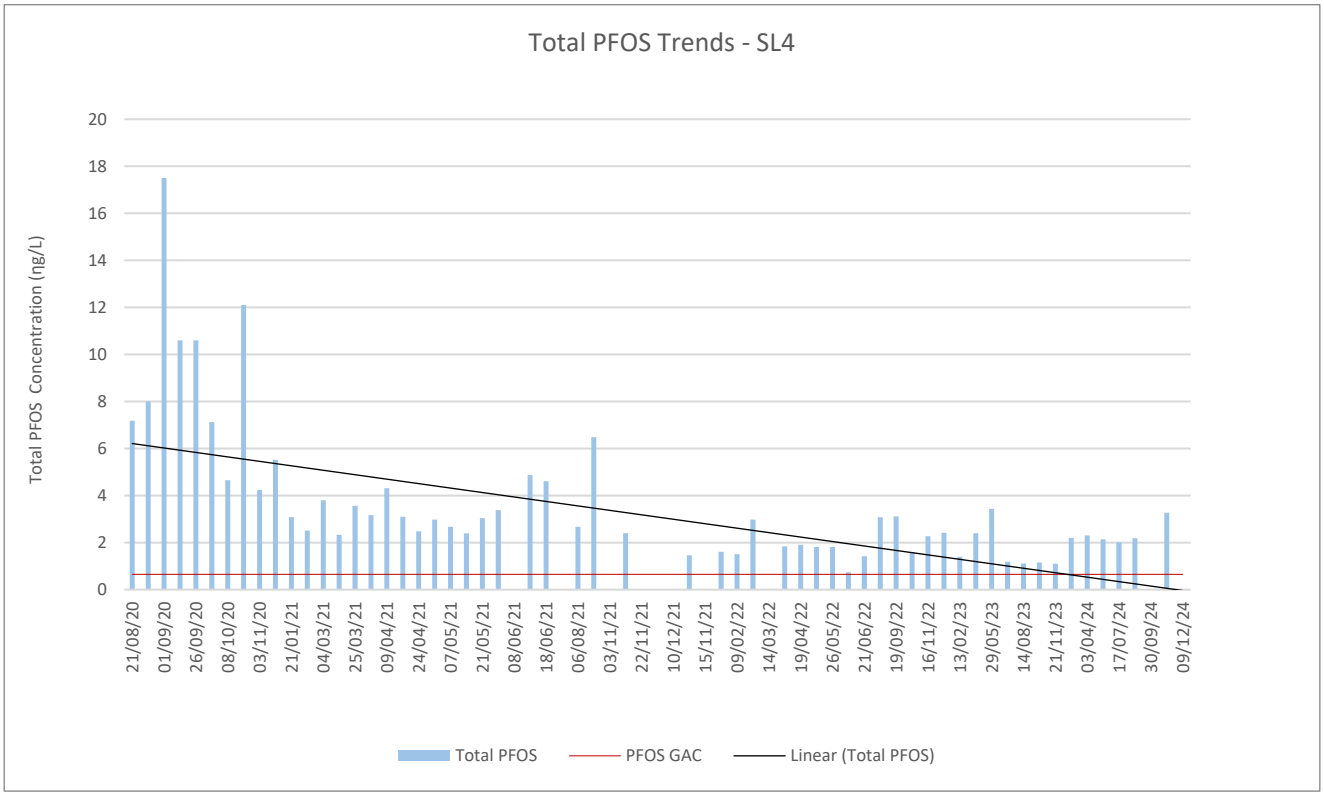


Total PFOS Concentrations at SL2 (Above GAC)

Landside Surface Water Trends

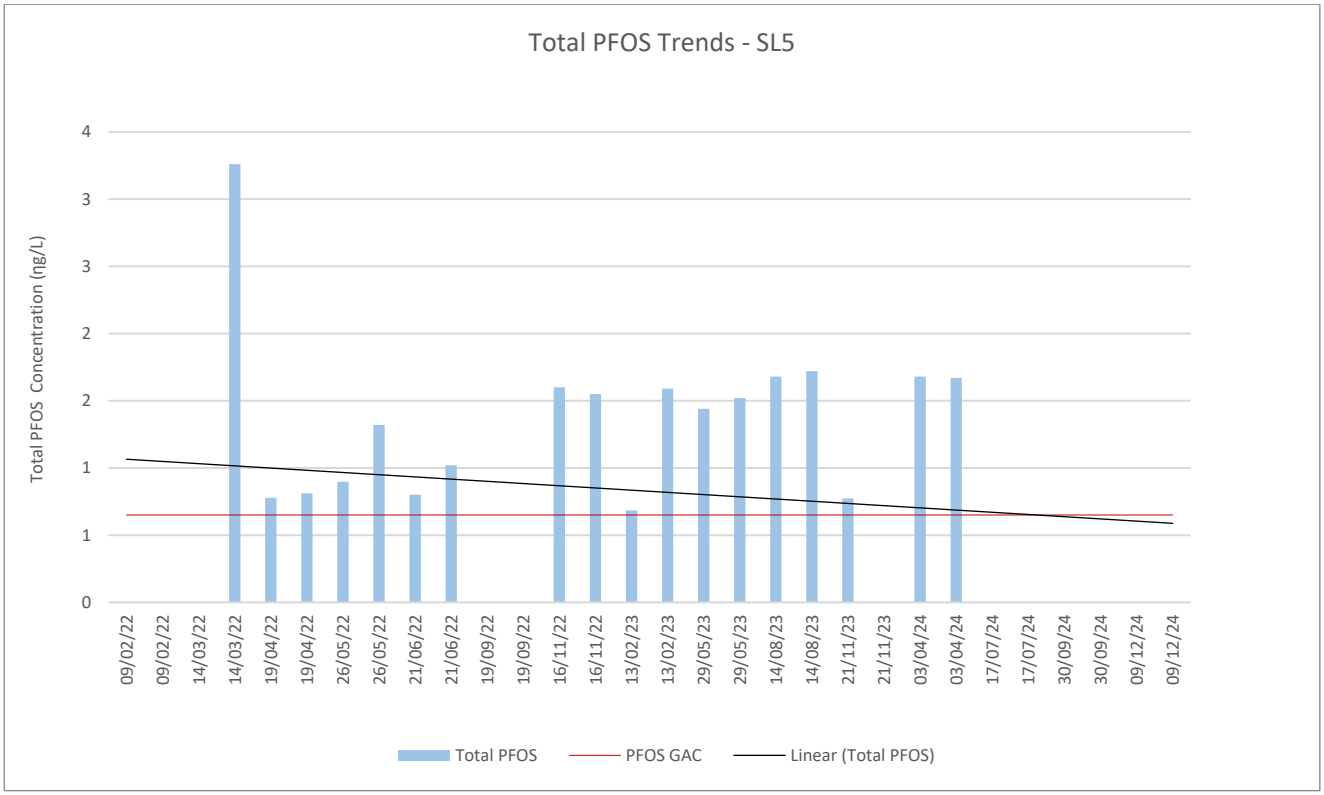


Total PFOS Concentrations at SL3 (Above GAC)

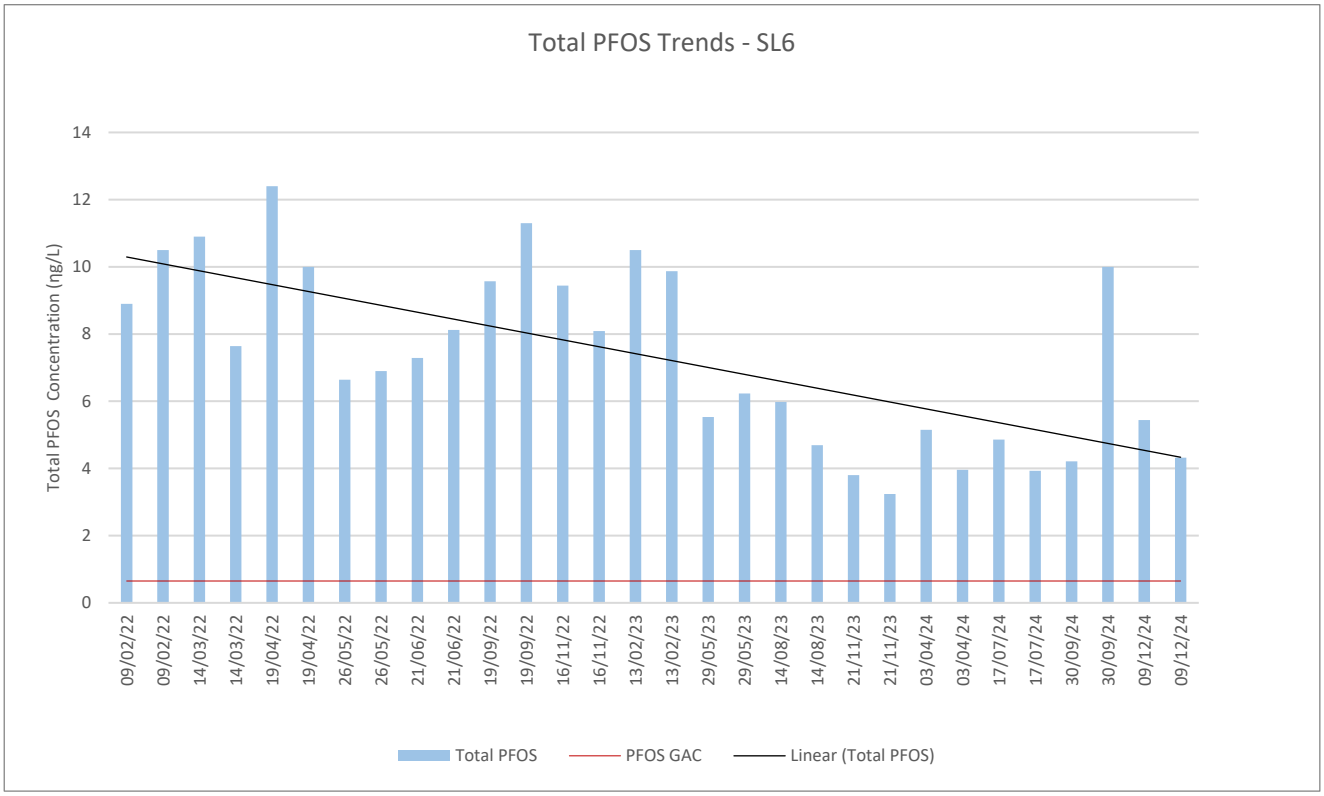


Total PFOS Concentrations at SL4 (Above GAC)

Landside Surface Water Trends

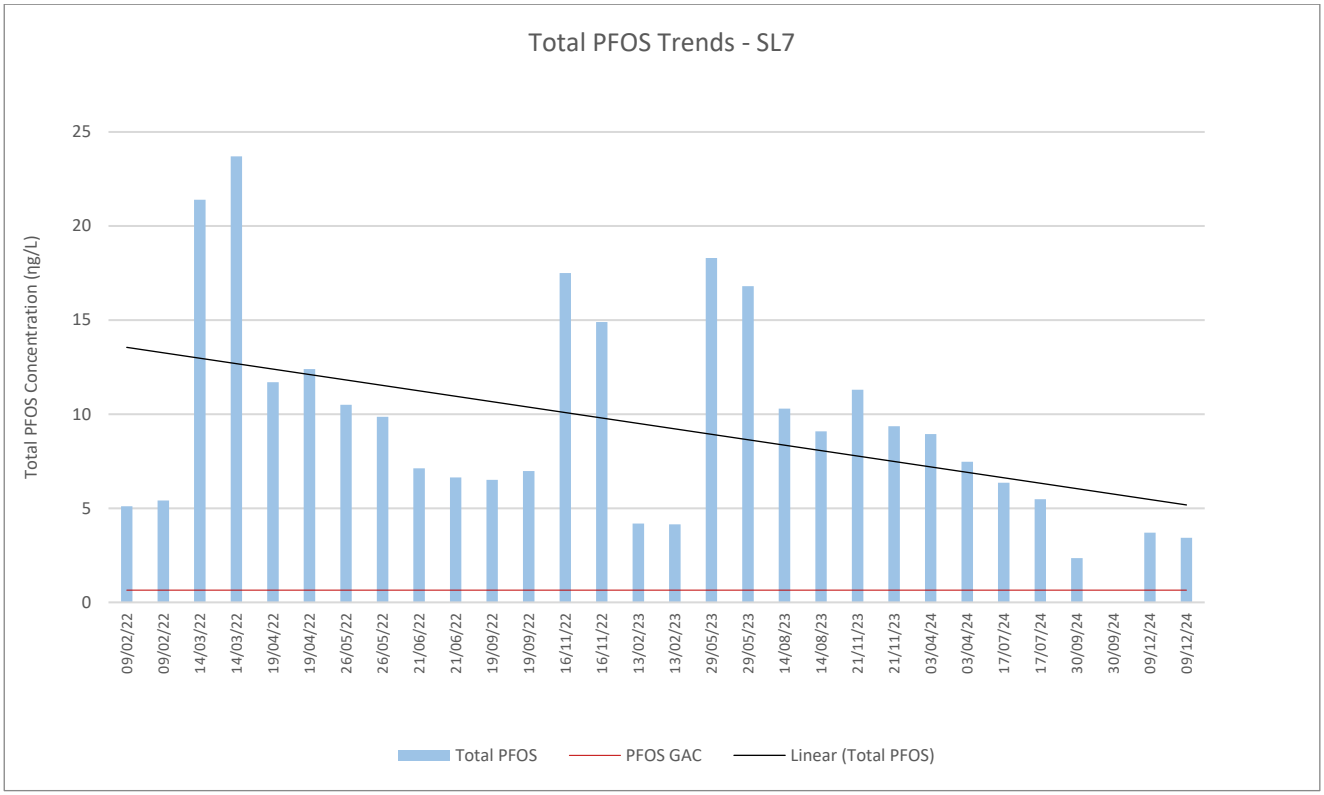


Total PFOS Concentrations at SL5 (Above GAC)

