AD6/WRA/14 Leiston Drain Overbridge Dewatering Impact Statement

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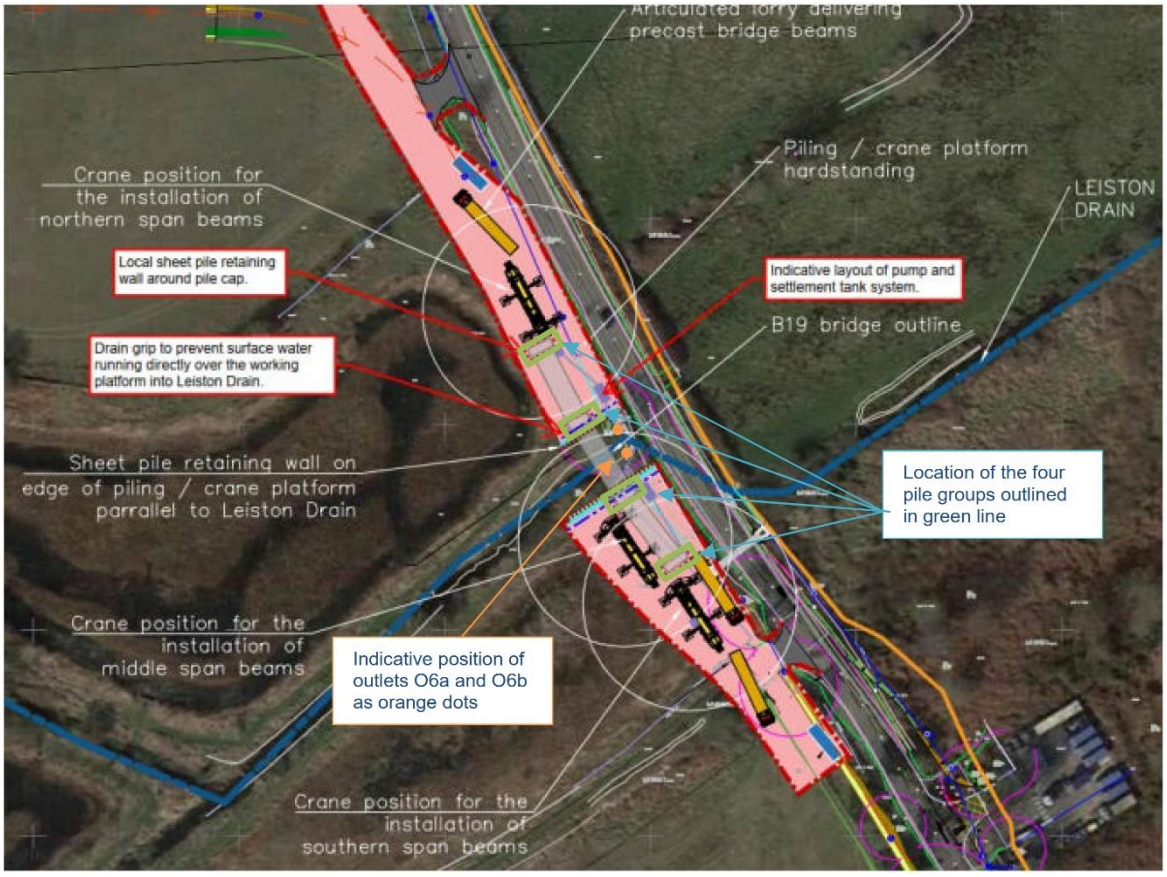
1. Introduction

A bridge for the new BR19 is to be constructed over the Leiston Drain watercourse, parallel to Lover's Lane. The structure is anticipated to consist of 3 x 20 m spans formed from precast beams placed on piled reinforced concrete abutments and piers. Once the piles are installed, excavations will be made to allow for the cropping and casting of the pile caps. Groundwater is anticipated to be encountered during this process, and temporary dewatering will be required to allow completion of these activities. See the Figure 1 below for the general layout of the works. This Technical Note presents an assessment of potential effects from the dewatering aspect of the works.

Figure 1 – Location of Leiston Drain Overbridge Crossing



The information supplied is in support of permit application AD6/WRA/14 for the water abstraction transfer licence required for the dewatering activity needed to enable a safe working environment during the pile cap construction.

This Technical Note only considers potential effects related to abstraction of groundwater for construction. Abstracted water will be discharged, without intervening use, into the Leiston Drain at Outlets O6a (NGR TM 45443 63501) and

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O6b (NGR TM 45442 63495). Impacts associated with discharge of water are considered under a construction water discharge permit, the application for which has been submitted to the EA (MDS/CWDA/18).

2. Background Information

The proposed piling methodology is to utilise concrete driven piles. There will be 4 No. pile groups, 2 No. each on the south and north sides of the Leiston Drain, respectively. The piles are proposed to a depth of 14 mbgl and no dewatering is anticipated during their installation.

Once the pile groups have been installed, sheet piling will be emplaced around each group. Once the sheet piling is in place, shallow excavation will be undertaken to allow pile cap installation, with the sheet piling limiting water ingress. Dewatering of the excavations is anticipated and will be conducted using sump pumping.

The water derived from dewatering of the two southern excavations is expected to be managed through standard construction pollution prevention measures. At present this is expected to include treatment systems for sediment control / pH correction e.g., settlement systems like Siltbusters or similar. This may incorporate dosing of coagulants and flocculants where necessary to ensure compliance with discharge permit limits. Following treatment, the water will be discharged to the Leiston Drain by gravity at two outlets, O6a (northern side) and O6b (southern side). Mixing with rainfall-derived surface water runoff may occur prior to discharge. The overall discharging will be dependent on the programme of construction works. The anticipated location of the settlement tanks is shown on Figure 2.

3. H1 Assessment Summary

A Dewatering Discharge H1 Assessment (AD6 Leiston Drain Crossing) Technical Note was prepared in relation to the proposed dewatering works (the potential impacts of discharging the groundwater to surface water) and it is appended for reference (Atkins, March 2024, Annexure A).

The local ground conditions are comprised of a sequence of topsoil to c. 0.5 mbgl, underlain by peat to 1.3 mbgl, underlain by the Crag deposits to a minimum depth of 7.9 mbgl. Additional ground investigation (GI) is planned to greater depths, however the results of this are unavailable at the time of writing.

Groundwater levels in the peat range between 0.029 and 1.96 mAOD, within the Crag deposits the average groundwater level is 1.37 mAOD. Groundwater is considered to be in hydraulic continuity with the surface water in the Leiston Drain.

Groundwater quality has been assessed via the collection of groundwater samples between 2020 and 2022 by Atkins. The sampling locations included 38 No. boreholes within the Main Construction Area (MCA) and Temporary Construction Area (TCA) zones and included inorganic and organic determinands. Groundwater quality was also assessed at boreholes in the vicinity of the Leiston Drain Overbridge over the same period.

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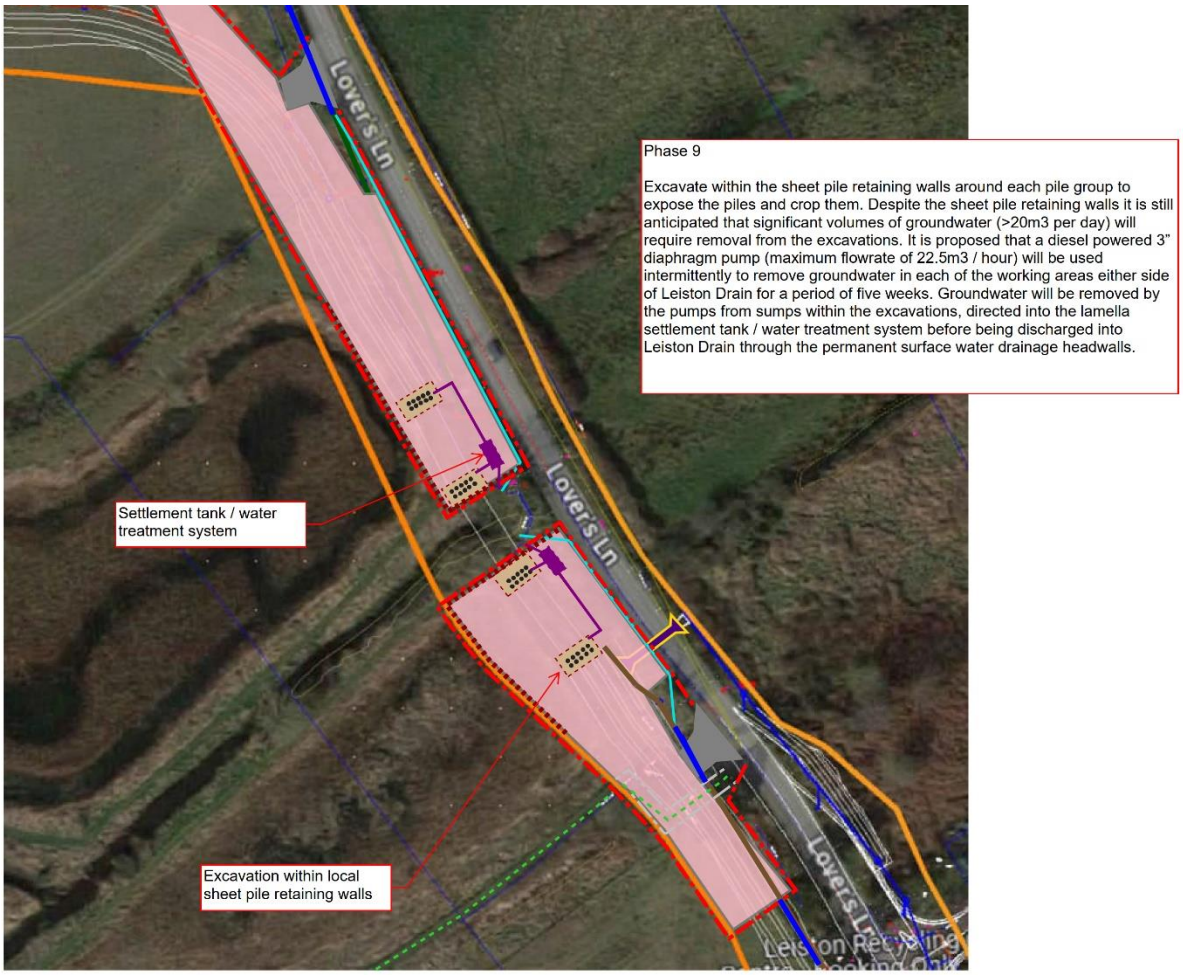
Figure 2 – Excavation location



The maximum capacity of the pump is estimated at a value of 540 m^3/day, however the maximum discharge will be limited to 5l/s in accordance with the discharge permit MDS/CWDA/18. Therefore, the estimated maximum flow rate is 432 m^3/day which will be for both outlets (O6a and O6b) discharging intermittently. For comparison, the Q95 flow rate in the Leiston Drain is 1450 m^3/day. Dewatering is expected to be completed over a maximum 10-week period on a 24/7 basis. Therefore, the total volumes that may be dewatered are as follows:

Maximum value = 432 m^3/d x 70 days = 30 240 m^3/d

The outcome of the H1 assessment indicated that measured concentrations of tested substances within the discharge are not liable to cause pollution if discharged to the Leiston Drain at the proposed flow rates. The outcome of the H1 assessment is considered to be valid as the assessment was undertaken using a maximum flow rate of 540m^3/d, which is greater that the estimated maximum abstraction rate of 432m^3/d.

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4. Supplementary Comments

There is unlikely to be any water loss during the dewatering process due to the short distance from the excavations around the pile groups to the discharge locations, and an associated lack of evaporative potential. In addition, it is understood that the use of settlement tanks prior to discharge would not be considered an intervening use of water. Settlement and lag times between abstraction and discharge are anticipated to be short and therefore not give rise to significant losses of water. We would anticipate that lag times from pumping to discharge would be less than 1 day as a maximum. This is based on the use of settlement tanks which would have a retention time in the order of hours.

As mentioned in section 3, inflow rates have been estimated, with a maximum of 432 m^3/day based on 5 l/s maximum discharge rate. This value is a conservative assumption to allow for capacity in the discharge arrangements; it is not anticipated that the actual flow rates will be as high given the installation of sheet piling. The sheet piling proposed around each excavation will inhibit ingress of groundwater into the excavations and the hydraulic connectivity to the wider groundwater body. Whilst this has not been modelled for AD6, a similar exercise for the SSSI Crossing using Seep/W was undertaken to estimate the potential flow rates during dewatering. The scenario modelled was similar to the ground model for AD6 (Table 1), for example:

Table 1 – Dewatering scenario comparison

Item	AD6	SSSI Crossing	Comments
Sheet pile depth	14 mbgl	12 mbgl (assumed)	Greater depth of piling at AD6
Ground profile	Peat overlying Crag	Peat overlying Crag	No difference
Duration of dewatering	70 days (max. assumed)	155 days	Shorter duration for AD6
Pumping/Discharge Rate	432 m^3/d (maximum)	521 m^3/d	Lower rate for AD6
Total volume	30,240 m^3/yr	80,755m^3/yr	Lower volume for AD6

The modelling results for the SSSI Crossing are considered relevant for the dewatering at AD6 given that the water abstraction in both scenarios will take place within the Crag; the main groundwater flow will be from the base with marginal ingress from the sides as construction will use sheet pile walls in both AD6 and SSSI Crossing dewatering; and, the average groundwater levels in the Crag is 1.37m AOD at AD6 which is within the tested sensitivity limits of the SSSI model.

In addition, Table 1 indicates that apart from the lithology being the same, other factor factors, i.e. sheet pile depths, duration and total volume, are improved in the AD6 scenario compared with the SSSI Crossing scenario. As mentioned above, the actual pumping rates in the AD6 scenario are likely to be lower than that shown in Table 1. The outcome of the modelling for the SSSI Crossing indicated a drawdown outside of the cut-off wall of <1 mm.

Given the above, the hydraulic connection between groundwater and surface water and the temporary nature of the works, there is a very low to low risk of loss of water to the catchment.

5. Receptors for potential effects

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The following receptors that may be sensitive to changes in the water environment have been identified within 2 km of the proposed dewatering activity (approximate distances provided):

- Sizewell Marshes SSSI (30 m)
- Minsmere and Walberswick Heaths and Marshes SSSI (2.1 km)
- Minsmere-Walberswick SPA/Ramsar site
- Minsmere New Cut (2.8 km)
- Leiston Drain (0 m)
- Licensed groundwater abstractions
    - 7/35/03/*G/0045 (potentially revoked, 1.1 km)
    - 7/35/03/*G/0074 (potentially revoked, 1.6 km)
    - 7/35/03/*G/0051 (330 m)
    - 7/35/03/*G/0046 (2.5 km)
    - An/035/0003/007 (350 m)
    - 7/35/03/*G/0089 (1.4 km)
    - 7/35/03/*G/0049
    - An/035/0003/009 (470 m)
    - 7/35/03/*G/044 (1 km)
    - An/035/0003/003 (6 records, 1.65 km)
    - 7/35/03/*G/0065 (potentially revoked, 1.3 km)
    - 7/35/03/*G/0025 (1.5 km)
    - 7/35/03/*G/0064 (1.5 km)
    - 7/35/03/*G/0051 (860 m)
- Licensed surface water abstractions:
    - 7/35/03/*S/0051 (southern abstraction at Rackham Pits, ~700 m)
    - 7/35/03/*S/0075 (northern abstraction at Two Penny Bridge, ~2.8 km)
- Marsh Harrier compensation habitat (~1.95 km)
- Surface water bodies – various dams, reservoirs and lakes
- Groundwater body – Crag aquifer (water body from which abstraction is proposed)

6. Potential effects from the dewatering activity

The dewatering of the pile cap areas associated with the Leiston Drain Overbridge has the potential to cause the following effects on the water environment:

- A reduction in groundwater levels in the Crag aquifer and also in overlying deposits (Peat) for the duration of the dewatering.
- Reduction in groundwater levels could affect the discharge of baseflow from the aquifer to surface water.
- Water levels in the water body receiving discharge from the dewatering (Leiston Drain) would be raised during the dewatering.
- Water quality in the water body receiving discharge from the dewatering (Leiston Drain) and in the groundwater surrounding this water body could be changed for the duration of the dewatering if the groundwater and receiving surface water is of differing quality.

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The first two potential effects are discussed in Section 7, below. The latter two potential effects are not considered in this Technical Note as they relate to the discharge of water assessed as part of MDS/CWDA/18.

7. Potential effects at receptors

Given the likely small magnitude of change outside the sheet pile walls, it is not considered that there is a mechanism for impact on any of the identified receptors. The predicted reduction in water levels for a similar setting (e.g. geology, temporary works duration and groundwater volume dewatered/discharged) of less than 1 mm is unlikely to be observable when compared to natural variations in water level, and is within the likely error range of manual measurement of the groundwater table. As such, it is not considered proportionate to consider each identified receptor individually.

The main receptors that may be impacted by the dewatering works are the Crag aquifer (from which groundwater is removed via dewatering) and the Leiston Drain (receiving surface water). These water bodies were addressed in the H1 assessment, the outcome of which indicated that measured concentrations of tested substances within the discharge are not liable to cause pollution if discharged to the Leiston Drain at the proposed flow rates. In addition, these water bodies are in hydraulic continuity and there are no/limited losses with regards to the quantitative status of the catchment.

8. Managing potential effects at receptors

To ensure that the potential effects for receptors identified in section 7 are managed, it is recommended that groundwater levels and quality are monitored through the course of the dewatering works. The existing boreholes noted in the H1 assessment should be monitored for groundwater levels to assess the performance of the sheet piling in limiting observable drawdown in the wider groundwater body. In addition, it is recommended that water quality is assessed at the discharge locations to ensure downstream effects are minimised and adherence to the outcomes predicted in the H1 assessment.

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Annexure A – Dewatering Discharge H1 Assessment (AD6 Leiston Drain Overbridge)

Dewatering Discharge Risk Assessment
AD6 Leiston Drain Crossing

Project	**SZC: Sizewell C**	Teamcenter ID	
Teamcenter Contract	Choose an item.		
Client	**NNB Generation Co.**	Contractor Reference	
Contractor	**Civil Works Alliance**	Contractor Rev	**P01.02**
Purpose of Issue	**P1 - Published for Implementation**		
Supplier	**AtkinsRéalis**	Originators Ref	**5213850-SNC-09-XX-TREP-X-900001**
Prepared by	**T.Wilkins**	Role	**Associate Hydrogeologist**
Reviewed by	---	Role	**Associate**
Approved by	---	Role	**Associate Director**

REVISION HISTORY

Revision	Purpose	Amendment	Prepared By	Date
P01.02	P1 - Published for Implementation	EA comments addressed	TW	---
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Notice

This document and its contents have been prepared and are intended solely as information for SZC Co (SZC) and use in relation to Sizewell C Civils Works Alliance Engineering and Design Management Portion

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This document has **24** pages including the cover.

Document History

Rev	Status	Purpose Description	Originated	Checked	Reviewed	Approved	Date
P01.02	S0	EA comments addressed	TW	JH	---	---	26/03/24
P01.01		First Revision - for comment	TW	JH	SF	---	---

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Figures

1. Introduction

1.1. Overall Project Scope

This Scope of Works is part of a suite of documents supporting Site Establishment and Enabling Works Design for the SZC Nuclear Power Station.

The Site Establishment and Enabling Works are physically bounded by the DCO “Red Line” boundary encompassing the development site.

Site Establishment and Enabling Works will interface with other designs such as Associated Developments (AD’s), Relocated Facilities (RF’s) and Statutory Undertakers’ Works at points within and around the red line boundary.

1.2. Package Description

This assessment related to the construction of the Leiston Drain Overbridge which forms part of Associated Development 6 (AD6) of the Enabling Works package with construction planned to start in September 2024. The proposed crossing is located at grid reference 645450E 263500N.

1.3. Scope of Assessment

The scope of this report is to carry out a surface water pollution risk assessment in accordance with Environment Agency permitting guidance [1] related to discharging groundwater dewatered from piled foundations which will be installed to facilitate the construction of the AD6 Leiston Drain Overbridge.

1.4. Supporting Documentation

Numerous phases of design, monitoring and assessment have been completed historically for SZC, and data for this assessment comes from various of these sources as detailed below. Internet hyperlinks are included for documents that are published in the public realm (such as Environmental Statement appendices), and the section/page of the relevant document is included in this report. For any documents that are not published in the public realm, all relevant information for this assessment has been reproduced in this report. The following site specific sources were used for this assessment:

- “SZC-EW0411-ATK-XX-000-XXXXXX-REP-CIV-000010: Groundwater Monitoring Report between 2020-2022,” [2];
- Sizewell C Groundwater Modelling Report prepared for EDF NNB GenCo , January 2020 [3].
- Atkins. (2023). Technical Note: Water Quality and Flow Baseline. revision 1.0 Draft Issue. Ref. SZC-EW0921-ATK-XX-000-XXXXXX-REP-CLE-9000001 (n.b. this Technical Note is included within the CWDA application) [4]; and
- Sizewell C. (2023). Associated Development 6 - Construction Methodology Overview [5].

Regulatory engagement with the Environment Agency to date is appended as Appendix A.1 with pertinent design drawings provided as Appendix A.2.

2. Dewatering Requirements

2.1. Groundwater arisings

The AD6 crossing structure will comprise three 20 metre (m) spans formed from precast beams placed upon piled reinforced concrete piers. Specific details of the pile and pile cap designs are to be finalised, however, AD6 ECI Deliverable 18 – Construction Methodology Overview [6] indicates the foundations will consist of a bored and cast in situ solution utilising Continuous Flight Auger (CFA) methodology. It is currently anticipated that the design will comprise a total of 38 piles arranged in four groups, with two groups north and two groups south of the Leiston Drain.

Figure 1-1 below presents the location of The Leiston Drain Overbridge.

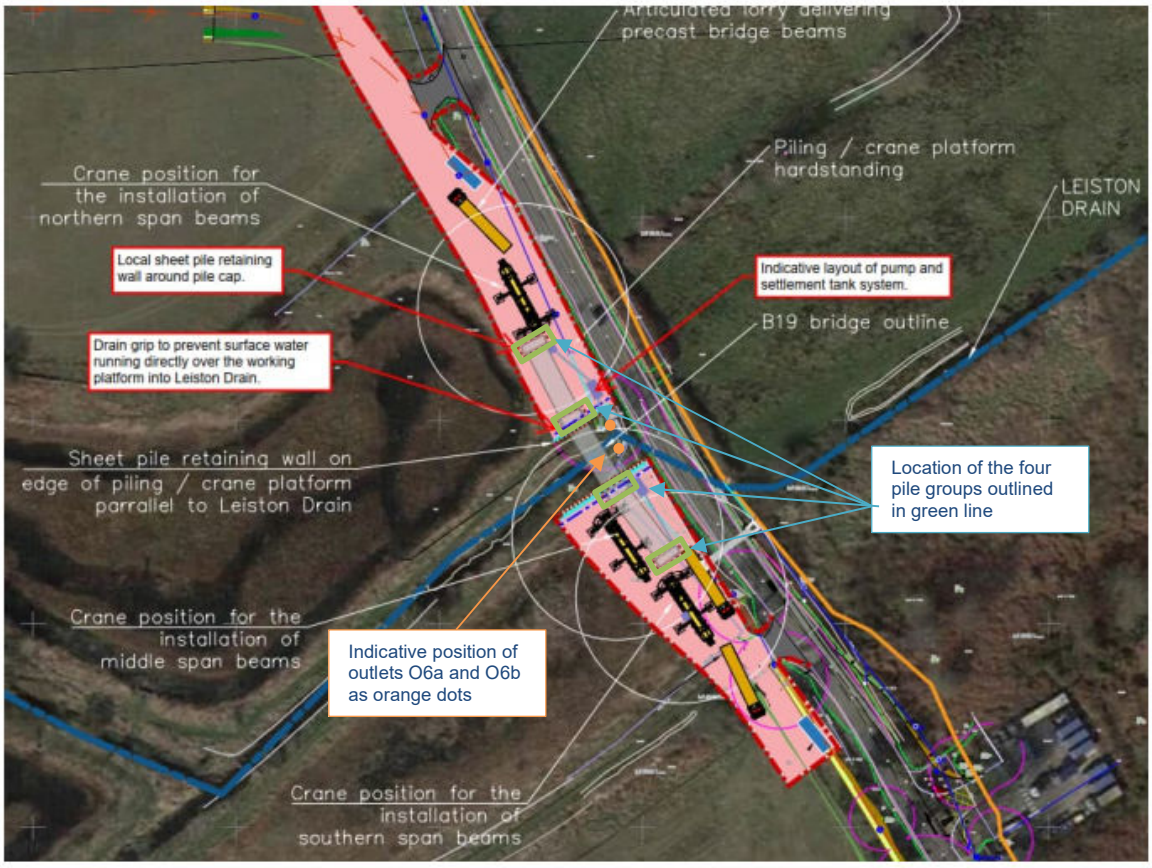

Figure 2-1 - Location of Leiston Drain Overbridge Crossing

It is anticipated that small amounts of groundwater in the vicinity of the proposed Leiston Overbridge will be forced to the surface during the advancement of the CFA piles. The groundwater that accumulates is proposed to be discharged to the Leiston Drain, an inland freshwater water body that flows through construction area.

Groundwater will be brought to the surface by the CFA auguring process so will be intermittent as the piles are installed one by one. This water will be brought to the surface of the piling platform by the rotating action of the auger and its removal as concrete is placed. The plan is to locally cut shallow channels to catch this water as it runs onto the surface, directing it to a sump within the engineered platform and pump the water away for treatment.

2.2. Discharge arrangements

Groundwater will be directed into the permanent filter drains and allowed to flow towards and discharge at outlets O6a and O6b on the north and south sides of the Leiston Drain respectively. The location of the outlets is shown on Figure 2-1 and Figure 3-1.

The discharged groundwater will be allowed to mix with rainfall dependent site drainage which is directed to the same outlets. The extent of any such mixing will be governed by the programme of

construction works. There are no flow controls in place at the outfalls, flows will be controlled through pump capacity. No scour protection proposed specifically for the groundwater discharge.

The Leiston Drain is classified as a Main River and a Water Framework Directive (WFD) designated waterbody (GB105035046271 - Leiston Beck) [7]. A Phase 1 (screening assessment) Surface Water Pollution Risk Assessment (formerly known as H1 annex D1) has been undertaken to determine whether the proposed dewatering activities could cause adverse impacts to the receiving surface water quality of the Leiston Drain and to help inform treatment methods if required.

The H1 Assessment is required for the permitting of discharge containing priority hazardous substances, priority substances and “other pollutants” to surface waters [1]. The classification of substances and pollutants is covered by the Water Framework Directive [8].

3. Environmental Setting

3.1. Site Location

The location of the proposed Leiston Overbridge is within the DCO Redline boundary encompassing the development site as illustrated in Figure 2-1. The site is located 1.5 kilometres west of the existing Sizewell B power station and the proposed Sizewell C location.

3.2. Geology

The regional geology of Sizewell C comprises Made Ground and Superficial Deposits containing Peat/ Alluvium over bedrock of Crag Group, Palaeogene deposits (of the Thames Group, Lambeth Group, Thanet Formation) and the Chalk Group(page 24, table 2.1 of [3]).

Local ground conditions in the area of the proposed Leiston Overbridge site indicate a sequence of topsoil to 0.50 m bgl (1.26 m AOD) Superficial peat to 1.30 m bgl (-0.14 m AOD) and Crag Group to the base of the borehole at 7.90 m bgl (-6.14 m AOD). Borehole logs for AD6 and AF6 which were used to understand local geological conditions have been included in Appendix B.

3.3. Hydrogeology

The Environment Agency classifies the Crag Group as a principal aquifer. The aquifer is hydraulically separated from Chalk by the presence of the Palaeogene deposits formation (unproductive stratum). The Peat is classified as unproductive stratum but has ecological importance associated with the Sizewell Marshes SSSI.

Across the wider site area, hydraulic head of Crag groundwater has been recorded slightly higher than those in the Peat, therefore it is considered that there is potential for groundwater within the Crag to migrate upwards into the Peat. No tidal variation is observed in the Peat unlike the Crag and therefore there is some hydraulic separation between these aquifers. This is considered to be due to the low vertical hydraulic conductivity of the Peat.

Water levels from boreholes screened within the Peat (Piez 1a, 1b, 2a, 3a and 3b) in the vicinity of Leiston Overbridge indicate that groundwater level ranges between 0.029 and 1.96 m AOD in this area [2]. Borehole AD6-312 located in the vicinity of the proposed Leiston Overbridge and screening the Crag aquifer had an average groundwater level of 1.37 m AOD.

Leiston Drain is the feature the proposed Leiston Overbridge will cross. Features such as Leiston Drain are reportedly [3] in hydraulic continuity with underlying groundwater, providing local recharge to the Sizewell Marshes SSSI and the Minsmere-Walberswick Heaths and Marshes SSSI during high water level conditions. It is assumed that Leiston Drain is in continuity with the underlying groundwater within Peat and Crag.

3.4. Groundwater Quality Baseline

Between 2020 and 2022 Atkins collected groundwater samples from a series of monitoring wells installed at the Main Development Site (MDS) of Sizewell C, including 38 locations within the MCA and TCA areas [2]. The groundwater samples were scheduled for analysis at a UKAS accredited laboratory for a range of inorganic and organic determinands, including chloride, ammonium, nitrate, dissolved metals / metalloids, total petroleum hydrocarbons (TPH), phenol, benzene, toluene, ethylbenzene and xylene (BTEX), speciated polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs) and semi volatile organic compounds (SVOCs).

Groundwater quality data has been recovered at a number of locations in the vicinity of Leiston Overbridge, these include GW2, AD6-312 and AF6 screening the Crag Group and Piez 1a, 1b, 2a, 3a and 3b screening the peat. The wells have been monitored in total on four occasions during a period of 2020-2022 and the results have been utilised within this assessment as a proxy for the proposed discharge of groundwater to the Leiston Drain. Details of these monitoring points are shown in Table 3-1 and their location is shown in Figure 3-1.

Table 3-1 – Baseline Groundwater Monitoring Well Details.

Well ID	Screened Stratum	Level	Easting	Northing	Response Zone (M AOD)	Samples Recovered
AD6-312	Crag Group	1.76	645440.9	263481.6	-0.24 to -1.24	3
AF6		6.04	645327.2	263322.1	-0.96 to-4.96	1
GW2		13.07	645269	263831	4.37 to -2.93	1
Piez 1a	Superficial deposits - Peat	1.98	645458	263523	0.38 to -0.62	3
Piez 1b		1.94	645459	263524	1.44 to 0.94	3
Piez2a		2.12	645440	263551	0.12 to -0.88	1
Piez 3a		1.63	645543	263622	1.13 to -0.37	1
Piez 3b		1.65	645544	263623	-0.35 to -1.35	1

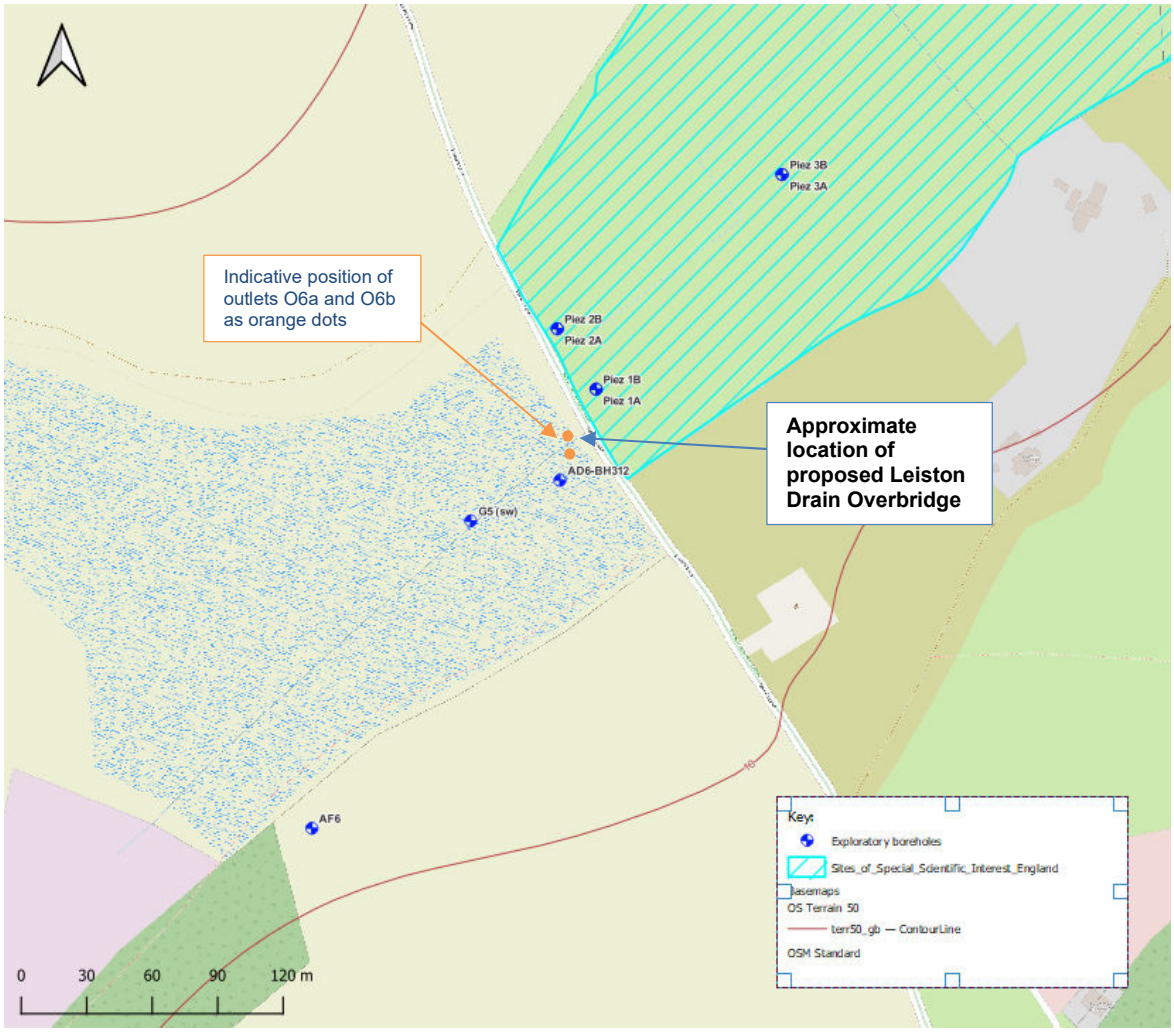

Figure 3-1 Location of the AD6 crossing and nearby exploratory holes and monitoring locations

4. Surface Water Pollution (H1) Risk Assessment

4.1. Approach

Screening tests have been undertaken in accordance with the latest GOV.UK guidance for surface water pollution risk assessments [9] and more detailed supporting EA internal guidance, “Permitting of hazardous chemicals and elements in discharged to surface waters” (H1 Risk Assessment) [1]. The assessment has been undertaken to support the discharge of groundwater associated with the construction of the Leiston Overbridge to surface water, the Leiston Drain.