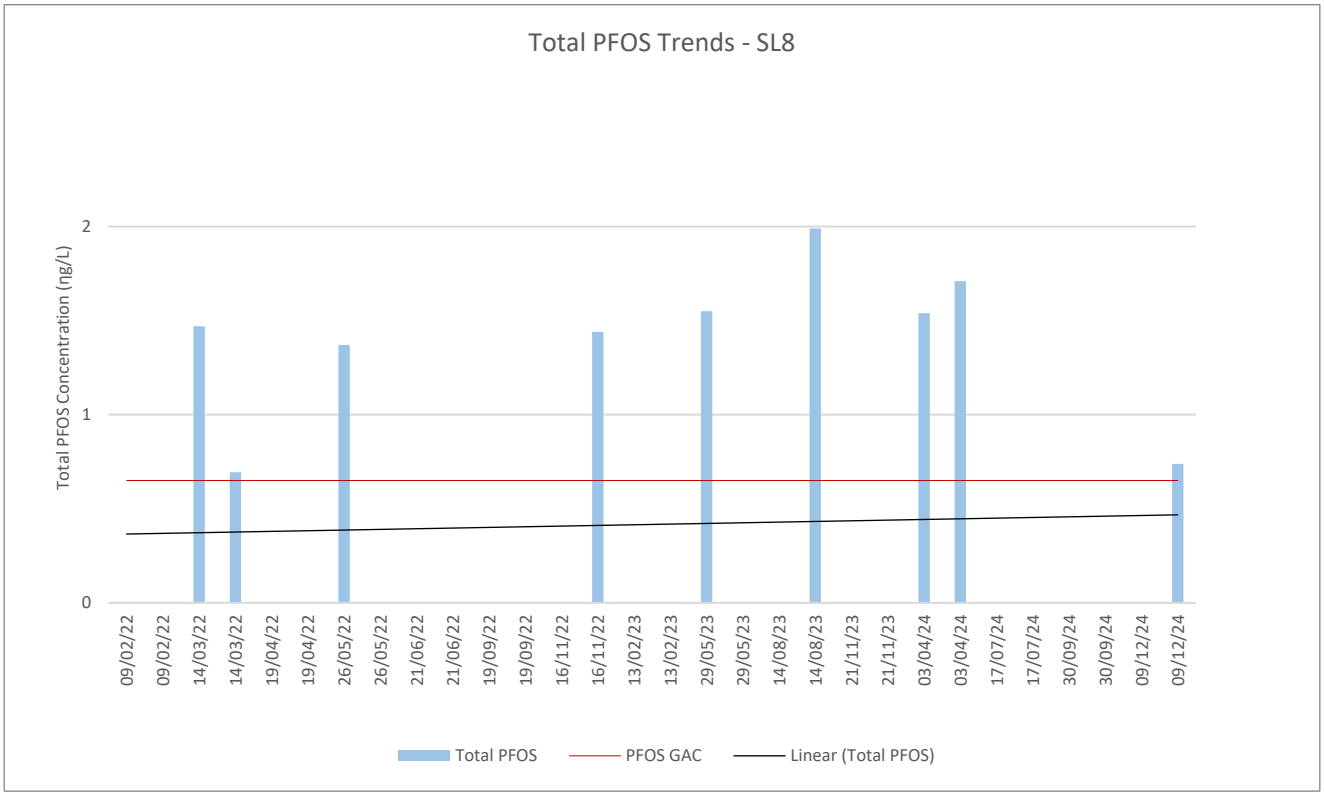


Total PFOS Concentrations at SL6 (Above GAC)

Landside Surface Water Trends

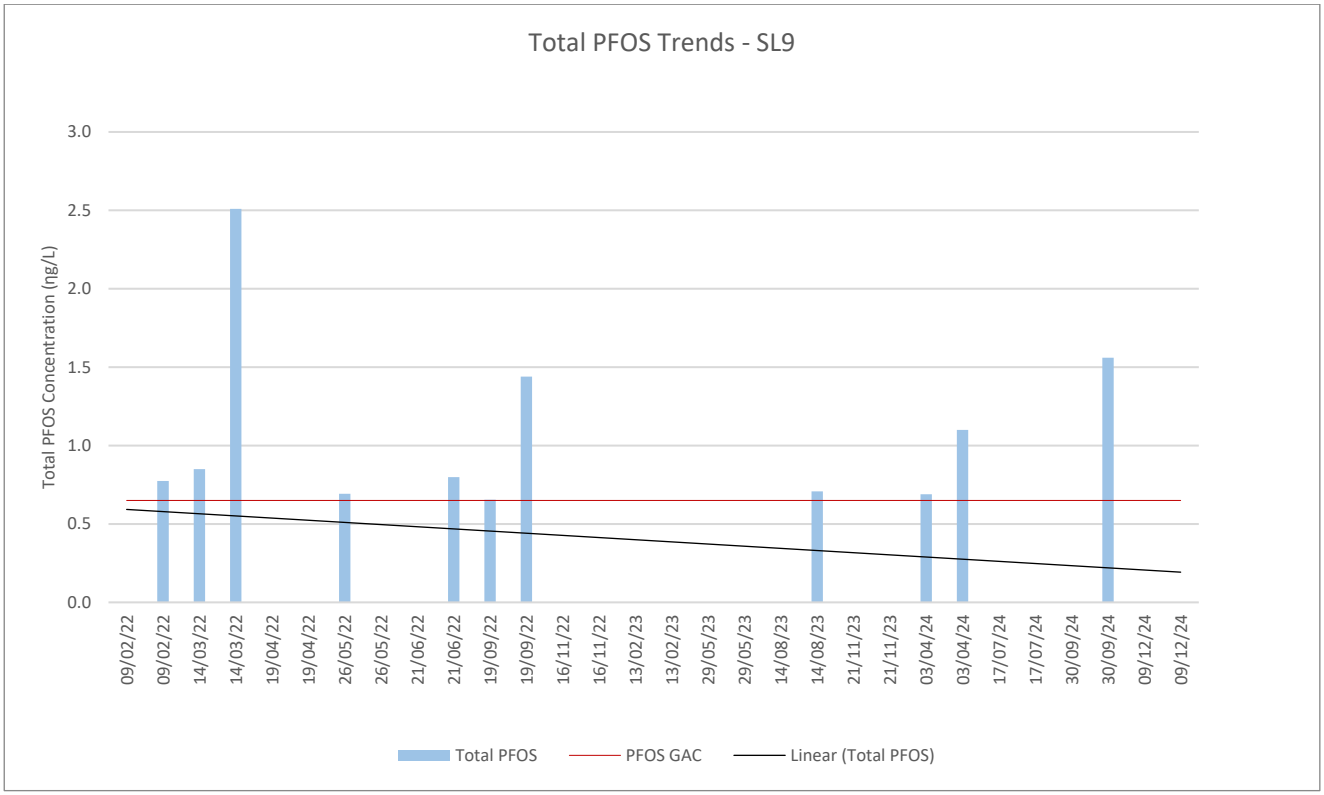


Total PFOS Concentrations at SL7 (Above GAC)

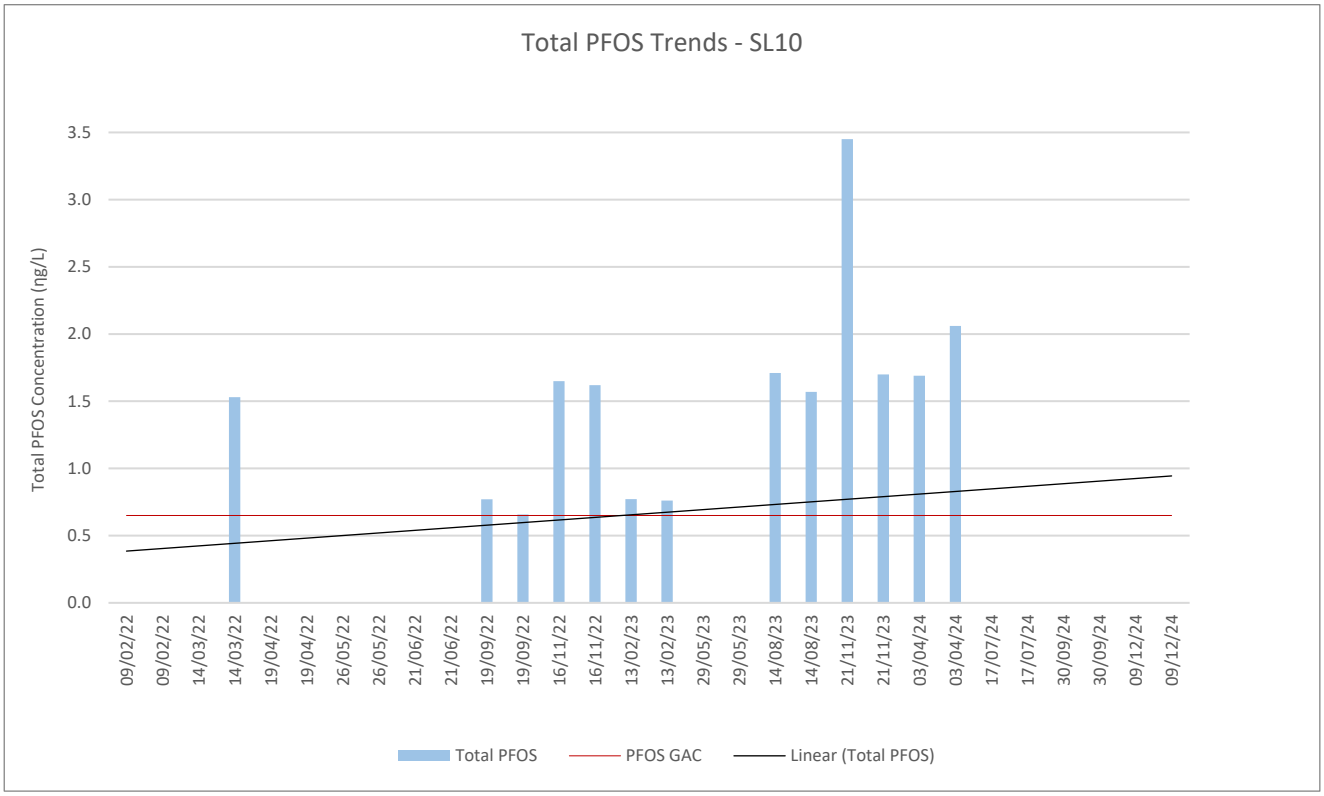


Total PFOS Concentrations at SL8 (Above GAC)

Landside Surface Water Trends

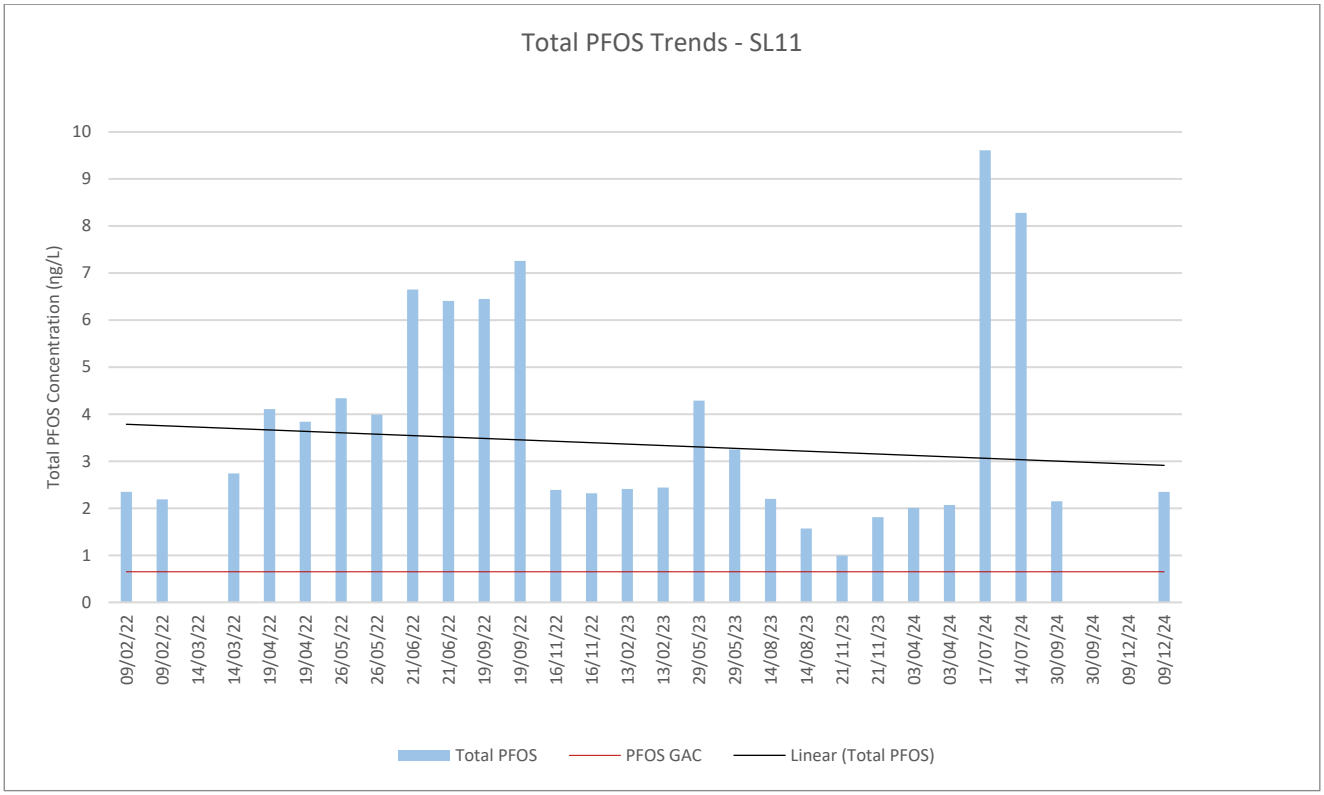


Total PFOS Concentrations at SL9 (Below GAC)