The Leiston Drain is classified as a Main River and a Water Framework Directive (WFD) designated waterbody (GB105035046271 - Leiston Beck) [7].

Specifically, the screening assessment has been carried out to:

- Assess the feasibility of discharging dewatered groundwater from piling operations for the Leiston Overbridge into the Leiston Drain;
- Assess the need for treatment of the groundwater prior to discharge;
- Identify whether further modelling is required to be undertaken in accordance with the GOV.UK requirements for completing a surface water pollution risk assessment (as the planned discharge is being made to freshwater).

The steps detailed in the guidance consist of:

- Phase 1: Screening, which follows three stages to screen out substances to identify if there are any pollutants at concentrations that could cause pollution; and
- Phase 2 Modelling, which is a more detailed assessment of those substances that may be significant. The Environment Agency will normally carry out this modelling for discharges to freshwater.

This report details the screening tests undertaken to ascertain whether more detailed modelling is required.

4.2. Discharge Criteria

WSP Limited are fulfilling the role of designer for the Leiston Overbridge project. WSP have provided AtkinsRéalis with design values to be adopted within the risk assessment to support an assessment of whether discharge of groundwater to the Leiston Drain will be liable to cause pollution.

The design values provided by WSP and adopted within the H1 Assessment have been summarised within Table 4-1.

Table 4-1 – WSP Design Criteria / Input Values for H1 Assessment

Design Parameter	Input	Source
IEFR: Effluent flow rate (maximum)	22.5 m^3/hour	WSP
EFR: Effluent flow rate (mean)	20 m^3/day	AD6 Construction Methodology Overview

*Both values have been converted into m^3/s by AtkinsRéalis for use within the H1 Assessment.

4.3. Flow data for the receiving watercourse

The surface water screening assessment requires Q95 (low flow) flow rate data for the receiving watercourse. If the screening assessment indicates a potentially significant impact in surface water quality, a surface water modelling assessment will be required. The modelling requires flow rate summary statistics such as mean and standard deviation or percentiles.

Flow rate summary statistics for Leiston Drain have been derived using data from five flow monitoring locations monitored between the period 2013 to 2022. The data is reported in full within the Surface Water Quality Flow and Baseline [4].

A Q95 flow rate of 0.0168 m^3/s derived at monitoring location G5 (~20 m west of proposed bridge), the closest monitoring location to the dewatering, has been deemed appropriate and utilised within the assessment. Flow and Stage Graphs associated with G5 have been provided as Appendix F.

4.4. Surface Water Screening

4.4.1. Methodology

The groundwater quality data from six wells screening the superficial deposits (Piez 1A, 1B, Piez 2a, and Piez 3A, 3B) and two wells screening the Crag Group (AF6 and AD6-312) situated in the vicinity of Leiston Overbridge have been used to represent the quality of the discharge in the screening assessment. This includes a total of 15 groundwater samples analysed for a range of inorganic and organic determinands. The laboratory results are included as Appendix B and the data is included within the screening test spreadsheets in Appendix E.

Upstream background surface water quality data has been measured using samples collected from upstream monitoring points G3, G4, G5, G6A and G7A between 2013 and 2022 [4]. Quality data from G5 has been utilised to characterise background chemical quality at the receptor as it is closest to the point of discharge, the full dataset is presented as Appendix C.

Substances that have been measured above the laboratory limit of detection (LOD) in groundwater were run through screening at face value. In addition, substances that were not detected in groundwater above the LOD, but where the LOD is less than 10% the EQS, were also included in the screening assessment. The likelihood of these substances being present in the discharge is discussed on completion of screening, and those substances not considered to be present in the discharge will be discounted.

Prior to screening, surface water data for the Leiston Drain has been processed through the Environment Agency WFD Metal Bioavailability Assessment tool (M-BAT) [10] to derive Predicted No Effect Concentrations (PNEC) for copper, lead, nickel, manganese and zinc. The average values from the baseline surface water dataset were used for pH and calcium with a median value adopted for dissolved organic carbon was used to give an assessment of the annual average bioavailable EQS to be used in the screening exercise, in line with the guidance [11]. the M-BAT assessment and PNECs are presented in Appendix B. The EQS value for cadmium has been adjusted based on average surface water hardness as per Water Framework Directive (Standards and Classification) Directions [8].

The surface water screening assessment was undertaken using the methodology for phase 1: screening for freshwaters given in EA guidance [1]. Part A of the screening comprises four tests to screen out substances that are not liable to cause pollution to the surface water body being discharge into.

A summary of the four Phase 1 Part A tests is provided below:

- Test 1 assesses if the concentration of a substance in discharge exceeds 10% of the EQS for the respective substance.
- Test 2 assesses whether the Process Contribution (PC) exceeds 4% of the respective EQS. PC is the concentration of a discharged substance in the receiving water after dilution.
- Test 3 calculates the Predicted Environmental Concentration (PEC), which is the combination of PC and the mean upstream background concentration (BC). The difference between BC and the PEC is screened against 10% of the respective EQS.
- Test 4 screens the PEC for each substance against EQS Annual Average (AA) and EQS Maximum Allowable Concentration (MAC), where available.

A substance that passes Test 1 or Test 2 is considered not liable to cause pollution and does not need to be considered for Tests 3 and 4. Any substance that fails either Test 3 or Test 4 is considered liable to cause pollution when discharged into the receiving surface water body.

EQS values used in the screening tests are the freshwater EQSs presented in the GOV.UK surface water pollution risk assessment guidance [12]. EQS values for nitrite and phosphorous, which do not have an EQS in the guidance, are derived from non statutory guideline value for Salmonid waters presented in the Surface Waters (Fishlife) Directions 2010, and from the Water Framework Directive (Standards and Classification) Directions [8], respectively.

The surface water screening assessment was undertaken using the methodology for phase 1: screening for freshwaters given in EA guidance [1]. Part A of the screening comprises four tests to

screen out substances that are not liable to cause pollution to the discharged surface water body. Any substance that fails a test is not screened out and is therefore considered liable to cause pollution.

Following Part A, Part B of the Phase 1 screening comprises the significant load test, which applies to any Priority Hazardous Substances in the discharge.

4.4.2. Results

The data input to the screening and the full screening assessment for all substances is presented in Appendix E.

Out of the 215 analysed substances, 156 did not have an EQS value. A further 27 substances were not detected in the discharge and had an LOD that was sufficiently low (<10% EQS).

Of the remaining 32 substances, 18 were screened out at Test 1 or 2 , leaving 14 substances which were taken forward for Tests 3 and 4.

Of those 14 substances which were taken forward for Tests 3 and 4, cadmium, nickel and hexachlorobutadiene passed both tests and so are not considered liable to cause pollution. A further nine substances comprising organics, low level cyanide and chromium (hexavalent) failed one of Test 3 or 4 but have not been detected above LOD in any of the groundwater samples. They were included in the screening tests because the LOD was not sufficiently lower than the EQS. These substances are not considered likely to be present in baseline groundwater with no nearby sources of contamination identified and are therefore not considered further.

Three remaining substances were determined as liable to cause pollution in the receiving surface water body, these are summarised in Table 4-2.

Part B of the phase 1 screening for freshwaters comprises the significant load test, which applies to any Priority Hazardous Substances in the discharge. The test was progressed for cadmium (dissolved), anthracene, hexachlorobenzene, hexachlorobutadiene, dissolved mercury low level, benzo[a]pyrene and the sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, indeno(1,2,3cd)pyrene. The test completed indicated that none of the priority substances in the discharge would exceed the respective significant load thresholds.

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Table 4-2 – Substances which fail screening tests 3 or 4, and are therefore liable to cause pollution.

							Test 3 - Does the difference between upstream quality and the Predicted Environmental Concentration (PEC) exceed 10% of the EQS			Test 4 - Does the PEC exceed the EQS in the receiving water downstream of the discharge	
Constituents All units mg/l	Limit of Detection (LOD)	Freshwater EQS (Annual Average)	Freshwater EQS (Maximum Allowable Concentration)	detections above LOD in groundwater discharge	Discharge mean (values below LOD treated as LOD)	BC: Mean Upstream Concentration (values below LOD treated as LOD) mg/l	Predicted Environmental Concentration (AA-PEC) (mg/l)	AA Test 3 failed?	MAC Test 3 failed?	AA test 4 failed? (AA PEC above AA EQS)	MAC test 4 failed? (MAC-PEC above MAC-EQS)
Phosphorus (Dissolved)	0.02	0.008	N/A	12	0.18	0.220	0.221*	No	N/A	Yes	No
Nitrite	0.02	0.01	N/A	11	0.22	0.610	0.605*	No	N/A	Yes	No
Dissolved Chromium (Trivalent)	0.001	0.0047	0.032	8	0.007	0.0108	0.0108*	No	No	Yes	No

Notes: * Average RC is lower than BC, showing that the discharge is not expected to impact surface water quality for these substances. N/A No maximum allowable concentration (MAC) EQS.

4.5. Discussion and Conclusion

As shown in Table 4-2, a total of three substances failed the screening tests due to a high mean concentration identified in upstream water samples, with the average background concentration (BC) exceeding the EQS. For all four of these the average release concentration (RC) is lower than the BC showing that the discharge is not expected to impact surface water quality for these substances.

The surface water pollution risk assessment screening tests have been carried out to assess the impact of discharging the dewatered groundwater to the Leiston Drain.

The Phase 1 screening tests indicated that measured concentrations of tested substances within the discharge are not liable to cause pollution if discharged to Leiston Drain at the proposed flow rates.

As the assessment is based on groundwater sample data from boreholes used to represent expected water quality of dewatering groundwater, it is recommended to undertake quality analysis for the water dewatered to validate the concentration of substances prior to discharge.

5. References

[1] Environment Agency, “Permitting of hazardous chemicals and elements [LIT 13134],” December 2019.

[2] Atkins, “SZC-EW0411-ATK-XX-000-XXXXXX-REP-CIV-000010: Groundwater Monitoring Report between 2020-2022,” January 2023.

[3] Atkins, “Sizewell C Groundwater Modelling Report prepared for EDF NNB GenCo , January 2020.,” 2020b.

[4] Atkins, “SZC-EW0921-ATK-XX-000-XXXXXX-REP-CLE-9000001: Technical Note: Water Quality and Flow Baseline. Revision 1.0 Draft Issue,” 2023.

[5] Sizewell C, “Sizewell C Adoptable Highways - AD6, Constuction Methodology Overview P02.,” 14 October 2023.

[6] Sizewell C, “Associated Development 6 - Construction Methodology Overview,” 2023.

[7] Environment Agency, “Catchment Data Explorer - Leiston Drain Water Body,” 2021. [Online]. [Accessed 18 September 2023].

[8] Secretary of State, “The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015,” 2015. [Online]. Available: https://www.legislation.gov.uk/uksi/2015/1623/pdfs/uksiod_20151623_en_auto.pdf. [Accessed October 2023].

[9] Environment Agency, “Surface water pollution risk assessment for your environmental permit,” 25 February 2022. [Online]. Available: https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit.

[10 Water Framework Directive - United Kingdom Technical Advisory Group (WFD-UKTAG), “Rivers & Lakes - Metal Bioavailability Assessment Tool (M-BAT),” WFD-UKTAG, 2014. [Online]. Available: https://www.wfduk.org/sites/default/files/Media/Environmental%20standards/MBAT%20UKTAG%20Method%20Statement.pdf. [Accessed 26 10 2022].

[11 WFD-UKTAG, “UKTAG River & Lake Assessment Method Specific Pollutants (metals) - Metal Bioavailability Assessment Tool (M-BAT),” July 2014.

[12 Environment Agency, “Surface water pollution risk assessment for your environmental permit (Freshwaters priority hazardous substances, priority substances and other pollutants environmental quality standards),” 22 02 2022. [Online]. Available: https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit. [Accessed 20 03 2023].

[13 Environment Agency, “Environmental Quality Standards for Metal in The Aquatic Environment,” April 2008.

Appendix A. Supporting Information

A.1. Regulatory Engagement

Comment ref	Document	Section	Page/Row	What is the issue?	What is the Impact?	What is the Solution?	Priority	Response Comments	AtkinsRealis Actions 22/03	Column
1	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	1.2 and 2.1	Pages 5 (including figure 1-1) and 7 (including figure 2)	There is no clear figure/diagram to display the location of the two (north and south) working areas of the overbridge construction (to indicate where site drainage and groundwater will be generated) and the two proposed discharge locations (O6a and O6b) into Leiston Drain and surrounding designated sites	Unable to view the location of the two sections of the overbridge crossing (and where the groundwater effluent will be generated via piling works, assumed to be within the pink area bounded in red within figure 1-1) and the two discharge points (O6a and O6b) from each activity (A4 and A5) into the freshwater environment (Leiston Drain)	Please provide a simplified diagram(s) and NGR(s) (if known, or if not, please confirm approximate anticipated locations) of the proposed work areas generating the groundwater (via piling works) and surface water drainage in relation to the proposed discharge points (O6a and O6b) into Leiston Drain	2	Add drawing from WSP construction statement	Added outlines and annotation for these features on Figure 2-1. Outlet also aded to Figure 3-1	
2	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	1.2, 1.3 and 3.1	Pages 5, 6 and 9	Discusses the piling which will create the groundwater effluent (by forcing groundwater to the surface), but it does not confirm how many piles will be required and to what depth the piles might need to be driven/installed to	Uncertain about piling depths which would aid understanding in terms of the groundwater likely to be encountered requiring discharge (i.e. if worst case anticipated piling depth(s) known, this will allow us to understand the origins of the groundwater produced via superficial/Peat deposits, Crag formation etc)	Please confirm anticipated number of piles required (and how these are split for the northern/southern sections of the bridge crossing) and worst case minimum and maximum depths these will be installed/driven to	2	Check in WSP construction statement / consult WSP. Add into report text.	Anticipated number of piles added to section 2.1	
3	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	1.3, 2.4, 3.1, 3.2, 3.4.1, 3.4.2 and 3.5	Pages 5, 6, 8, 9, 10, 11 and 13	Reference is made to the proposed discharge into Leiston Drain but no details are provided about how the rate of discharge will be controlled to prevent erosion/scour of the receiving watercourse	Information regarding the potential physical damage of the receiving watercourse and how this can be controlled are not included that might be required to support of Habitats Regulations and CRoW Act assessments	Please confirm if any scour protection measures (and/or flow control measures) are proposed to be installed/implemented at the proposed discharge point, or is the proposed flow control structure alone be considered to be adequate to prevent risk of scour to the receiving watercourse (Leiston Drain) at the point of discharge?	2	Check in WSP construction statement / consult WSP. Add into report text. Rate of discharge understood to be controlled by pump specification	to section 2.2.: No scour protection proposed. Water will be directed into the permanent BR19 filter drains and not directly into the river via a separate outfall, so we can expects some mixing and attenuation prior to discharge, flows will be controled by pump capacity.	
4	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	1.3	Page 5	States: "*The groundwater that accumulates is proposed to be discharged to the Leiston Drain*". However, there is no explanation about how the encountered groundwater will be accumulated and discharged	Uncertain about the proposed discharge methodology of the accumulated groundwater, and how this will be accumulated and if the groundwater will be stored/batched prior to discharge (although the use of settlement tanks is referenced within one of the labels of figure 1-1 on the northern side of the crossing). As much clarification as possible must be provided with the application, although it is appreciated the methodology might not have been finalised and might be included within the referenced document "*Sizewell C. (2023). Associated Development 6 - Construction Methodology Overview*".	Please provide further explanation and confirm if the groundwater will be accumulated within each piling/piling excavation prior to discharge, or if the accumulated groundwater is pumped to storage from the pilings (e.g. a lagoon/sealed container/settlement tank) prior to discharge. Will the discharges be intermittent as piling occurs, or will discharges of encountered groundwater be batched and controlled? Please also ensure that a copy of the referenced report "*Sizewell C. (2023). Associated Development 6 - Construction Methodology Overview*" is provided with the permit application submission	2	Check in WSP construction statement / consult WSP. Add into report text.	Expanded on this in Section 2.1.	
5	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	2.1, 2.4 and 3.4.1	Page 7 (figure 2), Page 10, paragraph 1 and Appendix D E (row 2, columns D to R)	Sections 2.4 and 3.4.1 references well Piez 2B, but there is no reference to any GW data from this well within Appendix D (or Spreadsheet D E).	There is no reference to Piez 2B, but there is reference to two wells within Appendix D E (AD6 (column J) and GW2 (column L)). However, wells AD6 and GW2 are not discussed within the report and there appears to be no location/NGR details provided (e.g. locations of AD6 and GW2 not provided within Figure 2 on page 7)	Please provide clarification regarding which wells/boreholes have been utilised to characterise the background GW quality within the report/supporting appendices, and confirm their location(s) within the finalised report.	2	Add table of monitroing locations / NGRs / Response zones / numbe rof samples. Check/ update drawing	Table 3-1 added with monitoring well details.	
6	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	2.2	Page 7 and Appendix A	The borehole logs for AD6-BH312 and AD6 are referenced in this section and provided within Appendix A (which provides their Eastings and Northings from which NGRs can be calculated). However, there are no NGR details for the remaining boreholes/wells used to provide the background WQ GW data	Uncertain about the local of some of the boreholes/wells used to provide background GW quality data	Please confirm the NGRs for the boreholes within the superficial deposits (Piez 1A, 1B, 2A, 2B, 3A and 3B)	2	Add table of monitroing locations / NGRs / Response zones / numbe rof samples. Check/ update drawing	Table 3-1 added with monitoring well details.	
7	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	2.3	Page 8, paragraphs 1 and 4	Although the Sizewell Marshes SSSI, and Minsmere-Walberswick Heaths SSSI are referenced in this section, there is no reference to any HRA/CRoW Act supporting information/screening in the draft document to demonstrate the typical risks associated with these sites (and their features) and the proposed WDAs via O6a and O6b (Physical damage, toxic contamination, turbidity, siltation, pH, nutrient enrichment and changes to thermal and/or salinity regimes) either alone and in-combination with the other WDAs proposed to be encompassed within the SZC CWDA18 permit application.	[redacted] Please note, we can provide a copy of the following working HRA enhanced data documents from the relevant websites of Natural England's website). The proposed discharge points from O6a and O6b (NGRs: TM 45443 63501 and TM 45442 63495) are located within close proximity of multiple notified and designated receptors, which are identified in the our permitting GIS screening results for the proposed discharge type, volume and location (as listed below). You will need to consider potential impacts from the ongoing activities, features will need to be considered within your supporting information regarding HRA/CRoW Act. Protected and designated receptors (habitats and species) identified within relevant proximity of the proposed discharges from EA NPS GIS screening tool outcome include (but are not limited to): • Protected Habitats: Coastal and Floodplain Grazing Marsh • Protected Habitats: Fens • Protected Species: European Water Voles (Arvicola amphibius) • Local wildlife site: Sizewell Levels and Associated Areas: 575m downstream from the two proposed discharge points • Minsmere to Walberswick Heaths and Marshes Special Conservation Area (SAC): 2.4km downstream of proposed discharge point • European Site Conservation Objectives for Minsmere to Walberswick Heaths & Marshes SAC (UK0012899): https://publications.naturalengland.org.uk/publication/5360185388195216 | Link to site details, conservation advice, management measures on Natural England website: https://designatedsites.naturalengland.org.uk/SiteList.aspx?siteName=minsmere&countyCode=&responsiblePerson=&DesignationType=All | Natural England Conservation Advice for Terrestrial Protected Areas - Minsmere to Walberswick Heaths & Marshes SAC: https://designatedsites.naturalengland.org.uk/TerrestrialTerrestrialSiteDetail.aspx?SiteCode=UK0012809&SiteName=minsmere&SiteNameDisplay=Minsmere%20to%20Walberswick%20Heaths%20&%20Marshes%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea= • Southern North Sea SAC: 4.2km downstream of proposed discharge point (via Minsmere Sluice) | Link to site details, conservation advice, management measures on Natural England website: https://designatedsites.naturalengland.org.uk/SiteList.aspx?siteName=Southern%20North%20Sea&countyCode=&responsiblePerson=&DesignationType=All | Details regarding general site characteristics, and qualifying feature(s) and habitat(s): https://sac.jncc.gov.uk/site/UK0030395 | Natural England and JNCC Conservation Advice for Marine Protected Areas Southern North Sea SAC: https://jncc.gov.uk/our-work/southern-north-sea-mpa/ • Minsmere-Walberswick Special Protection Area (SPA): 2.4km downstream of proposed discharge point | European Site Conservation Objectives for Minsmere-Walberswick SPA (UK9009101): https://publications.naturalengland.org.uk/publication/4539750903853260 | Natural England Conservation Advice for Marine Protected Areas - Minsmere-Walberswick SPA: https://designatedsites.naturalengland.org.uk/MarineMaritimeSiteDetail.aspx?SiteCode=UK9009101&SiteName=minsmere-walberswick&SiteNameDisplay=Minsmere- [redacted]	Please ensure the relevant designated/protected habitat sites and species are adequately considered in your HRA/SSSI supporting (shadow) information report/risk screening assessment. Ensure that copies of the relevant draft HRA/SSSI related supporting information report(s) are shared with our NNB HRA team in advance of the application submission for review, and provide copies of the final versions with your formal permit application submission (as these will be required as part of the duly making checks for the application)	1	HRA to be provided separately	Information to be provided separately within HRA report.	
8	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	3.2	Page 9, table 3-1	This section states the proposed maximum discharge flow rate (290l/s) and volume (20m³/day), but does not explain how these values have been derived, and how these relate to the proposed water discharge activities (WDAs) required to be permitted (via outlets O6a and O6b) in terms of the groundwater and site drainage contributions.	Uncertainty about how the proposed discharge volume/rate relates to the proposed water discharge activities (WDAs) A4 (via outlet O6a) and A5 (via outlet O6b) have been derived and what proportion/volume of the groundwater dewatering generated from the piling work will be incorporated into each of the proposed two WDAs (A4 and A5), as referenced within the latest CWDA18 permit scope (MS Word document "CWDA-18 Final Scope Feb 2024", a copy was provided via e-mail dated 16/02/2024). Explanation is required regarding how the proposed discharge flow rate (290l/s) and volume (20m³/day) interacts with the proposed overall volumes to be discharged via outlets O6a (A4 from the AD6 and WMZ 6) and O6b (A5 from AD6). For example, the volumes/rates referenced in this MS Word document state for: **A4 (via outlet O6a):** •5 l/s increasing to 209.7 l/s with connection of WMZ 6 and highway drainage. •Maximum discharge volumes (excluding connection of WMZ 6 and highway drainage): 432 m3/day •Maximum discharge volumes (including highway drainage):4,352 m3/day (based on 1 in 5-year storm event) and 9,319 m3/day (based on 1 in 100-year storm event) **A5 (via outlet O6b):** •5 l/s increasing to 191 l/s with connection of highway drainage. •Maximum discharge volumes (excluding connection of highway drainage): 432 m3/day •Maximum discharge volumes (including highway drainage): 11.3 m3/day (based on 1 in 5-year storm event) 570 m3/day (based on 1 in 100-year storm event)	Please confirm how the proposed maximum discharge flow rate (290l/s) and volume (20m³/day) have been derived for the groundwater element generated by the piling works (any explanation about the duration of the groundwater element and it this will cease once the piling work has been completed would also be beneficial) and how these relate to the propose discharge volumes/rates via O6a and O6b in terms of the rainfall dependent site drainage element requirements for each discharge (based on the latest CWDA18 permit scope via MS Word document "CWDA-18 Final Scope Feb 2024", a copy was provided via e-mail dated 16/02/2024). This clarification will be required for the publication and consultation of any duly made permit application, and to assist with our review/assessment work ahead of producing our HRA/CROW Act assessment conclusions and consulting Natural England.	1	Drainage design input, WSP/AtkinsRealis?	Text added to section 2.2.: Groundwater will be directed into the permanent filter drains and allowed to flow towards and discharge at outlets O6a and O6b on the north and south sides of the Leiston Drain respectively. The location of the outlets is shown on Figure 2.1 and Figure 3.1. The discharged groundwater will be allowed to mix with rainfall dependent site drainage which is directed to the same outlets. The extent of any such mixing will be governed by the programme of construction works. There are no flow controls in place at the outfalls, flows will be controlled through pump capacity.	
9	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	3.4	General comment and Appendix E	How have less than results for substances that have been analysed via laboratory methods with limits of detection (LOD) above the EQS been considered? Our guidance for the permitting of hazardous substances in discharges to surface waters states that less than values should be considered at face value within the Part A (tests 1 to 4) screening tests if the MRV/LOD of the analysis method utilised for some of these substances is not sufficiently low/accurate in comparison to the relevant EQS. If the MRV/LOD utilised is not less than 10% of the relevant EQS value, the substance results should have been included within the Part A freshwater screening tests to determine the environmental significance of that substance. This requires that the less than values from the sample results are taken at face value to complete the Part A screening	Some substances may have not have been adequately been considered in the H1 surface water screening assessment	Please review and ensure that "less than" value results are adequately considered within the H1 screening assessment, and explain if the limits of detection (LoD) utilised for the analysis of these substances are the best available, UKAS accredited methods	2	Add section to report text on how < vales are teated in the assessment.	Updated paragraph 3 in Section 4.4.1 to explicitly state that the <LOD values were taken at face value. These have now been brought through the H1 assessment.	
10	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	3.4.1	Page 10, paragraph 1	States within this paragraph that 14 samples are available via the six wells within the superficial deposits (via Piez 1A, 1B, 2A, 2B, 3A and 3B) and two wells within the Crag group (AF6 and AD6-312). However, 15 samples are provided in	Inconsistency in the explanation of how many GW samples have been utilised for the supporting H1 risk assessment.	Please clarify if 14 or 15 GW samples are being utilised for the assessment and update the supporting information document accordingly.	2	Check & update	15 Samples included in assessment, details of wells and sample numbers in Table 2-1.	
11	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	3.4.1	Page 10, paragraph 7	As referenced within sections 1.3 and 2.2 of the permitting of hazardous pollutants in discharges to surface waters guidance (LIT13134), the new freshwater bioavailable EQSs should be used for the screening assessment of the following five metals: | Copper (dissolved): AA EQS of 1.0µg/l (bioavailable) | Lead (dissolved): AA EQS of 1.2µg/l (bioavailable) and MAC EQS of 14µg/l | Manganese (dissolved): AA EQS of 123µg/l (bioavailable) | Nickel (dissolved): AA EQS of 4.0µg/l (bioavailable) and MAC EQS of 34µg/l | Zinc (dissolved): AA EQS of 10.9µg/l (bioavailable) plus the ambient background concentration Whilst the above bioavailable AA EQSs have been applied to the H1 risk assessment screening tests in Appendix D for Manganese (Row 30) and Lead (Row 31), they have not been applied for Nickel (Row 14, although the correct MAC EQS value has been applied), Copper (Row 28, as 1.0µg/l (bioavailable) has not been applied) and Zinc (Row 32, as 10.9µg/l (bioavailable) plus the ambient background concentration has not been applied.	The appropriate bioavailable EQS values may not have been utilised within the H1 surface water risk assessment	Please amend the screening assessment and utilise the appropriate bioavailable EQS values for the relevant bioavailable metals (Nickel, Copper and Zinc)	2	Check & update	Screening sheet updated to include MBAT derived PNECs.	
12	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	3.4.1	Page 10, paragraph 7	It is stated in this paragraph that prior to screening, that PNECs (predicted no effect concentrations) have been derived for Copper, Lead, Nickel, Manganese and Zinc utilising the Environment Agency's metal bioavailability assessment tool (M-BAT).	There does not appear to be any supporting information attached to the draft application document recently shared with us to demonstrate how you have derived these values (although Appendix F has been provided). We would need explanation and the spreadsheet version of Appendix F to be provided with the formal submission to allow us to review any proposed values and allow us to understand how they've been derived.	It is assumed this will be provided in the final version of the supporting report, but please ensure that you attach the relevant supporting information and explanation about how you have derived these values	2	Include Mbat spreadsheet in appendix	MBAT Assessment revised to reflect guidance, included in appendices and brought through screening / H1.	
13	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	3.4.2	Page 11, and Appendix E (Rows 15, 18, 19, 21, 49, 60, 66, 71, 91, 93, 184, 185, 186, 188	Some of the substances referenced within Appendix E are priority hazardous substances (PHSs), for which the annual significant test has not been completed (within the Part B tab of Appendix E).	As detailed within our guidance for the permitting of hazardous pollutants in discharges to surface water (LIT13134, section 2.4.2), for all PHSs, the part B screening test (is the significant load exceeded?) must be completed regardless of if the substance has been screened out by the Part A screening tests.	Ensure that the part B screening test (annual significant load test) is completed for all PHSs within the proposed discharge (taking "less than" values at face value). From the supporting information provided, this appears to be Anthracene, Cadmium, Hexachlorobenzene, Hexachlorobutadiene, Mercury, PAHs (as only Cadmium has currently been included within the assessment via Tab 2 of Appendix E).	1	All PHS liable to be present in the discharge will have the Part B sig load test applied. This excludes substances tested for and not detected above LOD, where LOD<0.1xEQS	Significant load test updated to include all tested priority substances.	
14	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	3.4, table 3-2	Page 12 (and via data within Appendix D and E)	A summary of exceedances (2020-2022) has been provided for determinands/constituents that have had exceedances of the screening criteria (which all appear to be for screening against freshwater annual average (AA) EQSs only with maximum groundwater concentration values).	Some substances have both a freshwater annual average (AA) EQS and a maximum allowable concentration (MAC) EQS. Please ensure that MAC EQS values (and any maximum concentration exceedances in the 15 groundwater samples) are also appropriately considered and included within this summary, alongside the AA EQS concentration exceedances (and any mean/average concentration exceedances in the 16 groundwater samples)	For those substances with both an annual average (AA) and maximum allowable concentration (MAC) EQSs, only the annual average (AA) EQS has been assessed via the screening tests. Please ensure that the relevant MAC EQSs are also included within the risk assessment. As referenced within section 2.2 of the permitting of hazardous pollutants in discharges to surface waters guidance (LIT13134), where a substance has both AA and MAC EQSs, the initial screening process should focus on the AA EQS standard. However, screening as a should also be carried out against the MAC EQS to ensure that this is complied with in the watercourse. However, if a substance is released in batches rather than continuously, or if there is a large variation in the release load with time, then all the screening tests should also be undertaken for the relevant MAC EQS as well as the AA EQS. Where the substance has a MAC EQS only, then the screening tests should be undertaken against this standard.	1	Completed in later section ni report. Initial screening focussed on comparing maximum discharge concentration to lowest EQS, to give an indication of the substances present for consideration.	The initial screening exercise assesses against the most conservative of the AA EQS and MAC EQS only to indicate substances in discharge. The H1 assessment includes an assessment against MAC EQS.	
15	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	3.4, table 3-2	Page 12 (and via data within Appendix D and E)	There appears to be no consideration here of substances that have "less than value" results but have undergone laboratory analysis with sensitivities that are above the relevant EQS (AA and/or MAC) values. As per our guidance for the permitting of hazardous pollutants in discharges to surface water (LIT13134), such less than value results should be included within the H1 screening process taking less than values at face value (i.e. a value of <0.001mg/l should be taken as a result of 0.001mg/l).	The summary might not appropriately consider and summarise additional substances of interest in terms of potential environmental significance	Ensure "less than value" results are appropriately summarised and considered within the H1 surface water risk assessment	2	Add section to report text on how < vales are teated in the assessment. Update assessment as necessary (screen in if LOD<0.1xEQS)	H1 assessment updated to reflect screening of substances where LOD >0.1*EQS. Approach outlined in text in 4.3.1.	
16	Dewatering Discharge Risk Assessment ADB Leiston Drain Crossing	4	Page 14	Supporting information reports are referenced but not all are appended to the draft WDA permit application	We may need to review some (or all) of the referenced supporting information (reports, drawings, diagrams etc) when undertaking our determination of the application.	Please ensure that you provide/append any additional supporting reports/datasets that you are referencing within your main application document that support any calculations/conclusions being drawn.	2	Add information source section. Clarify that relevant information from all unpublished sources has been reproduced in this assessment.	Information sources / previous regulatory engagement now added as Section 1.4	