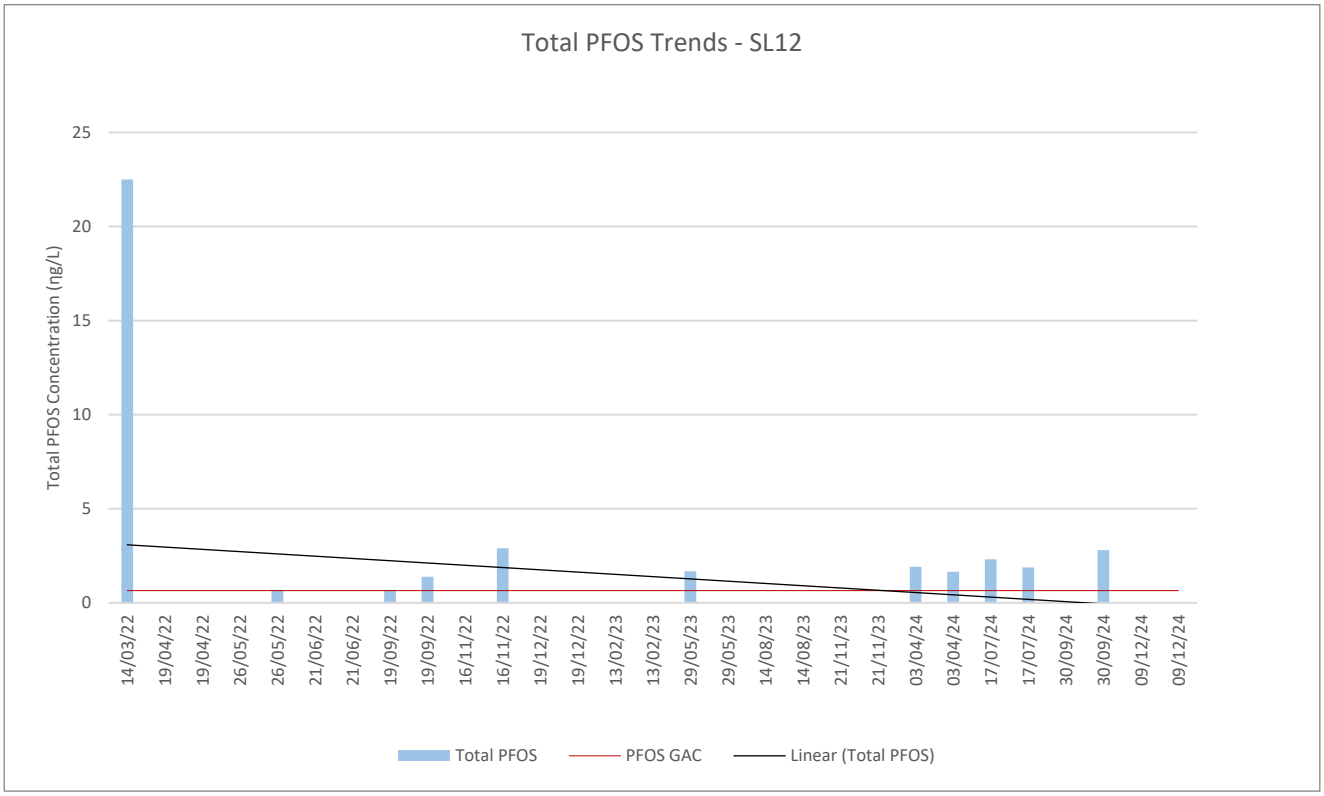


Total PFOS Concentrations at SL10 (Below GAC)

Landside Surface Water Trends

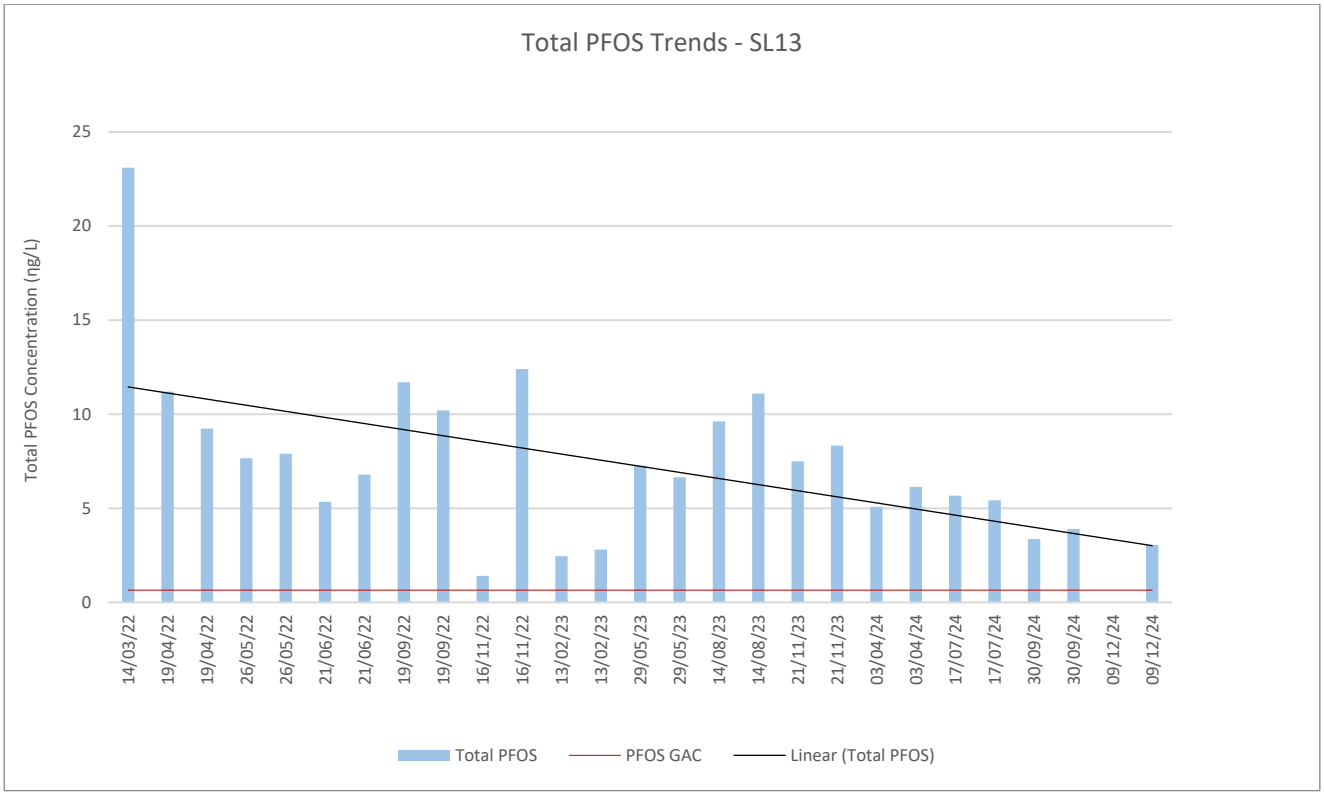


Total PFOS Concentrations at SL11 (Above GAC)

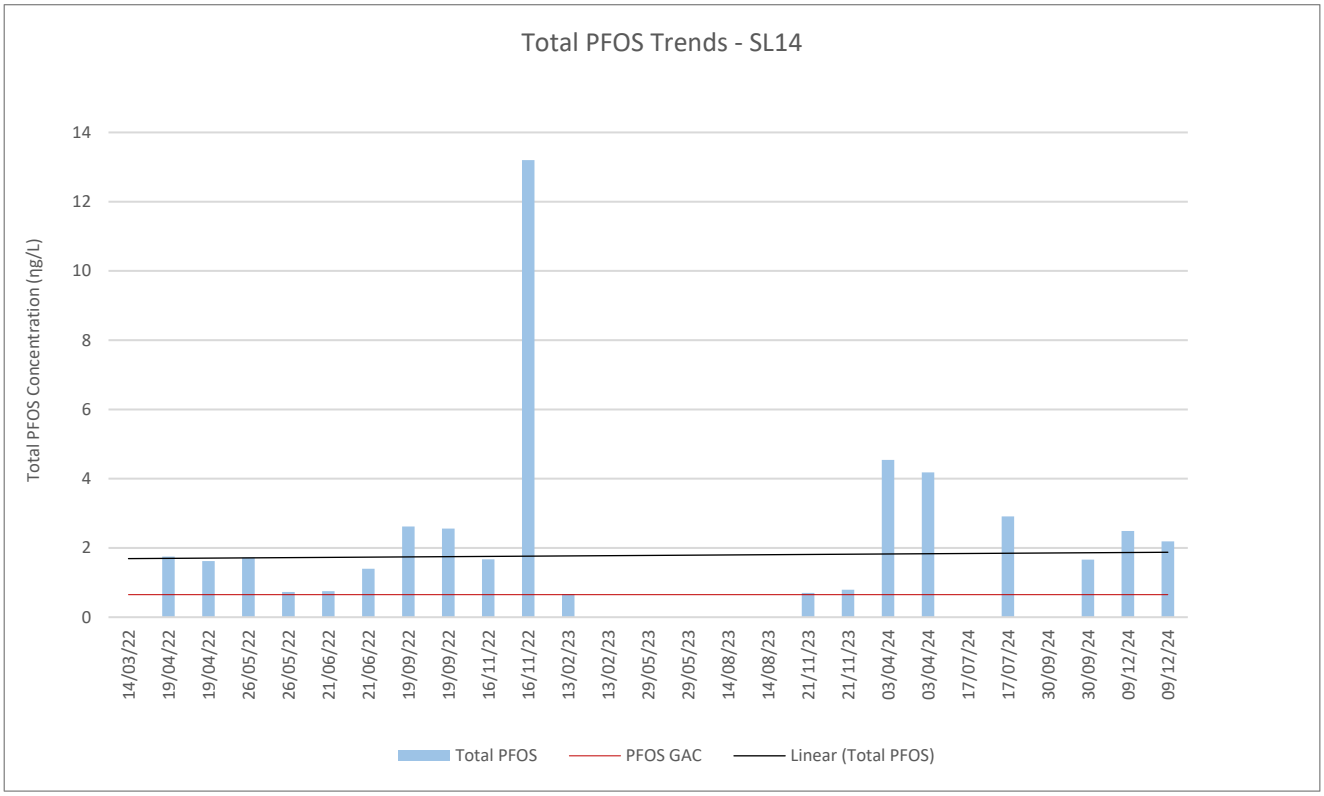


Total PFOS Concentrations at SL12 (Below GAC)

Landside Surface Water Trends

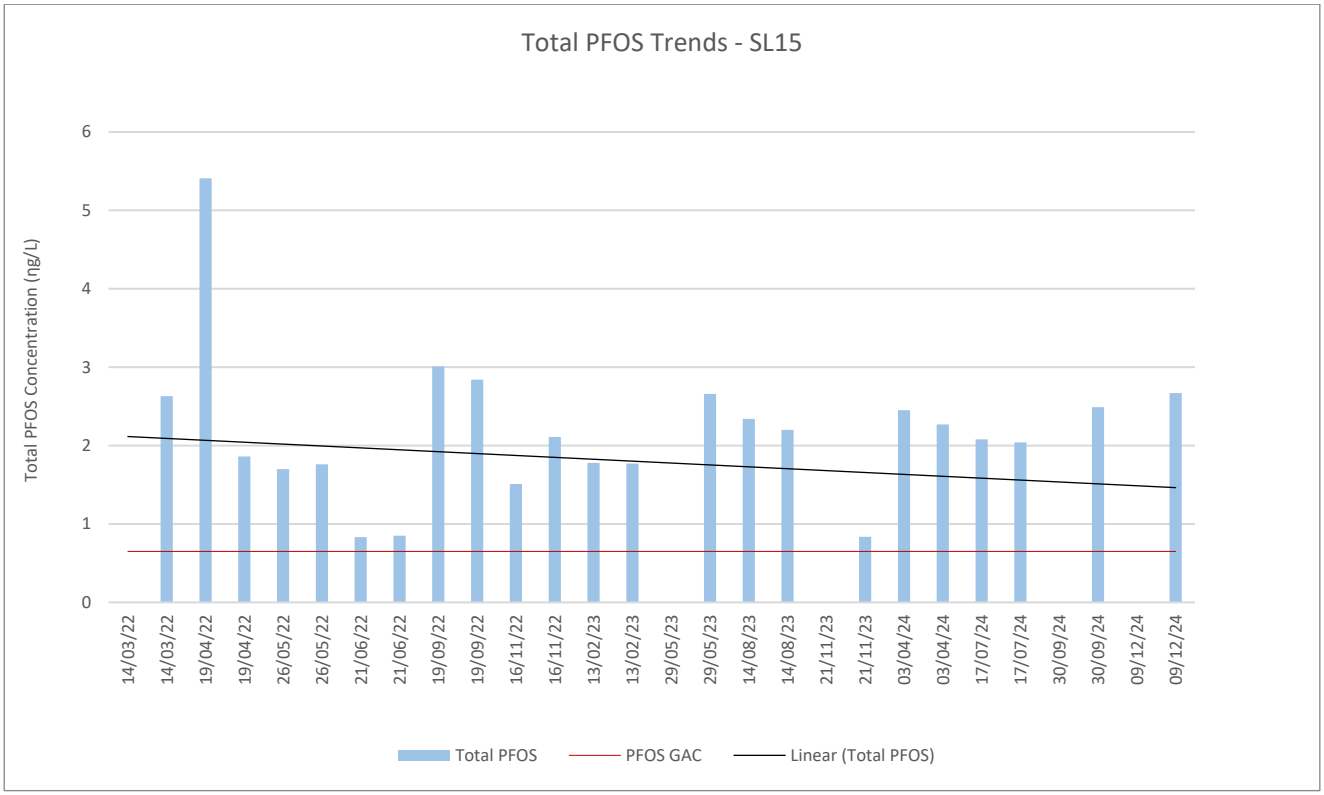


Total PFOS Concentrations at SL13 (Above GAC)