17	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	General comment	N/A	Has any pre-application engagement been conducted with Natural England and the local internal drainage board (IDB) regarding your proposal discharges under CWDA18?	Potential for uncertainty regarding how SZC have approached the selection of protected/designated features for consideration in the CWDA18 permit application's supporting information	Please confirm if any (or no) pre-application engagement has been undertaken by SZC with Natural England and the local IDB regarding your proposals under the CWDA18 permit application. For example, to assist you with the selection of relevant designated/protected receptors (i.e. habitats and species) that NE have recommended SZC incorporate within your Habitats Regulations/DCO/ Act supporting information (or how you may have proposed to discharge based on the IDB's advice).	1	SZC to confirm (none from Atkins/Reals H1 team). Regulatory engagement section to be added to report.	Regulatory engagement section added to report as Section 1.4.
18	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix D-E	Row 9, Columns L to AA	There is no detail regarding the depths from which the groundwater samples were taken from each of the 15 groundwater WQ results (via boreholes Piez 1A, Piez 1B, ADS-BH312, Piez 3A, AD6, AF6, GW2, Piez 3B and Piez 2A), or where these boreholes are located in relation to the proposed WDAs from outlets O6a and O6b	Introduces uncertainty given we do not know the depth the groundwater data is taken from and how this relates to the proposed depths of the cofferdams. We need to know how the groundwater water quality from the sampled boreholes influences the proposed effluent quality of the discharge in the proposed risk assessment.	Please include the groundwater depth details within the relevant cells for each of the x15 borehole samples, and relate this to the proposed maximum depth that the dewatering will take place from for the construction of the two cofferdams/foundations. Additionally, please confirm the NGRs of the x15 boreholes to allow their locations to be understood, and how these locations relate to the proposed WDAs via O6a and O6b.	2	Add table of monitroing locations / NGRs / Response zones / numbe rof samples. Check/ update drawing	Table 2-1 added with monitoring well response zone details.
19	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix D-E	Column C, rows 4 to 221	There is no explanation regarding what the values in column C (rows 4 to 221) are in reference to (it is assumed these are the LOD of the laboratory method)	Unsure what the values within rows 4 to 221 of column C are in reference to	Please utilise rows 1 and 2 of column C to clarify what the values in the subsequent rows (rows 4 to 221) represent within column C.	2	Add column heading	Added column headers
20	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 14	The freshwater EQS annual average (AA) value for Nickel (dissolved) is stated as 8.6ug/l	However, the freshwater annual average (AA) is 4.0ug/l (bioavailable). Nickel (dissolved) also has a maximum allowable concentration (MAC) EQS of 34ug/l which has been applied/referenced.	Ensure the relevant bioavailable/AA EQS has been applied and assessed for Nickel	2	Change heading to EQS / PNEC. Footnote to state that PNECs have been derived and used in place of beavailable EQSs. Quote guidance	MBAT PNEC included as AA EQS and MAC EQS also added.
21	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 15 & 18	Benzo(a)pyrene also has a fresh water maximum allowable concentration (MAC) EQS which is not reference in row 15 but is in row 18	Benzo(a)pyrene also has a fresh water maximum allowable concentration (MAC) EQS of 0.27µg/l but this has not been applied/referenced.	Please ensure the relevant MAC EQS has been applied and assessed for Benzo(a)pyrene in the final risk assessment	2	update sheet	MAC EQS applied to assessment.
22	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 16	Fluoranthene also has a fresh water maximum allowable concentration (MAC) EQS that has not been referenced/assessed against	Fluoranthene also has a fresh water maximum allowable concentration (MAC) EQS of 0.12µg/l but this has not been applied/referenced.	Please ensure the relevant MAC EQS has been applied and assessed for Fluoranthene in the final risk assessment	2	update sheet	MAC EQS for Fluoranthene applied.
23	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Rows 17 and 22	Chromium (Hexavalent) has been assessed with a limit of detection (LoD) of 20µg/l (0.02mg/l) and has been taken through the H1 risk screening assessment (taking the less than value results at face value), and fails tests 1, 2, 3 and 4.	However, a more sensitive analysis method appears to have been utilised for Chromium (Hexavalent) using an LoD of 1.0µg/l (0.001mg/l) as shown on row 22. However, it does not state if the analysis method within rows 17 and 22 is for the total or dissolved concentration of Chromium (Hexavalent).	Complete the H1 risk assessment using the more sensitive analysis method for Chromium (Hexavalent) via the information provided in row 22. Please also ensure that clarification is provided regarding if the analysis of Chromium (Hexavalent) within rows 17 and 22 is for the total or dissolved concentration.	2	update sheet	Low level hexavalent chromium brought through assessment. Dissolved added to substance name for clarification.
24	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 18	The maximum allowable concentration (MAC) EQS value for Benzo(a)pyrene is stated as 0.0027mg/l (milligrams/litre) in column E.	However, the MAC EQS value is 0.27µg/l and the conversion to mg/l in column E incorrectly states the EQS as 0.0027mg/l (or 2.7µg/l). Benzo(a)pyrene may therefore have been screened out of the H1 risk assessment at an inappropriate stage and could be environmentally significant	Please ensure that the AA and MAC EQS values entered and applied for the H1 risk screening assessment are correct (and have been correctly converted).	2	update sheet	Corrected MAC EQS.
25	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 28	The annual average (AA) EQS value for Copper (dissolved) is stated as 1ug/l	However, the freshwater annual average (AA) EQS for Copper is 1.0µg/l (bioavailable), which has not been applied and assessed within the H1 surface water risk assessment. The substance may therefore have been screened out of the H1 risk assessment at an inappropriate stage and could be environmentally significant	Please ensure the relevant AA EQS has been applied and assessed in the H1 risk assessment for Copper	2	update sheet	MBAT PNEC included as AA EQS.
26	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 32	The generic assessment value for Zinc (dissolved) is stated as 33.0µg/l	Zinc has a freshwater annual average (AA) EQS value of 10.9µg/l (bioavailable, plus the ambient background concentration).	Please explain how the assessment value of 33.0µg/l has been derived. Ensure the relevant EQS value for Zinc has been applied and assessed in the surface water risk assessment	2	update sheet	MBAT PNEC included as AA EQS.
27	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 33	The maximum allowable concentration (MAC) EQS value for Fluoranthene is stated as 0.001/2mg/l (milligrams/litre) in column E.	However, the MAC EQS value is 0.12µg/l and the conversion to mg/l in column E incorrectly states the EQS as 0.001/2mg/l (or 1.2µg/l). Fluoranthene may therefore have been screened out of the H1 risk assessment at an inappropriate stage and could be environmentally significant	Please ensure that the AA and MAC EQS values entered and applied for the H1 risk screening assessment are correct (and have been correctly converted)	2	update sheet	Corrected AA EQS.
28	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 46	Chromium III/Trivalent (dissolved) has fresh water annual average (AA) and maximum allowable concentration (MAC) EQSs	Chromium III/Trivalent (dissolved) has a fresh water annual average (AA) EQS of 4.7µg/l and a maximum allowable concentration (MAC) EQS of 32µg/l. However, the MAC EQS has not been applied and assessed. There are also real/true results above the LoD for Chromium III/Trivalent. Appendix E also does not specify if the analysis method for Chromium III is for the total or dissolved concentration.	Please ensure the relevant AA and MAC EQSs have been applied and assessed in the H1 risk assessment, and confirm if the analysis method is for total or dissolved Chromium III (Trivalent)	2	update sheet	Applied AA and MAC EQS for substance and brought through assessment.
29	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 47	It is stated there is no EQS value for Boron	However, Boron has a freshwater annual average (AA) EQS of 2,000 µg/l. This has not been applied and assessed within the H1 surface water risk assessment. The substance may therefore have been screened out of the H1 risk assessment at an inappropriate stage and could be environmentally significant	Please ensure the relevant AA EQS has been applied and assessed in the H1 risk assessment for Boron	2	update sheet	Applied AA EQS and brought through assessment.
30	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 49	No EQS is specified for Mercury.	Mercury has a fresh water annual average (AA) EQS of 0.07µg/l but this has not been applied and assessed. Appendix E also does not specify if the analysis method for Mercury is for the total or dissolved concentration.	Ensure the relevant AA EQS has been applied and assessed for Mercury, and confirm if the "low level" analysis method is for the total or dissolved concentration	2	update sheet	Added 'dissolved' to substance name for clarification. Applied AA EQS.
31	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 53	No EQS is stated for Chromium	Chromium III/Trivalent (dissolved) has a fresh water annual average (AA) EQS of 4.7µg/l and a maximum allowable concentration (MAC) EQS of 32µg/l. Chromium VI/Hexavalent (dissolved) has a fresh water annual average (AA) EQS of 3.4µg/l. The type of Chromium (dissolved) has not been specified, and neither of the EQSs referenced above have been applied/referenced	Ensure the relevant AA and MAC EQSs have been applied and assessed for Chromium III/Trivalent and Chromium VI/Hexavalent, and confirm if the the results are for Chromium III and (combined)/or Chromium VI.	2	update sheet	AA EQS / MAC EQS (where applicable) applied for trivalent and hexavalent chromium, No EQS applied to total dissolved chromium.
32	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Rows 54 and 74	Benzene also has a fresh water maximum allowable concentration (MAC) EQS	Benzene also has a fresh water maximum allowable concentration (MAC) EQS of 50µg/l but this has not been applied and assessed.	Please ensure the relevant MAC EQS has been applied and assessed in the H1 risk assessment for Benzene	2	update sheet	MAC EQS included and brought through assessment.
33	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Rows 55 and 77	Toluene also has a fresh water maximum allowable concentration (MAC) EQS	Toluene also has a fresh water maximum allowable concentration (MAC) EQS of 380µg/l but this has not been applied and assessed.	Please ensure the relevant MAC EQS has been applied and assessed in the H1 risk assessment for Toluene	2	update sheet	MAC EQS included and brought through assessment.
34	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 57	2,4-Dichlorophenol also has a fresh water maximum allowable concentration (MAC) EQS	2,4-Dichlorophenol also has a fresh water maximum allowable concentration (MAC) EQS of 140µg/l but this has not been applied and assessed.	Please ensure the relevant MAC EQS has been applied and assessed in the H1 risk assessment for 2,4-Dichlorophenol	2	update sheet	MAC EQS included and brought through assessment.
35	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Rows 58, 59, 63, 64, 134, 143	There is also a maximum allowable concentration (MAC) EQS for Dichlorobenzenes (sum of all the dichlorobenzene isomers)	The fresh water annual average (AA) EQS for Dichlorobenzenes (sum of all the dichlorobenzene isomers) is 20µg/l. However, there is also a maximum allowable concentration (MAC) EQS of 200µg/l that has not been applied and assessed.	Please ensure the relevant AA and MAC EQSs have been applied and assessed in the H1 risk assessment for Dichlorobenzenes	2	update sheet	AA and MAC EQS included in assessment.
36	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Rows 60 and 66	Hexachlorobutadiene has a fresh water maximum allowable concentration (MAC) EQS but this has been assessed within column D as an annual average (AA) EQS	Hexachlorobutadiene has a fresh water maximum allowable concentration (MAC) EQS of 0.6µg/l but this has been applied within column D as an annual average (AA) EQS.	Please ensure it is also included within your risk assessment for assessment as a MAC EQS.	2	update sheet	Removed reference to AA EQS and included as MAC EQS only.
37	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 61	Phenol also has a fresh water maximum allowable concentration (MAC) EQS	Phenol also has a fresh water maximum allowable concentration (MAC) EQS of 46µg/l but this has not been applied and assessed in the H1 risk assessment	Please ensure the relevant MAC EQS has been applied and assessed in the H1 risk assessment for Phenol	2	update sheet	MAC EQS included and brought through assessment.
38	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Rows 65 and 69	Naphthalene also has a fresh water maximum allowable concentration (MAC) EQS	Naphthalene also has a fresh water maximum allowable concentration (MAC) EQS of 130µg/l but this has not been applied and assessed.	Please ensure the relevant MAC EQS has been applied and assessed in the H1 risk assessment for Naphthalene	2	update sheet	MAC EQS included and brought through assessment.
39	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 68	Dimethyl phthalate also has a fresh water maximum allowable concentration (MAC) EQS	Dimethyl phthalate also has a fresh water maximum allowable concentration (MAC) EQS of 4,000µg/l but this has not been applied and assessed in the H1 risk assessment	Please ensure the relevant MAC EQS has been applied and assessed in the H1 risk assessment for Dimethyl phthalate	2	update sheet	MAC EQS included and brought through assessment.
40	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 71	Anthracene also has a fresh water maximum allowable concentration (MAC) EQS	Anthracene also has a fresh water maximum allowable concentration (MAC) EQS of 0.1µg/l but this has not been applied and assessed.	Please ensure the relevant MAC EQS has been applied and assessed in the H1 risk assessment for Anthracene	2	update sheet	MAC EQS included and brought through assessment.
41	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 81	Styrene also has a fresh water maximum allowable concentration (MAC) EQS	Styrene also has a fresh water maximum allowable concentration (MAC) EQS of 500µg/l but this has not been applied and assessed.	Please ensure the relevant MAC EQS has been applied and assessed in the H1 risk assessment for Styrene	2	update sheet	MAC EQS included and brought through assessment.
42	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Rows 116 and 117	Xylene has a fresh water annual average (AA) EQS	The fresh water annual average (AA) EQS for Xylene is 30µg/l but this has not been applied/referenced within the H1 surface water risk assessment	Please ensure the relevant MAC EQS has been applied and assessed for Xylene in the final risk assessment	2	update sheet	AA EQS for xylenes added and brought through assessment.
43	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 121	States "N/A" for EQSs applicable for Cyanide. However, Cyanide has a fresh water annual average (AA) EQS and a fresh water maximum allowable concentration (MAC) EQS which have not been applied and assessed	Cyanide has a fresh water annual average (AA) EQS of 1.0µg/l and a fresh water maximum allowable concentration (MAC) EQS of 5.0µg/l but these have not been applied and assessed. Additionally, the LOD of the analysis method utilised is five times above the AA EQS. Therefore any less than value results must be applied to the assessment at face value (e.g. <0.005mg/l = 0.005mg/l). This may impact on the "pre-screening" (via columns L and M) and the outcomes of the subsequent screening tests.	Please ensure the relevant freshwater AA and MAC EQSs have been applied and assessed in the H1 risk assessment for Cyanide	2	update sheet	AA EQS and MAC EQS utilised and brought through assessment.
44	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Row 170	It is stated "N/A" regarding the EQSs for Diethyl Phthalate	Diethyl Phthalate has a fresh water annual average (AA) EQS of 200µg/l and a fresh water maximum allowable concentration (MAC) EQS of 1,000µg/l but these have not been applied and assessed in the H1 risk assessment.	Please ensure the relevant freshwater AA and MAC EQSs have been applied and assessed in the H1 risk assessment for Diethyl Phthalate	2	update sheet	AA EQS and MAC EQS utilised and brought through assessment.
45	Dewatering Discharge Risk Assessment ADS Leiston Drain Crossing	Appendix E	Rows 213 to 220, and 222 to 229	It is not clear why the generic assessment criteria value of 0.000 1mg/l (0.1µg/l), as provided within column D was selected for the aliphatic (rows 212 to 219) and aromatic (rows 221 to 228) fractions	Unsure if the correct EQS/PNEC has been applied for the screening assessment	Please confirm how and why the generic assessment criteria value of 0.000 1mg/l (0.1µg/l) was selected for the aliphatic (rows 212 to 219) and aromatic (rows 221 to 228) fractions?	2	update sheet	Error, no EQS for TPH fractions and reference to them has been removed from assessment.

A.2. Design Drawings

(Not included in this revision)

A.3. Borehole Logs

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Borehole Log

Borehole No. **AF6**
Sheet 1 of 2

Project Name:	Sizewell C Monitoring and Modelling	Project No. 5129919	Co-ords:	645327E - 263322N	Hole Type CP
Location:			Level:	6.04	Scale 1:50
Client:	EDF NNB GenCo		Dates:	19/02/2014	Logged By SHaynes

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
		0.10	D					Topsoil: Brown slightly silty slightly gravelly medium SAND. Gravel is subangular medium flint, quartzite and coke. MG
		0.10 - 0.60	B					
		0.60	D		0.60	5.44		Dark brown to orangish brown slightly gravelly medium SAND. Gravel is angular to subrounded fine to coarse flint and quartzite. SD_ALV_S
		0.60 - 1.20	B					
		1.20	D					
		1.20 - 2.00	B					
		2.00	D					
		2.00 - 3.00	B					
		2.40	D		2.40	3.64		Orangish buff slightly gravelly medium to coarse SAND with soft multicoloured thinly to thickly laminated sandy CLAY. Gravel is subrounded tabular fine to medium brown mudstone and occasional dark brown cemented sand. LOFT
		3.00	D					
		3.00 - 4.00	B					
		4.00	D		4.00	2.04		Orangish buff medium to coarse SAND. LOFT
		4.00 - 5.00	B					
		5.00	B					
		5.00	D					
		6.00	B					
		6.00	D					
		7.00	B					
		7.00	D					
		7.40	D		7.40	-1.36		Buff to dark orange coarse SAND. C1 *Between 7.40 to 8.00m, locally gravelly. Gravel is subrounded and fine to medium dark red cemented sand and tabular brown mudstone.*
		8.00	D					
		8.00 - 9.00	B					
		9.00	D					*At 9.00m, very thin bed of red clay 40mm.*
		9.00 - 10.00	B					
		10.00	D					

Continued on Next Sheet

Remarks

1. Inspection pit hand dug to 1.20m. 2. Groundwater struck at 7.40m, rising to 6.50m after 20 minutes. 3. Water added to assist drilling.

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Borehole Log

Borehole No.
AF6
Sheet 2 of 2

Project Name:	Sizewell C Monitoring and Modelling	Project No. 5129919	Co-ords:	645327E - 263322N	Hole Type CP
Location:			Level:	6.04	Scale 1:50
Client:	EDF NNB GenCo		Dates:	19/02/2014	Logged By SHaynes

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
W		10.00 - 11.00	B					Buff to dark orange coarse SAND. C1
					11.00	-4.96		End of Borehole at 11.00m

Remarks

1. Inspection pit hand dug to 1.20m. 2. Groundwater struck at 7.40m, rising to 6.50m after 20 minutes. 3. Water added to assist drilling.

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FUGRO	Contract Name	AD6 Road Schemes		Location ID	
	Client	NNB Generation Company (SZC) Limited		**AD6-BH312**	
	Fugro Reference	F181386			
	Coordinates (m)	E645440.91 N263481.62	Ground Elevation (m Datum) 1.76	Sheet 1 of 1	
	Hole Type	Cable Percussion		Status	Draft

Sampling and In Situ Testing				Strata Details					Groundwater	
Depth (m)	Type	No.	Test Results	Depth (m)	Strata Descriptions	Depth (Thickness) (m)	Level (m Datum)	Legend	Water Strike	Backfill / Installation
0.20 - 0.30	D	3		0	TOPSOIL. Soft dark brown slightly sandy amorphous PEAT (H10/B1) with frequent roots and rootlets (<10mm x 60mm) and rare fine and medium gravel of flint. TS: As3 Ag+ Gmin1 Th(0)+ Tl(0)+ nigg3 str0 sicc4 elas1 lim sup not defined. [TOPSOIL]	(0.50)				
0.20 - 0.30	ES	3								
0.20 - 0.40	B	2								
0.20	PID		< 0.1 ppm			0.50	1.26			
0.50	D	4			Plastic dark brown pseudofibrous PEAT (H3/B2). TS: Ag2 Th(1)2 Tl(0)+ nigg3 str0 elas1 sicc2 lim sup not defined. [SUPERFICIAL DEPOSITS - PEAT]					
0.50 - 0.60	ES	5								
0.50 - 0.90	B	6								
0.50	PID		< 0.1 ppm	1						
0.80	D	9			At 0.50m; (locally H7/B1).					
1.00 - 1.10	ES	7			At 0.80m; (locally H6/B2) with frequent wood fragments (<10mm).	(1.40)				
1.00 - 1.20	B	8			1.00m to 1.20m; (H8/B2) with occasional wood fragments (<100mm). TS: Ag3 Th(3)1 Tl(1)+ Nigg3 str0 sicc2 lim sup not defined.					
1.00	PID		< 0.1 ppm							
1.20 - 1.50	B	12			1.50m to 2.00m; recovered as slightly sandy, locally sandy, amorphous peat (H10/B3, locally H8/B2) with frequent pockets (<10mm) of dark grey clay and wood fragments (<10mm). TS: Ag2-3 Gmin1-2 As+ Th(4)+ Tl(3) + nigg3 str0 sicc2 elas 0 lim sup not defined.					
1.20 - 1.50	P	10	300							
1.50 - 1.95	D	11								
1.50 - 2.00	B	13		2		1.90	-0.14			
1.50 - 1.95	SPT		N = 8 (S)		Medium dense dark greyish brown slightly clayey SAND. Sand is fine to coarse. [CRAG GROUP (UNDIFFERENTIATED)]					
1.80 - 1.90	D	14								
2.00 - 2.45	D	15			2.00m to 2.45m; mottled orangish brown and greyish brown.					
2.00 - 2.50	B	17								
2.00 - 2.50	ES	16								
2.00 - 2.45	SPT		N = 19 (S)							
2.00	PID		< 0.1 ppm							
2.80	D	18		3						
3.00 - 3.45	D	18			3.00m to 3.45m; with frequent pockets (<50mm) of amorphous peat and frequent wood fragments.					
3.00 - 3.50	B	19								
3.00 - 3.45	SPT		N = 23 (S)							
3.50 - 4.00	B	21								
3.80	D	20								
4.00 - 4.45	D	22		4		(4.10)				
4.00 - 5.00	B	23			4.00m to 5.00m; locally orangish brown mottled greyish brown, slightly gravelly. Gravel is angular and subangular fine and medium of flint.					
4.00 - 4.45	SPT		N = 26 (S)							
5.00 - 5.45	D	24		5						
5.00 - 6.00	B	26			5.00m to 6.00m; brown, locally orangish brown mottled greyish brown. With occasional wood fragments (<10mm x 100mm).					
5.00 - 5.45	SPT		N = 29 (S)							
5.50 - 6.00	B	25								
5.80	D	26								
6.00 - 6.50	B	27		6		6.00	-4.24			
6.00 - 6.45	SPT		N = 7 (S)		Loose becoming medium dense orangish brown speckled black SAND with rare gravel. Sand is fine to coarse. Gravel is angular fine of flint. [CRAG GROUP (UNDIFFERENTIATED)]					
6.50 - 7.00	B	29								
6.80 - 6.90	D	28								
7.00 - 7.45	D	30		7		(1.90)				
7.00 - 7.50	B	31								
7.00 - 7.45	SPT		N = 17 (S)							
7.80 - 7.90	D	32								
				8	End of Borehole at 7.90 m	7.90	-6.14			
				9						

Notes

- Abbreviations and results data defined on 'Notes on Exploratory Position Records'

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Borehole Log

Borehole No.
Piez 1A
Sheet 1 of 1

Project Name:	Sizewell C Monitoring and Modelling	Project No. 5129919	Co-ords: 645458E - 263523N	Hole Type BH
Location:			Level: 1.98	Scale 1:50
Client:	EDF NNB GenCo		Dates:	Logged By

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				

1
2
3
4
5
6
7
8
9
10

Remarks

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Borehole Log

Borehole No.
Piez 1B
Sheet 1 of 1

Project Name:	Sizewell C Monitoring and Modelling	Project No. 5129919	Co-ords:	645459E - 263524N	Hole Type BH
Location:			Level:	1.94	Scale 1:50
Client:	EDF NNB GenCo		Dates:		Logged By

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				

1
2
3
4
5
6
7
8
9
10

Remarks

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Borehole Log

Borehole No.
Piez 2A
Sheet 1 of 1

Project Name:	Sizewell C Monitoring and Modelling	Project No. 5129919	Co-ords:	645440E - 263551N	Hole Type BH
Location:			Level:	2.12	Scale 1:50
Client:	EDF NNB GenCo		Dates:		Logged By

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				

1
2
3
4
5
6
7
8
9
10

Remarks

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Borehole Log

Borehole No.
Piez 2B
Sheet 1 of 1

Project Name:	Sizewell C Monitoring and Modelling	Project No. 5129919	Co-ords:	645441E - 263552N	Hole Type BH
Location:			Level:	2.10	Scale 1:50
Client:	EDF NNB GenCo		Dates:		Logged By

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				

1
2
3
4
5
6
7
8
9
10

Remarks

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Borehole Log

Borehole No.
Piez 3A
Sheet 1 of 1

Project Name:	Sizewell C Monitoring and Modelling	Project No. 5129919	Co-ords:	645543E - 263622N	Hole Type BH
Location:			Level:	1.63	Scale 1:50
Client:	EDF NNB GenCo		Dates:		Logged By

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				

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Remarks

AGS

ATKINS
Member of the SNC-Lavalin Group

Borehole Log

Borehole No.
Piez 3B
Sheet 1 of 1

Project Name:	Sizewell C Monitoring and Modelling	Project No. 5129919	Co-ords:	645544E - 263623N	Hole Type BH
Location:			Level:	1.65	Scale 1:50
Client:	EDF NNB GenCo		Dates:		Logged By

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				

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Remarks

AGS

Appendix B. Laboratory Sheets

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	20-30954-1		
Initial Date of Issue:	20-Nov-2020		
Client	Atkins Ltd		
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF		
Contact(s):	Jenny Wilcox		
Project	S185703 Sizewell C		
Quotation No.:	Q20-21888	**Date Received:**	13-Nov-2020
Order No.:	5185703.001.17112020	**Date Instructed:**	13-Nov-2020
No. of Samples:	3		
Turnaround (Wkdays):	5	**Results Due:**	19-Nov-2020
Date Approved:	19-Nov-2020		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30954	20-30954	20-30954
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096494	1096495	1096496
			Sample Location:		Piez 1A	Piez 1B	G5
			Sample Type:		WATER	WATER	WATER
			Top Depth (m):		2.00	0.70	0.00
			Bottom Depth (m):		2.00	0.70	0.00
			Date Sampled:		12-Nov-2020	12-Nov-2020	12-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
pH	U	1010		N/A	8.3	8.4	8.4
Electrical Conductivity	U	1020	µS/cm	1.0	1300	2000	1200
Suspended Solids At 105C	U	1030	mg/l	5.0	20	16	23
Alkalinity (Total)	U	1220	mg/l	10	240	320	310
Chloride	U	1220	mg/l	1.0	68	510	150
Ammonium	U	1220	mg/l	0.050	0.22	2.9	0.48
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.19	2.6	0.42
Nitrite	U	1220	mg/l	0.020	0.98	< 0.020	0.32
Nitrate	U	1220	mg/l	0.50	0.98	< 0.50	54
Phosphate	U	1220	mg/l	0.200	0.35	< 0.20	1.6
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.11	0.039	0.52
Sulphate	U	1220	mg/l	1.0	38	27	99
Total Oxidised Nitrogen	U	1220	mg/l	0.20	0.52	< 0.20	12
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1415	mg/l	5.0	69	150	170
Potassium	U	1415	mg/l	0.50	6.6	21	16
Magnesium	U	1415	mg/l	0.50	3.1	4.3	11
Sodium	U	1415	mg/l	0.50	90	460	98
Arsenic (Dissolved)	U	1450	µg/l	1.0	5.9	3.2	1.3
Boron (Dissolved)	U	1450	µg/l	20	< 20	< 20	29
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080	< 0.080	< 0.080
Chromium (Dissolved)	U	1450	µg/l	1.0	24	15	2.5
Copper (Dissolved)	U	1450	µg/l	1.0	5.5	1.0	1.4
Iron (Dissolved)	N	1450	µg/l	20	850	430	440
Manganese (Dissolved)	U	1450	µg/l	1.0	62	9.8	110
Nickel (Dissolved)	U	1450	µg/l	1.0	< 1.0	5.0	< 1.0
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	< 1.0
Zinc (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0	5.8
Mercury Low Level	U	1460	µg/l	0.010	0.023	< 0.010	< 0.010
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	< 0.10	0.33	< 0.10
Chromium (Trivalent)	U	1450	µg/l	1	24	15	2
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A	34	81	11
Total TPH >C6-C40	U	1670	µg/l	10	< 10	< 10	< 10
Naphthalene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30954	20-30954	20-30954
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096494	1096495	1096496
			Sample Location:		Piez 1A	Piez 1B	G5
			Sample Type:		WATER	WATER	WATER
			Top Depth (m):		2.00	0.70	0.00
			Bottom Depth (m):		2.00	0.70	0.00
			Date Sampled:		12-Nov-2020	12-Nov-2020	12-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
Fluoranthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Pyrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20	< 0.20	< 0.20	< 0.20
Dichlorodifluoromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Chloromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Vinyl Chloride	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Bromomethane	N	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Chloroethane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20
Trichlorofluoromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Trans 1,2-Dichloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
cis 1,2-Dichloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Bromochloromethane	N	1760	µg/l	0.50	< 0.50	< 0.50	< 0.50
Trichloromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,1,1-Trichloroethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Tetrachloromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloropropene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloroethane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20
Trichloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloropropane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Dibromomethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Bromodichloromethane	N	1760	µg/l	0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Toluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Trans-1,3-Dichloropropene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	N	1760	µg/l	0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,3-Dichloropropane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20
Dibromochloromethane	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30954	20-30954	20-30954
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096494	1096495	1096496
			Sample Location:		Piez 1A	Piez 1B	G5
			Sample Type:		WATER	WATER	WATER
			Top Depth (m):		2.00	0.70	0.00
			Bottom Depth (m):		2.00	0.70	0.00
			Date Sampled:		12-Nov-2020	12-Nov-2020	12-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
1,2-Dibromoethane	N	1760	µg/l	0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,1,1,2-Tetrachloroethane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
m & p-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
o-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Styrene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Tribromomethane	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Bromobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichloropropane	N	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
N-Propylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
2-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,3,5-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
4-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Tert-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,2,4-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Sec-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,3-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
4-Isopropyltoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,4-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
N-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,2-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,2-Dibromo-3-Chloropropane	N	1760	µg/l	5.0	< 5.0	< 5.0	< 5.0
1,2,4-Trichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Hexachlorobutadiene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20
Methyl Tert-Butyl Ether	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30954	20-30954	20-30954
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096494	1096495	1096496
			Sample Location:		Piez 1A	Piez 1B	G5
			Sample Type:		WATER	WATER	WATER
			Top Depth (m):		2.00	0.70	0.00
			Bottom Depth (m):		2.00	0.70	0.00
			Date Sampled:		12-Nov-2020	12-Nov-2020	12-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30954	20-30954	20-30954
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096494	1096495	1096496
			Sample Location:		Piez 1A	Piez 1B	G5
			Sample Type:		WATER	WATER	WATER
			Top Depth (m):		2.00	0.70	0.00
			Bottom Depth (m):		2.00	0.70	0.00
			Date Sampled:		12-Nov-2020	12-Nov-2020	12-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
PCB 28	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 81	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 52	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 77	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 90+101	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 114	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 153	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 123	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 138	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 126	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 180	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 156	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 169	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
PCB 189	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
Total PCBs (7 congeners)	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030	< 0.030

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1495	Low Level Hexavalent Chromium in Waters	Chromium [VI]	Colorimetric determination of hexavalent chromium expressed as Cr (VI) µg/l in water, using Ion Chromatography and UV-visible spectrophotometry.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1670	Total Petroleum Hydrocarbons (TPH) in Waters by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO	Pentane extraction / GC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection
1815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Waters by GC-MS	ICES7 PCB congeners	Solvent extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied

B - Sample age exceeds stability time (sampling to extraction)

C - Sample not received in appropriate containers

D - Broken Container

E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-39931-1
Initial Date of Issue:	01-Dec-2021
Client	Atkins Ltd
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF
Contact(s):	Alice Smith
Project	5185703 Sizewell C
Quotation No.:	Q20-21888
Order No.:	12187631
No. of Samples:	19
Turnaround (Wkdays):	6
Date Approved:	01-Dec-2021
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	15-Nov-2021
Date Instructed:	15-Nov-2021
Results Due:	22-Nov-2021

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd		**Chemtest Job No.:**			21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931
Quotation No.: Q20-21888		**Chemtest Sample ID.:**			1319376	1319377	1319378	1319379	1319380	1319381	1319382	1319383	1319384
			Sample Location:		NW-BH01-EW	NW-BH04-EW	NW-BH06-EW	WMZ-BH01-EW	WMZ-BH03-EW	DUP2-T3	TCA-BH09-EW	TCA-BH14-EW	TCA-BH02-EW
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):		5	6	9	9.5	10		12	14	10
			Date Sampled:		11-Nov-2021	11-Nov-2021	11-Nov-2021	##########	##########	11-Nov-2021	11-Nov-2021	11-Nov-2021	11-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
pH	U	1010		N/A	8.0	8.0	8.0	8.1	8.0	[D] 7.8	7.8	7.7	7.9
Electrical Conductivity	U	1020	µS/cm	1.0	780	720	860	340	400	[D] 710	800	1100	420
Suspended Solids At 105C	U	1030	mg/l	5.0	60	34	16	17	39	[D] 59	30	31	30
Aggressive Dissolved CO2	N	1160	mg/l	0.60									
Alkalinity (Total)	U	1220	mg/l	10	160	80	170	130	58		34	370	62
Chloride	U	1220	mg/l	1.0	59	58	69	16	42		42	79	25
Ammonium	U	1220	mg/l	0.050	0.69	0.53	0.33	0.19	0.13		0.37	0.52	0.15
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.57	0.44	0.27	0.16	0.11		0.30	0.41	0.12
Nitrite	U	1220	mg/l	0.020	0.37	0.036	0.029	0.028	0.032		0.034	0.029	0.035
Nitrate	U	1220	mg/l	0.50	140	150	140	23	40		45	140	81
Phosphate	U	1220	mg/l	0.200	0.30	< 0.20	< 0.20	0.53	0.52		0.55	< 0.20	0.47
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.098	0.039	< 0.020	0.17	0.17		0.18	< 0.020	0.15
Sulphate	U	1220	mg/l	1.0	49	43	75	26	69		73	57	36
Total Oxidised Nitrogen	U	1220	mg/l	0.20	32	34	32	5.2	9.0		10	32	18
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	[D] < 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	78	95	130	43	26	[D] 73	76	170	44
Potassium	U	1455	mg/l	0.50	5.2	8.3	3.4	5.5	3.6	[D] 4.0	5.5	0.89	5.0
Magnesium	U	1455	mg/l	0.20	28	5.4	7.2	4.4	9.9	[D] 20	27	6.9	2.9
Sodium	U	1455	mg/l	1.50	21	15	29	8.4	30	[D] 17	23	35	16
Arsenic (Dissolved)	U	1455	µg/l	0.20	0.61	0.44	< 0.20	0.39	0.23	[D] 0.32	0.29	< 0.20	0.62
Boron (Dissolved)	U	1455	µg/l	10.0	88	37	29	28	240	[D] 25	27	51	15
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	[D] < 0.11	< 0.11	< 0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	8.1	8.0	8.2	8.1	7.8	[D] 5.5	7.3	6.7	5.6
Copper (Dissolved)	U	1455	µg/l	0.50	1.1	1.3	1.2	< 0.50	0.70	[D] 0.50	0.72	2.2	< 0.50
Iron (Dissolved)	N	1455	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	[D] < 5.0	< 5.0	< 5.0	< 5.0
Manganese (Dissolved)	U	1455	µg/l	0.50	0.72	0.84	1.6	2.1	74	[D] 1.8	1.5	3.1	28
Nickel (Dissolved)	U	1455	µg/l	0.50	0.58	< 0.50	< 0.50	< 0.50	5.9	[D] 0.60	< 0.50	< 0.50	< 0.50
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	[D] < 0.50	< 0.50	< 0.50	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5	< 2.5	24	11	4.5	12	[D] 3.8	< 2.5	3.1	2.6
Mercury Low Level	U	1460	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
Chromium (Trivalent)	N	1490	µg/l	20									
Chromium (Hexavalent)	U	1490	µg/l	20									
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	[B] 3.8	[B] 3.7	[B] 3.8	[B] 4.3	[B] 3.6		[B] 3.3	[B] 3.0	[B] 2.6
Chromium (Trivalent) LL	U	1450	µg/l	1	4	4	4	4	4		4	4	3
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A	2.5	2.3	1.4	1.4	1.2	[D] 0.90	0.80	1.6	0.90
Total TPH >C6-C40	U	1670	µg/l	10	< 10	< 10	< 10	< 10	< 10	[C] < 10	< 10	< 10	< 10
Naphthalene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1319376	1319377	1319378	1319379	1319380	1319381	1319382	1319383	1319384
					Sample Location:	NW-BH01-EW	NW-BH04-EW	NW-BH06-EW	WMZ-BH01-EW	WMZ-BH03-EW	DUP2-T3	TCA-BH09-EW	TCA-BH14-EW	TCA-BH02-EW
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	5	6	9	9.5	10		12	14	10
					Date Sampled:	11-Nov-2021	11-Nov-2021	11-Nov-2021	##########	##########	11-Nov-2021	11-Nov-2021	11-Nov-2021	11-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Fluoranthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Pyrene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20	< 0.20
Dichlorodifluoromethane	N	1760	µg/l	0.10		< 0.10								
Chloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Vinyl Chloride	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Bromomethane	N	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	[C] < 2.0	< 2.0	[C] < 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	[C] < 0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20	< 0.20
Trichlorofluoromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Trans 1,2-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
cis 1,2-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Bromochloromethane	N	1760	µg/l	0.50		< 0.50	< 0.50	< 0.50	[C] < 0.50	< 0.50	[C] < 0.50	< 0.50	< 0.50	< 0.50
Trichloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,1,1-Trichloroethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Tetrachloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloropropene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Benzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	[C] < 0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20	< 0.20
Trichloroethene	N	1760	µg/l	0.10		< 0.10								
1,2-Dichloropropane	N	1760	µg/l	0.10		< 0.10								
Dibromomethane	N	1760	µg/l	0.10		< 0.10								
Bromodichloromethane	N	1760	µg/l	0.50		< 0.50								
cis-1,3-Dichloropropene	N	1760	µg/l	1.0		< 1.0								
Toluene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Trans-1,3-Dichloropropene	N	1760	µg/l	1.0		< 1.0								
1,1,2-Trichloroethane	N	1760	µg/l	0.1		< 0.1								
Tetrachloroethene	N	1760	µg/l	0.10		< 0.10								
1,3-Dichloropropane	N	1760	µg/l	0.20		< 0.20								
Dibromochloromethane	N	1760	µg/l	1.0		< 1.0								
1,2-Dibromoethane	N	1760	µg/l	0.50		< 0.50	< 0.50	< 0.50	[C] < 0.50	< 0.50	[C] < 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,1,1,2-Tetrachloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	[C] < 0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20	< 0.20

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1319376	1319377	1319378	1319379	1319380	1319381	1319382	1319383	1319384
					Sample Location:	NW-BH01-EW	NW-BH04-EW	NW-BH06-EW	WMZ-BH01-EW	WMZ-BH03-EW	DUP2-T3	TCA-BH09-EW	TCA-BH14-EW	TCA-BH02-EW
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	5	6	9	9.5	10		12	14	10
					Date Sampled:	11-Nov-2021	11-Nov-2021	11-Nov-2021	##########	##########	11-Nov-2021	11-Nov-2021	11-Nov-2021	11-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Ethylbenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
m & p-Xylene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
o-Xylene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Styrene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Tribromomethane	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	[C] < 1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Bromobenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichloropropane	N	1760	µg/l	5		< 5	< 5	< 5	[C] < 5	< 5	[C] < 5	< 5	< 5	< 5
N-Propylbenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
2-Chlorotoluene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,3,5-Trimethylbenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
4-Chlorotoluene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Tert-Butylbenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,2,4-Trimethylbenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Sec-Butylbenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,3-Dichlorobenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
4-Isopropyltoluene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,4-Dichlorobenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
N-Butylbenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichlorobenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,2-Dibromo-3-Chloropropane	N	1760	µg/l	5		< 5	< 5	< 5	[C] < 5	< 5	[C] < 5	< 5	< 5	< 5
1,2,4-Trichlorobenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
Hexachlorobutadiene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	[C] < 0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20	< 0.20
Methyl Tert-Butyl Ether	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	[C] < 0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10	< 0.10
PCB 28	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 81	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 52	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 77	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 90+101	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 114	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 153	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 123	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 138	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 126	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 180	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 156	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1319376	1319377	1319378	1319379	1319380	1319381	1319382	1319383	1319384
					Sample Location:	NW-BH01-EW	NW-BH04-EW	NW-BH06-EW	WMZ-BH01-EW	WMZ-BH03-EW	DUP2-T3	TCA-BH09-EW	TCA-BH14-EW	TCA-BH02-EW
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	5	6	9	9.5	10		12	14	10
					Date Sampled:	11-Nov-2021	11-Nov-2021	11-Nov-2021	##########	##########	11-Nov-2021	11-Nov-2021	11-Nov-2021	11-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
PCB 169	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
PCB 189	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (7 congeners)	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[D] < 0.010	< 0.010	< 0.010	< 0.010
Total Phenols	U	1920	mg/l	0.030		< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	[C] < 0.030	< 0.030	< 0.030	< 0.030

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1319385	1319386	1319387	1319388	1319389	1319391	1319392	1319393	1319394	1319395
					Sample Location:	TCA-BH03-EW	DUP2-T2	AD6-BH312	Sp-BH03-EW	SP-BH02-EW	DUP1-T3	DUP3-T3	BP BH01-EW	GRR BH16-EW	GRR BH14
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	12		1.5	15	15			14.15	9	8.5
					Date Sampled:	11-Nov-2021	##########	##########	11-Nov-2021	11-Nov-2021					
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
pH	U	1010		N/A		7.8	7.6	7.5	7.6	7.6	[A] 7.8	[A] 7.8	[A] 7.6	[A] 7.4	[A] 7.4
Electrical Conductivity	U	1020	µS/cm	1.0		610	1100	1000	910	870	[A] 810	[A] 390	[A] 720	[A] 860	[A] 760
Suspended Solids At 105C	U	1030	mg/l	5.0		42	< 5.0	180	< 5.0	< 5.0	[A] 100	[A] < 5.0	[A] 15	[A] < 5.0	[A] < 5.0
Aggressive Dissolved CO2	N	1160	mg/l	0.60							2.0	3.6	< 0.60	< 0.60	9.9
Alkalinity (Total)	U	1220	mg/l	10		60	370	410	290	330	[A] 130	[A] 21	[A] 110	[A] 62	[A] 45
Chloride	U	1220	mg/l	1.0		67	79	73	52	47	[A] 74	[A] 42	[A] 74	[A] 240	[A] 79
Ammonium	U	1220	mg/l	0.050		0.075	< 0.050	< 0.050	< 0.050	< 0.050	[A] < 0.050	[A] 0.38	[A] 0.41	[A] 1.6	[A] 0.16
Ammoniacal Nitrogen	U	1220	mg/l	0.050		0.060	< 0.050	< 0.050	< 0.050	< 0.050	[A] < 0.050	[A] 0.30	[A] 0.33	[A] 1.2	[A] 0.12
Nitrite	U	1220	mg/l	0.020		0.029	0.028	0.029	0.030	0.032	[A] 0.071	[A] 0.035	[A] 0.075	[A] 0.19	[A] 0.026
Nitrate	U	1220	mg/l	0.50		110	140	21	130	53	[A] 49	[A] 42	[A] 110	[A] 3.9	[A] 140
Phosphate	U	1220	mg/l	0.200		0.84	< 0.20	< 0.20	< 0.20	< 0.20	[A] 0.42	[A] 0.56	[A] 0.43	[A] < 0.20	[A] 0.26
Phosphorus (Dissolved)	U	1220	mg/l	0.020		0.27	< 0.020	0.042	< 0.020	< 0.020	[A] 0.14	[A] 0.18	[A] 0.14	[A] 0.059	[A] 0.085
Sulphate	U	1220	mg/l	1.0		50	52	96	42	35	[A] 72	[A] 69	[A] 74	[A] 40	[A] 14
Total Oxidised Nitrogen	U	1220	mg/l	0.20		25	32	4.8	29	12	11	9.5	26	0.95	32
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00		63	170	140	140	140	[A] 100	[A] 27	[A] 100	[A] 39	[A] 72
Potassium	U	1455	mg/l	0.50		6.8	0.87	6.3	0.68	0.50	[A] 4.0	[A] 3.5	[A] 3.6	[A] 11	[A] 3.9
Magnesium	U	1455	mg/l	0.20		7.0	6.8	11	6.7	5.2	[A] 12	[A] 10	[A] 13	[A] 34	[A] 20
Sodium	U	1455	mg/l	1.50		31	35	57	19	17	[A] 26	[A] 30	[A] 27	[A] 200	[A] 17
Arsenic (Dissolved)	U	1455	µg/l	0.20		0.48	< 0.20	1.4	0.35	< 0.20	[A] 0.68	[A] 0.34	[A] 0.66	[A] 29	[A] 0.42
Boron (Dissolved)	U	1455	µg/l	10.0		18	49	44	33	28	[A] 38	[A] 250	[A] 40	[A] 110	[A] 18
Cadmium (Dissolved)	U	1455	µg/l	0.11		< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	[A] < 0.11	[A] < 0.11	[A] < 0.11	[A] 0.30	[A] < 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50		7.2	6.6	2.8	7.5	5.3	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] 2.3	[A] < 0.50
Copper (Dissolved)	U	1455	µg/l	0.50		< 0.50	1.9	0.75	0.69	1.6	[A] 0.64	[A] < 0.50	[A] < 0.50	[A] 17	[A] < 0.50
Iron (Dissolved)	N	1455	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	[A] < 5.0	[A] < 5.0	[A] 38	[A] 16000	[A] 20
Manganese (Dissolved)	U	1455	µg/l	0.50		< 0.50	2.3	40	4.7	3.0	[A] 84	[A] 72	[A] 140	[A] 8700	[A] 19
Nickel (Dissolved)	U	1455	µg/l	0.50		< 0.50	< 0.50	0.84	0.72	< 0.50	[A] 1.8	[A] 5.4	[A] 1.7	[A] 34	[A] 0.67
Lead (Dissolved)	U	1455	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50	[A] 10	[A] < 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5		< 2.5	5.7	8.4	3.3	5.5	[A] < 2.5	[A] 6.0	[A] 3.0	[A] 160	[A] 3.8
Mercury Low Level	U	1460	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010
Chromium (Trivalent)	N	1490	µg/l	20										[A] < 20	
Chromium (Hexavalent)	U	1490	µg/l	20										[A] < 20	
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10		[B] 3.4	[B] 2.9	[B] 1.4	[B] 3.4	[B] 2.3	[A] < 0.10	[A] 0.19	[A] < 0.10		[A] 0.24
Chromium (Trivalent) LL	U	1450	µg/l	1		4	4	1	4	3	< 1	< 1	< 1		< 1
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A		1.4	1.7	2.7	1.6	1.5	2.3	1.1	1.8	91	2.5
Total TPH >C6-C40	U	1670	µg/l	10		< 10	< 10	< 10	< 10	< 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10	[A] < 10
Naphthalene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Acenaphthylene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Acenaphthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Fluorene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Phenanthrene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Anthracene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1319385	1319386	1319387	1319388	1319389	1319391	1319392	1319393	1319394	1319395
					Sample Location:	TCA-BH03-EW	DUP2-T2	AD6-BH312	Sp-BH03-EW	SP-BH02-EW	DUP1-T3	DUP3-T3	BP BH01-EW	GRR BH16-EW	GRR BH14
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	12		1.5	15	15			14.15	9	8.5
					Date Sampled:	11-Nov-2021	##########	##########	11-Nov-2021	11-Nov-2021					
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Fluoranthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	0.13	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] 0.59
Pyrene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	0.26	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] 0.69
Benzo[a]anthracene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Chrysene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[A] < 0.010	[AC] < 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20		< 0.20	< 0.20	< 0.20	0.39	< 0.20	[A] < 0.20	[A] < 0.20	[A] < 0.20	[A] < 0.20	[AC] 1.3
Dichlorodifluoromethane	N	1760	µg/l	0.10											
Chloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Vinyl Chloride	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Bromomethane	N	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0					
Chloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20					
Trichlorofluoromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,1-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Trans 1,2-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,1-Dichloroethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
cis 1,2-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Bromochloromethane	N	1760	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50					
Trichloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,1,1-Trichloroethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Tetrachloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,1-Dichloropropene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Benzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,2-Dichloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20						
Trichloroethene	N	1760	µg/l	0.10											
1,2-Dichloropropane	N	1760	µg/l	0.10											
Dibromomethane	N	1760	µg/l	0.10											
Bromodichloromethane	N	1760	µg/l	0.50											
cis-1,3-Dichloropropene	N	1760	µg/l	1.0											
Toluene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Trans-1,3-Dichloropropene	N	1760	µg/l	1.0											
1,1,2-Trichloroethane	N	1760	µg/l	0.1											
Tetrachloroethene	N	1760	µg/l	0.10											
1,3-Dichloropropane	N	1760	µg/l	0.20											
Dibromochloromethane	N	1760	µg/l	1.0											
1,2-Dibromoethane	N	1760	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50					
Chlorobenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,1,1,2-Tetrachloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20					

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931
Quotation No.: Q20-21888					Chemtest Sample ID.:	1319385	1319386	1319387	1319388	1319389	1319391	1319392	1319393	1319394	1319395
					Sample Location:	TCA-BH03-EW	DUP2-T2	AD6-BH312	Sp-BH03-EW	SP-BH02-EW	DUP1-T3	DUP3-T3	BP BH01-EW	GRR BH16-EW	GRR BH14
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	12		1.5	15	15			14.15	9	8.5
					Date Sampled:	11-Nov-2021	##########	##########	11-Nov-2021	11-Nov-2021					
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Ethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
m & p-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
o-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Styrene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Tribromomethane	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0					
Isopropylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Bromobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,2,3-Trichloropropane	N	1760	µg/l	5	< 5	< 5	< 5	< 5	< 5					
N-Propylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
2-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,3,5-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
4-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Tert-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,2,4-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Sec-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,3-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
4-Isopropyltoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,4-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
N-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,2-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,2-Dibromo-3-Chloropropane	N	1760	µg/l	5	< 5	< 5	< 5	< 5	< 5					
1,2,4-Trichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
Hexachlorobutadiene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
1,2,3-Trichlorobenzene	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20					
Methyl Tert-Butyl Ether	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10					
PCB 28	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010					
PCB 81	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 52	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010					
PCB 77	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 90+101	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010					
PCB 114	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010					
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 153	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010					
PCB 123	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 138	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010					
PCB 126	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 180	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010					
PCB 156	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931	21-39931
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1319385	1319386	1319387	1319388	1319389	1319391	1319392	1319393	1319394	1319395
					Sample Location:	TCA-BH03-EW	DUP2-T2	AD6-BH312	Sp-BH03-EW	SP-BH02-EW	DUP1-T3	DUP3-T3	BP BH01-EW	GRR BH16-EW	GRR BH14
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	12		1.5	15	15			14.15	9	8.5
					Date Sampled:	11-Nov-2021	##########	##########	11-Nov-2021	11-Nov-2021					
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
PCB 169	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 189	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (7 congeners)	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010					
Total Phenols	U	1920	mg/l	0.030		< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	[A] < 0.030	[A] < 0.030	[A] < 0.030	[A] < 0.030	[AC] < 0.030

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1319376			NW-BH01-EW	11-Nov-2021	B	Coloured Winchester 1000ml
1319376			NW-BH01-EW	11-Nov-2021	B	EPA Vial 40ml
1319376			NW-BH01-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319377			NW-BH04-EW	11-Nov-2021	B	Coloured Winchester 1000ml
1319377			NW-BH04-EW	11-Nov-2021	B	EPA Vial 40ml
1319377			NW-BH04-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319378			NW-BH06-EW	11-Nov-2021	B	Coloured Winchester 1000ml
1319378			NW-BH06-EW	11-Nov-2021	B	EPA Vial 40ml
1319378			NW-BH06-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319379			WMZ-BH01-EW	11-Nov-2021	BC	Coloured Winchester 1000ml
1319379			WMZ-BH01-EW	11-Nov-2021	BC	Plastic Bottle 1000ml
1319380			WMZ-BH03-EW	11-Nov-2021	B	Coloured Winchester 1000ml
1319380			WMZ-BH03-EW	11-Nov-2021	B	EPA Vial 40ml
1319380			WMZ-BH03-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319382			TCA-BH09-EW	11-Nov-2021	B	Coloured Winchester 500ml
1319382			TCA-BH09-EW	11-Nov-2021	B	EPA Vial 40ml
1319382			TCA-BH09-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319383			TCA-BH14-EW	11-Nov-2021	B	Coloured Winchester 500ml
1319383			TCA-BH14-EW	11-Nov-2021	B	EPA Vial 40ml
1319383			TCA-BH14-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319384			TCA-BH02-EW	11-Nov-2021	B	Coloured Winchester 500ml
1319384			TCA-BH02-EW	11-Nov-2021	B	EPA Vial 40ml
1319384			TCA-BH02-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319385			TCA-BH03-EW	11-Nov-2021	B	Coloured Winchester 500ml

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1319385			TCA-BH03-EW	11-Nov-2021	B	EPA Vial 40ml
1319385			TCA-BH03-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319386			DUP2-T2	11-Nov-2021	B	Coloured Winchester 500ml
1319386			DUP2-T2	11-Nov-2021	B	EPA Vial 40ml
1319386			DUP2-T2	11-Nov-2021	B	Plastic Bottle 1000ml
1319387			AD6-BH312	11-Nov-2021	B	Coloured Winchester 1000ml
1319387			AD6-BH312	11-Nov-2021	B	EPA Vial 40ml
1319387			AD6-BH312	11-Nov-2021	B	Plastic Bottle 1000ml
1319388			Sp-BH03-EW	11-Nov-2021	B	Coloured Winchester 1000ml
1319388			Sp-BH03-EW	11-Nov-2021	B	EPA Vial 40ml
1319388			Sp-BH03-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319389			SP-BH02-EW	11-Nov-2021	B	Coloured Winchester 1000ml
1319389			SP-BH02-EW	11-Nov-2021	B	EPA Vial 40ml
1319389			SP-BH02-EW	11-Nov-2021	B	Plastic Bottle 1000ml
1319391			DUP1-T3		A	Coloured Winchester 1000ml
1319391			DUP1-T3		A	EPA Vial 40ml
1319391			DUP1-T3		A	Plastic Bottle 1000ml
1319392			DUP3-T3		A	Coloured Winchester 1000ml
1319392			DUP3-T3		A	EPA Vial 40ml
1319392			DUP3-T3		A	Plastic Bottle 1000ml
1319393			BP BH01-EW		A	Coloured Winchester 1000ml
1319393			BP BH01-EW		A	EPA Vial 40ml
1319393			BP BH01-EW		A	Plastic Bottle 1000ml
1319394			GRR BH16-EW		A	Coloured Winchester 1000ml
1319394			GRR BH16-EW		A	EPA Vial 40ml

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1319394			GRR BH16-EW		A	Plastic Bottle 1000ml
1319395			GRR BH14		AC	EPA Vial 40ml
1319395			GRR BH14		AC	Plastic Bottle 1000ml

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1160	Aggressive Dissolved CO2	Aggressive Dissolved CO2	Titration
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1495	Low Level Hexavalent Chromium in Waters	Chromium [VI]	Colorimetric determination of hexavalent chromium expressed as Cr (VI) µg/l in water, using Ion Chromatography and UV-visible spectrophotometry.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1670	Total Petroleum Hydrocarbons (TPH) in Waters by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO	Pentane extraction / GC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection
1815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Waters by GC-MS	ICES7 PCB congeners	Solvent extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-44066-1
Initial Date of Issue:	20-Dec-2021
Client	Atkins Ltd
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF
Contact(s):	Natasha Glynn
Project	SCZ

Quotation No.:		**Date Received:**	13-Dec-2021
Order No.:	S185703	**Date Instructed:**	14-Dec-2021
No. of Samples:	3		
Turnaround (Wkdays):	5	**Results Due:**	20-Dec-2021
Date Approved:	20-Dec-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Water

Project: SCZ

Client: Atkins Ltd			**Chemtest Job No.:**		21-44066	21-44066	21-44066
Quotation No.:			**Chemtest Sample ID.:**		1339465	1339466	1339467
Order No.: S185703			Client Sample Ref.:		EW1	EW1	EW1
			Sample Location:		PIEZ 1B	GR 9	PZ 21
			Sample Type:		WATER	WATER	WATER
			Top Depth (m):		1.5	14.0	7.0
			Date Sampled:		09-Dec-2021	09-Dec-2021	09-Dec-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
pH	U	1010		N/A	8.2	8.3	8.3
Electrical Conductivity	U	1020	µS/cm	1.0	2300	1400	1400
Suspended Solids At 105C	U	1030	mg/l	5.0	34	42	59
Alkalinity (Total)	U	1220	mg/l	10	360	320	170
Chloride	U	1220	mg/l	1.0	550	180	350
Ammonium	U	1220	mg/l	0.050	2.3	0.33	0.17
Ammoniacal Nitrogen	U	1220	mg/l	0.050	1.9	0.28	0.15
Nitrite	U	1220	mg/l	0.020	< 0.020	< 0.020	< 0.020
Nitrate	U	1220	mg/l	0.50	8.8	17	14
Phosphate	U	1220	mg/l	0.200	2.1	0.20	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.69	0.065	0.039
Sulphate	U	1220	mg/l	1.0	61	81	16
Total Oxidised Nitrogen	U	1220	mg/l	0.20	2.0	3.8	3.2
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	100	210	75
Potassium	U	1455	mg/l	0.50	13	1.6	9.3
Magnesium	U	1455	mg/l	0.20	3.6	8.5	4.5
Sodium	U	1455	mg/l	1.50	360	51	170
Arsenic (Dissolved)	U	1455	µg/l	0.20	1.5	0.33	0.34
Boron (Dissolved)	U	1455	µg/l	10.0	51	24	24
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11	< 0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	1.4	< 0.50	< 0.50
Copper (Dissolved)	U	1455	µg/l	0.50	< 0.50	0.57	0.90
Iron (Dissolved)	N	1455	µg/l	5.0	380	< 5.0	< 5.0
Manganese (Dissolved)	U	1455	µg/l	0.50	140	2.0	0.96
Nickel (Dissolved)	U	1455	µg/l	0.50	2.8	0.67	0.60
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50
Selenium (Dissolved)	U	1455	µg/l	0.50	0.85	1.7	1.7
Zinc (Dissolved)	U	1455	µg/l	2.5	< 2.5	< 2.5	14
Mercury Low Level	U	1460	µg/l	0.010	< 0.010	0.029	0.063
Chromium (Hexavalent)	U	1490	µg/l	20	[B] < 20	[B] < 20	[B] < 20
Chromium (Trivalent) LL	U	1450	µg/l	1	< 1	< 1	< 1
Dissolved Organic Carbon	U	1610	mg/l	2.0	36	3.5	2.9
Total Organic Carbon	U	1610	mg/l	2.0	36	2.0	2.9
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: SCZ

Client: Atkins Ltd			**Chemtest Job No.:**		21-44066	21-44066	21-44066
Quotation No.:			**Chemtest Sample ID.:**		1339465	1339466	1339467
Order No.: S185703			Client Sample Ref.:		EW1	EW1	EW1
			Sample Location:		PIEZ 1B	GR 9	PZ 21
			Sample Type:		WATER	WATER	WATER
			Top Depth (m):		1.5	14.0	7.0
			Date Sampled:		09-Dec-2021	09-Dec-2021	09-Dec-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**			
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10	< 10
Benzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Toluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Ethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
m & p-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
o-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10
Naphthalene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1800	µg/l	0.20	< 0.20	< 0.20	< 0.20
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030	< 0.030

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1339465	EW1		PIEZ 1B	09-Dec-2021	B	Coloured Winchester 1000ml
1339465	EW1		PIEZ 1B	09-Dec-2021	B	EPA Vial 40ml
1339465	EW1		PIEZ 1B	09-Dec-2021	B	Plastic Bottle 1000ml
1339466	EW1		GR 9	09-Dec-2021	B	Coloured Winchester 1000ml
1339466	EW1		GR 9	09-Dec-2021	B	EPA Vial 40ml
1339466	EW1		GR 9	09-Dec-2021	B	Plastic Bottle 1000ml
1339467	EW1		PZ 21	09-Dec-2021	B	Coloured Winchester 1000ml
1339467	EW1		PZ 21	09-Dec-2021	B	EPA Vial 40ml
1339467	EW1		PZ 21	09-Dec-2021	B	Plastic Bottle 1000ml

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1495	Low Level Hexavalent Chromium in Waters	Chromium [VI]	Colorimetric determination of hexavalent chromium expressed as Cr (VI) µg/l in water, using Ion Chromatography and UV-visible spectrophotometry.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-11085-1
Initial Date of Issue:	30-Mar-2022
Client	Atkins Ltd
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF
Contact(s):	Alice Smith Natasha Glynn Ruth Flower
Project	5185703 Sizewell C
Quotation No.:	Q21-25865
Order No.:	IFS10554
No. of Samples:	1
Turnaround (Wkdays):	5
Date Approved:	30-Mar-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	24-Mar-2022
Date Instructed:	24-Mar-2022
Results Due:	30-Mar-2022

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-11085
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1397690
			Sample Location:		AD6
			Sample Type:		WATER
			Top Depth (m):		2.0
			Date Sampled:		21-Mar-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
pH	U	1010		N/A	7.3
Electrical Conductivity	U	1020	µS/cm	1.0	1300
Suspended Solids At 105C	U	1030	mg/l	5.0	21
Aggressive Dissolved CO2	N	1160	mg/l	0.60	< 0.60
Alkalinity (Total)	U	1220	mg/l	10	320
Chloride	U	1220	mg/l	1.0	170
Ammonium	U	1220	mg/l	0.050	0.50
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.39
Nitrite	U	1220	mg/l	0.020	0.14
Nitrate	U	1220	mg/l	0.50	45
Phosphate	U	1220	mg/l	0.200	0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.065
Sulphate	U	1220	mg/l	1.0	130
Total Oxidised Nitrogen	U	1220	mg/l	0.20	10
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	160
Potassium	U	1455	mg/l	0.50	6.5
Magnesium	U	1455	mg/l	0.20	12
Sodium	U	1455	mg/l	1.50	73
Arsenic (Dissolved)	U	1455	µg/l	0.20	1.1
Boron (Dissolved)	U	1455	µg/l	10.0	43
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	1.8
Copper (Dissolved)	U	1455	µg/l	0.50	1.1
Iron (Dissolved)	N	1455	µg/l	5.0	< 5.0
Manganese (Dissolved)	U	1455	µg/l	0.50	23
Nickel (Dissolved)	U	1455	µg/l	0.50	1.0
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50
Selenium (Dissolved)	U	1455	µg/l	0.50	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5	5.2
Mercury Low Level	U	1460	µg/l	0.010	< 0.010
Chromium (Hexavalent)	U	1490	µg/l	20	< 20
Chromium (Trivalent) LL	U	1450	µg/l	1	< 1
Dissolved Organic Carbon	U	1610	mg/l	2.0	71
Total Organic Carbon	U	1610	mg/l	2.0	66
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-11085
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1397690
			Sample Location:		AD6
			Sample Type:		WATER
			Top Depth (m):		2.0
			Date Sampled:		21-Mar-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10
Benzene	N	1760	µg/l	0.10	< 0.10
Toluene	N	1760	µg/l	0.10	< 0.10
Ethylbenzene	N	1760	µg/l	0.10	< 0.10
m & p-Xylene	N	1760	µg/l	0.10	< 0.10
o-Xylene	N	1760	µg/l	0.10	< 0.10
Naphthalene	N	1800	µg/l	0.010	< 0.010
Acenaphthylene	N	1800	µg/l	0.010	< 0.010
Acenaphthene	N	1800	µg/l	0.010	< 0.010
Fluorene	N	1800	µg/l	0.010	< 0.010
Phenanthrene	N	1800	µg/l	0.010	< 0.010
Anthracene	N	1800	µg/l	0.010	< 0.010
Fluoranthene	N	1800	µg/l	0.010	< 0.010
Pyrene	N	1800	µg/l	0.010	< 0.010
Benzo[a]anthracene	N	1800	µg/l	0.010	< 0.010
Chrysene	N	1800	µg/l	0.010	< 0.010
Benzo[b]fluoranthene	N	1800	µg/l	0.010	< 0.010
Benzo[k]fluoranthene	N	1800	µg/l	0.010	< 0.010
Benzo[a]pyrene	N	1800	µg/l	0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1800	µg/l	0.010	< 0.010
Dibenz(a,h)Anthracene	N	1800	µg/l	0.010	< 0.010
Benzo[g,h,i]perylene	N	1800	µg/l	0.010	< 0.010
Total Of 16 PAH's	N	1800	µg/l	0.20	< 0.20
Total Phenols	U	1920	mg/l	0.030	< 0.030

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1160	Aggressive Dissolved CO2	Aggressive Dissolved CO2	Titration
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1495	Low Level Hexavalent Chromium in Waters	Chromium [VI]	Colorimetric determination of hexavalent chromium expressed as Cr (VI) µg/l in water, using Ion Chromatography and UV-visible spectrophotometry.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-22842-1		
Initial Date of Issue:	25-Jun-2022		
Client	Atkins Ltd		
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF		
Contact(s):	Alice Smith Natasha Glynn		
Project	5185703 Sizewell C		
Quotation No.:	Q21-25865	**Date Received:**	20-Jun-2022
Order No.:	IFS10554	**Date Instructed:**	20-Jun-2022
No. of Samples:	17		
Turnaround (Wkdays):	5	**Results Due:**	24-Jun-2022
Date Approved:	24-Jun-2022		
Approved By:			
Details:	Stuart Henderson, TECHINCAL MANAGER		