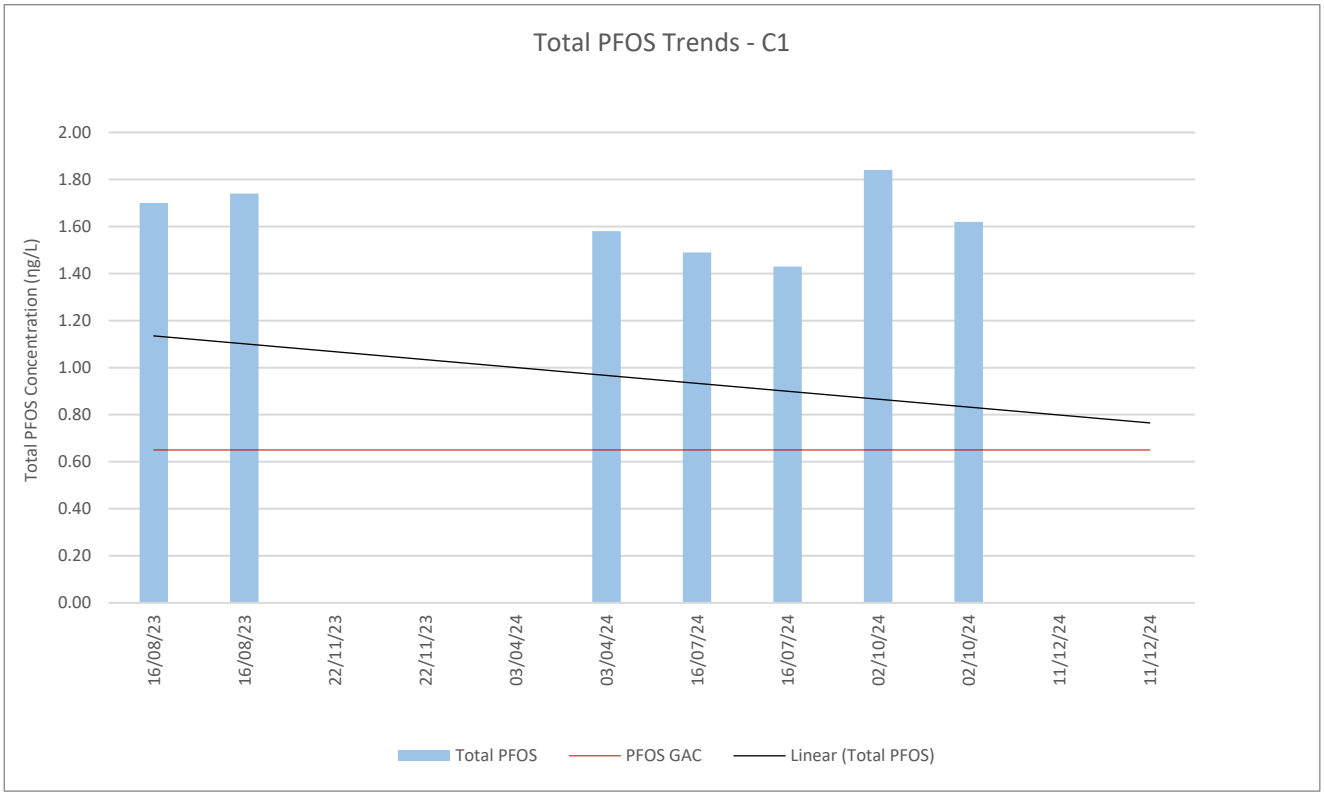


Total PFOS Concentrations at SL14 (Above GAC)

Landside Surface Water Trends

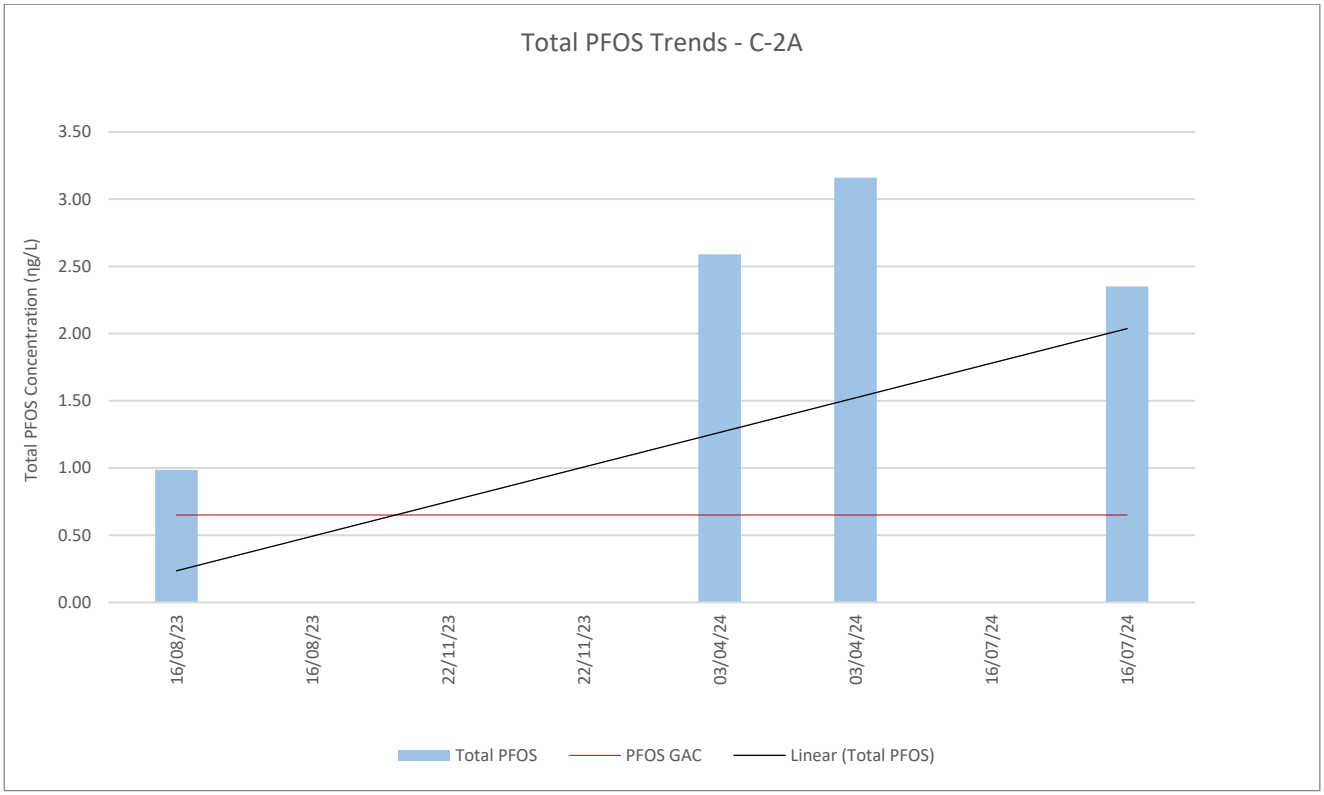


Total PFOS Concentrations at SL15 (Above GAC)

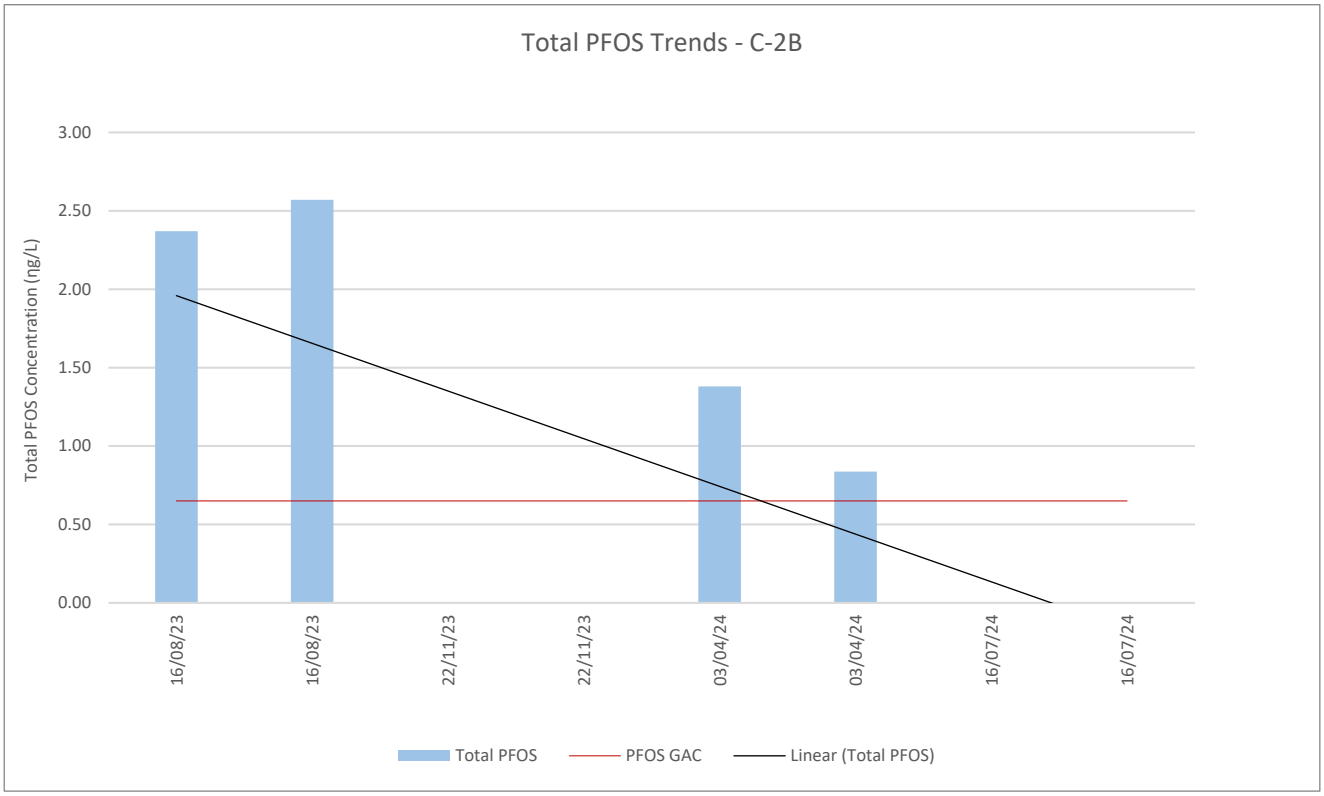


Total PFOS Concentrations at C1 (Above GAC)

Landside Surface Water Trends

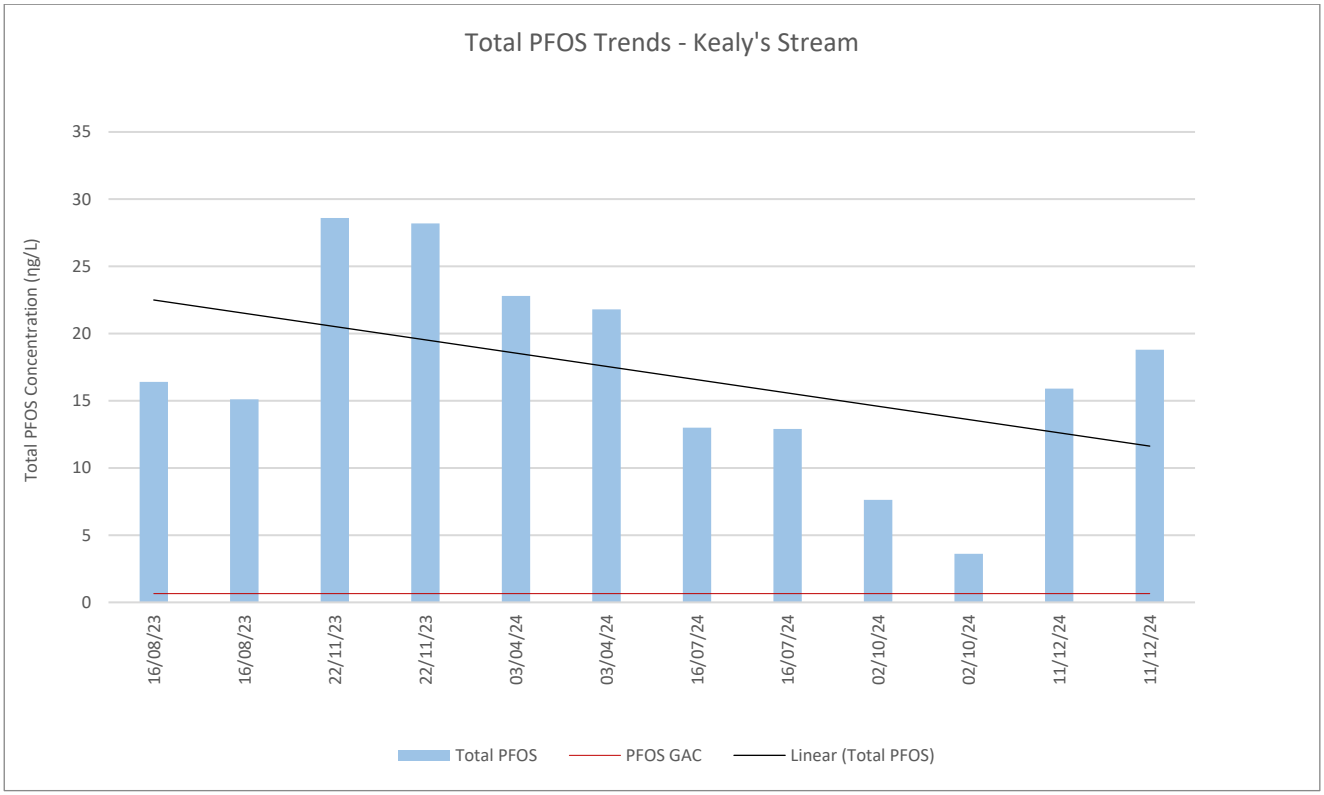


Total PFOS Concentrations at C-2A (Above GAC)

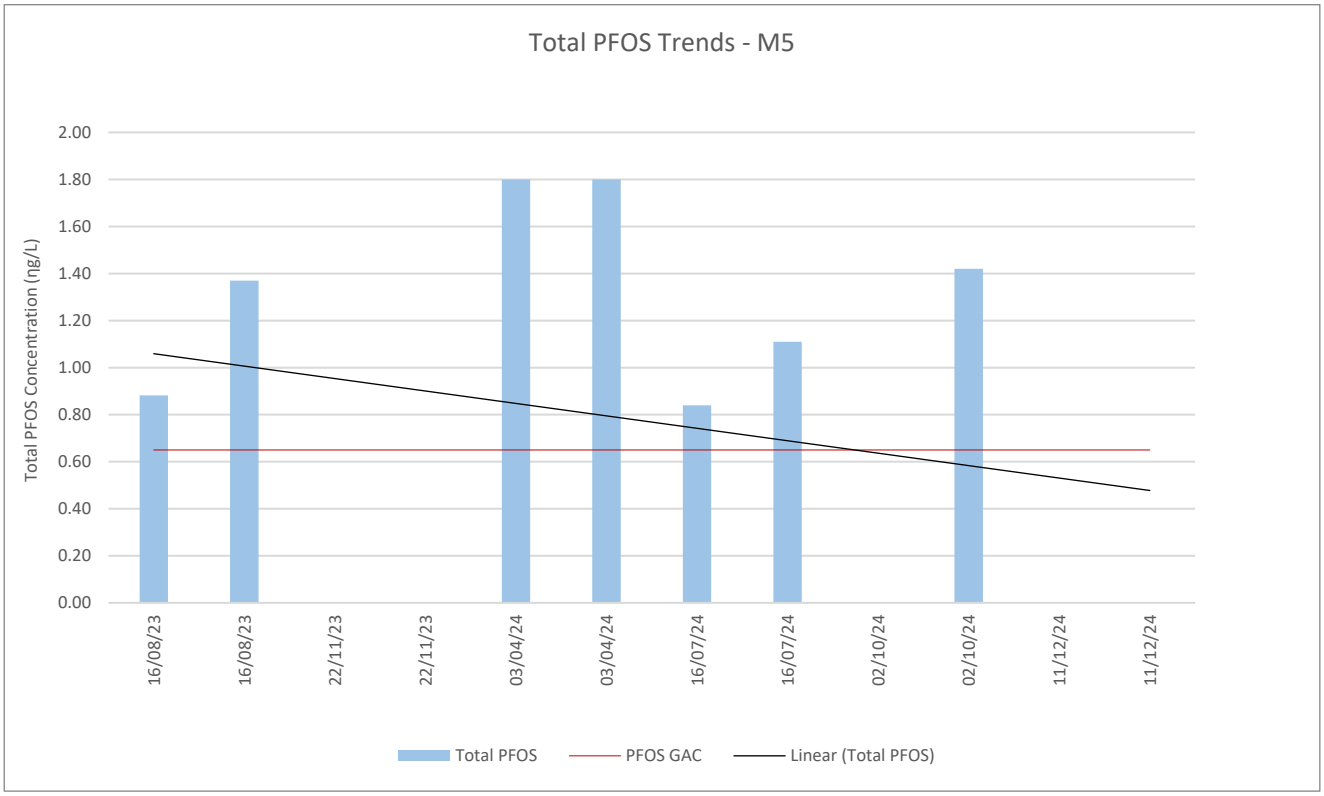


Total PFOS Concentrations at C-2B (Above GAC)