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865					**Chemtest Sample ID.:**	1451253	1451254	1451255	1451256	1451257	1451258	1451259	1451260	1451261
Order No.: IFS10554					Client Sample Ref.:	SW	GW	GW	GW	GW	GW	GW	GW	GW
					Sample Location:	G5	AF6	DCBH2009_6	DCBH2009_1006	P4	PZ20	GW3	P219	P21019
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):		6	8	8	1.5	1.0	12	8	8
					Date Sampled:	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
pH	U	1010		N/A		9.2	9.1	7.6	7.4	7.4	7.9	7.9	7.9	7.6
Electrical Conductivity	U	1020	µS/cm	1.0		770	800	3300	3700	3300	1000	950	850	820
Suspended Solids At 105C	U	1030	mg/l	5.0		30	60	220	120	81	31	150	44	51
Alkalinity (Total)	U	1220	mg/l	10		730	640	680	660	770	150	160	12	< 10
Chloride	U	1220	mg/l	1.0		180	67	890	830	980	88	74	250	250
Ammonium	U	1220	mg/l	0.050		0.36	1.1	17	16	1.9	1.8	1.7	1.1	0.71
Ammoniacal Nitrogen	U	1220	mg/l	0.050		0.51	1.5	13	12	1.5	1.5	1.4	0.93	0.56
Nitrite	U	1220	mg/l	0.020		1.1	1.3	0.049	0.026	0.034	0.037	0.044	0.034	0.038
Nitrate	U	1220	mg/l	0.50		66	100	3.2	< 0.50	2.0	240	170	50	48
Phosphate	U	1220	mg/l	0.200		1.2	< 0.20	< 0.20	< 0.20	< 0.20	0.74	< 0.20	< 0.20	0.26
Phosphorus (Dissolved)	U	1220	mg/l	0.020		0.39	0.059	< 0.020	< 0.020	< 0.020	0.24	0.046	0.062	0.085
Sulphate	U	1220	mg/l	1.0		130	180	4.8	< 1.0	21	26	62	10	9.3
Total Oxidised Nitrogen	U	1220	mg/l	0.20		15	23	0.75	< 0.20	0.45	54	38	11	11
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00		150	130	220	230	400	67	120	25	24
Potassium	U	1455	mg/l	0.50		17	13	33	31	8.9	4.7	4.7	3.3	3.3
Magnesium	U	1455	mg/l	0.20		13	12	52	49	25	23	10	17	17
Sodium	U	1455	mg/l	1.50		97	42	440	420	180	22	22	96	95
Arsenic (Dissolved)	U	1455	µg/l	0.20		1.9	3.2	1.9	1.6	0.49	0.65	0.37	0.40	0.50
Boron (Dissolved)	U	1455	µg/l	10.0		66	110	280	250	40	23	26	22	20
Cadmium (Dissolved)	U	1455	µg/l	0.11		< 0.11	0.19	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	0.35	0.36
Chromium (Dissolved)	U	1455	µg/l	0.50		0.75	8.0	< 0.50	< 0.50	< 0.50	7.3	8.2	3.0	11
Copper (Dissolved)	U	1455	µg/l	0.50		3.0	1.0	< 0.50	< 0.50	< 0.50	0.52	0.52	1.5	0.63
Iron (Dissolved)	N	1455	µg/l	5.0		16	< 5.0	7000	5300	280	< 5.0	< 5.0	5.5	< 5.0
Manganese (Dissolved)	U	1455	µg/l	0.50		11	14	930	900	2100	9.0	1.7	100	98
Nickel (Dissolved)	U	1455	µg/l	0.50		0.83	0.70	1.7	< 0.50	< 0.50	< 0.50	2.2	37	36
Lead (Dissolved)	U	1455	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5		13	7.3	< 2.5	< 2.5	3.4	6.0	5.8	19	19
Mercury Low Level	U	1460	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chromium (Hexavalent)	U	1490	µg/l	20		[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] < 20
Chromium (Trivalent) LL	U	1450	µg/l	1		< 1	8	< 1	< 1	< 1	7	8	3	11
Total Organic Carbon	U	1610	mg/l	2.0		7.7	3.1	47	38	4.9	< 2.0	2.4	< 2.0	< 2.0
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865					**Chemtest Sample ID.:**	1451253	1451254	1451255	1451256	1451257	1451258	1451259	1451260	1451261
Order No.: IFS10554					Client Sample Ref.:	SW	GW	GW	GW	GW	GW	GW	GW	GW
					Sample Location:	G5	AF6	DCBH2009_6	DCBH2009_1006	P4	PZ20	GW3	P219	P21019
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):		6	8	8	1.5	1.0	12	8	8
					Date Sampled:	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Dichlorodifluoromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Vinyl Chloride	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromomethane	N	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trichlorofluoromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trans 1,2-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
cis 1,2-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromochloromethane	N	1760	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,1-Trichloroethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tetrachloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloropropene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloropropane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibromomethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromodichloromethane	N	1760	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trans-1,3-Dichloropropene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	N	1760	µg/l	0.1		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451253	1451254	1451255	1451256	1451257	1451258	1451259	1451260	1451261
Order No.: IFS10554			Client Sample Ref.:		SW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Location:		G5	AF6	DCBH2009_6	DCBH2009_1006	P4	PZ20	GW3	P219	P21019
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):			6	8	8	1.5	1.0	12	8	8
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Tetrachloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3-Dichloropropane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dibromochloromethane	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	N	1760	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,1,2-Tetrachloroethane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
m & p-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
o-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Styrene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tribromomethane	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichloropropane	N	1760	µg/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
N-Propylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
2-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3,5-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
4-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tert-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,4-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Sec-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
4-Isopropyltoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,4-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
N-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dibromo-3-Chloropropane	N	1760	µg/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2,4-Trichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Hexachlorobutadiene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Methyl Tert-Butyl Ether	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451253	1451254	1451255	1451256	1451257	1451258	1451259	1451260	1451261
Order No.: IFS10554			Client Sample Ref.:		SW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Location:		G5	AF6	DCBH2009_6	DCBH2009_1006	P4	PZ20	GW3	P219	P21019
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):			6	8	8	1.5	1.0	12	8	8
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451253	1451254	1451255	1451256	1451257	1451258	1451259	1451260	1451261
Order No.: IFS10554			Client Sample Ref.:		SW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Location:		G5	AF6	DCBH2009_6	DCBH2009_1006	P4	PZ20	GW3	P219	P21019
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):			6	8	8	1.5	1.0	12	8	8
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1800	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB 28	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 81	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 52	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451253	1451254	1451255	1451256	1451257	1451258	1451259	1451260	1451261
Order No.: IFS10554			Client Sample Ref.:		SW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Location:		G5	AF6	DCBH2009_6	DCBH2009_1006	P4	PZ20	GW3	P219	P21019
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):			6	8	8	1.5	1.0	12	8	8
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
PCB 77	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 90+101	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 114	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 153	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 123	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 138	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 126	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 180	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 156	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 169	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 189	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (7 congeners)	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451262	1451263	1451264	1451265	1451266	1451267	1451268	1451269
Order No.: IFS10554			Client Sample Ref.:		GW	GW	GW	GW				
			Sample Location:		P221	DCBH2019_3	BP23	BP12	GW2	C1S	C1D	P15
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):		8	6.5	10	19	1.60	5.0	18.0	
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
pH	U	1010		N/A	7.7	7.8	8.0	8.0	7.9	8.1	8.0	7.8
Electrical Conductivity	U	1020	µS/cm	1.0	1600	1700	1100	830	640	570	900	940
Suspended Solids At 105C	U	1030	mg/l	5.0	34	210	45	150	470	48	190	390
Alkalinity (Total)	U	1220	mg/l	10	300	420	26	240	26	85	310	420
Chloride	U	1220	mg/l	1.0	420	400	100	57	47	74	48	50
Ammonium	U	1220	mg/l	0.050	0.73	3.4	0.57	0.81	1.2	0.46	1.1	5.9
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.58	2.7	0.47	0.67	1.0	0.38	0.93	4.7
Nitrite	U	1220	mg/l	0.020	0.057	0.031	0.095	0.049	0.034	0.041	0.035	0.039
Nitrate	U	1220	mg/l	0.50	30	0.77	310	77	150	95	2.1	< 0.50
Phosphate	U	1220	mg/l	0.200	< 0.20	< 0.20	0.21	0.24	< 0.20	0.20	< 0.20	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	< 0.020	< 0.020	0.069	0.078	0.049	0.065	< 0.020	< 0.020
Sulphate	U	1220	mg/l	1.0	28	< 1.0	59	54	95	12	55	8.7
Total Oxidised Nitrogen	U	1220	mg/l	0.20	6.8	< 0.20	70	17	34	21	0.47	< 0.20
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	150	120	100	120	62	52	150	150
Potassium	U	1455	mg/l	0.50	6.2	12	6.8	11	3.1	1.6	5.8	4.6
Magnesium	U	1455	mg/l	0.20	8.7	39	28	5.8	19	4.8	9.1	9.2
Sodium	U	1455	mg/l	1.50	170	210	23	23	20	45	32	27
Arsenic (Dissolved)	U	1455	µg/l	0.20	0.46	3.7	0.50	0.56	0.49	1.2	0.72	2.4
Boron (Dissolved)	U	1455	µg/l	10.0	29	140	50	53	29	18	35	36
Cadmium (Dissolved)	U	1455	µg/l	0.11	0.13	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	7.8	9.0	16	12	< 0.50	< 0.50
Copper (Dissolved)	U	1455	µg/l	0.50	3.3	< 0.50	0.74	0.59	0.83	< 0.50	< 0.50	< 0.50
Iron (Dissolved)	N	1455	µg/l	5.0	11	13	< 5.0	< 5.0	25	< 5.0	< 5.0	350
Manganese (Dissolved)	U	1455	µg/l	0.50	12	2600	21	0.79	11	1.8	300	1200
Nickel (Dissolved)	U	1455	µg/l	0.50	4.0	0.53	2.1	< 0.50	18	< 0.50	3.9	< 0.50
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5	110	4.0	8.8	3.9	13	< 2.5	19	5.0
Mercury Low Level	U	1460	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chromium (Hexavalent)	U	1490	µg/l	20	[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] < 20	[B] 23	[B] < 20	[B] < 20
Chromium (Trivalent) LL	U	1450	µg/l	1	< 1	< 1	8	9	16	12	< 1	< 1
Total Organic Carbon	U	1610	mg/l	2.0	4.6	9.2	< 2.0	2.5	< 2.0	< 2.0	< 2.0	3.2
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451262	1451263	1451264	1451265	1451266	1451267	1451268	1451269
Order No.: IFS10554			Client Sample Ref.:		GW	GW	GW	GW				
			Sample Location:		P221	DCBH2019_3	BP23	BP12	GW2	C1S	C1D	P15
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):		8	6.5	10	19	1.60	5.0	18.0	
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Dichlorodifluoromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chloromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Vinyl Chloride	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromomethane	N	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trichlorofluoromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trans 1,2-Dichloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
cis 1,2-Dichloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromochloromethane	N	1760	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,1-Trichloroethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tetrachloromethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloropropene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloroethane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trichloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloropropane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibromomethane	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromodichloromethane	N	1760	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trans-1,3-Dichloropropene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	N	1760	µg/l	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451262	1451263	1451264	1451265	1451266	1451267	1451268	1451269
Order No.: IFS10554			Client Sample Ref.:		GW	GW	GW	GW				
			Sample Location:		P221	DCBH2019_3	BP23	BP12	GW2	C1S	C1D	P15
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):		8	6.5	10	19	1.60	5.0	18.0	
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Tetrachloroethene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3-Dichloropropane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dibromochloromethane	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	N	1760	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,1,2-Tetrachloroethane	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
m & p-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
o-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Styrene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tribromomethane	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichloropropane	N	1760	µg/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
N-Propylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
2-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3,5-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
4-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tert-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,4-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Sec-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
4-Isopropyltoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,4-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
N-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dibromo-3-Chloropropane	N	1760	µg/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2,4-Trichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Hexachlorobutadiene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Methyl Tert-Butyl Ether	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451262	1451263	1451264	1451265	1451266	1451267	1451268	1451269
Order No.: IFS10554			Client Sample Ref.:		GW	GW	GW	GW				
			Sample Location:		P221	DCBH2019_3	BP23	BP12	GW2	C1S	C1D	P15
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):		8	6.5	10	19	1.60	5.0	18.0	
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451262	1451263	1451264	1451265	1451266	1451267	1451268	1451269
Order No.: IFS10554			Client Sample Ref.:		GW	GW	GW	GW				
			Sample Location:		P221	DCBH2019_3	BP23	BP12	GW2	C1S	C1D	P15
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):		8	6.5	10	19	1.60	5.0	18.0	
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1800	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB 28	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 81	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 52	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842	22-22842
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1451262	1451263	1451264	1451265	1451266	1451267	1451268	1451269
Order No.: IFS10554			Client Sample Ref.:		GW	GW	GW	GW				
			Sample Location:		P221	DCBH2019_3	BP23	BP12	GW2	C1S	C1D	P15
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):		8	6.5	10	19	1.60	5.0	18.0	
			Date Sampled:		16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022	16-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
PCB 77	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 90+101	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 114	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 153	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 123	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 138	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 126	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 180	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 156	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 169	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 189	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (7 congeners)	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1451253	SW		G5	16-Jun-2022	B	Coloured Winchester 1000ml
1451253	SW		G5	16-Jun-2022	B	EPA Vial 40ml
1451253	SW		G5	16-Jun-2022	B	Plastic Bottle 1000ml
1451254	GW		AF6	16-Jun-2022	B	Coloured Winchester 1000ml
1451254	GW		AF6	16-Jun-2022	B	EPA Vial 40ml
1451254	GW		AF6	16-Jun-2022	B	Plastic Bottle 1000ml
1451255	GW		DCBH2009_6	16-Jun-2022	B	Coloured Winchester 1000ml
1451255	GW		DCBH2009_6	16-Jun-2022	B	EPA Vial 40ml
1451255	GW		DCBH2009_6	16-Jun-2022	B	Plastic Bottle 1000ml
1451256	GW		DCBH2009_1006	16-Jun-2022	B	Coloured Winchester 1000ml
1451256	GW		DCBH2009_1006	16-Jun-2022	B	EPA Vial 40ml
1451256	GW		DCBH2009_1006	16-Jun-2022	B	Plastic Bottle 1000ml
1451257	GW		P4	16-Jun-2022	B	Coloured Winchester 1000ml
1451257	GW		P4	16-Jun-2022	B	EPA Vial 40ml
1451257	GW		P4	16-Jun-2022	B	Plastic Bottle 1000ml
1451258	GW		PZ20	16-Jun-2022	B	Coloured Winchester 1000ml
1451258	GW		PZ20	16-Jun-2022	B	EPA Vial 40ml
1451258	GW		PZ20	16-Jun-2022	B	Plastic Bottle 1000ml
1451259	GW		GW3	16-Jun-2022	B	Coloured Winchester 1000ml
1451259	GW		GW3	16-Jun-2022	B	EPA Vial 40ml
1451259	GW		GW3	16-Jun-2022	B	Plastic Bottle 1000ml

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1451260	GW		P219	16-Jun-2022	B	Coloured Winchester 1000ml
1451260	GW		P219	16-Jun-2022	B	EPA Vial 40ml
1451260	GW		P219	16-Jun-2022	B	Plastic Bottle 1000ml
1451261	GW		P21019	16-Jun-2022	B	Coloured Winchester 1000ml
1451261	GW		P21019	16-Jun-2022	B	EPA Vial 40ml
1451261	GW		P21019	16-Jun-2022	B	Plastic Bottle 1000ml
1451262	GW		P221	16-Jun-2022	B	Coloured Winchester 1000ml
1451262	GW		P221	16-Jun-2022	B	EPA Vial 40ml
1451262	GW		P221	16-Jun-2022	B	Plastic Bottle 1000ml
1451263	GW		DCBH2019_3	16-Jun-2022	B	Coloured Winchester 1000ml
1451263	GW		DCBH2019_3	16-Jun-2022	B	EPA Vial 40ml
1451263	GW		DCBH2019_3	16-Jun-2022	B	Plastic Bottle 1000ml
1451264	GW		BP23	16-Jun-2022	B	Coloured Winchester 1000ml
1451264	GW		BP23	16-Jun-2022	B	EPA Vial 40ml
1451264	GW		BP23	16-Jun-2022	B	Plastic Bottle 1000ml
1451265	GW		BP12	16-Jun-2022	B	Coloured Winchester 1000ml
1451265	GW		BP12	16-Jun-2022	B	EPA Vial 40ml
1451265	GW		BP12	16-Jun-2022	B	Plastic Bottle 1000ml
1451266			GW2	16-Jun-2022	B	Coloured Winchester 1000ml
1451266			GW2	16-Jun-2022	B	EPA Vial 40ml
1451266			GW2	16-Jun-2022	B	Plastic Bottle 1000ml

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1451267			C1S	16-Jun-2022	B	Coloured Winchester 1000ml
1451267			C1S	16-Jun-2022	B	EPA Vial 40ml
1451267			C1S	16-Jun-2022	B	Plastic Bottle 1000ml
1451268			C1D	16-Jun-2022	B	Coloured Winchester 1000ml
1451268			C1D	16-Jun-2022	B	EPA Vial 40ml
1451268			C1D	16-Jun-2022	B	Plastic Bottle 1000ml
1451269			P15	16-Jun-2022	B	Coloured Winchester 1000ml
1451269			P15	16-Jun-2022	B	EPA Vial 40ml

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1495	Low Level Hexavalent Chromium in Waters	Chromium [VI]	Colorimetric determination of hexavalent chromium expressed as Cr (VI) µg/l in water, using Ion Chromatography and UV-visible spectrophotometry.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Waters by GC-MS	ICES7 PCB congeners	Solvent extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

UKAS TESTING
2183

Final Report

Report No.:	22-23813-1
Initial Date of Issue:	01-Jul-2022
Client	Atkins Ltd
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF
Contact(s):	Alice Smith Natasha Glynn
Project	5185703 Sizewell C
Quotation No.:	Q21-25865
Order No.:	IFS10554
No. of Samples:	10
Turnaround (Wkdays):	5
Date Approved:	01-Jul-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	24-Jun-2022
Date Instructed:	24-Jun-2022
Results Due:	30-Jun-2022

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1455391	1455392	1455393	1455394	1455395	1455396	1455397	1455398	1455399
			Sample Location:		PIE2-3B	PIE2-3A	PIE2-1B	PIE2-1A	C3S	C3D	PIE2-2A	K2S	P9
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled:		23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
pH	U	1010		N/A	8.1	8.3	8.4	8.4	8.1	8.6	8.4	8.4	8.3
Electrical Conductivity	U	1020	µS/cm	1.0	1400	1500	1500	1600	1400	1500	1700	1600	1900
Suspended Solids At 105C	U	1030	mg/l	5.0	850	17	12	62	35	73	11	190	130
Alkalinity (Total)	U	1220	mg/l	10	410	450	470	510	55	96	410	71	420
Chloride	U	1220	mg/l	1.0	53	53	680	350	140	71	620	120	95
Ammonium	U	1220	mg/l	0.050	0.34	0.42	1.1	0.56	0.41	0.23	0.24	0.44	0.36
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.29	0.36	0.93	0.50	0.34	0.22	0.21	0.39	0.31
Nitrite	U	1220	mg/l	0.020	0.068	0.069	0.063	0.063	0.097	0.065	0.32	0.061	0.072
Nitrate	U	1220	mg/l	0.50	< 0.50	< 0.50	< 0.50	0.92	3.1	< 0.50	8.9	81	< 0.50
Phosphate	U	1220	mg/l	0.200	< 0.20	< 0.20	2.3	0.90	< 0.20	0.32	< 0.20	< 0.20	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.052	< 0.020	0.75	0.29	< 0.020	0.10	< 0.020	< 0.020	< 0.020
Sulphate	U	1220	mg/l	1.0	24	65	37	25	32	43	160	85	92
Total Oxidised Nitrogen	U	1220	mg/l	0.20	< 0.20	< 0.20	< 0.20	0.23	0.72	< 0.20	2.1	18	< 0.20
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	130	130	88	65	5.3	39	170	38	160
Potassium	U	1455	mg/l	0.50	3.2	3.7	12	7.3	3.5	2.2	16	2.9	2.3
Magnesium	U	1455	mg/l	0.20	7.6	9.1	2.8	3.2	9.1	2.2	13	4.5	11
Sodium	U	1455	mg/l	1.50	34	30	380	240	60	26	270	65	41
Arsenic (Dissolved)	U	1455	µg/l	0.20	2.5	0.75	3.4	7.8	0.88	2.7	1.7	0.99	0.83
Boron (Dissolved)	U	1455	µg/l	10.0	47	37	40	130	29	< 10	55	31	39
Cadmium (Dissolved)	U	1455	µg/l	0.11	0.49	0.44	0.58	0.62	0.65	0.84	0.57	0.60	0.49
Chromium (Dissolved)	U	1455	µg/l	0.50	< 0.50	2.0	6.9	8.1	5.8	< 0.50	1.3	< 0.50	< 0.50
Copper (Dissolved)	U	1455	µg/l	0.50	< 0.50	1.4	1.0	3.6	1.2	< 0.50	6.4	< 0.50	< 0.50
Iron (Dissolved)	N	1455	µg/l	5.0	100	6.2	580	340	< 5.0	< 5.0	< 5.0	< 5.0	25
Manganese (Dissolved)	U	1455	µg/l	0.50	1100	820	120	74	870	210	260	16	29
Nickel (Dissolved)	U	1455	µg/l	0.50	0.95	< 0.50	3.6	3.0	2.0	< 0.50	8.6	< 0.50	< 0.50
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	0.65	1.4	< 0.50	1.2	0.50	< 0.50	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5	5.3	5.0	6.6	4.9	9.3	3.8	6.4	9.4	6.6
Mercury Low Level	U	1460	µg/l	0.010	0.091	0.39	0.91	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chromium (Hexavalent)	U	1490	µg/l	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Chromium (Trivalent) LL	U	1450	µg/l	1	< 1	2	7	8	6	< 1	1	< 1	< 1
Total Organic Carbon	U	1610	mg/l	2.0	18	5.4	47	36	2.9	< 2.0	15	2.4	2.6
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813
Quotation No.: Q21-25865					Chemtest Sample ID.:	1455391	1455392	1455393	1455394	1455395	1455396	1455397	1455398	1455399
					Sample Location:	PIE2-3B	PIE2-3A	PIE2-1B	PIE2-1A	C3S	C3D	PIE2-2A	K2S	P9
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Date Sampled:	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Aromatic TPH >C5-C7	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Dichlorodifluoromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Vinyl Chloride	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromomethane	N	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trichlorofluoromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trans 1,2-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
cis 1,2-Dichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromochloromethane	N	1760	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,1-Trichloroethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tetrachloromethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloropropene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trichloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloropropane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibromomethane	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromodichloromethane	N	1760	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trans-1,3-Dichloropropene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	N	1760	µg/l	0.1		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3-Dichloropropane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dibromochloromethane	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	N	1760	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,1,2-Tetrachloroethane	N	1760	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd		Chemtest Job No.:			22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813
Quotation No.: Q21-25865		Chemtest Sample ID.:			1455391	1455392	1455393	1455394	1455395	1455396	1455397	1455398	1455399
		Sample Location:			PIE2-3B	PIE2-3A	PIE2-1B	PIE2-1A	C3S	C3D	PIE2-2A	K2S	P9
		Sample Type:			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		Date Sampled:			23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Ethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
m & p-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
o-Xylene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Styrene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tribromomethane	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichloropropane	N	1760	µg/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
N-Propylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
2-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3,5-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
4-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tert-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,4-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Sec-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
4-Isopropyltoluene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,4-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
N-Butylbenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dibromo-3-Chloropropane	N	1760	µg/l	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2,4-Trichlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Hexachlorobutadiene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	N	1760	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Methyl Tert-Butyl Ether	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1455391	1455392	1455393	1455394	1455395	1455396	1455397	1455398	1455399
			Sample Location:		PIE2-3B	PIE2-3A	PIE2-1B	PIE2-1A	C3S	C3D	PIE2-2A	K2S	P9
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled:		23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1455391	1455392	1455393	1455394	1455395	1455396	1455397	1455398	1455399
			Sample Location:		PIE2-3B	PIE2-3A	PIE2-1B	PIE2-1A	C3S	C3D	PIE2-2A	K2S	P9
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled:		23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1800	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1800	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
PCB 28	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 81	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 52	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 77	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 90+101	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 114	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 153	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 123	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 138	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 126	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 180	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 156	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 169	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813	22-23813
Quotation No.: Q21-25865					**Chemtest Sample ID.:**	1455391	1455392	1455393	1455394	1455395	1455396	1455397	1455398	1455399
					Sample Location:	PIE2-3B	PIE2-3A	PIE2-1B	PIE2-1A	C3S	C3D	PIE2-2A	K2S	P9
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Date Sampled:	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
PCB 189	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (7 congeners)	N	1815	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Phenols	U	1920	mg/l	0.030		< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-23813
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1455400
			Sample Location:		P10
			Sample Type:		WATER
			Date Sampled:		23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
pH	U	1010		N/A	8.1
Electrical Conductivity	U	1020	µS/cm	1.0	1900
Suspended Solids At 105C	U	1030	mg/l	5.0	56
Alkalinity (Total)	U	1220	mg/l	10	100
Chloride	U	1220	mg/l	1.0	2100
Ammonium	U	1220	mg/l	0.050	0.29
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.24
Nitrite	U	1220	mg/l	0.020	0.058
Nitrate	U	1220	mg/l	0.50	< 0.50
Phosphate	U	1220	mg/l	0.200	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	< 0.020
Sulphate	U	1220	mg/l	1.0	95
Total Oxidised Nitrogen	U	1220	mg/l	0.20	< 0.20
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	680
Potassium	U	1455	mg/l	0.50	17
Magnesium	U	1455	mg/l	0.20	71
Sodium	U	1455	mg/l	1.50	200
Arsenic (Dissolved)	U	1455	µg/l	0.20	0.76
Boron (Dissolved)	U	1455	µg/l	10.0	21
Cadmium (Dissolved)	U	1455	µg/l	0.11	0.35
Chromium (Dissolved)	U	1455	µg/l	0.50	< 0.50
Copper (Dissolved)	U	1455	µg/l	0.50	< 0.50
Iron (Dissolved)	N	1455	µg/l	5.0	110
Manganese (Dissolved)	U	1455	µg/l	0.50	590
Nickel (Dissolved)	U	1455	µg/l	0.50	1.1
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5	3.9
Mercury Low Level	U	1460	µg/l	0.010	< 0.010
Chromium (Hexavalent)	U	1490	µg/l	20	< 20
Chromium (Trivalent) LL	U	1450	µg/l	1	< 1
Total Organic Carbon	U	1610	mg/l	2.0	< 2.0
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-23813
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1455400
			Sample Location:		P10
			Sample Type:		WATER
			Date Sampled:		23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10
Dichlorodifluoromethane	N	1760	µg/l	0.10	< 0.10
Chloromethane	N	1760	µg/l	0.10	< 0.10
Vinyl Chloride	N	1760	µg/l	0.10	< 0.10
Bromomethane	N	1760	µg/l	2.0	< 2.0
Chloroethane	N	1760	µg/l	0.20	< 0.20
Trichlorofluoromethane	N	1760	µg/l	0.10	< 0.10
1,1-Dichloroethene	N	1760	µg/l	0.10	< 0.10
Trans 1,2-Dichloroethene	N	1760	µg/l	0.10	< 0.10
1,1-Dichloroethane	N	1760	µg/l	0.10	< 0.10
cis 1,2-Dichloroethene	N	1760	µg/l	0.10	< 0.10
Bromochloromethane	N	1760	µg/l	0.50	< 0.50
Trichloromethane	N	1760	µg/l	0.10	< 0.10
1,1,1-Trichloroethane	N	1760	µg/l	0.10	< 0.10
Tetrachloromethane	N	1760	µg/l	0.10	< 0.10
1,1-Dichloropropene	N	1760	µg/l	0.10	< 0.10
Benzene	N	1760	µg/l	0.10	< 0.10
1,2-Dichloroethane	N	1760	µg/l	0.20	< 0.20
Trichloroethene	N	1760	µg/l	0.10	< 0.10
1,2-Dichloropropane	N	1760	µg/l	0.10	< 0.10
Dibromomethane	N	1760	µg/l	0.10	< 0.10
Bromodichloromethane	N	1760	µg/l	0.50	< 0.50
cis-1,3-Dichloropropene	N	1760	µg/l	1.0	< 1.0
Toluene	N	1760	µg/l	0.10	< 0.10
Trans-1,3-Dichloropropene	N	1760	µg/l	1.0	< 1.0
1,1,2-Trichloroethane	N	1760	µg/l	0.1	< 0.1
Tetrachloroethene	N	1760	µg/l	0.10	< 0.10
1,3-Dichloropropane	N	1760	µg/l	0.20	< 0.20
Dibromochloromethane	N	1760	µg/l	1.0	< 1.0
1,2-Dibromoethane	N	1760	µg/l	0.50	< 0.50
Chlorobenzene	N	1760	µg/l	0.10	< 0.10
1,1,1,2-Tetrachloroethane	N	1760	µg/l	0.20	< 0.20

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-23813
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1455400
			Sample Location:		P10
			Sample Type:		WATER
			Date Sampled:		23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Ethylbenzene	N	1760	µg/l	0.10	< 0.10
m & p-Xylene	N	1760	µg/l	0.10	< 0.10
o-Xylene	N	1760	µg/l	0.10	< 0.10
Styrene	N	1760	µg/l	0.10	< 0.10
Tribromomethane	N	1760	µg/l	1.0	< 1.0
Isopropylbenzene	N	1760	µg/l	0.10	< 0.10
Bromobenzene	N	1760	µg/l	0.10	< 0.10
1,2,3-Trichloropropane	N	1760	µg/l	5	< 5
N-Propylbenzene	N	1760	µg/l	0.10	< 0.10
2-Chlorotoluene	N	1760	µg/l	0.10	< 0.10
1,3,5-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10
4-Chlorotoluene	N	1760	µg/l	0.10	< 0.10
Tert-Butylbenzene	N	1760	µg/l	0.10	< 0.10
1,2,4-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10
Sec-Butylbenzene	N	1760	µg/l	0.10	< 0.10
1,3-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10
4-Isopropyltoluene	N	1760	µg/l	0.10	< 0.10
1,4-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10
N-Butylbenzene	N	1760	µg/l	0.10	< 0.10
1,2-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10
1,2-Dibromo-3-Chloropropane	N	1760	µg/l	5	< 5
1,2,4-Trichlorobenzene	N	1760	µg/l	0.10	< 0.10
Hexachlorobutadiene	N	1760	µg/l	0.10	< 0.10
1,2,3-Trichlorobenzene	N	1760	µg/l	0.20	< 0.20
Methyl Tert-Butyl Ether	N	1760	µg/l	0.10	< 0.10
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-23813
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1455400
			Sample Location:		P10
			Sample Type:		WATER
			Date Sampled:		23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50
Carbazole	N	1790	µg/l	0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-23813
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1455400
			Sample Location:		P10
			Sample Type:		WATER
			Date Sampled:		23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50
Naphthalene	N	1800	µg/l	0.010	< 0.010
Acenaphthylene	N	1800	µg/l	0.010	< 0.010
Acenaphthene	N	1800	µg/l	0.010	< 0.010
Fluorene	N	1800	µg/l	0.010	< 0.010
Phenanthrene	N	1800	µg/l	0.010	< 0.010
Anthracene	N	1800	µg/l	0.010	< 0.010
Fluoranthene	N	1800	µg/l	0.010	< 0.010
Pyrene	N	1800	µg/l	0.010	< 0.010
Benzo[a]anthracene	N	1800	µg/l	0.010	< 0.010
Chrysene	N	1800	µg/l	0.010	< 0.010
Benzo[b]fluoranthene	N	1800	µg/l	0.010	< 0.010
Benzo[k]fluoranthene	N	1800	µg/l	0.010	< 0.010
Benzo[a]pyrene	N	1800	µg/l	0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1800	µg/l	0.010	< 0.010
Dibenz(a,h)Anthracene	N	1800	µg/l	0.010	< 0.010
Benzo[g,h,i]perylene	N	1800	µg/l	0.010	< 0.010
Total Of 16 PAH's	N	1800	µg/l	0.20	< 0.20
PCB 28	N	1815	µg/l	0.010	< 0.010
PCB 81	N	1815	µg/l	0.010	< 0.010
PCB 52	N	1815	µg/l	0.010	< 0.010
PCB 77	N	1815	µg/l	0.010	< 0.010
PCB 105	N	1815	µg/l	0.010	< 0.010
PCB 90+101	N	1815	µg/l	0.010	< 0.010
PCB 114	N	1815	µg/l	0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010
PCB 153	N	1815	µg/l	0.010	< 0.010
PCB 123	N	1815	µg/l	0.010	< 0.010
PCB 138	N	1815	µg/l	0.010	< 0.010
PCB 126	N	1815	µg/l	0.010	< 0.010
PCB 180	N	1815	µg/l	0.010	< 0.010
PCB 156	N	1815	µg/l	0.010	< 0.010
PCB 157	N	1815	µg/l	0.010	< 0.010
PCB 167	N	1815	µg/l	0.010	< 0.010
PCB 169	N	1815	µg/l	0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-23813
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1455400
			Sample Location:		P10
			Sample Type:		WATER
			Date Sampled:		23-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
PCB 189	N	1815	µg/l	0.010	< 0.010
Total PCBs (12 Congeners)	N	1815	µg/l	0.010	< 0.010
Total PCBs (7 congeners)	N	1815	µg/l	0.010	< 0.010
Total Phenols	U	1920	mg/l	0.030	< 0.030

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1030	Total Suspended Solids	Total suspended solids	Filtration of a mixed sample through a standard glass fibre filter and determination of the mass of residue retained dried at 105°C.
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1495	Low Level Hexavalent Chromium in Waters	Chromium [VI]	Colorimetric determination of hexavalent chromium expressed as Cr (VI) µg/l in water, using Ion Chromatography and UV-visible spectrophotometry.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Waters by GC-MS	ICES7 PCB congeners	Solvent extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Appendix C. Upstream surface water quality data

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	pH	Electrical Conductivity	Biochemical Oxygen Demand Low Level	Chemical Oxygen Demand Low Level	Suspended Solids At 105C	Alkalinity (Total)	Chloride	Ammoniacal Nitrogen	Ammonium	Nitrite	Nitrate	Phosphate	Phosphorus (Total)	Sulphate	Total Oxidised Nitrogen	Low-Level Chromium (Hexavalent)
			-	µS/cm	mg O2/l	mg O2/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l
G5	WATER	11/11/2014	8	920	< 1.0	13	110	250	84		0.6		53			78		
G5	WATER	09/06/2015	8.2	1100	< 1.0	12	34	330	130	0.27	0.35	0.8	72	0.54	0.18	110	16	
G5	WATER	17/07/2018	7.7	1200			< 5.0	350	150	0.16	0.2	0.58	51	0.31		110	12	
G5A	WATER	17/07/2018	7.7	1200			< 5.0	350	150	0.15	0.19	0.58	50	0.31		110	12	
G5	WATER	11/06/2019	8.1	950			10	360	120	0.36	0.46	0.33	52	0.59	0.2	98	12	< 0.10
G5	WATER	12/11/2020	8.4	1200			23	310	150	0.42	0.48	0.32	54	1.6		99	12	< 0.10
G5	WATER	19/05/2021	8	940			130	540	73	0.65	0.79	0.86	31	0.49		81	7.2	2.2
G5	WATER	18/11/2021	7.5	1100			18	400	83	0.22	0.28	0.31	38	< 0.20		90	8.6	1.1
G5	WATER	16/06/2022	9.2	770			30	730	180	0.51	0.36	1.1	66	1.2		130	15	
Summary	Max		9.2	1200	0	13	130	730	180	0.65	0.79	1.1	72	1.6	0.2	130	16	2.2
Summary	Min		7.5	770	0	12	10	250	73	0.15	0.19	0.31	31	0.31	0.18	78	7.2	1.1
Summary	Average		8.09	1042	#DIV/0!	12.5	51	402	124	0.34	0.41	0.61	51.9	0.72	0.19	100.7	11.85	1.65
Summary	Count of detection		9	9	0	2	7	9	9	8	9	8	9	7	2	9	8	2
Summary	Count of tests		9	9	2	2	9	9	9	9	9	9	9	9	3	9	9	4
Summary	Max (values below LOD treated as LOD)		9.2	1300	16	88	1400	730	240	67	82	1.1	72	1.6	0.26	130	16	5.3
Summary	Average (values below LOD treated as LOD)		8.038	920.2	3.01	19.72	78.4	353.4	108.14	2.9598182	3.29386	0.3276591	26.1856	0.4615227	0.1312778	89.18	5.8768182	1.13125

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	Chromium (Trivalent)	Chromium (Hexavalent)	Cyanide (Free) Low-Level	Calcium	Potassium	Magnesium	Sodium	Arsenic (Dissolved)	Boron (Dissolved)	Cadmium (Dissolved)	Chromium (Dissolved)	Copper (Dissolved)	Manganese (Dissolved)	Nickel (Dissolved)	Lead (Dissolved)	Zinc (Dissolved)
			µg/l	µg/l	mg/l	mg/l	mg/l	mg/l	mg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014			< 0.005	140	7.8	7.9	43	< 1.0	20	< 0.080	< 1.0	2.2		1.6	< 1.0	17
G5	WATER	09/06/2015			< 0.005	160	12	11	79	1.3	230	0.087	3.1	3.1		5.1	< 1.0	18
G5	WATER	17/07/2018	< 20	< 20	< 0.0050	130	10	9.2	68	2	41	< 0.080	2.1	< 1.0	< 1.0	1.2	< 1.0	3.8
G5A	WATER	17/07/2018	< 20	< 20	< 0.0050	150	10	10	70	1.8	38	< 0.080	2	< 1.0	< 1.0	1.1	< 1.0	3.8
G5	WATER	11/06/2019	1		< 0.0050	150	12	12	68	1.8	54	< 0.080	1.4	< 1.0	640	1.7	< 1.0	17
G5	WATER	12/11/2020	2		< 0.0050	170	16	11	98	1.3	29	< 0.080	2.5	1.4	110	< 1.0	< 1.0	5.8
G5	WATER	19/05/2021	11		< 0.0050	130	7.1	9	48	0.69	32	< 0.11	13	1.9	11	7	< 0.50	19
G5	WATER	18/11/2021			< 0.0050	150	8.1	10	54	0.82	490	< 0.11	< 0.50	0.99	230	1	< 0.50	5.3
G5	WATER	16/06/2022		[B] < 20	< 0.0050	150	17	13	97	1.9	66	< 0.11	0.75	3	11	0.83	< 0.50	13
Summary	Max		11	0	0	170	17	13	98	2	490	0.087	13	3.1	640	7	0	19
Summary	Min		1	0	0	130	7.1	7.9	43	0.69	20	0.087	0.75	0.99	11	0.83	0	3.8
Summary	Average		4.67	#DIV/0!	#DIV/0!	147.8	11.11	10.3	69.4	1.45125	111	0.087	3.55	2.10	200	2.44	#DIV/0!	11.411111
Summary	Count of detection		3	0	0	9	9	9	9	8	9	1	7	6	5	8	0	9
Summary	Count of tests		5	3	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Summary	Max (values below LOD treated as LOD)		45	20	0.006	200	17	14	98	5.4	820	0.56	68	4.2	2900	21	1	26
Summary	Average (values below LOD treated as LOD)		15.3	20	0.00502	143.1	8.922	11.206	54.14	1.6864	158.12	0.1059	7.783	1.625	185.96	2.596	0.859	8.818

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	Mercury Low Level	Iron (Dissolved)	Phosphorus (Dissolved)	Arsenic (Total)	Boron (Total)	Cadmium (Total)	Chromium (Total)	Copper (Total)	Iron (Total)	Manganese (Total)	Nickel (Total)	Lead (Total)	Zinc (Total)	Dissolved Organic Carbon	Total Organic Carbon	Dissolved Organic Carbon Low Level
			µg/l	µg/l	mg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	mg/l
G5	WATER	11/11/2014	< 0.010	30														
G5	WATER	09/06/2015	< 0.010	430													9.6	
G5	WATER	17/07/2018	< 0.010	400	0.1	1.9	42	< 0.080	2.2	< 1.0	420	< 1.0	1.2	< 1.0	3.7	10	10	
G5A	WATER	17/07/2018	< 0.010	380	0.1	1.8	38	< 0.080	2	< 1.0	390	< 1.0	1.2	< 1.0	4.1	11	12	
G5	WATER	11/06/2019	< 0.010	310													11	10
G5	WATER	12/11/2020	< 0.010	440	0.52													11
G5	WATER	19/05/2021	< 0.010	140	0.16													5.9
G5	WATER	18/11/2021	< 0.010	27	0.055													4.7
G5	WATER	16/06/2022	< 0.010	16	0.39												7.7	
Summary	Max		0	440	0.52	1.9	42	0	2.2	0	420	0	1.2	0	4.1	11	12	11
Summary	Min		0	16	0.055	1.8	38	0	2	0	390	0	1.2	0	3.7	10	7.7	4.7
Summary	Average		#DIV/0!	241	0.22	1.85	40	#DIV/0!	2.1	#DIV/0!	405	#DIV/0!	1.2	#DIV/0!	3.9	10.5	10.06	7.9
Summary	Count of detection		0	9	6	2	2	0	2	0	2	0	2	0	2	2	5	4
Summary	Count of tests		9	9	6	2	2	2	2	2	2	2	2	2	2	4	6	4
Summary	Max (values below LOD treated as LOD)		0.29	650	0.52	4.4	59	0.08	11	3.3	560	60	1.2	1	7.1	11	13	92
Summary	Average (values below LOD treated as LOD)		0.01922	210.914	0.1542308	2.2142857	39.857143	0.08	3.3571429	1.7	424.28571	19.8	1.0857143	1	3.5857143	8.5714286	7.383871	12.311111

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	Total TPH >C6-C40	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]anthracene	Chrysene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo[a]pyrene	Indeno(1,2,3-c,d)Pyrene	Dibenz(a,h)Anthracene
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014	< 10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	09/06/2015	< 10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	17/07/2018	< 10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
G5A	WATER	17/07/2018	< 10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
G5	WATER	11/06/2019	< 10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	12/11/2020	< 10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	19/05/2021	< 10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	18/11/2021	< 10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	16/06/2022		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Summary	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Average		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Summary	Count of detection		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Summary	Max (values below LOD treated as LOD)		190	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Summary	Average (values below LOD treated as LOD)		16.444444	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716	0.0716

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	Benzo[g,h,i]perylene	Total Of 16 PAH's	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Trans 1,2-Dichloroethene	1,1-Dichloroethane	cis 1,2-Dichloroethene	Bromochloromethane	Trichloromethane	1,1,1-Trichloroethane	Tetrachloromethane
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014	< 0.010	< 0.20	< 1.0	< 1.0	< 1.0	< 5	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
G5	WATER	09/06/2015	< 0.010	< 0.20	< 1.0	< 1.0	< 1.0	< 5	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
G5	WATER	17/07/2018	< 0.10	< 2.0	< 1.0	< 1.0	< 1.0	< 5.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
G5A	WATER	17/07/2018	< 0.10	< 2.0	< 1.0	< 1.0	< 1.0	< 5.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
G5	WATER	11/06/2019	< 0.010	< 0.20	< 1.0	< 1.0	< 1.0	< 5.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
G5	WATER	12/11/2020	< 0.010	< 0.20	< 0.10	< 0.10	< 0.10	< 2.0	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.10	< 0.10
G5	WATER	19/05/2021	< 0.010	< 0.20	< 0.10	< 0.10	< 0.10	< 2.0	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.10	< 0.10
G5	WATER	18/11/2021	< 0.010	< 0.20	< 0.10	< 0.10	< 0.10	< 2.0	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.10	< 0.10
G5	WATER	16/06/2022	< 0.50	< 0.20	< 0.10	< 0.10	< 0.10	< 2.0	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.10	< 0.10
Summary	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Average		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Summary	Count of detection		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Summary	Max (values below LOD treated as LOD)		0.5	2	1	1	1	5	2	1	1	1	1	1	5	1	1	1
Summary	Average (values below LOD treated as LOD)		0.0716	0.452	0.658	0.658	0.658	3.86	1.316	0.658	0.658	0.658	0.658	0.658	3.29	0.658	0.658	0.658

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	1,1-Dichloropropene	Benzene	1,2-Dichloroethane	Trichloroethene	1,2-Dichloropropane	Dibromomethane	Bromodichloromethane	cis-1,3-Dichloropropene	Toluene	Trans-1,3-Dichloropropene	1,1,2-Trichloroethane	Tetrachloroethene	1,3-Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Chlorobenzene
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0
G5	WATER	09/06/2015	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0
G5	WATER	17/07/2018	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0
G5A	WATER	17/07/2018	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0
G5	WATER	11/06/2019	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0
G5	WATER	12/11/2020	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10
G5	WATER	19/05/2021	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10
G5	WATER	18/11/2021	< 0.10	< 0.10	< 0.20	0.77	< 0.10	< 0.10	< 0.50	< 1.0	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10
G5	WATER	16/06/2022	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10
Summary	Max		0	0	0	0.77	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Min		0	0	0	0.77	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Average		#DIV/0!	#DIV/0!	#DIV/0!	0.77	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Summary	Count of detection		0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Summary	Max (values below LOD treated as LOD)		1	1	2	1	1	10	5	10	1	10	10	1	2	10	5	1
Summary	Average (values below LOD treated as LOD)		0.658	0.658	1.316	0.6812	0.658	6.238	3.29	6.58	0.658	6.58	6.238	0.658	1.316	6.58	3.29	0.658

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	1,1,1,2-Tetrachloroethane	Ethylbenzene	m & p-Xylene	o-Xylene	Styrene	Tribromomethane	Isopropylbenzene	Bromobenzene	1,2,3-Trichloropropane	N-Propylbenzene	2-Chlorotoluene	1,3,5-Trimethylbenzene	4-Chlorotoluene	Tert-Butylbenzene	1,2,4-Trimethylbenzene	Sec-Butylbenzene
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
G5	WATER	09/06/2015	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
G5	WATER	17/07/2018	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
G5A	WATER	17/07/2018	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
G5	WATER	11/06/2019	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
G5	WATER	12/11/2020	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 0.10	< 0.10	< 5.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
G5	WATER	19/05/2021	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 0.10	< 0.10	< 5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
G5	WATER	18/11/2021	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 0.10	< 0.10	< 5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
G5	WATER	16/06/2022	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 0.10	< 0.10	< 5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Summary	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Average		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Summary	Count of detection		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Summary	Max (values below LOD treated as LOD)		2	1	1	1	1	1	1	1	50	1	1	1	1	1	1	1
Summary	Average (values below LOD treated as LOD)		1.316	0.658	0.658	0.658	0.658	1	0.658	0.658	32.9	0.658	0.658	0.658	0.658	0.658	0.658	0.658

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	1,3-Dichlorobenzene	4-Isopropyltoluene	1,4-Dichlorobenzene	N-Butylbenzene	1,2-Dichlorobenzene	1,2-Dibromo-3-Chloropropane	1,2,4-Trichlorobenzene	Hexachlorobutadiene	1,2,3-Trichlorobenzene	Methyl Tert-Butyl Ether	PCB 28	PCB 52	PCB 101	PCB 118	PCB 153	PCB 138
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	09/06/2015	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	17/07/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
G5A	WATER	17/07/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
G5	WATER	11/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
G5	WATER	12/11/2020	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 5.0	< 0.10	< 0.10	< 0.20	< 0.10	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
G5	WATER	19/05/2021	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 5	< 0.10	< 0.10	< 0.20	< 0.10	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
G5	WATER	18/11/2021	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 5	< 0.10	< 0.10	< 0.20	< 0.10	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
G5	WATER	16/06/2022	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 5	< 0.10	< 0.10	< 0.20	< 0.10	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
Summary	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Average		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Summary	Count of detection		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		9	9	9	9	9	9	9	9	9	9	9	9	2	9	9	9
Summary	Max (values below LOD treated as LOD)		1	1	1	1	1	50	1	1	2	1	0.01	0.01	0.01	0.01	0.01	0.01
Summary	Average (values below LOD treated as LOD)		0.658	0.658	0.658	0.658	0.658	32.9	0.658	0.658	1.316	0.658	0.01	0.01	0.01	0.01	0.01	0.01

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	PCB 180	Total PCBs (7 congeners)	Total Phenols	PCB 81	PCB 77	PCB 105	PCB 90+101	PCB 114	PCB 123	PCB 126	PCB 156	PCB 157	PCB 167	PCB 169	PCB 189	Total PCBs (12 Congeners)
			µg/l	µg/l	mg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014	< 0.010	< 0.010	< 0.030													
G5	WATER	09/06/2015	< 0.010	< 0.010	< 0.030													
G5	WATER	17/07/2018	< 0.010	< 0.010	< 0.030	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5A	WATER	17/07/2018	< 0.010	< 0.010	< 0.030	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	11/06/2019	< 0.010	< 0.010	< 0.030	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	12/11/2020	< 0.010	< 0.010	< 0.030	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	19/05/2021	< 0.010	< 0.010	< 0.030	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	18/11/2021	< 0.010	< 0.010	< 0.030	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
G5	WATER	16/06/2022				< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010							
Summary	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Average		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Summary	Count of detection		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		8	8	8	7	7	7	7	7	7	6	6	6	6	6	6	6
Summary	Max (values below LOD treated as LOD)		0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Summary	Average (values below LOD treated as LOD)		0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	N-Nitrosodimethylamine	Phenol	2-Chlorophenol	Bis-(2-Chloroethyl)Ether	2-Methylphenol (o-Cresol)	Bis(2-Chloroisopropyl)Ether	Hexachloroethane	N-Nitrosodi-n-propylamine	4-Methylphenol	Nitrobenzene	Isophorone	2-Nitrophenol	2,4-Dimethylphenol	Bis(2-Chloroethoxy)Methane	2,4-Dichlorophenol	4-Chloroaniline
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014																
G5	WATER	09/06/2015																
G5	WATER	17/07/2018																
G5A	WATER	17/07/2018																
G5	WATER	11/06/2019	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	12/11/2020	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	19/05/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	18/11/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	16/06/2022	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Summary	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Average		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Summary	Count of detection		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Summary	Max (values below LOD treated as LOD)		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Summary	Average (values below LOD treated as LOD)		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	4-Chloro-3-Methylphenol	2-Methylnaphthalene	Hexachlorocyclopentadiene	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	2-Chloronaphthalene	2-Nitroaniline	Dimethylphthalate	2,6-Dinitrotoluene	3-Nitroaniline	Dibenzofuran	4-Chlorophenylphenylether	2,4-Dinitrotoluene	Diethyl Phthalate	4-Nitroaniline	2-Methyl-4,6-Dinitrophenol
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014																
G5	WATER	09/06/2015																
G5	WATER	17/07/2018																
G5A	WATER	17/07/2018																
G5	WATER	11/06/2019	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	12/11/2020	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	19/05/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	18/11/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	16/06/2022	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Summary	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Average		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Summary	Count of detection		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Summary	Max (values below LOD treated as LOD)		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Summary	Average (values below LOD treated as LOD)		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Surface Water Quality Data G5

Client Sample ID.:	Sample Type:	Date Sampled:	Azobenzene	4-Bromophenylphenyl Ether	Hexachlorobenzene	Pentachlorophenol	Carbazole	Di-N-Butyl Phthalate	Butylbenzyl Phthalate	Bis(2-Ethylhexyl) Phthalate	Di-N-Octyl Phthalate	4-Nitrophenol
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G5	WATER	11/11/2014										
G5	WATER	09/06/2015										
G5	WATER	17/07/2018										
G5A	WATER	17/07/2018										
G5	WATER	11/06/2019	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	12/11/2020	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	19/05/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	18/11/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	16/06/2022	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Summary	Max		0	0	0	0	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	0	0	0	0
Summary	Average		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Summary	Count of detection		0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		5	5	5	5	5	5	5	5	5	5
Summary	Max (values below LOD treated as LOD)		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Summary	Average (values below LOD treated as LOD)		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Appendix D. Groundwater Data

AD6 Groundwater Data

			Piz 1A	Piz 1B	AD6-BH312	Piz 1A	Piz 3A	PIEZ 1B	AD6	AF6	GW2	PIEZ-3B	PIEZ-3A	PIEZ-1B	PIEZ-1A	PIEZ-2A	AD6
	UNITS	LOD	12-Nov-2020	12-Nov-2020	11-Nov-2021	18-Nov-2021	18-Nov-2021	09-Dec-2021	21-Mar-2022	16-Jun-2022	16-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	30-Jun-2022
pH			8.3	8.4	7.8	7.6	7.7	8.2	7.3	9.1	7.9	8.1	8.3	8.4	8.4	8.4	7.5
Electrical Conductivity	µS/cm	1.0	1300	2000	610	560	1500	2300	1300	800	640	1400	1500	1500	1600	1700	1100
Suspended Solids At 105C	mg/l	5.0	20	16	42	43	30	34	21	60	470	850	17	12	62	11	92
Alkalinity (Total)	mg/l	10	240	320	60	110	430	360	320	640	26	410	450	470	510	410	140
Chloride	mg/l	1.0	68	510	67	71	310	550	170	67	47	53	53	680	350	620	75
Ammonium	mg/l	0.050	0.22	2.9	0.075	0.24	0.29	2.3	0.50	1.1	1.2	0.34	0.42	1.1	0.56	0.24	0.24
Ammoniacal Nitrogen	mg/l	0.050	0.19	2.6	0.060	0.19	0.23	1.9	0.39	1.5	1.0	0.29	0.36	0.93	0.50	0.21	0.19
Nitrite	mg/l	0.020	0.98	< 0.020	0.029	< 0.020	< 0.020	< 0.020	0.14	1.3	0.034	0.068	0.069	0.063	0.063	0.32	0.28
Nitrate	mg/l	0.50	0.98	< 0.50	110	82	0.74	8.8	45	100	150	< 0.50	< 0.50	< 0.50	0.92	8.9	13
Phosphate	mg/l	0.200	0.35	< 0.20	0.84	0.55	0.47	2.1	0.20	< 0.20	< 0.20	< 0.20	< 0.20	2.3	0.90	< 0.20	< 0.20
Phosphorus (Dissolved)	mg/l	0.020	0.11	0.039	0.27	0.18	0.15	0.69	0.065	0.059	0.049	0.052	< 0.020	0.75	0.29	< 0.020	< 0.020
Sulphate	mg/l	1.0	38	27	50	43	< 1.0	61	130	180	95	24	65	37	25	160	120
Total Oxidised Nitrogen	mg/l	0.20	0.52	< 0.20	25	19	< 0.20	2.0	10	23	34	< 0.20	< 0.20	< 0.20	0.23	2.1	2.9
Cyanide (Free) Low-Level	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	mg/l	5.0	69	150	63	51	66	100	160	130	62	130	130	88	65	170	150
Potassium	mg/l	0.50	6.6	21	6.8	1.6	6.5	13	6.5	13	3.1	3.2	3.7	12	7.3	16	6.2
Magnesium	mg/l	0.50	3.1	4.3	7.0	4.6	2.9	3.6	12	12	19	7.6	9.1	2.8	3.2	13	10
Sodium	mg/l	0.50	90	460	31	42	230	360	73	42	20	34	30	380	240	270	39
Arsenic (Dissolved)	µg/l	1.0	5.9	3.2	0.48	0.85	5.8	1.5	1.1	3.2	0.49	2.5	0.75	3.4	7.8	1.7	0.79
Boron (Dissolved)	µg/l	20	< 20	< 20	18	660	670	51	43	110	29	47	37	40	130	55	34
Cadmium (Dissolved)	µg/l	0.080	< 0.080	< 0.080	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	0.19	< 0.11	0.49	0.44	0.58	0.62	0.57	< 0.11
Chromium (Dissolved)	µg/l	1.0	24	15	7.2	0.83	3.0	1.4	1.8	8.0	16	< 0.50	2.0	6.9	8.1	1.3	< 0.50
Copper (Dissolved)	µg/l	1.0	5.5	1.0	< 0.50	< 0.50	5.2	< 0.50	1.1	1.0	0.83	< 0.50	1.4	1.0	3.6	6.4	< 0.50
Iron (Dissolved)	µg/l	20	850	430	< 5.0	< 5.0	430	380	< 5.0	< 5.0	25	100	6.2	580	340	< 5.0	< 5.0
Manganese (Dissolved)	µg/l	1.0	62	9.8	< 0.50	11	81	140	23	14	11	1100	820	120	74	260	19
Nickel (Dissolved)	µg/l	1.0	< 1.0	5.0	< 0.50	< 0.50	3.5	2.8	1.0	0.70	18	0.95	< 0.50	3.6	3.0	8.6	< 0.50
Lead (Dissolved)	µg/l	1.0	< 1.0	< 1.0	< 0.50	< 0.50	1.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.65	1.4	0.50	< 0.50
Selenium (Dissolved)	µg/l	0.50						0.85	< 0.50								
Zinc (Dissolved)	µg/l	1.0	< 1.0	< 1.0	< 2.5	< 2.5	2.6	< 2.5	5.2	7.3	13	5.3	5.0	6.6	4.9	6.4	< 2.5
Mercury Low Level	µg/l	0.010	0.023	< 0.010	< 0.010	< 0.010	0.013	< 0.010	< 0.010	< 0.010	< 0.010	0.091	0.39	0.91	< 0.010	< 0.010	< 0.010
Low-Level Chromium (Hexavalent)	µg/l	0.10	< 0.10	0.33	3.4	0.43	< 0.10										
Chromium (Trivalent)	µg/l	1	24	15					< 1	8	16	< 1	2	7	8	1	< 1
Chromium (Hexavalent)	µg/l	20						< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Dissolved Organic Carbon Low Level	mg/l	N/A	34	81	1.4	1.1	44	36	71								
Total TPH >C6-C40	µg/l	10	< 10	< 10	< 10	< 10	< 10										
Naphthalene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluorene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Anthracene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoranthene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Pyrene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chrysene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo fluoranthene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

			Piez 1A	Piez 1B	AD6-BH312	Piez 1A	Piez 3A	PIEZ 1B	AD6	AF6	GW2	PIEZ-3B	PIEZ-3A	PIEZ-1B	PIEZ-1A	PIEZ-2A	AD6
	UNITS	LOD	12-Nov-2020	12-Nov-2020	11-Nov-2021	18-Nov-2021	18-Nov-2021	09-Dec-2021	21-Mar-2022	16-Jun-2022	16-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	30-Jun-2022
Benzo[a]pyrene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dichlorodifluoromethane	µg/l	0.10	< 0.10	< 0.10		< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chloromethane	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Vinyl Chloride	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromomethane	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20			< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trichlorofluoromethane	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trans 1,2-Dichloroethene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethane	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
cis 1,2-Dichloroethene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromochloromethane	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloromethane	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,1-Trichloroethane	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tetrachloromethane	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloropropene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloroethane	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20			< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trichloroethene	µg/l	0.10	< 0.10	< 0.10		< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichloropropane	µg/l	0.10	< 0.10	< 0.10		< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibromomethane	µg/l	0.10	< 0.10	< 0.10		< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromodichloromethane	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	µg/l	1.0	< 1.0	< 1.0		< 1.0	< 1.0			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trans-1,3-Dichloropropene	µg/l	1.0	< 1.0	< 1.0		< 1.0	< 1.0			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/l	0.1	< 0.1	< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	µg/l	0.10	< 0.10	< 0.10		< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3-Dichloropropane	µg/l	0.20	< 0.20	< 0.20		< 0.20	< 0.20			< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dibromochloromethane	µg/l	1.0	< 1.0	< 1.0		< 1.0	< 1.0			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,1,2-Tetrachloroethane	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20			< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
m & p-Xylene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
o-Xylene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Styrene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tribromomethane	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Bromobenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichloropropane	µg/l	5.0	< 5.0	< 5.0	< 5	< 5	< 5			< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
N-Propylbenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
2-Chlorotoluene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3,5-Trimethylbenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
4-Chlorotoluene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Tert-Butylbenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,4-Trimethylbenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Sec-Butylbenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,3-Dichlorobenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
4-Isopropyltoluene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,4-Dichlorobenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

			Piez 1A	Piez 1B	AD6-BH312	Piez 1A	Piez 3A	PIEZ 1B	AD6	AF6	GW2	PIEZ-3B	PIEZ-3A	PIEZ-1B	PIEZ-1A	PIEZ-2A	AD6
	UNITS	LOD	12-Nov-2020	12-Nov-2020	11-Nov-2021	18-Nov-2021	18-Nov-2021	09-Dec-2021	21-Mar-2022	16-Jun-2022	16-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	30-Jun-2022
N-Butylbenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dichlorobenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2-Dibromo-3-Chloropropane	µg/l	5.0	< 5.0	< 5.0	< 5	< 5	< 5			< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2,4-Trichlorobenzene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Hexachlorobutadiene	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20			< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Methyl Tert-Butyl Ether	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10			< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
N-Nitrosodimethylamine	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

			Piez 1A	Piez 1B	AD6-BH312	Piez 1A	Piez 3A	PIEZ 1B	AD6	AF6	GW2	PIEZ-3B	PIEZ-3A	PIEZ-1B	PIEZ-1A	PIEZ-2A	AD6
	UNITS	LOD	12-Nov-2020	12-Nov-2020	11-Nov-2021	18-Nov-2021	18-Nov-2021	09-Dec-2021	21-Mar-2022	16-Jun-2022	16-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	30-Jun-2022
Anthracene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo fluoranthene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	µg/l	0.50	< 0.50	< 0.50		< 0.50	< 0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
PCB 28	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 81	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 52	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 77	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 105	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 90+101	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 114	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 153	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 123	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 138	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 126	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 180	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 156	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 157	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 167	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 169	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 189	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (7 congeners)	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010			< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Phenols	mg/l	0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030		< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030
Aggressive Dissolved CO2	mg/l	0.60				5.2	< 0.60		< 0.60								
Benzene	µg/l	0.10						< 0.10	< 0.10								
Toluene	µg/l	0.10						< 0.10	< 0.10								
Ethylbenzene	µg/l	0.10						< 0.10	< 0.10								
m & p-Xylene	µg/l	0.10						< 0.10	< 0.10								
o-Xylene	µg/l	0.10						< 0.10	< 0.10								
Total Organic Carbon	mg/l	2.0						36									
Aliphatic TPH >C5-C6	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

			Piez 1A	Piez 1B	AD6-BH312	Piez 1A	Piez 3A	PIEZ 1B	AD6	AF6	GW2	PIEZ-3B	PIEZ-3A	PIEZ-1B	PIEZ-1A	PIEZ-2A	AD6
	UNITS	LOD	12-Nov-2020	12-Nov-2020	11-Nov-2021	18-Nov-2021	18-Nov-2021	09-Dec-2021	21-Mar-2022	16-Jun-2022	16-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	30-Jun-2022
Total Aliphatic Hydrocarbons	µg/l	5.0						< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	µg/l	0.10						< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	µg/l	5.0						< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	µg/l	10						< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

Appendix E. H1 Surface water screening tests

ATKINS

Surface Water H1 Risk Assessment Phase 1, Part A Screening Tests

Cells highlighted amber are not an operational EQS given in the Surface Water Pollution Risk Assessment .gov.uk webpage.

RFR: Watercourse Q95 flow m^3/s	EFR: Effluent flow rate (maximum) m^3/s	EFR: Effluent flow rate (mean) m^3/s
0.0168	0.00616	0.000231

Pre-SCREENING — Is the substance present in the discharge?

SCREENING TEST 1 — Does mean release concentration (RC) exceed 10% EQS?

SCREENING TEST 2 — does the process contribution (PC) exceed 4 percent of the EQS?

SCREENING TEST 3 — Does the difference between upstream quality and the Predicted Environmental Concentration (PEC) exceed 10% of the EQS

SCREENING TEST 4 — Does the PEC exceed the EQS in the receiving water downstream of the discharge

Constituents	Unit	Limit of Detection	Freshwater EQS (Annual Average)	Freshwater EQS - Maximum allowable concentration (MAC)	Number of Samples	Minimum Value in discharge	Maximum Value in discharge	discharge mean (values below LOD treated as LOD)	count of tests	count of detections	Is the substance measured above LOD in the discharge?	Is the LOD sufficiently low (LOD<10% of EQS?)	10% EQS (AA)	Test failed? (AA)	10% EQS (MAC), where available	Test failed? (MAC)	Process Contribution PC (mean)	4% EQS (AA)	Test failed? (AA)	Process Contribution PC (max)	4% EQS (MAC), where available	Test failed? (MAC)	Predicted Environmental Concentration (PEC) (mean) (mg/l)	BC- Mean Upstream Concentration (values below LOD treated as LOD) mg/l	Test 3 Failed? (AA)	BC (MAC) Maximum Upstream Concentration (values below LOD treated as LOD)	Predicted Environmental Concentration (PEC) (max) (mg/l)	Test 3 failed? (MAC)	AA test fail? (AA PC (above AA EQS)	MAC test failed? (MAC-PEC above MAC EQS)
Phosphorus (Dissolved)	mg/l	0.02	0.008	N/A	15	0.02	0.75	0.184	15	12	Yes	No	0.0008	Yes	N/A	N/A	0.0025	0.00032	Yes	N/A	N/A	N/A	0.22034	0.220833333	NO	0.52000	0.363	N/A	Yes	NO
Nitrite	mg/l	0.02	0.01	N/A	15	0.02	1.3	0.228	15	11	Yes	No	0.0010	Yes	N/A	N/A	0.0031	0.00040	Yes	N/A	N/A	N/A	0.60481	0.61	NO	1.10000	0.795	N/A	Yes	NO
Dissolved Chromium (Trivalent)	mg/l	0.001	0.0047	0.032	11	0.001	0.0240	0.00764	11	8	Yes	No	0.0005	Yes	0.0032	Yes	0.0001	0.00019	No	0.0064	0.001280	Yes	0.01076	0.0108	NO	0.02000	0.014	No	Yes	NO
Benzo[a]pyrene	mg/l	0.00001	0.00000017	0.00027	12	0.0005	0.00050	0.00050	12	0	No	No	0.00000002	Yes	2.7E-05	Yes	6.8E-06	0.00000	Yes	0.0001	0.000011	Yes	0.00009	8.44444E-05	Yes	0.00050	0.000	No	Yes	NO
Cyanide (Free) Low-Level	mg/l	0.005	0.001	0.005	15	0.005	0.005	0.0050	15	0	No	No	0.0001	Yes	0.0005	Yes	6.8E-05	0.00004	Yes	0.0013	0.000200	Yes	0.00500	0.005	NO	0.00500	0.005	No	Yes	NO
Anthracene	mg/l	0.00001	0.0001	0.0001	12	0.0005	0.00050	0.00050	12	0	No	No	0.000010	Yes	0.00001	Yes	6.8E-06	0.00000	Yes	0.0001	0.000004	Yes	0.00009	8.44444E-05	NO	0.00050	0.0002	No	NO	yes
Benzo[a]pyrene	mg/l	0.00001	0.00000017	0.00027	15	0.00001	0.000010	0.000010	15	0	No	No	0.000000	Yes	2.7E-05	No	1.4E-07	0.00000	Yes	0.0000	0.000011	No	0.00008	8.44444E-05	NO	0.00050	0.0001	No	Yes	NO
Fluoranthene	mg/l	0.00001	0.0000063	0.00012	12	0.0005	0.00050	0.00050	12	0	No	No	0.000001	Yes	1.2E-05	Yes	6.8E-06	0.00000	Yes	0.0001	0.000005	Yes	0.00009	8.44444E-05	Yes	0.00050	0.0002	No	Yes	yes
Hexachlorobenzene	mg/l	0.0005	0.00005	0.00005	12	0.0005	0.00050	0.00050	12	0	No	No	0.000005	Yes	5E-06	Yes	6.8E-06	0.00000	Yes	0.0001	0.000002	Yes	0.00050	0.0005	NO	0.00050	0.001	No	Yes	yes
Dissolved Chromium (Hexavalent)	mg/l	0.02	0.0034	N/A	10	0.02	0.020	0.020	10	0	No	No	0.000340	Yes	N/A	N/A	0.00027	0.00014	Yes	N/A	N/A	N/A	0.02000	0.02	NO	0.02000	0.020	N/A	Yes	NO
Pentachlorophenol	mg/l	0.0005	0.0004	0.001	12	0.0005	0.0005	0.0005	12	0	No	No	0.000040	Yes	0.0001	Yes	6.8E-06	0.00002	No	0.0001	0.000040	Yes	0.00050	0.0005	NO	0.00050	0.001	No	Yes	NO
Nickel (Dissolved)	mg/l	0.001	0.017	0.034	15	0.0005	0.018	0.0033	15	10	Yes	Yes	0.0017	Yes	0.0034	Yes	4.5E-05	0.00008	No	0.0048	0.001360	Yes	0.00230	0.002281111	NO	0.00700	0.006	No	NO	NO
Cadmium (Dissolved)	mg/l	0.00008	0.00025	0.0015	15	0.00008	0.00062	0.0003	15	6	Yes	No	0.0000	Yes	0.00015	Yes	3.5E-06	0.00001	No	0.0002	0.000060	Yes	0.00009	9.07778E-05	NO	0.00011	0.0002	No	NO	NO
Hexachlorobutadiene	mg/l	0.0001	No AA-EQS	0.0006	13	0.0001	0.0001	0.0001	13	0	No	No	N/A	N/A	0.00006	Yes	N/A	N/A	N/A	0.00003	0.000024	Yes	0.00059	0.0006	N/A	0.001000	0.00047	No	NO	NO
Fluoranthene	mg/l	0.00001	0.0000063	0.00012	15	0.00001	0.00001	0.0000	15	0	No	No	0.0000	Yes	1.2E-05	No	1.4E-07	0.00000	No	0.0000	0.000005	No								
Low-Level Dissolved Chromium (Hexavalent)	mg/l	0.0001	0.0034	N/A	5	0.0001	0.0034	0.00087	5	3	Yes	Yes	0.0003	Yes	N/A	N/A	1.2E-05	0.00014	No	N/A	N/A	N/A								
Ammonium	mg/l	0.05	0.6	N/A	15	0.075	2.9	0.782	15	15	Yes	Yes	0.0600	Yes	N/A	N/A	0.01062	0.02400	No	N/A	N/A	N/A								
Sulphate	mg/l	1	400	N/A	15	1	180	70.4	15	14	Yes	Yes	40.0000	Yes	N/A	N/A	0.95683	16.00000	No	N/A	N/A	N/A								
Chloride	mg/l	1	250	N/A	15	47	680	246	15	15	Yes	Yes	25.0000	Yes	N/A	N/A	3.34439	10.00000	No	N/A	N/A	N/A								
Iron (Dissolved)	mg/l	0.02	1	N/A	15	0.005	0.85	0.2114	15	9	Yes	Yes	0.1000	Yes	N/A	N/A	0.00287	0.04000	No	N/A	N/A	N/A								
Manganese (Dissolved)	mg/l	0.001	0.123	N/A	15	0.0005	1.1	0.183	15	14	Yes	Yes	0.0123	Yes	N/A	N/A	0.00249	0.00492	No	N/A	N/A	N/A								
Ammoniacal Nitrogen	mg/l	0.05	0.47	N/A	15	0.06	2.6	0.703	15	15	Yes	No	0.0467	Yes	N/A	N/A	0.00955	0.01867	No	N/A	N/A	N/A								
Dissolved Mercury Low Level	mg/l	0.00001	0.00007	N/A	15	0.00001	0.00091	0.000102	15	5	Yes	No	0.0000	Yes	N/A	N/A	1.4E-06	0.00000	No	N/A	N/A	N/A								
Naphthalene	mg/l	0.0005	0.002	N/A	12	0.0005	0.0005	0.0005	12	0	No	No	0.0002	Yes	N/A	N/A	6.8E-06	0.00008	No	N/A	N/A	N/A								
Hexachlorobutadiene	mg/l	0.0005	0.0006	N/A	12	0.0005	0.0005	0.0005	12	0	No	No	0.0001	Yes	N/A	N/A	6.8E-06	0.00002	No	N/A	N/A	N/A								
2,4-Dichlorophenol	mg/l	0.0005	0.0042	N/A	12	0.0005	0.0005	0.0005	12	0	No	No	0.0004	Yes	N/A	N/A	6.8E-06	0.00017	No	N/A	N/A	N/A								
Lead (Dissolved)	mg/l	0.001	0.012	0.014	15	0.0005	0.0015	0.0007	15	4	Yes	Yes	0.0012	No	0.0014	Yes	9.6E-06	0.00048	No	0.0004	0.000560	No								
Anthracene	mg/l	0.00001	0.0001	0.0001	15	0.00001	0.00001	0.0000	15	0	No	No	0.0000	No	0.00001	No														
Copper (Dissolved)	mg/l	0.001	0.029	N/A	15	0.0005	0.0064	0.0020	15	10	Yes	Yes	0.0029	No	N/A	N/A														
Zinc (Dissolved)	mg/l	0.001	0.049	N/A	15	0.001	0.013	0.0046	15	9	Yes	Yes	0.0049	No	N/A	N/A														
Boron (Dissolved)	mg/l	0.02	2	N/A	15	0.018	0.67	0.131	15	13	Yes	Yes	0.2000	No	N/A	N/A														
Arsenic (Dissolved)	mg/l	0.001	0.05	N/A	15	0.00048	0.0078	0.0026	15	15	Yes	Yes	0.0050	No	N/A	N/A														
m & p-Xylene	mg/l	0.0001	0.03	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
o-Xylene	mg/l	0.0001	0.03	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Benzene	mg/l	0.0001	0.01	0.05	2	0.0001	0.0001	0.0001	2	0	No	Yes																		
Toluene	mg/l	0.0001	0.074	0.38	2	0.0001	0.0001	0.0001	2	0	No	Yes																		
Ethylbenzene	mg/l	0.0001	0.02	N/A	2	0.0001	0.0001	0.0001	2	0	No	Yes																		
1,4-Dichlorobenzene	mg/l	0.0001	0.02	0.2	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,2-Dichlorobenzene	mg/l	0.0001	0.02	0.2	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Phenol	mg/l	0.0005	0.0077	0.046	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
2-Chlorophenol	mg/l	0.0005	0.05	N/A	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
1,4-Dichlorobenzene	mg/l	0.0005	0.02	0.2	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
1,2-Dichlorobenzene	mg/l	0.0005	0.02	0.2	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
4-Chloro-3-Methylphenol	mg/l	0.0005	0.04	N/A	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
Dimethylphthalate	mg/l	0.0005	0.8	4	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
Naphthalene	mg/l	0.00001	0.002	0.13	15	0.00001	0.00001	0.0000	15	0	No	Yes																		
Trichloromethane	mg/l	0.0001	0.0025	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,1,1-Trichloroethane	mg/l	0.0001	0.1	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Tetrachloromethane	mg/l	0.0001	0.012	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Benzene	mg/l	0.0001	0.01	0.05	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,2-Dichloroethane	mg/l	0.0002	0.01	N/A	13	0.0002	0.0002	0.0002	13	0	No	Yes																		
Trichloroethene	mg/l	0.0001	0.01	N/A	12	0.0001	0.0001	0.0001	12	0	No	Yes																		
Toluene	mg/l	0.0001	0.074	0.38	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,1,2-Trichloroethane	mg/l	0.0001	0.4	N/A	12	0.0001	0.0001	0.0001	12	0	No	Yes																		
Tetrachloroethene	mg/l	0.0001	0.01	N/A	12	0.0001	0.0001	0.0001	12	0	No	Yes																		
Ethylbenzene	mg/l	0.0001	0.02	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Styrene	mg/l	0.0001	0.05	0.5	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,3-Dichlorobenzene	mg/l	0.0001	0.02	0.2	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,3-Dichlorobenzene	mg/l	0.0005	0.02	0.2	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
Chromium (Dissolved)	mg/l	0.001	No EQS	N/A	15	0.0005	0.024	0.0064	15	13	Yes	N/A No EQS																		
Nitrate	mg/l	0.5	No EQS	N/A	15	0.5	150	34.8	15	11	Yes	N/A No EQS																		
Phosphate	mg/l	0.2	No EQS	N/A	15	0.2	2.3	0.607	15	8	Yes	N/A No EQS																		
Total Oxidised Nitrogen	mg/l	0.2	No EQS	N/A	15	0.2	34	7.98	15	10	Yes	N/A No EQS																		
Calcium	mg/l	5	No EQS	N/A	15	51	170	106	15	15	Yes	N/A No EQS																		
Potassium	mg/l	0.5	No EQS	N/A	15	1.6	21	8.43	15	15	Yes	N/A No EQS																		
Magnesium	mg/l	0.5	No EQS	N/A	15	2.8	19	7.61	15	15	Yes	N/A No EQS																		
Sodium	mg/l	0.5	No EQS	N/A	15	20	460	156	15	15	Yes	N/A No EQS																		
Selenium (Dissolved)	mg/l	0.0005	No EQS	N/A	2	0.0005	0.00085	0.000675	2	1	Yes	N/A No EQS																		
Dissolved Organic Carbon Low Level	mg/l	N/A	No EQS	N/A	7	1.1	81	38.4	7	7	Yes	N/A No EQS																		
Aggressive Dissolved CO2	mg/l	0.6	No EQS	N/A	3	0.6	5.2	2.13	3	1	Yes	N/A No EQS																		
Total Organic Carbon	mg/l	2	No EQS	N/A	1	36	36	36	1	1	Yes	N/A No EQS																		
1,1-Dichloropropene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
Acenaphthene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		
Fluorene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		
Phenanthrene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		
Pyrene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		
Benzo[a]anthracene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		
Chrysene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		
Benzo fluoranthene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		
Benzo[k]fluoranthene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		
Indeno(1,2,3-c,d)Pyrene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		
Dibenz(a,h)Anthracene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																		

Surface Water H1 Risk Assessment Phase 1, Part A Screening Tests

Cells highlighted amber are not an operational EQS given in the Surface Water Pollution Risk Assessment .gov.uk webpage.