Landside Surface Water Trends

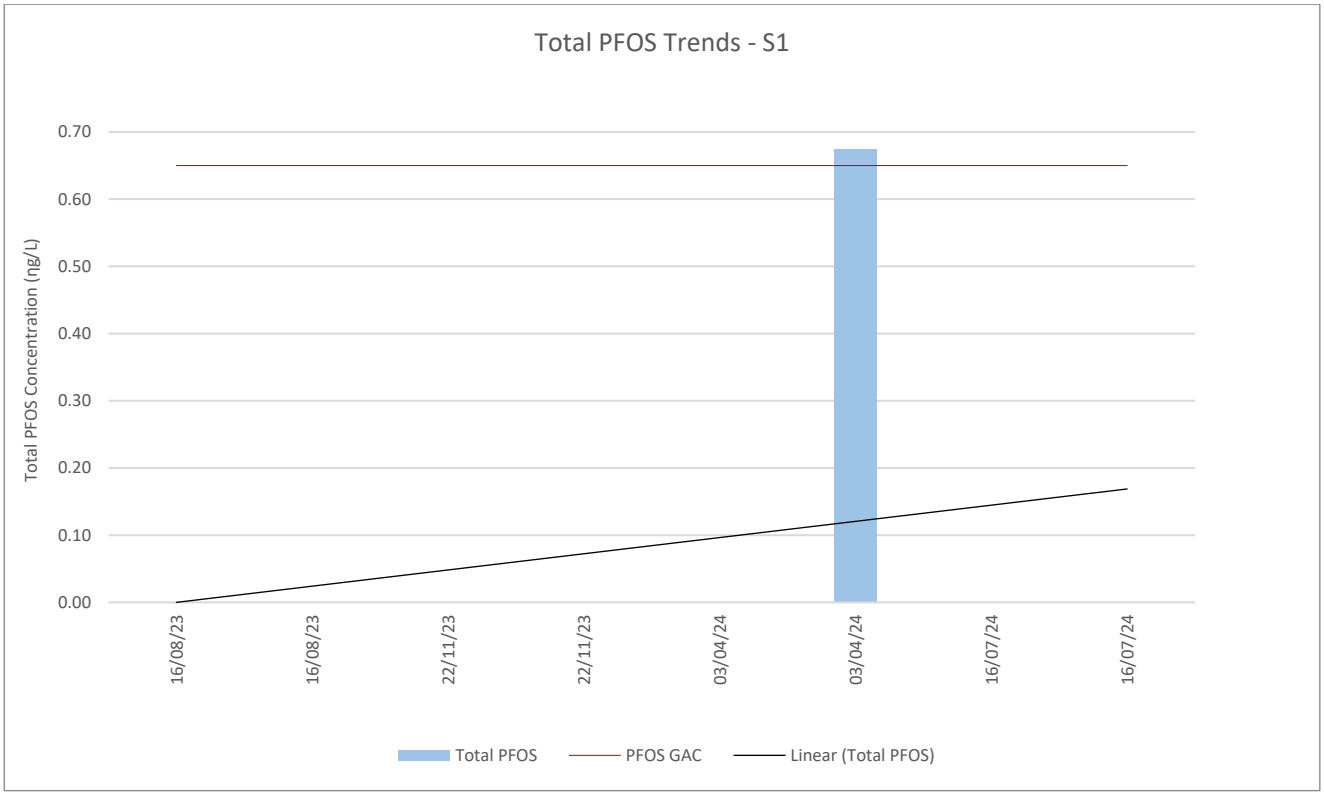


Total PFOS Concentrations at Kealy's Stream (Above GAC)

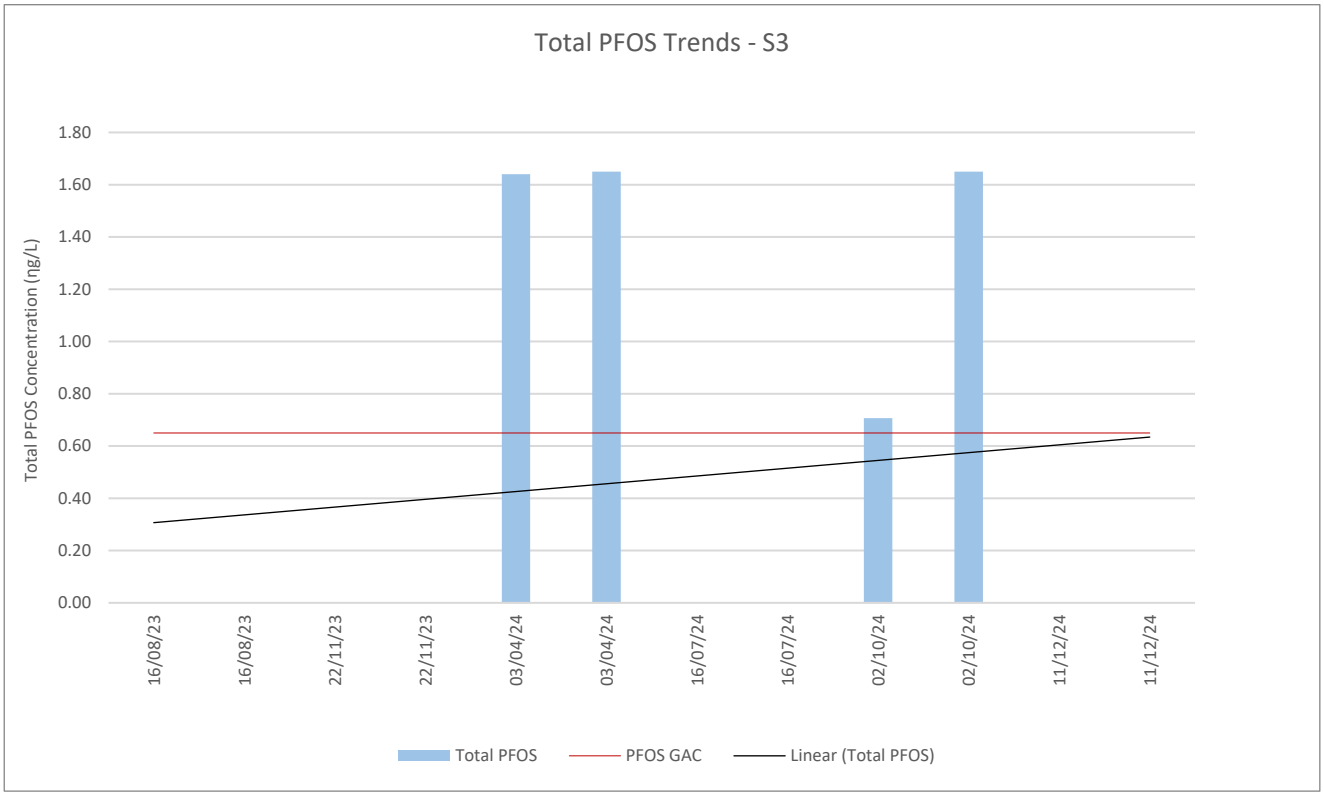


Total PFOS Concentrations at M5 (Above GAC)

Landside Surface Water Trends

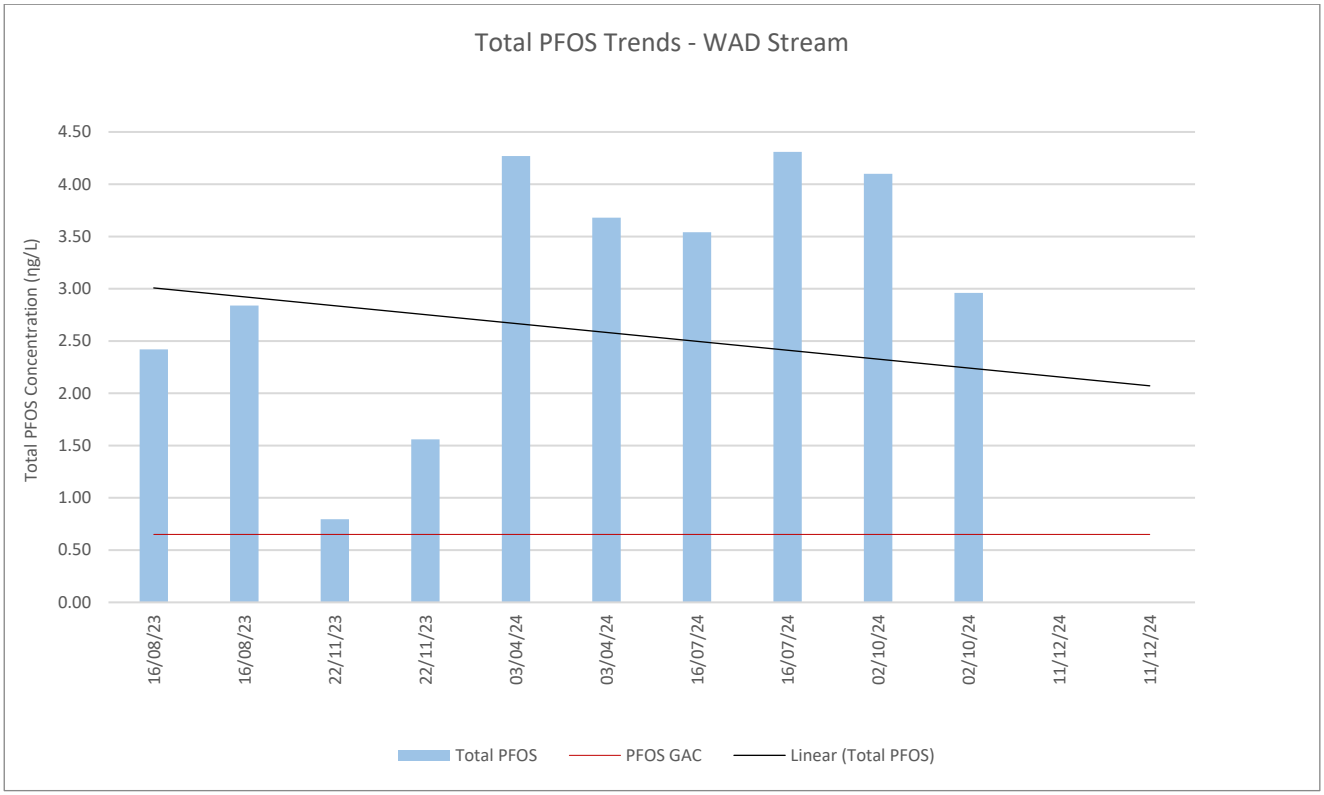


Total PFOS Concentrations at S1 (Below GAC)

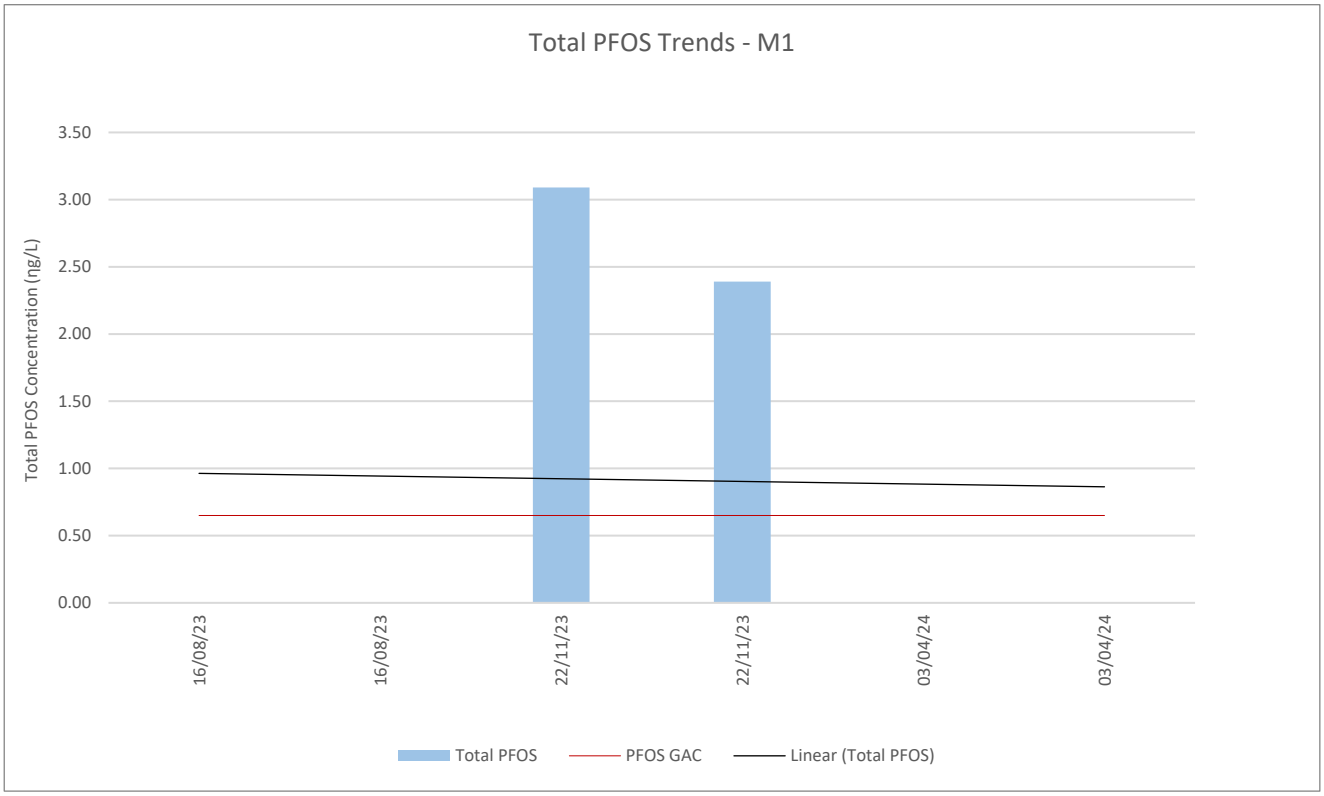


Total PFOS Concentrations at S3 (Above GAC)

Landside Surface Water Trends

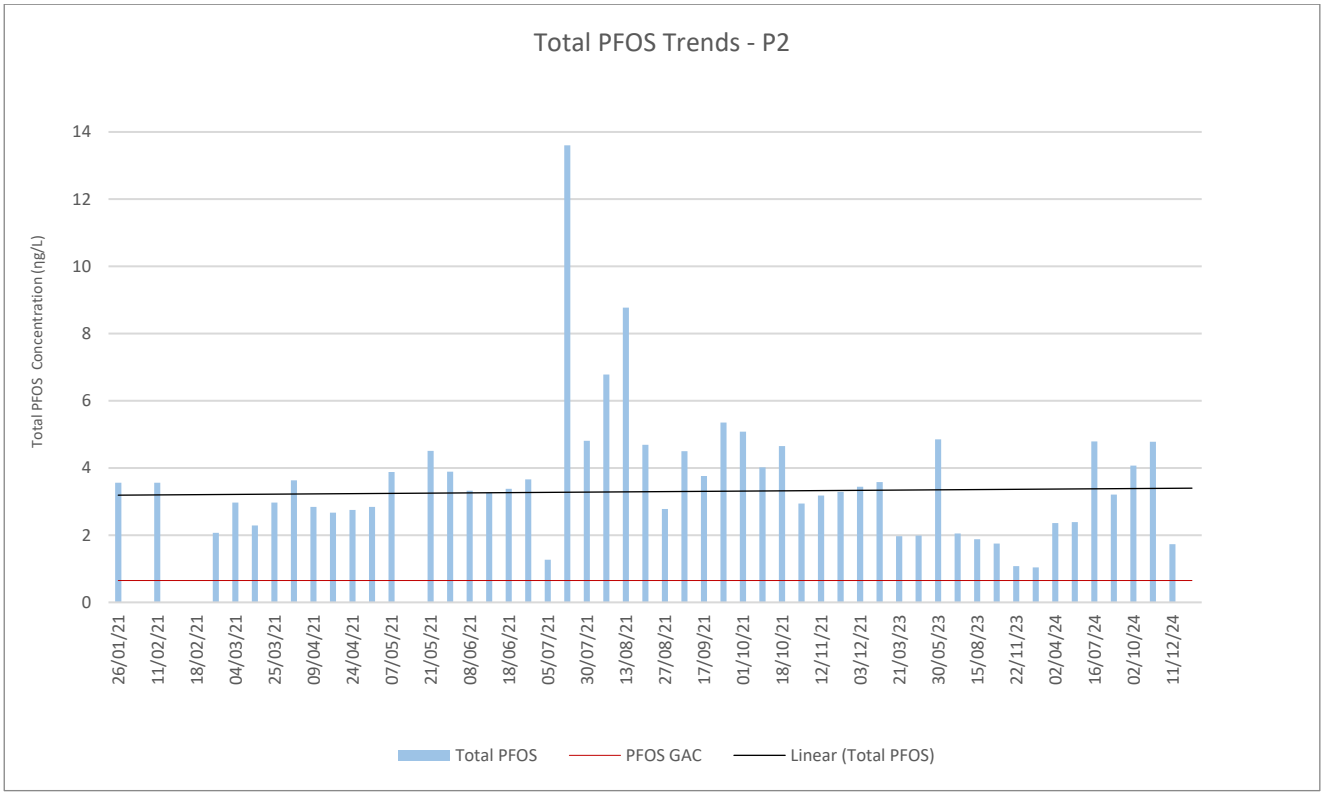


Total PFOS Concentrations at WAD Stream (Above GAC)

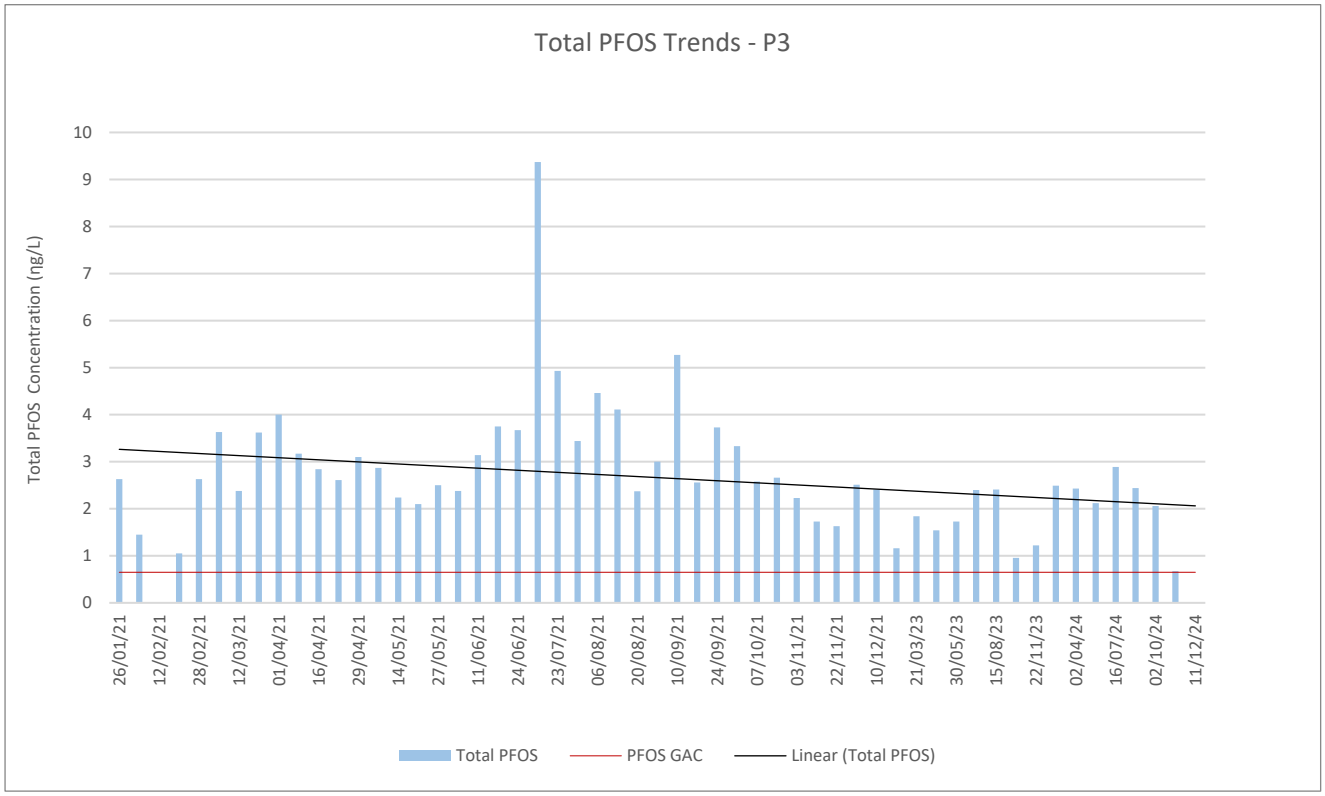


Total PFOS Concentrations at M1 (Below GAC)

Airside Surface Water Trends

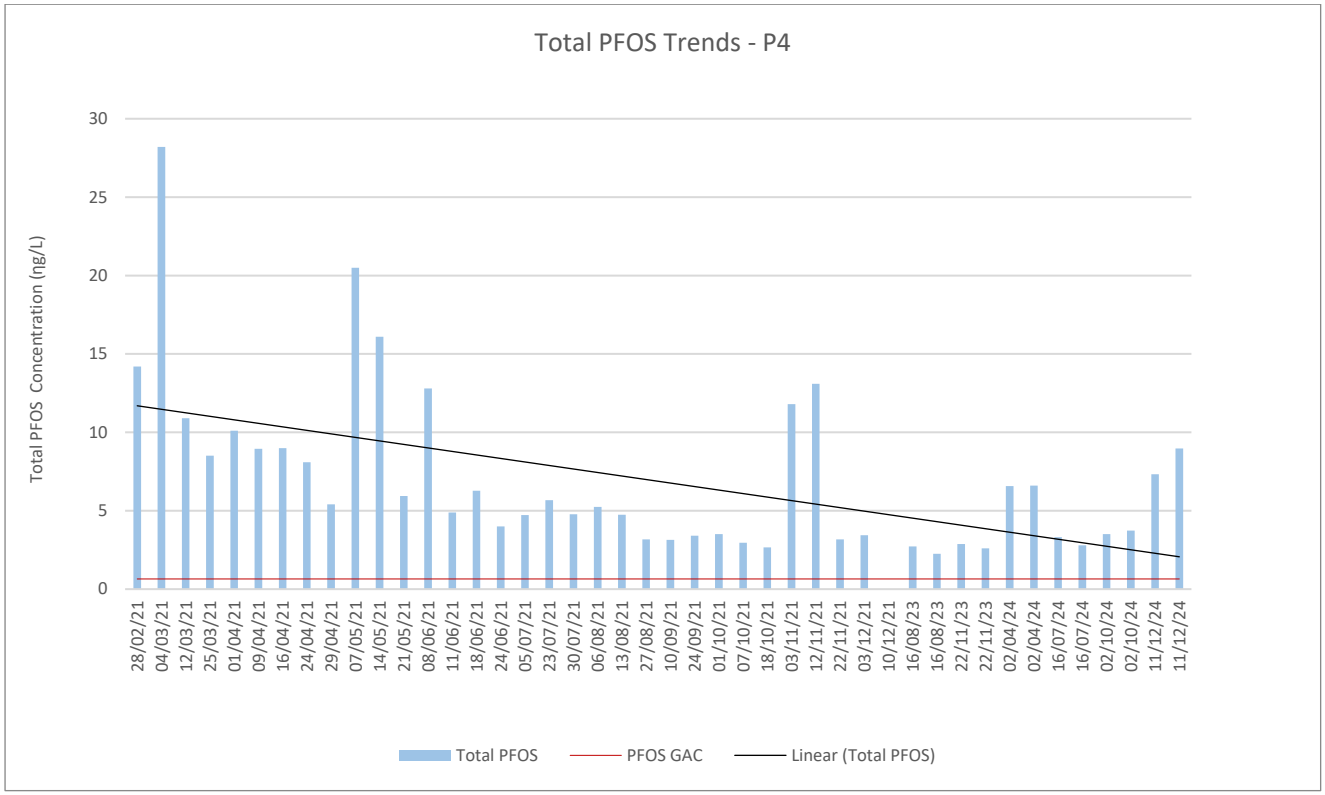


Total PFOS Concentrations at P2 (Above GAC)

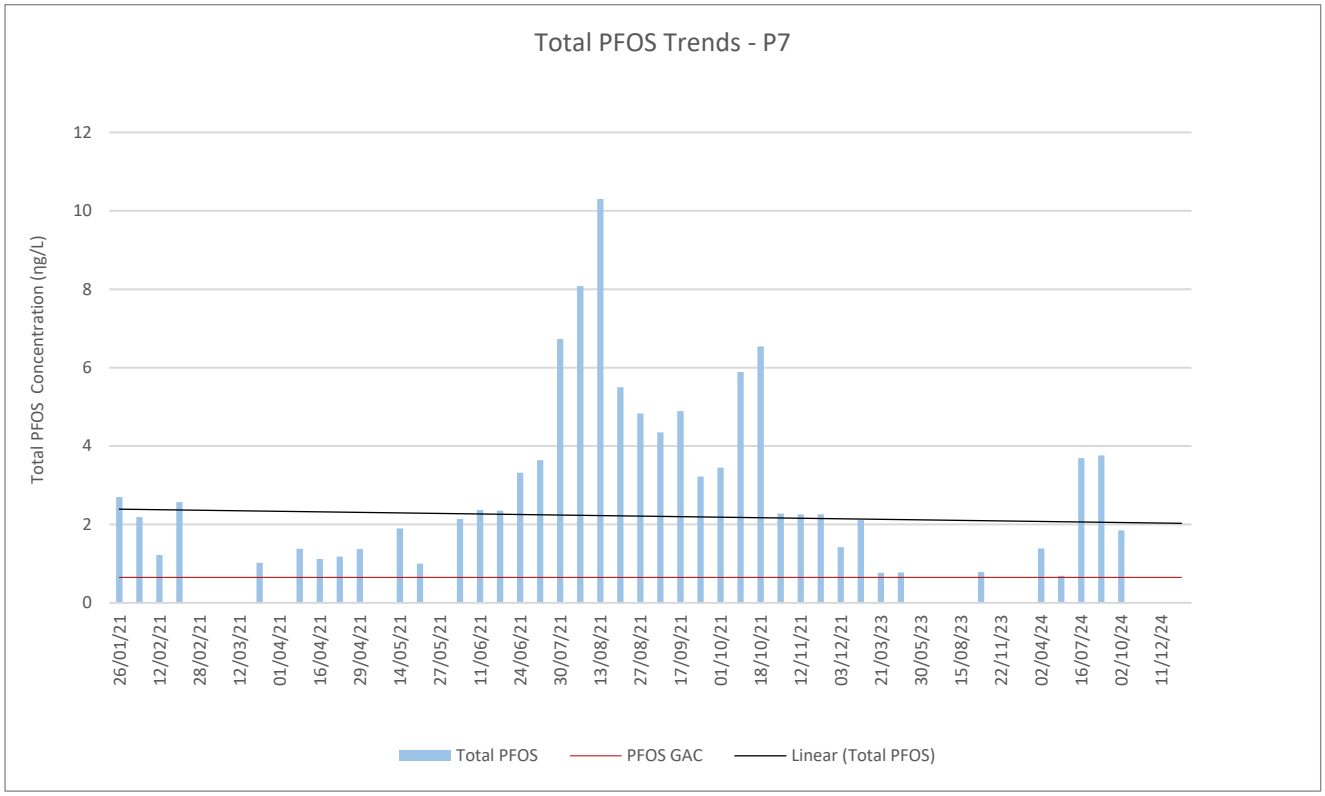


Total PFOS Concentrations at P3 (Above GAC)