RFR: Watercourse Q95 flow m^3/s = 0.0168

EFR: Effluent flow rate (maximum) m^3/s = 0.00616

EFR: Effluent flow rate (mean) m^3/s = 0.000231

Pre-SCREENING Is the substance present in the discharge?

SCREENING TEST 1 Does mean release concentration (RC) exceed 10% EQS?

SCREENING TEST 2 does the process contribution (PC) exceed 4 percent of the EQS?

SCREENING TEST 3 Does the difference between upstream quality and the Predicted Environmental Concentration (PEC) exceed 10% of the EQS

SCREENING TEST 4 Does the PEC exceed the EQS in the receiving water downstream of the discharge

Constituents	Unit	Limit of Detection	Freshwater EQS (Annual Average)	Freshwater EQS - Maximum allowable concentration (MAC)	Number of Samples	Minimum Value in discharge	Maximum Value in discharge	discharge mean (values below LOD treated as LOD)	count of tests	count of detections	Is the substance measured above LOD in the discharge?	Is the LOD sufficiently low (LOD<10% of EQS?)	10% EQS (AA)	Test failed? (AA)	10% EQS (MAC), where available	Test failed? (MAC)	Process Contribution PC (mean)	4% EQS (AA)	Test failed? (AA)	Process Contribution PC (max)	4% EQS (MAC), where available	Test failed? (MAC)	Predicted Environmental Concentration (PEC) (mean) (mg/l)	BC- Mean Upstream Concentration (values below LOD treated as LOD) mg/l	Test 3 failed? (AA)	BC (MAC) Maximum Upstream Concentration (values below LOD treated as LOD) mg/l	Predicted Environmental Concentration (PEC) (max) (mg/l)	Test 3 failed? (MAC)	AA test failed? (AA PEC above AA EQS)	MAC test failed? (MAC-PEC above MAC EQS)
Benzo[g,h,i]perylene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A No EQS																	
Total Of 16 PAH's	mg/l	0.0002	No EQS	N/A	15	0.0002	0.0002	0.0002	15	0	No	N/A No EQS																	
Dichlorodifluoromethane	mg/l	0.0001	No EQS	N/A	12	0.0001	0.0001	0.0001	12	0	No	N/A No EQS																	
Chloromethane	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
Vinyl Chloride	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
Bromomethane	mg/l	0.002	No EQS	N/A	13	0.002	0.002	0.0020	13	0	No	N/A No EQS																	
Chloroethane	mg/l	0.0002	No EQS	N/A	13	0.0002	0.0002	0.0002	13	0	No	N/A No EQS																	
Trichlorofluoromethane	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
1,1-Dichloroethene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
Trans 1,2-Dichloroethene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
1,1-Dichloroethane	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
cis 1,2-Dichloroethene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
Bromochloromethane	mg/l	0.0005	No EQS	N/A	13	0.0005	0.0005	0.0005	13	0	No	N/A No EQS																	
1,2-Dichloropropane	mg/l	0.0001	No EQS	N/A	12	0.0001	0.0001	0.0001	12	0	No	N/A No EQS																	
Dibromomethane	mg/l	0.0001	No EQS	N/A	12	0.0001	0.0001	0.0001	12	0	No	N/A No EQS																	
Bromodichloromethane	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
cis-1,3-Dichloropropene	mg/l	0.001	No EQS	N/A	12	0.001	0.001	0.0010	12	0	No	N/A No EQS																	
Trans-1,3-Dichloropropene	mg/l	0.001	No EQS	N/A	12	0.001	0.001	0.0010	12	0	No	N/A No EQS																	
1,3-Dichloropropane	mg/l	0.0002	No EQS	N/A	12	0.0002	0.0002	0.0002	12	0	No	N/A No EQS																	
Dibromochloromethane	mg/l	0.001	No EQS	N/A	12	0.001	0.001	0.0010	12	0	No	N/A No EQS																	
1,2-Dibromoethane	mg/l	0.0005	No EQS	N/A	13	0.0005	0.0005	0.0005	13	0	No	N/A No EQS																	
Chlorobenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
1,1,1,2-Tetrachloroethane	mg/l	0.0002	No EQS	N/A	13	0.0002	0.0002	0.0002	13	0	No	N/A No EQS																	
Phenanthrene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Carbazole	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Di-N-Butyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Total TPH >C6-C40	mg/l	0.01	No EQS	N/A	5	0.01	0.01	0.0100	5	0	No	N/A No EQS																	
Tribromomethane	mg/l	0.001	No EQS	N/A	13	0.001	0.001	0.0010	13	0	No	N/A No EQS																	
Isopropylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
Bromobenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
1,2,3-Trichloropropane	mg/l	0.005	No EQS	N/A	13	0.005	0.005	0.0050	13	0	No	N/A No EQS																	
N-Propylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
2-Chlorotoluene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
1,3,5-Trimethylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
4-Chlorotoluene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
Tert-Butylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
1,2,4-Trimethylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
Sec-Butylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
4-Isopropyltoluene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
N-Butylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
1,2-Dibromo-3-Chloropropane	mg/l	0.005	No EQS	N/A	13	0.005	0.005	0.0050	13	0	No	N/A No EQS																	
1,2,4-Trichlorobenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
1,2,3-Trichlorobenzene	mg/l	0.0002	No EQS	N/A	13	0.0002	0.0002	0.0002	13	0	No	N/A No EQS																	
Methyl Tert-Butyl Ether	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																	
N-Nitrosodimethylamine	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Bis-(2-Chloroethyl)Ether	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2-Methylphenol (o-Cresol)	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Bis(2-Chloroisopropyl)Ether	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Hexachloroethane	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
N-Nitrosodi-n-propylamine	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
4-Methylphenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Nitrobenzene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Isophorone	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2-Nitrophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	

Surface Water H1 Risk Assessment Phase 1, Part A Screening Tests

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	RFR: Watercourse Q95 flow m^3/s	EFR: Effluent flow rate (maximum) m^3/s	EFR: Effluent flow rate (mean) m^3/s
	0.0168	0.00616	0.000231

Pre-SCREENING — Is the substance present in the discharge?

SCREENING TEST 1 — Does mean release concentration (RC) exceed 10% EQS?

SCREENING TEST 2 — does the process contribution (PC) exceed 4 percent of the EQS?

SCREENING TEST 3 — Does the difference between upstream quality and the Predicted Environmental Concentration (PEC) exceed 10% of the EQS

SCREENING TEST 4 — Does the PEC exceed the EQS in the receiving water downstream of the discharge

Constituents	Unit	Limit of Detection	Freshwater EQS (Annual Average)	Freshwater EQS - Maximum allowable concentration (MAC)	Number of Samples	Minimum Value in discharge	Maximum Value in discharge	discharge mean (values below LOD treated as LOD)	count of tests	count of detections	Is the substance measured above LOD in the discharge?	Is the LOD sufficiently low (LOD<10% of EQS?)	10% EQS (AA)	Test failed? (AA)	10% EQS (MAC), where available	Test failed? (MAC)	Process Contribution PC (mean)	4% EQS (AA)	Test failed? (AA)	Process Contribution PC (max)	4% EQS (MAC), where available	Test failed? (MAC)	Predicted Environmental Concentration (PEC) (mean) (mg/l)	BC- Mean Upstream Concentration (values below LOD treated as LOD) mg/l	Test 3 failed? (AA)	BC (MAC) Maximum Upstream Concentration (values below LOD treated as LOD) mg/l	Predicted Environmental Concentration (PEC) (max) (mg/l)	Test 3 failed? (MAC)	AA test failed? (AA PEC above AA EQS)	MAC test failed? (MAC-PEC above MAC EQS)
2,4-Dimethylphenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Bis(2-Chloroethoxy)Methane	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
1,2,4-Trichlorobenzene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
4-Chloroaniline	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2-Methylnaphthalene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Hexachlorocyclopentadiene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2,4,6-Trichlorophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2,4,5-Trichlorophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2-Chloronaphthalene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2-Nitroaniline	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Acenaphthylene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2,6-Dinitrotoluene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Acenaphthene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
3-Nitroaniline	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Dibenzofuran	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
4-Chlorophenylphenylether	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2,4-Dinitrotoluene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Fluorene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Diethyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
4-Nitroaniline	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
2-Methyl-4,6-Dinitrophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Azobenzene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
4-Bromophenylphenyl Ether	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Phenanthrene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Carbazole	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Di-N-Butyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Pyrene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Butylbenzyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Benzo[a]anthracene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Chrysene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Bis(2-Ethylhexyl)Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Di-N-Octyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Benzo fluoranthene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Benzo[k]fluoranthene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Indeno(1,2,3-c,d)Pyrene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Dibenz(a,h)Anthracene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
Benzo[g,h,i]perylene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
4-Nitrophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																	
PCB 28	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 81	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 52	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 77	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 105	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 90+101	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 114	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 118	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 118	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 153	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 123	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 138	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 126	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 180	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 156	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	
PCB 157	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																	

Surface Water H1 Risk Assessment Phase 1, Part A Screening Tests

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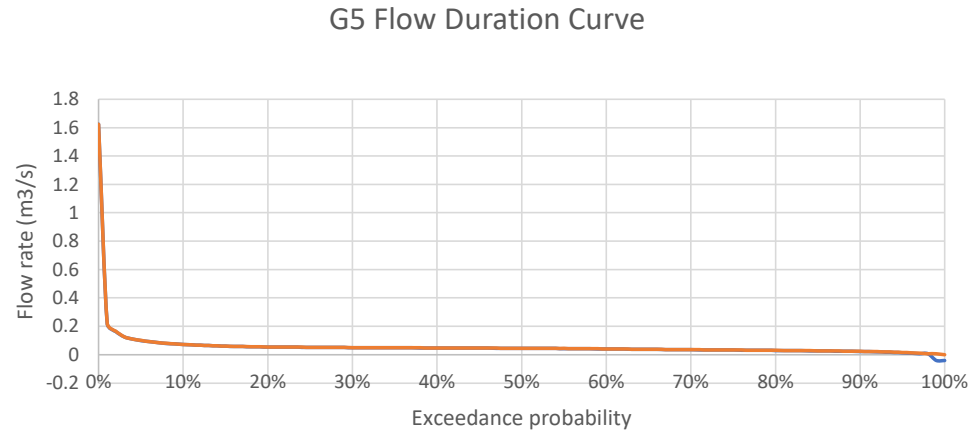
RFR: Watercourse Q95 flow m^3/s	EFR: Effluent flow rate (maximum) m^3/s	EFR: Effluent flow rate (mean) m^3/s
0.0168	0.00616	0.000231

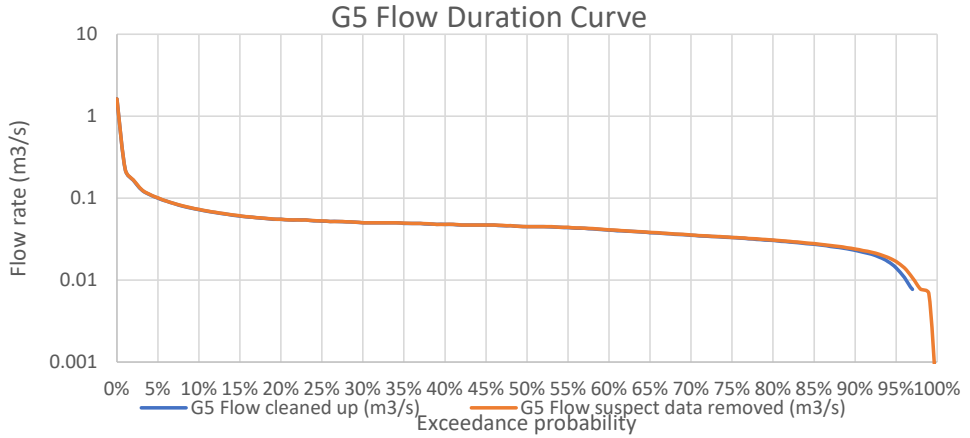
Constituents	Unit	Limit of Detection	Freshwater EQS (Annual Average)	Freshwater EQS - Maximum allowable concentration (MAC)	Number of Samples	Minimum Value in discharge	Maximum Value in discharge	discharge mean (values below LOD treated as LOD)	count of tests	count of detections	Pre-SCREENING Is the substance present in the discharge? Is the substance measured above LOD in the discharge?	Is the LOD sufficiently low (LOD<10% of EQS?)	SCREENING TEST 1 Does mean release concentration (RC) exceed 10% EQS? 10% EQS (AA)	Test failed? (AA)	10% EQS (MAC), where available	Test failed? (MAC)	SCREENING TEST 2 does the process contribution (PC) exceed 4 percent of the EQS? Process Contribution PC (mean)	4% EQS (AA)	Test failed? (AA)	Process Contribution PC (max)	4% EQS (MAC), where available	Test failed? (MAC)	SCREENING TEST 3 Does the difference between upstream quality and the Predicted Environmental Concentration (PEC) exceed 10% of the EQS Predicted Environmental Concentration (PEC) (mean) (mg/l)	BC: Mean Upstream Concentration (values below LOD treated as LOD) mg/l	Test 3 Failed? (AA)	BC (MAC) Maximum Upstream Concentration (values below LOD treated as LOD)	Predicted Environmental Concentration (PEC) (max) (mg/l)	Test 3 Failed? (MAC)	SCREENING TEST 4 Does the PEC exceed the EQS in the receiving water downstream of the discharge AA test failed? (AA PEC above AA EQS)	MAC test failed? (MAC-PEC above MAC EQS)
PCB 167	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 169	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 189	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
Total PCBs (12 Congeners)	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
Total PCBs (7 congeners)	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
Total Phenols	mg/l	0.03	No EQS	N/A	14	0.03	0.03	0.0300	14	0	No	N/A No EQS																		
Aliphatic TPH >C5-C6	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C6-C8	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C8-C10	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C10-C12	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C12-C16	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C16-C21	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C21-C35	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C35-C44	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Total Aliphatic Hydrocarbons	mg/l	0.005	No EQS	N/A	10	0.005	0.005	0.0050	10	0	No	N/A No EQS																		
Aromatic TPH >C5-C7	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C7-C8	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C8-C10	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C10-C12	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C12-C16	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C16-C21	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C21-C35	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C35-C44	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Total Aromatic Hydrocarbons	mg/l	0.005	No EQS	N/A	10	0.005	0.005	0.0050	10	0	No	N/A No EQS																		
Total Petroleum Hydrocarbons	mg/l	0.01	No EQS	N/A	10	0.01	0.01	0.0100	10	0	No	N/A No EQS																		

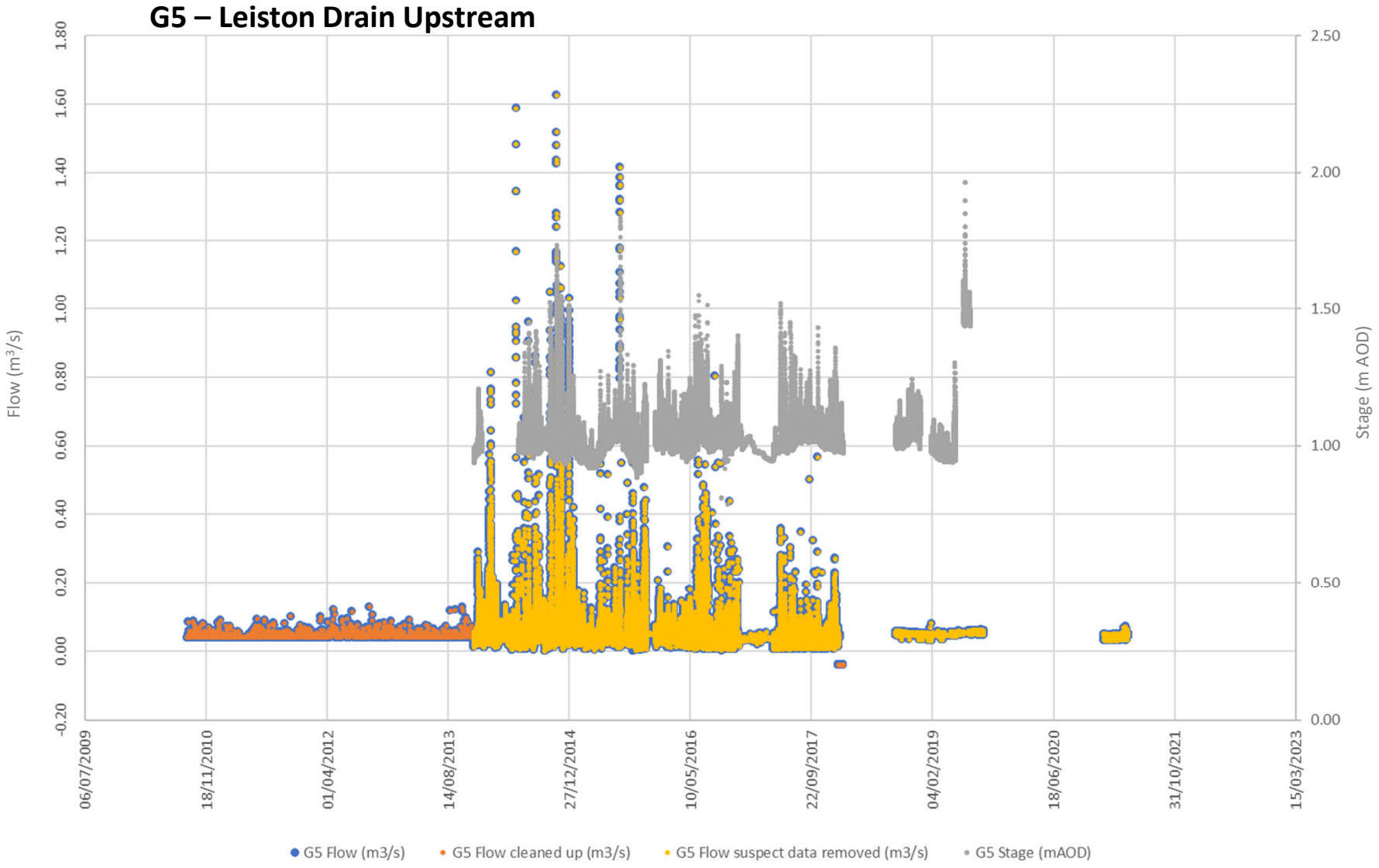
Appendix F. G5 Flow and Stage Data

G5 – Leiston Drain Upstream

summary table				
	G5 Flow (m3/s)		G5 Flow cleaned up (m3/s)	G5 Flow suspect data removed (m3/s)
Date Range	01/09/2010 00:00	to	22/04/2021 08:15	
Count of data points	165104		165101	162195
Count of numeric	165104		165101	162195
Count of Zero	3		0	0
Count of Blank Cells	7298		7301	10207
Min	-0.04		-0.040000	0.000300
Max	1.63		1.625	1.625
Mean	0.05		0.0498	0.0508
Q95	0.014132544		0.0141	**0.0168**
Q75	0.033		0.0330	0.0332
Q50	0.045		0.0450	0.0450
Q25	0.0525		0.0525	0.0528
Q05	0.0997		0.100	0.101
filtered average	0.049815367		0.0498	0.0508






G5 – Leiston Drain Upstream
Flow (m³/s)
Stage (m AOD)
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
-0.20
2.50
2.00
1.50
1.00
0.50
0.00
06/07/2009
18/11/2010
01/04/2012
14/08/2013
27/12/2014
10/05/2016
22/09/2017
04/02/2019
18/06/2020
31/10/2021
15/03/2023
G5 Flow (m3/s)
G5 Flow cleaned up (m3/s)
G5 Flow suspect data removed (m3/s)
G5 Stage (mAOD)

Appendix G. MBAT and PNEC Sheets

ID	Location	Waterbody	Date	Measured Pb Concentration (dissolved) (µg l^{-1})	DOC	Site Specific PNEC Dissolved Pb (µg l^{-1})
1	Sizewell				10.36	12.43

Notes

Median value from Sizewell baseline surface water monitoring (G3-G7) used for DOC value.

INPUT DATA											RESULTS (Copper)				RESULTS (Zinc)				RESULTS (Mn)				RESULTS (Ni)			
ID	Location	Waterbody	Date	Measured Cu Concentration (dissolved) (µg l^{-1})	Measured Zn Concentration (dissolved) (µg l^{-1})	Measured Mn Concentration (dissolved) (µg l^{-1})	Measured Ni Concentration (dissolved) (µg l^{-1})	pH	DOC	Ca	Site-specific PNEC Dissolved Copper (µg l^{-1})	BioF	Bioavailable Copper Concentration (µg l^{-1})	Risk Characterisation Ratio	Site-specific PNEC Dissolved Zinc (µg l^{-1})	BioF	Bioavailable Zinc Concentration (µg l^{-1})	Risk Characterisation Ratio	Site-specific PNEC Dissolved Manganese (µg l^{-1})	BioF	Bioavailable Manganese Concentration (µg l^{-1})	Risk Characterisation Ratio	Site-specific PNEC Dissolved Nickel (µg l^{-1})	BioF	Bioavailable Nickel Concentration (µg l^{-1})	Risk Characterisation Ratio
1	Sizewell - Average values from baseline surface water data		27/02/2024					8.02	10.36	144.3	28.63	0.03			48.08	0.23			211.21	0.58			16.86	0.24		
	(G3-G7) used for pH and calcium with a median value adopted																									
	for DOC.																									

Environment Agency
c/o The Joint Programme Office
New Reactor Programme
4S.2 Redgrave Court
Merton Road
Bootle
L20 7HS

File Ref: 101330773
Unique Number: EA-SZC-21844Y
Your Ref: N/A

Monday 07 October 2024

For the attention of Naomi Lang, Water Resources Senior Permitting Officer

Dear Ms Lang,

FOR ASSESSMENT: APPLICATION FOR A WATER RESOURCES TRANSFER LICENCE SIZEWELL C ASSOCIATED DEVELOPMENT 6 SITE (AD6/WRA/14)

As part of the construction phase of the Sizewell C Nuclear New Build project, dewatering is required in relation to the construction of the bridge over the Leiston Drain located at the main development site roads, otherwise known as Associated Development 6 (AD6) site.

We have enclosed seven documents pertaining to the application for a Water Resources Transfer Licence, (Sizewell C permit ref. AD6/WRA/14) for the dewatering activity required as part of the construction of the pile caps of the Leiston Drain Crossing Bridleway 19 (BR19) at AD6.

Appendix 1 to this letter provides supporting information as follows:

- Appendix 1: Background of AD6 Leiston Drain BR19 Overbridge Crossing – Dewatering.

Should you have any questions or comments, we will be happy to provide further information as part of our ongoing Level 4 interactions.

SZC Ltd. Review	Role	Name	Signature
Peer Check	Regulatory and Licensing Officer	Stacey Richards	DocuSigned by: Stacey Richards AF02D27783C543A...
Independent Verification	Construction Permitting – Water Resources Technical Lead	Mark Lee	Signed by: Mark Lee 6F126DAAFCE347A...
Approval	Safety, Security & Assurance Director	Mina Golshan	DocuSigned by: Mina Golshan E66626D568434E7...

Yours sincerely,

DocuSigned by:
Stuart Woodings
D16CC91AFFEA410...

Stuart Woodings
Head of Environmental Consenting & Assurance
Sizewell C Ltd.

Copy:
rio@sizewellc.com

Enclosures

	Document Title	EDRMS Reference Number	Version Number	Protective marking	Transmitted via
1.	AD6-WRA-14 - Form_wr328-_application_for_a_water_resources_licence___part_a	101331449	001	UK PROTECT – PERSONAL DATA	Teamcenter
2.	AD6-WRA-14 - Form_wr330-_application_for_a_water_resources_abstraction_licence___part_b	101330775	001	NOT PROTECTIVELY MARKED	Teamcenter
3.	AD6-WRA-14 - Form_wr332-_application_for_a_water_resources_abstraction_licence___part_c	101330776	001	NOT PROTECTIVELY MARKED	Teamcenter
4.	AD6-WRA-14 - WR390-_Charging_for_a_water_resources_application___part_E	101330777	001	NOT PROTECTIVELY MARKED	Teamcenter
5.	AD6-WRA-14_AD6 Dewatering Impact Statement	101330778	001	NOT PROTECTIVELY MARKED	Teamcenter
6.	101331432 Package to Inform AD6-WRA-14 HRA and CROW	101331432	001	NOT PROTECTIVELY MARKED	Teamcenter
7.	Location Map for Permit Application AD6/WRA/14	101331442	001	NOT PROTECTIVELY MARKED	Teamcenter

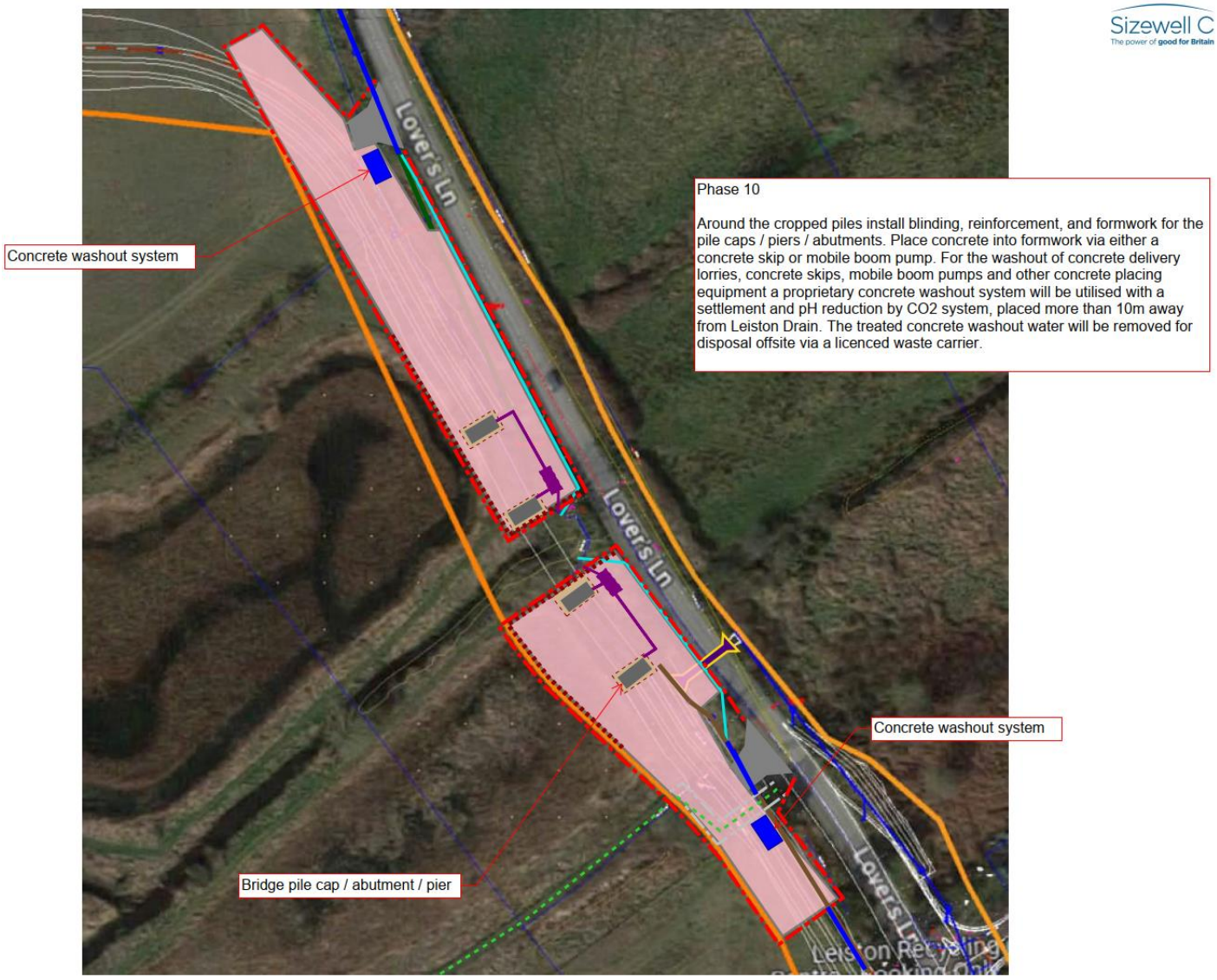
Appendix 1

Background of AD6 Leiston Drain Overbridge Crossing – Dewatering.

Summary:

A bridge for the new BR19 is to be constructed over the Leiston Drain watercourse, parallel to Lover's Lane. The structure is anticipated to consist of 3 x 20 m spans formed from precast beams placed on piled reinforced concrete piers. Once the piles are installed, excavations will be made to allow for the cropping and casting of the pile caps. Groundwater is anticipated to be generated during this process. See Figure 1 below for the general layout of the pile caps.

Figure 1– Location of Leiston Drain Overbridge Crossing Pile Caps



Ground Profile and Groundwater Levels:

The local ground conditions are comprised of a sequence of topsoil to c. 0.5 metres below ground level (mbgl), underlain by peat to 1.3 mbgl, underlain by the Crag deposits to a depth of 7.9 mbgl. Additional ground investigation (GI) is planned to greater depths, to further confirm the depths of driven piles required, as required for the piling design. Results of the GI were unavailable at the time of preparing this application.

Groundwater levels in the peat range between 0.029 and 1.96 metres above ordnance datum (mAOD). Within the Crag deposits the average groundwater level is 1.37 mAOD. Groundwater is considered to be in hydraulic continuity with the surface water in the Leiston Drain.

Dewatering:

The proposed piling methodology is to utilise concrete driven piles. There will be 4 No. pile groups, 2 No. each on the south and north sides of the Leiston Drain, respectively. The piles are proposed to a depth of 14 mbgl and no dewatering is anticipated during their installation.

Once the pile groups have been installed, sheet piling will be emplaced around each group. Once the sheet piling is in place, shallow excavation will be undertaken to allow pile cap installation, with the sheet piling limiting water ingress. Dewatering of the excavations is anticipated and will be conducted using sump pumping.

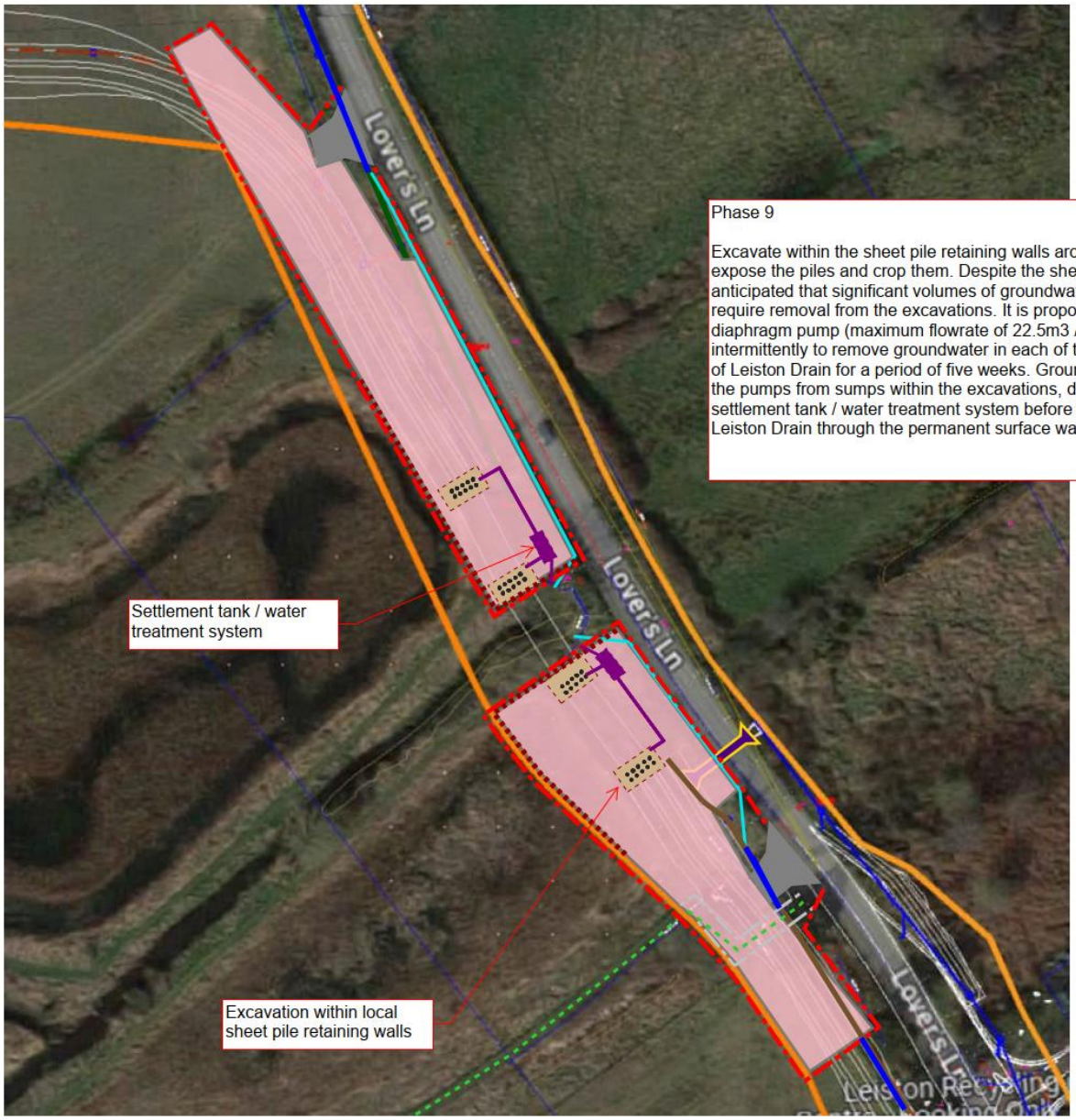
Estimated flow rate is a maximum value of 432 m^3/day which will be for each outlet (O6a and O6b) discharging intermittently. For comparison, the Q95 flow rate in the Leiston Drain is 1450 m3/day. Dewatering is expected to be completed over a maximum 10-week period on a 24/7 basis. Therefore, the total volumes that may be dewatered are as follows:

Maximum value = 432 m3/d x 70 days = 30 240 m3/d

Settlement & Discharge:

The water derived from dewatering of the two southern excavations is expected to be managed through standard construction pollution prevention measures. At present this is expected to include treatment systems for sediment control / pH correction e.g., settlement systems like Siltbusters or similar. This may incorporate dosing of coagulants and flocculants where necessary to ensure compliance with discharge permit limits. Following treatment, the water will be discharged to the Leiston Drain by gravity at two outlets, O6a (northern side) and O6b (southern side). Mixing with rainfall-derived surface water runoff may occur prior to discharge. The overall discharging will be dependent on the programme of construction works. The anticipated location of the excavation locations and settlement tanks is shown in Figure 2 below.