Airside Surface Water Trends

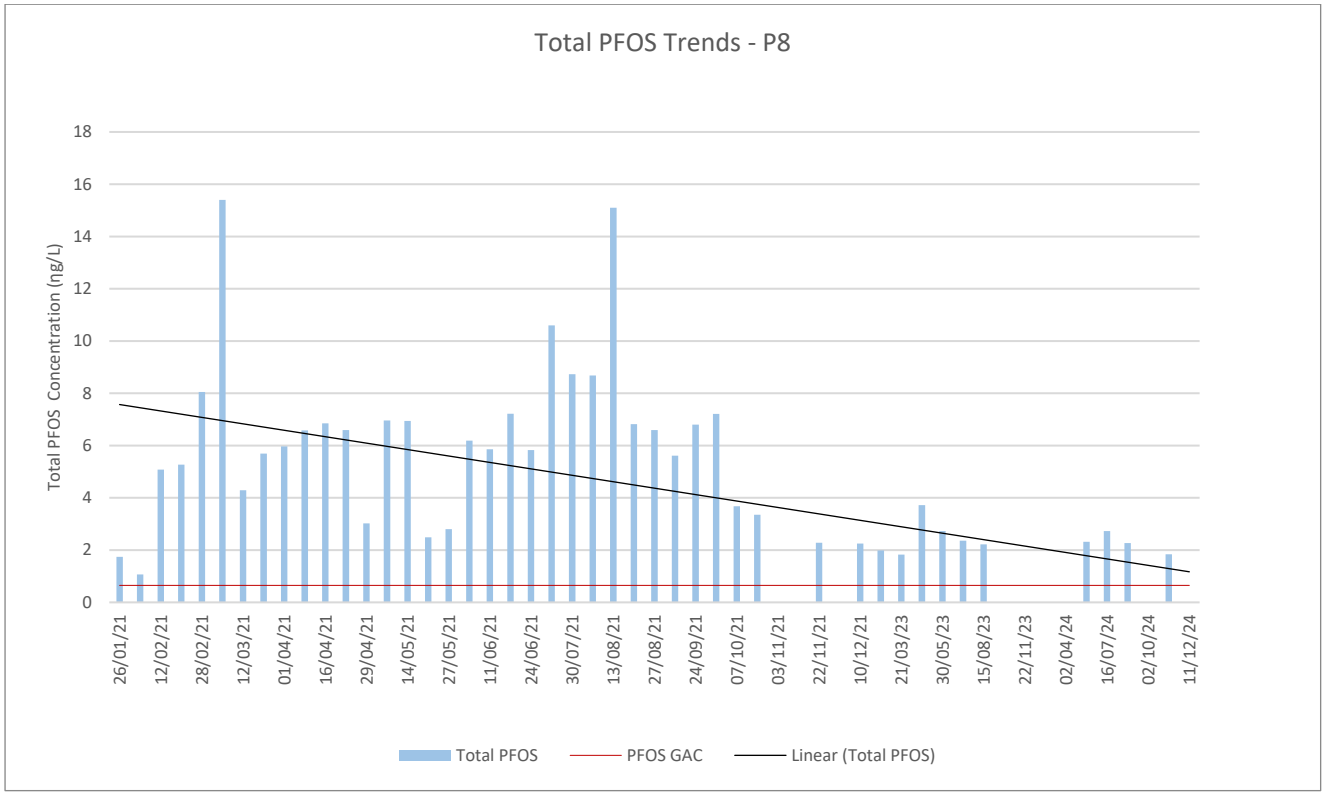


Total PFOS Concentrations at P4 (Above GAC)

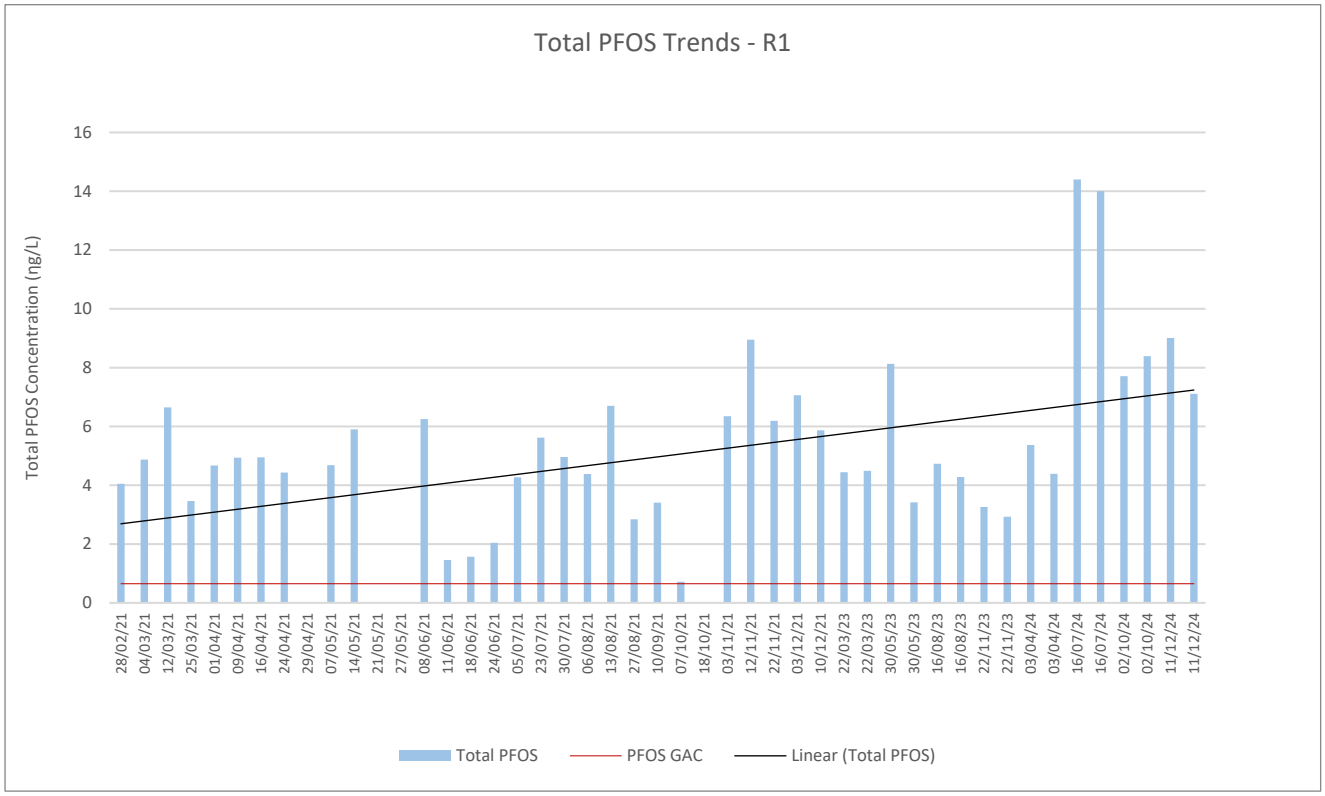


Total PFOS Concentrations at P7 (Above GAC)

Airside Surface Water Trends

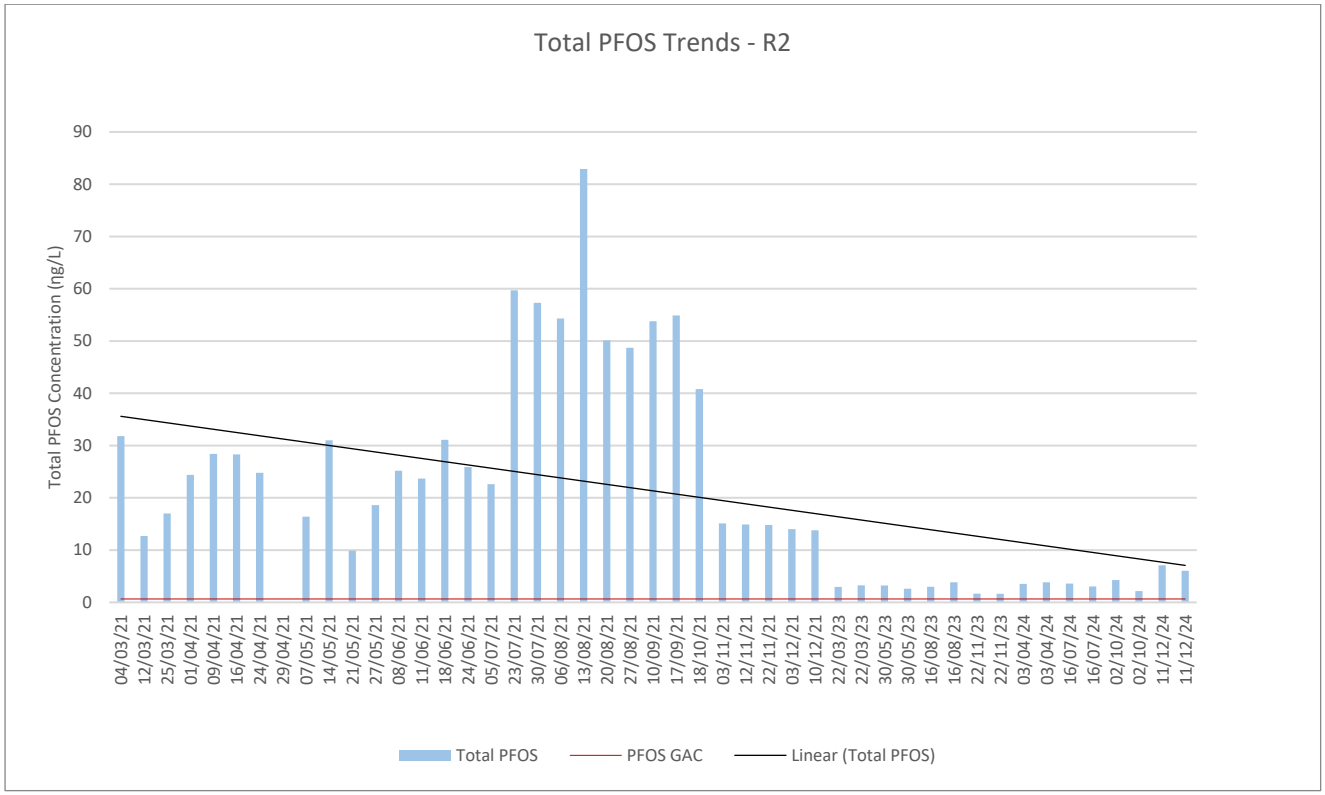


Total PFOS Concentrations at P8 (Above GAC)

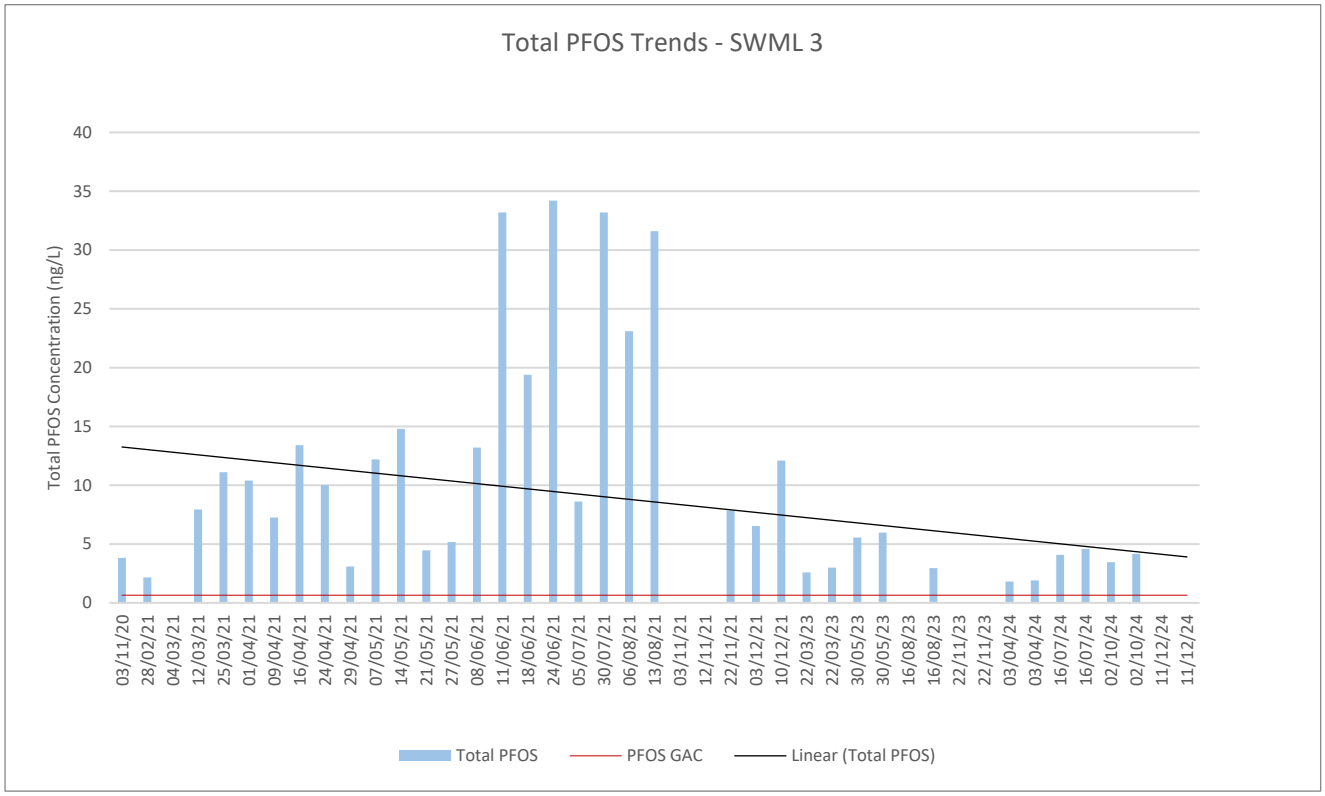


Total PFOS Concentrations at R1 (Above GAC)

Airside Surface Water Trends

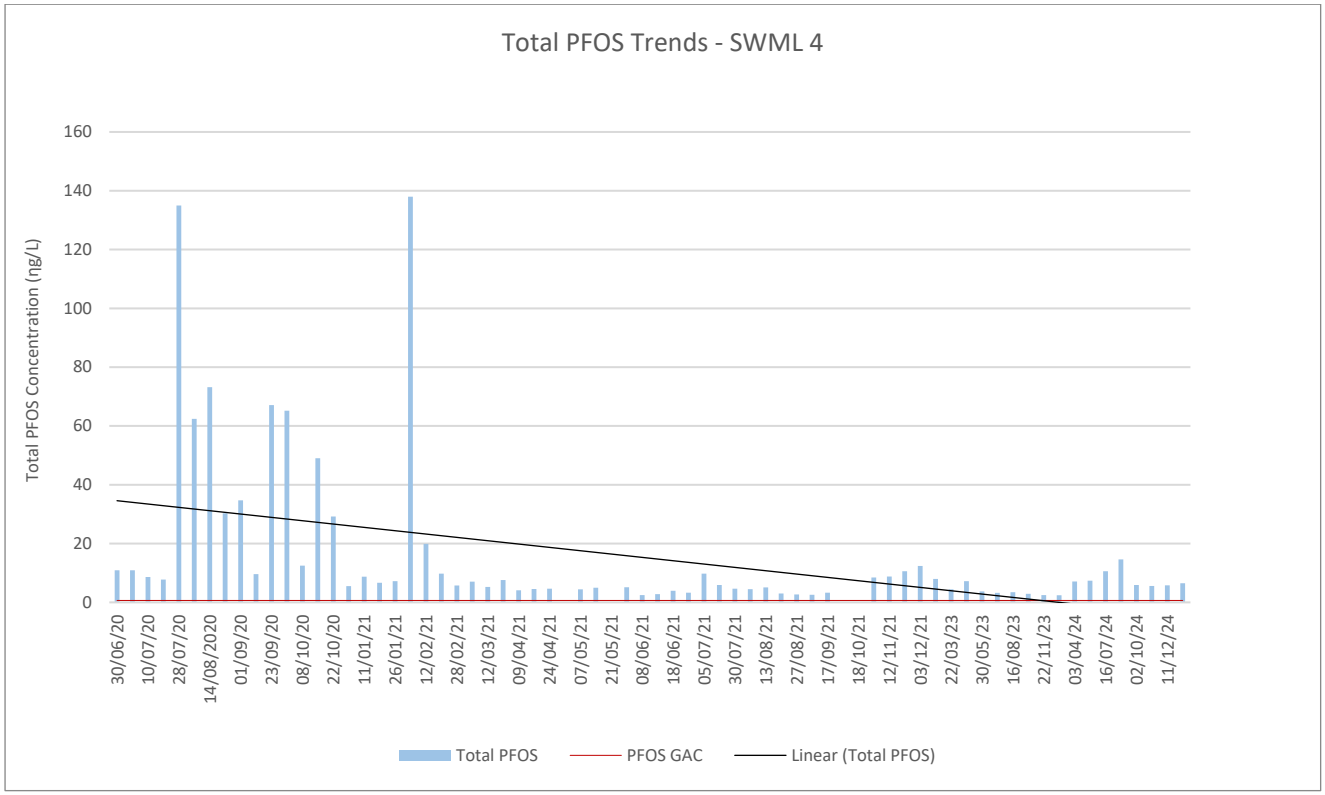


Total PFOS Concentrations at R2 (Above GAC)

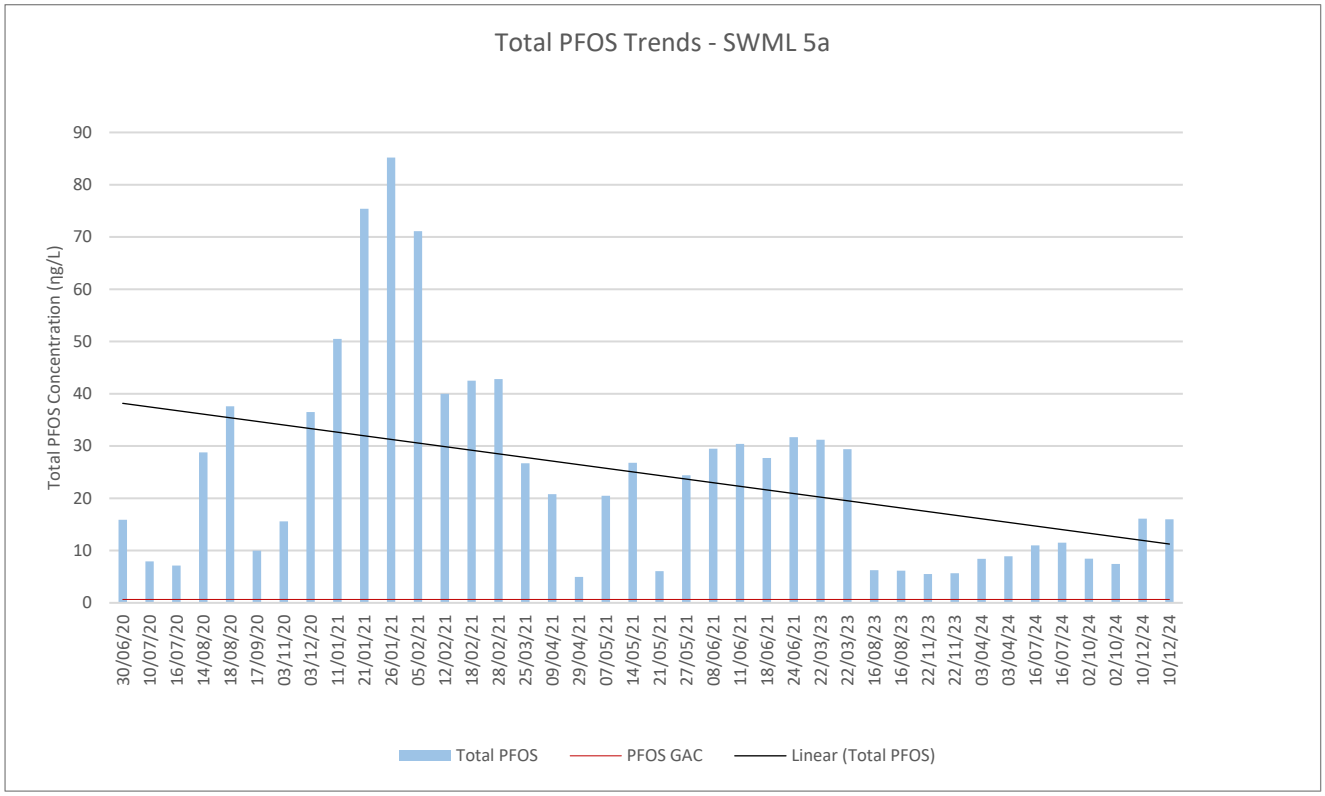


Total PFOS Concentrations at SWML3 (Above GAC)

Airside Surface Water Trends

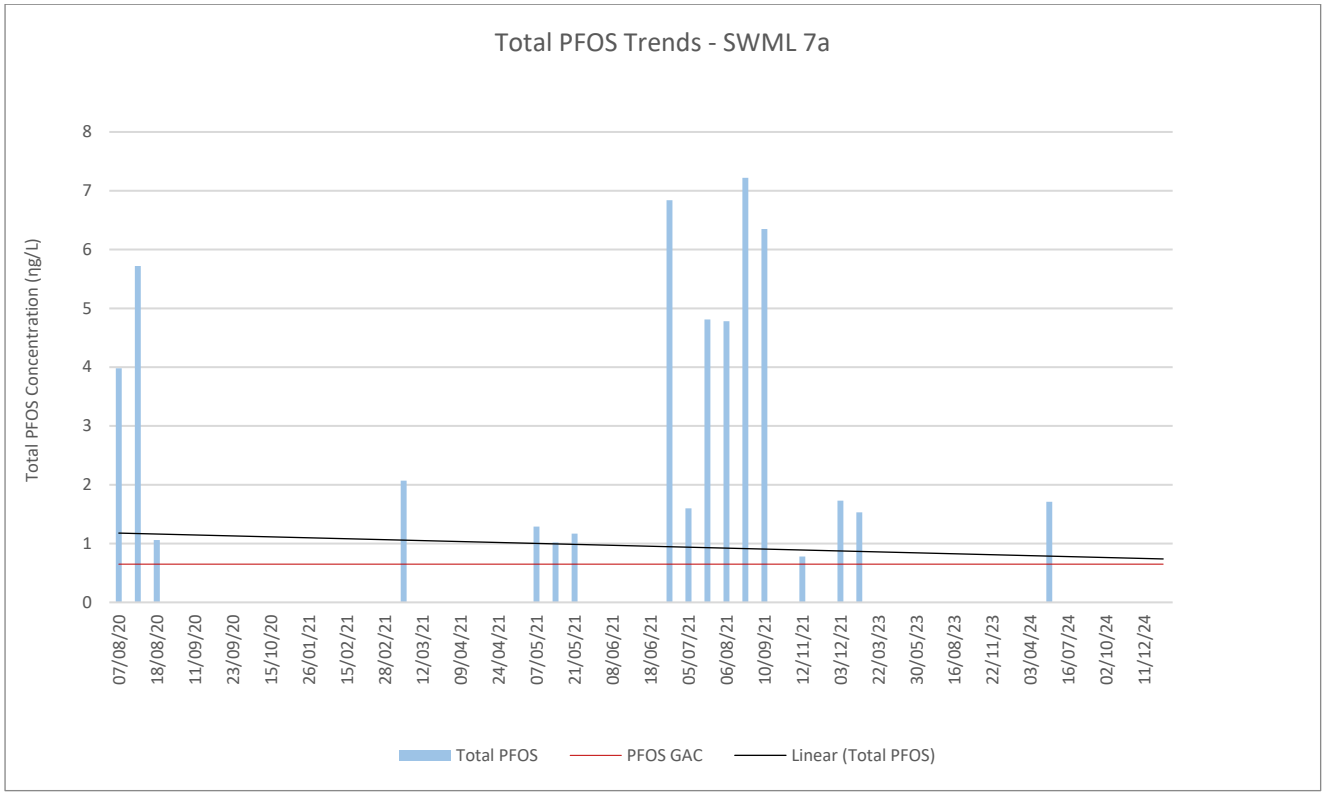


Total PFOS Concentrations at SWML4 (Above GAC)

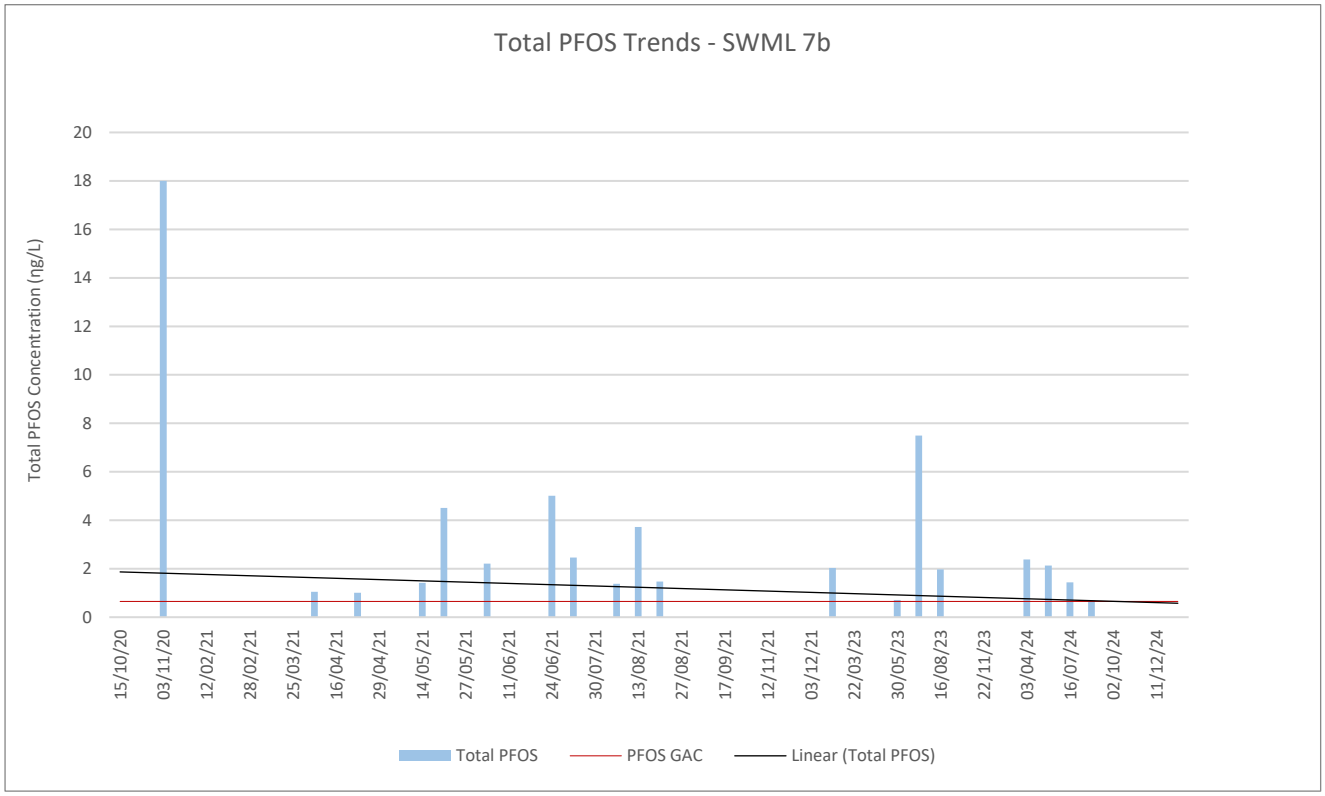


Total PFOS Concentrations at SWML5a (Above GAC)

Airside Surface Water Trends



Total PFOS Concentrations at SWML7a (Above GAC)



Total PFOS Concentrations at SWML7b (Below GAC)

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