Figure 2 – Anticipated Excavation and Settlement Tank Locations



Supplementary Comments:

A H1 Surface Water Pollution Risk Assessment (see Enclosure 5, Annexure A) has been completed for this proposed activity to assess the potential impacts of discharging the groundwater to surface water. Results indicated that substances within the discharge are not liable to cause pollution at flow rates greater than those proposed. Monitoring and sampling will be undertaken in accordance with conditions set out in the discharge permit CWDA18.

There is unlikely to be any water loss during the dewatering process, due to the short distance from the excavations around the pile groups to the discharge locations and an associated lack of evaporative potential. In addition, we understand that the use of settlement tanks prior to discharge would not be considered an intervening use of water. Settlement and lag times are anticipated to be short and therefore not give rise to significant losses of water. We would anticipate that lag times from pumping to discharge would be less than 1 day as a maximum. This is based on the use of settlement tanks which would have a retention time in the order of hours.

In line with the internal screening process previously shared with the Environment Agency, a Piling Risk Assessment for the dewatering activity has not been completed as water quality issues have not been identified in this location.

Given the above, the hydraulic connection between groundwater and surface water and the temporary nature of the works, there is a very low to low risk of loss of water to the catchment.

As discussed with the Environment Agency at weekly KiT meetings, it is anticipated that a transfer licence is required for the dewatering activity.

Details of abstraction method; pump type and location (including national grid references)

As per summary information, sump pumping is to be utilised at each excavation location. Co-ordinates of the excavations that will be dewatered are set out below with an image of the points (see Figure 3 and Table 1). The area of excavation can be also found in Enclosure 7 – Location Map for Permit AD6/WRA/14 for reference.

Figure 3 – Excavation Location Co-ordinates

Table 1 – Excavation Location Co-ordinates

Title	Grid Reference	X (Easting)	Y (Northing)	Latitude	Longitude
Point A	TM 45417 63520	645417	263520	52.21519	1.591185
Point B	TM 45426 63524	645426	263524	52.21522	1.591312
Point C	TM 45429 63518	645429	263518	52.21517	1.591353
Point D	TM 45420 63514	645420	263514	52.21514	1.591225
Point E	TM 45427 63501	645427	263501	52.21501	1.591316
Point F	TM 45435 63506	645435	263506	52.21505	1.591443
Point G	TM 45438 63500	645438	263500	52.215	1.59148
Point H	TM 45430 63496	645430	263496	52.21496	1.591355
Point I	TM 45438 63483	645438	263483	52.21485	1.591463

Title	Grid Reference	X (Easting)	Y (Northing)	Latitude	Longitude
Point J	TM 45446 63488	645446	263488	52.21489	1.591581
Point K	TM 45449 63483	645449	263483	52.21484	1.591628
Point L	TM 45442 63478	645442	263478	52.2148	1.591512
Point M	TM 45451 63466	645451	263466	52.21469	1.591636
Point N	TM 45458 63472	645458	263472	52.21474	1.591752
Point O	TM 45462 63466	645462	263466	52.21469	1.591807
Point P	TM 45455 63461	645455	263461	52.21464	1.591694

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Sizewell C Project

Appendix C: Package to Inform Countryside Rights of Way (CRoW) Act Assessment and Habitats Regulations Assessment

Permit AD6/WRA/14

HABITATS REGULATION ASSESSMENT AND
COUNTRYSIDE RIGHTS OF WAY ACT ASSESSMENT SUPPORTING INFORMATION

DOCUMENT CONTROL

This document is stored and approved in the Electronic Document and Records Management System (EDRMS).

Prepared by:	[redacted] Graduate Ecologist
Verified by:	[redacted] Technical Director (Ecology)
Approved by:	

REVISION HISTORY

Rev	Status	Amendment	Prepared By	Date
01	Draft	Drafting initial document	[redacted]	14/08/24
01	Final	For submission following informal Environment Agency review	[redacted]	16/09/24

HABITATS REGULATION ASSESSMENT AND
COUNTRYSIDE RIGHTS OF WAY ACT ASSESSMENT SUPPORTING INFORMATION

CONTENTS

HABITATS REGULATION ASSESSMENT AND
COUNTRYSIDE RIGHTS OF WAY ACT ASSESSMENT SUPPORTING INFORMATION

1 INTRODUCTION

1.1 Overview

1.1.1.1 The Sizewell C Project ('SZC Project') is a consented nuclear power station [1], comprising two UK European Pressurised Reactors™ located north of the existing Sizewell B power station in Suffolk. The Development Consent Order (DCO) for the SZC Project was granted in 2022 [2]. The DCO was granted based on assessment work (underpinned by extensive baseline surveys and studies) and submitted to the Secretary of State. The Secretary of State's (SoS) Habitats Regulations Assessment (HRA) (hereafter referred to as the 'SoS HRA') [3] records his decision on the potential for adverse effects on the integrity of European and Ramsar sites as a result of the SZC Project.

1.1.1.2 The SZC Project is currently preparing construction permit applications. These permits are required for several of the works and construction activities. Through the EA Screening Tool a risk has been identified to Sizewell Marshes SSSI (particularly) and Minsmere to Walberswick Heath and Marshes SSSI from permit AD6/WRA/14. A risk has also been identified to Minsmere to Walberswick Heaths & Marshes Special Area of Conservation (SAC) and Minsmere-Walberswick Special Protection Area (SPA) and Ramsar site. Therefore, this package has been put together to aid the EA in completing their HRA and CRoW assessment for this permit.

1.2 Key Definitions

Term / Abbreviation	Definition
AOD	Above Ordnance Datum
CRoW	Countryside and Rights of Way Act
DCO	Development Consent Order
EA	Environment Agency
ES	Environmental Statement
HRA	Habitats Regulations Assessment
MCA	Main Construction Area
MDS	Main Development Site
mm	Millimetre
NGR	National Grid Reference
SAC	Special Area of Conservation
SoS	Secretary of State
SPA	Special Protection Area
SSSI	Sites of Special Scientific Interest
SZC Project	The Sizewell C Project
TCA	Temporary Construction Area
WRAL	Water Resource Abstraction Licence
ZoI	Zone of Influence

1.3 References

Ref	Title	Location	Document No. / Link
[1]	The Sizewell C (Nuclear Generating Station) Order 2022	Online	https://www.legislation.gov.uk/uksi/2022/853/contents/made
[2]	The Sizewell C (Nuclear Generating Station) Order 2022. Made 20th July 2022, Coming into force 11th August 2022	Online	https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-011165-SZC-DCO.pdf
[3]	Secretary of State (Department for Business, Energy and Industrial Strategy) (2022). Habitats Regulations Assessment for an Application Under the Planning Act 2008: Sizewell C New Nuclear Power Station	Online	https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-011167-SZC-HRA.pdf
[4]	AD6/WRA/14 Leiston Drain Overbridge Dewatering Impact Statement	Unpublished; part of permit package	N/A
[5]	Atkins (March 2024) Leiston Drain Overbridge Dewatering Discharge Risk Assessment	Unpublished; part of permit package	N/A
[6]	Atkins, Hyder, Royal Haskoning DHV. 2015. Sizewell C SSSI Crossings: Environmental appraisal of options under consideration. November 2015	Unpublished but available on request	Unpublished but available on request
[7]	The Sizewell C Project 6.3 Main Development Site Terrestrial Ecology and Ornithology Appendix 14B1 – Plants and Habitats Synthesis Report, Revision 1.0, May 2020, DCO Examination Library Reference APP-250	Online	EN010012-001871-SZC_Bk6_ES_V2_Ch14_Terrestrial_Ecology_Ornithology_Appx14B1_Plants_Habitats_Synthesis.pdf (planninginspectorate.gov.uk)
[8]	Groundwater and surface water DCO ES chapter	Online	EN010012-001912-SZC_Bk6_ES_V2_Ch19_Groundwater_and_Surface_Water.pdf (planninginspectorate.gov.uk)
[9]	SZC (2024). CWDA-18 Permit Application Supporting Document (101228245).	Online	https://consult.environment-agency.gov.uk/psc/ip16-4ur-sizewell-c-limited-epr-rp3820sh-a001/supporting_documents/1.%2010122824 5%20SZC_CWDA18_Technical%20Supporting%20Document.pdf

1.4 Permit Details

1.4.1.1 The permit AD6/WRA/14 is a Water Resource Abstraction Licence (WRAL) application specifically for groundwater dewatering to enable the construction of a bridge for the new bridleway, BR19, to be constructed over the Leiston Drain watercourse. This work forms part of the AD6 Road Scheme, or otherwise known as Main Development Site (MDS) Accesses. The construction of the bridge and other relevant works in the floodplain of the Leiston Drain will be covered by a separate Flood Risk Activity permit (AD6/FRA/1). The Flood Risk Activity permit will have its own package to inform CROW

assessment, although in that case an HRA has not been deemed necessary in initial Environment Agency screening.

1.4.1.2 The activities being applied for under permit AD6/WRA/14 comprise:

- Post installation of four pile groups, sheet piling will be emplaced around each group and shallow excavation undertaken to allow pile cap installation, with the sheet piling limiting water ingress. Dewatering of the excavations is anticipated and will be conducted using sump pumping.

1.5 SSSI and Habitats Sites

1.5.1.1 The following SSSI, SACs, SPAs and Ramsar sites have the potential to be affected by the EA's pre-identified risks according to initial EA screening.

Table 1.1 Sensitive Receptor Sites

Sensitive Receptor Site	Distance from Permit location
Sizewell Marshes SSSI	Permit activities are located immediately to the west of this SSSI. The Leiston Drain (which is already culverted under Lovers Lane) east of the works is in direct connection to the SSSI and forms its southern boundary. In addition, permit activities are located adjacent to Aldhurst Farm which has been created as ditch and reedbed mitigation for loss of part of Sizewell Marshes SSSI to the SZC development (particularly the SSSI crossing and western edge of the SZC platform)
Minsmere to Walberswick SSSI	Permit activities are located circa 2.1km west of this SSSI. The Leiston Drain flows through the SSSI.
Minsmere to Walberswick Heaths and Marshes SAC	Permit activities are located circa 2.2km west of this SAC. The Leiston Drain flows through the SAC.
Minsmere-Walberswick SPA	Permit activities are located circa 2.2km west of this SPA. The Leiston Drain flows through the SPA.
Minsmere-Walberswick Ramsar site	Permit activities are located circa 2.2km west of this Ramsar site. The Leiston Drain flows through the Ramsar site.

2 TECHNICAL INFORMATION

2.1 Permit AD6/WRA/14

2.1.1 Details of abstraction method; pump type and location (including national grid references), borehole specifics etc

2.1.1.1 The proposed methodology is to utilise concrete driven piles. There will be 4 pile groups, 2 each on the south and north sides of the Leiston Drain, respectively. These groups will each consist of 4 concrete driven piles. The piles are proposed to be a depth of 14 metres below ground level and no dewatering is anticipated during their installation.

2.1.1.2 Once the pile groups have been installed, sheet piling will be emplaced around each group. Once the sheet piling is in place, shallow excavation will be undertaken to allow pile cap installation, with the sheet piling limiting water ingress. Dewatering of the excavations will be conducted using sump pumping. It is proposed that a diesel powered 3" diaphragm pump will be used intermittently to remove groundwater in each of the working areas either side of Leiston Drain for a maximum 10-week period during early 2025. The maximum capacity of the pump is estimated at a value of 540 m^3/day however the maximum discharge will be limited to 5l/s in accordance with the discharge permit MDS/CWDA/18 [9].

2.1.1.3 The water derived from dewatering of the two southern excavations is expected to be managed through standard construction pollution prevention measures. At present this is expected to include treatment systems for sediment control / pH correction e.g., settlement systems like Siltbusters or similar. This may incorporate dosing of coagulants and flocculants where necessary to ensure compliance with discharge permit limits. Following treatment, the water will be discharged to the Leiston Drain by gravity at two outlets, O6a (northern side, TM 47361 64528) and O6b (southern side, TM 47361 64528). These discharges are being consented separately through permit application MDS/CWDA/18 [9]. Mixing with rainfall-derived surface water runoff may occur prior to discharge. The overall discharging will be dependent on the programme of construction works. The anticipated location of the settlement tanks is shown in Figure 1.

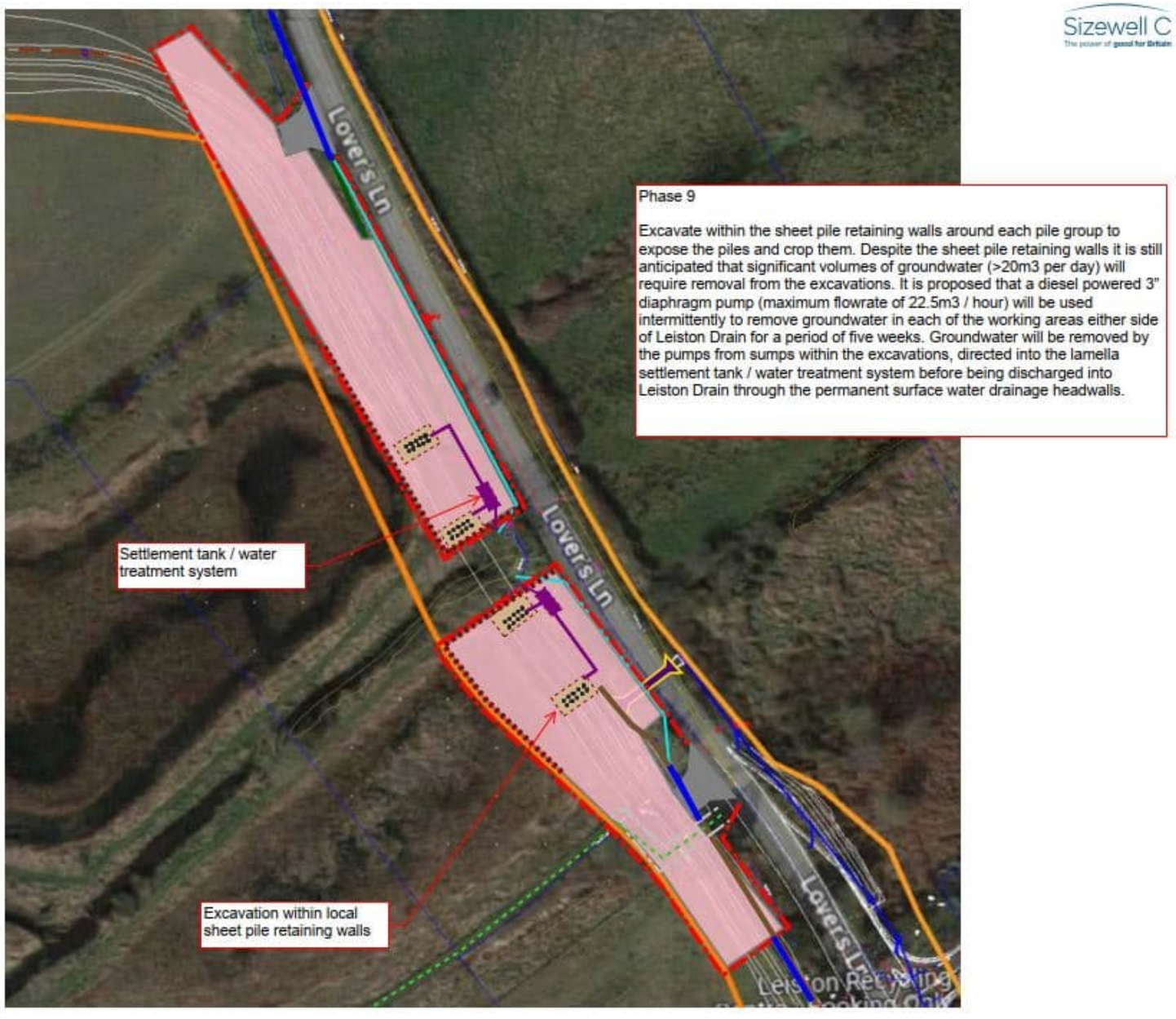

Figure 1 – Location of settlement tanks

Figure 2 – Excavation locations where sump pumping will be utilised

2.1.1.4 The location of the concrete piles (which sit within the proposed local sheet piling retaining walls) are provided in Table 2.1 and are shown in Figure 2.

Table 2.1 Location of concrete piles

Title	Grid Reference	X (Easting)	Y (Northing)	Latitude	Longitude
Point A	TM 45417 63520	645417	263520	52.21519	1.591185
Point B	TM 45426 63524	645426	263524	52.21522	1.591312
Point C	TM 45429 63518	645429	263518	52.21517	1.591353
Point D	TM 45420 63514	645420	263514	52.21514	1.591225
Point E	TM 45427 63501	645427	263501	52.21501	1.591316
Point F	TM 45435 63506	645435	263506	52.21505	1.591443
Point G	TM 45438 63500	645438	263500	52.215	1.59148
Point H	TM 45430 63496	645430	263496	52.21496	1.591355
Point I	TM 45438 63483	645438	263483	52.21485	1.591463
Point J	TM 45446 63488	645446	263488	52.21489	1.591581
Point K	TM 45449 63483	645449	263483	52.21484	1.591628
Point L	TM 45442 63478	645442	263478	52.2148	1.591512
Point M	TM 45451 63466	645451	263466	52.21469	1.591636
Point N	TM 45458 63472	645458	263472	52.21474	1.591752
Point O	TM 45462 63466	645462	263466	52.21469	1.591807
Point P	TM 45455 63461	645455	263461	52.21464	1.591694

2.1.1.5 The discharge of water will be covered by location of the discharge points O6a and O6b are shown in Figure 3 below.

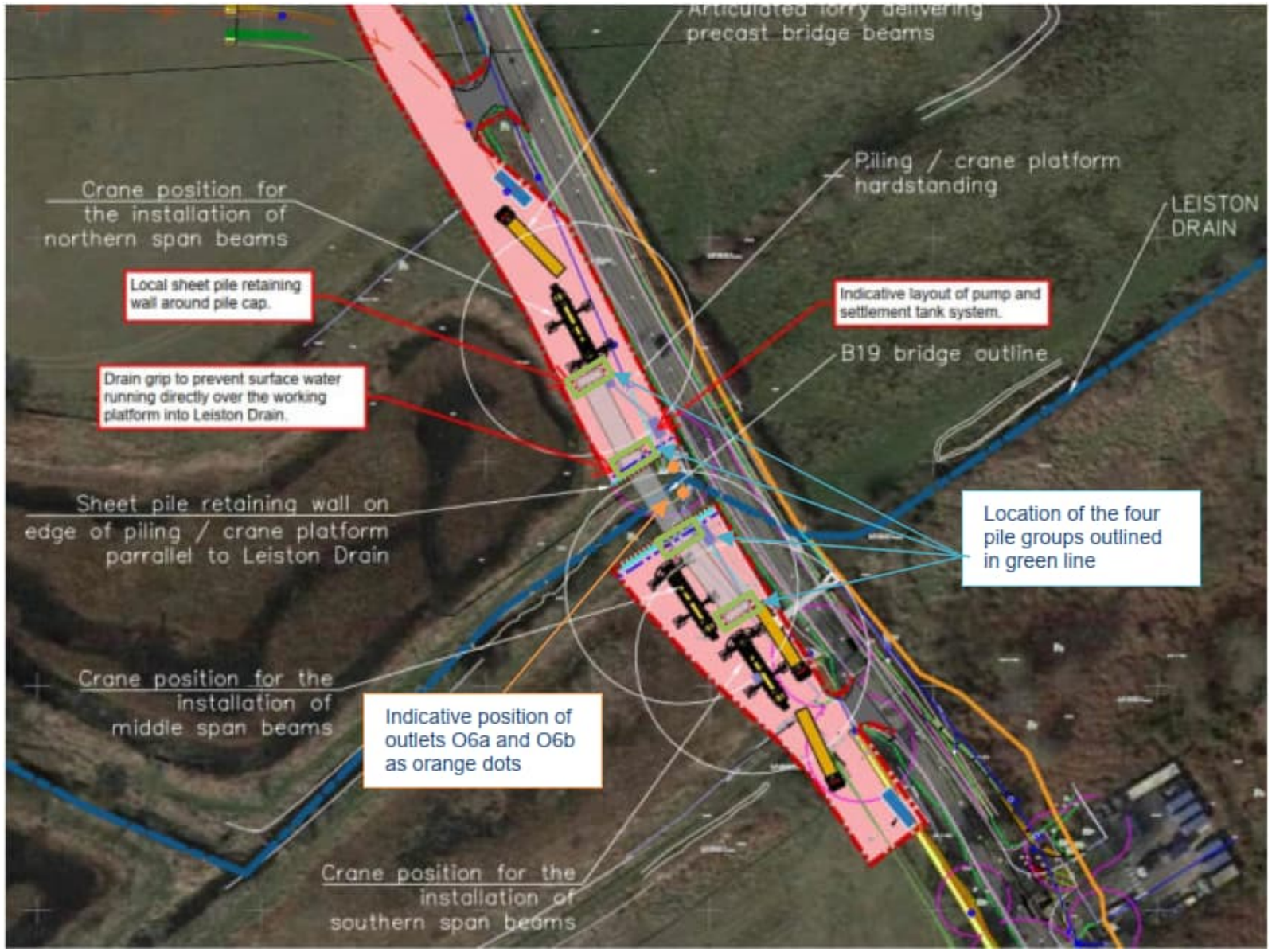

Figure 3 – Plan of Leiston Drain Overbridge Crossing showing indicative locations of discharge points as orange dots.

2.1.2 Fish screening details; type, size, etc

2.1.2.1 No fish screening required as the abstractions will not be from a watercourse but from groundwater within local sheet pile retaining walls.

2.1.3 Groundwater investigation consent details if applicable

2.1.3.1 It has been agreed with the EA that a groundwater investigation consent is not appropriate for this activity (see section B5 of Application for a Water Resources Abstraction Licence Part B).

2.1.4 Pump test results if applicable

2.1.4.1 Appendix D of the H1 assessment indicates that water levels from boreholes screened within the Peat (Piez 1a, 1b, 2a, 3a and 3b) in the vicinity of Leiston Overbridge indicate groundwater levels range between 0.029 and 1.96 mAOD. Within the Crag deposits the average groundwater level is 1.37 mAOD. Groundwater is considered to be in hydraulic continuity with the surface water in the Leiston Drain [4].

2.1.5 Groundwater modelling if applicable

2.1.5.1 No specific modelling has been undertaken for this application. However, modelling undertaken for the SSSI Crossing pile dewatering permit (MCA/WRA/7) shows that drawdowns outside the cofferdam during dewatering for that exercise would be less than one millimetre (mm) at the Leiston Drain. The predicted reduction in water levels of less than 1mm is unlikely to be observable when compared to natural variations in water level and is within the likely error range of manual measurement of the groundwater table. Drawdown outside the cofferdam from dewatering for this permit (AD6/WRA/14) is likely to be similarly negligible.

2.1.5.2 A similarly negligible level of drawdown can be anticipated from dewatering for this permit as for the SSSI Crossing pile dewatering due to similar methods and anticipated rate of abstraction. Both of these permits cover the abstraction of water from cofferdams constructed of sheet piling. The SSSI Crossing dewatering permit abstraction is for up to 521m^3 per day. The abstraction covered by this permit is for a maximum of 540m^3 per day.

2.1.5.3 There is unlikely to be any water loss during the dewatering process due to the short distance from the excavations around the pile groups to the discharge locations, and an associated lack of evaporative potential. While settlement tanks prior to discharge will be used, settlement and lag times are anticipated to be short and therefore not to give rise to significant losses of water. While the exact duration cannot be determined at this point, it is anticipated that this settlement and lag time will be a maximum of approximately one day as the settlement tanks will have a retention time in the order of hours. Given the above, the hydraulic connection between groundwater and surface water and the temporary nature of the works, there is a very low to low risk of loss of water to the catchment.

2.1.6 Surface water modelling if applicable

2.1.6.1 Surface water modelling is not relevant since abstraction will be purely from groundwater, within the local sheet pile retaining walls.

2.1.7 Sheetpiling details and intended operation;

2.1.7.1 Local sheet pile walls to be installed at each pile group location (four in total). The structure is anticipated to consist of 3 x 20 m spans formed from precast beams placed on piled reinforced concrete abutments and piers [4]. The piles are proposed to a depth of 14 mbgl. The approximate extent of each

sheet pile layout is 6 m x 4 m. The footprint of construction including coordinates is provided in Figure 1, Figure 2 and Table 2.1.

2.1.7.2 The maximum duration of dewatering from within sheet pile wall structures is 10 weeks on a 24/7 basis. It is anticipated that the abstraction pump will operate sequentially between each of the sheet pile cofferdams.

2.1.8 Impoundment details and details of intended operation of impoundment structure

2.1.8.1 There is no anticipated impoundment of water resources that will take place under this permit.

2.1.9 Maps and drawings

2.1.9.1 The location of the dewatering, sheet pile retaining walls and discharge are shown in Figure 1, Figure 2 and Figure 4.

Figure 4 – Location of works

2.1.10 Fish pass detail; type, size, any action being taken to enable fish utilisation

2.1.10.1 No fish pass is required since there is no impoundment of any watercourse.

2.1.11 Non-native invasive species surveys

2.1.11.1 No non-native invasive species surveys have been undertaken for the dewatering and none are relevant since the dewatering will take place entirely from groundwater from sheet-piled retaining walls.

2.1.12 Protected species surveys

2.1.12.1 Protected species surveys are not relevant to this dewatering application, or to the assessment of dewatering impacts on designated sites.

2.1.13 Estimation of any habitat loss

2.1.13.1 Limited habitat loss is anticipated as part of the overall AD6 bridleway construction works but there will be no loss within Sizewell Marshes SSSI or from Wild Aldhurst ; moreover, dewatering works form a limited part of the overall scheme and the impacts would be limited to the extent of the four sheet pile wall areas, which are not within any designated site.

2.1.13.2 The likely reduction in water levels of less than 1mm is unlikely to be observable when compared to natural variations in water level and is within the likely error range of manual measurement of the groundwater table.

2.1.14 Details of proposed quantities and abstraction period

2.1.14.1 Estimated flow rates are a maximum value of 432 m^3/day which will be for each outlet (O6a and O6b) discharging intermittently. Due to the assumption of sequential dewatering, it is anticipated that discharge will alternate between each of these outlets. For comparison, the Q95 flow rate in the Leiston Drain is 1450 m^3/day. Dewatering is expected to be completed over a maximum 10-week period on a 24/7 basis during early 2025. Therefore, the total volumes that may be dewatered are as follows.

- Maximum value = 432 m^3/d x 70 days = 30 240 m^3/d

2.1.14.2 The maximum value is calculated solely based on the maximum discharge rate of 5l/s to be used for abstraction. It is not anticipated that water will be abstracted at this rate.

2.1.15 Hydrological impact assessment if applicable

2.1.15.1 No modelling has been undertaken specifically for this permit. However, the hydrological impacts have been assessed for the SSSI Crossing pile dewatering permit (MCA/WRA/7) shows drawdown outside of the cut-off wall of <1 mm, meaning the consequent risk to the water of the catchment is very low.

2.1.15.2 It is assumed that the drawdown from the abstraction under this permit will be similar in scale to the drawdown shown in modelling conducted for SSSI Crossing pile dewatering permit (MCA/WRA/7), given the similarity in rate of abstraction and the similar methodology that this abstraction will follow.

2.1.16 Details of any water level/flow monitoring undertaken including location(s) of monitoring, frequency and data acquired

2.1.16.1 Inflow rates have been estimated, with a maximum of 432 m^3/day based on maximum discharge rate of 5l/s. The sheet piling proposed around each excavation will inhibit ingress of groundwater into the excavations and the hydraulic connectivity to the wider groundwater body. However, data on

groundwater monitoring undertaken to inform an H1 assessment is contained in section 3.4 of the report Dewatering Discharge Risk Assessment AD6 Leiston Drain Crossing, which will be submitted as part of the package of works for the permit. The outcome of the H1 assessment is considered to be valid as the assessment was undertaken using a maximum flow rate of 540m3/d which is greater that the estimated maximum abstraction rate of 432m3/d. Between 2020 and 2022 Atkins collected groundwater samples from a series of monitoring wells installed at the Main Development Site (MDS) of Sizewell C, including 38 locations within the MCA and TCA areas.

2.1.16.2 The groundwater samples were scheduled for analysis at a UKAS accredited laboratory for a range of inorganic and organic determinands, including chloride, ammonium, nitrate, dissolved metals / metalloids, total petroleum hydrocarbons (TPH), phenol, benzene, toluene, ethylbenzene and xylene (BTEX), speciated polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs) and semi volatile organic compounds (SVOCs). Groundwater quality data has been recovered at a number of locations in the vicinity of Leiston Overbridge, these include GW2, AD6-312 and AF6 screening the Crag Group and Piez 1a, 1b, 2a, 3a and 3b screening the peat. The H1 Phase 1 screening tests indicated that measured concentrations of tested substances within the discharge are not liable to cause pollution if discharged to Leiston Drain at the proposed flow rates.

2.1.17 Details of water quality of any water intending to be discharged as part of a dewatering operation

2.1.17.1 Groundwater quality has been assessed via the collection of groundwater samples between 2020 and 2022 by Atkins. The sampling locations included 38 No. boreholes within the Main Construction Area (MCA) and Temporary Construction Area (TCA) zones and included inorganic and organic determinands. Groundwater quality was also assessed at boreholes in the vicinity of the Leiston Drain Overbridge over the same period.

2.1.17.2 According to section 3 of the overbridge dewatering impact statement [4] the outcome of the H1 assessment [5] indicated that measured concentrations of tested substances within the discharge are not liable to cause pollution if discharged to the Leiston Drain at the proposed flow rates.

2.1.17.3 In section 6 of the overbridge dewatering impact statement is recommended that water quality is assessed at the discharge locations to ensure downstream effects are minimised and adherence to the outcomes predicted in the H1 assessment [4].

2.1.18 Details/assessment of prevailing environmental conditions

2.1.18.1 Groundwater quality assessed as per overbridge pollution risk assessment (section 3.4 and Appendix D) [5] and summarised above, upstream surface water quality as per Appendix C of the same document. According to section 4.4.2 of that document, out of the 215 analysed substances, 156 did not have an EQS value. A further 27 substances were not detected in the discharge and had an LOD that was sufficiently low (<10% EQS). Of the remaining 32 substances, 18 were screened out at Test 1 or 2, leaving 14 substances which were taken forward for Tests 3 and 4. Of those 14 substances which were taken forward for Tests 3 and 4, cadmium, nickel and hexachlorobutadiene passed both tests and so are not considered liable to cause pollution. A further nine substances comprising organics, low level cyanide and chromium (hexavalent) failed one of Test 3 or 4 but have not been detected above LOD in any of the groundwater samples. They were included in the screening tests because the LOD was not sufficiently lower than the EQS. These substances are not considered likely to be present in baseline groundwater with no nearby sources of contamination identified and are therefore not considered further. Three remaining substances (phosphorus (dissolved), nitrite, dissolved chromium (trivalent)) were determined as liable to cause pollution in the receiving surface water body. For all three of these

the average release concentration (RC) is lower than the BC showing that the discharge is not expected to impact surface water quality for these substances.

2.1.19 Details of any mitigation

2.1.19.1 No mitigation is proposed regarding protecting SSSIs or European sites. While the dewatering will take place within sheet piled retaining walls the primary purpose of these is to limit the volume of groundwater needing removal. The dewatering method would not be technically possible without the retaining walls. Therefore they do not constitute mitigation for impacts on designated sites.

3 INFORMATION TO INFORM THE IN-COMBINATION ASSESSMENT

3.1 Other plans and projects

3.1.1.1 The permit has the potential to interact in combination with other aspects of the Sizewell C project. However, for key risks this has been factored into the overall assessment work undertaken for the DCO. For example:

- offsetting habitat creation for habitat loss in the Sizewell Marshes SSSI from Sizewell C as a whole has already been undertaken at Aldhurst Farm, through the fen meadow plan, and in an area of wet woodland to the west of the Grove through the wet woodland plan. There is no significant habitat loss under this permit which will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
- the Environmental Appraisal of the SSSI crossing options [6] (summarised in Appendix 14B1 – Plants and Habitat Synthesis paragraph 1.3.104 and 1.3.105 [7]), details a modelling exercise that was undertaken to assess the predicted changes in water levels within Leiston Drain as a result of actually constructing the crossing. This modelling predicted only a very small, highly localised effect, such that during construction, there would be a temporary 2cm reduction in water levels to the east of the crossing and a 1cm reduction to the west. This effect would rapidly diminish over distance, not being apparent beyond a radius of 90m. During the operational phase, water levels would stabilise, and long-term changes are predicted to be less than a 1cm increase in levels to the west of the crossing (i.e. up-gradient), with a corresponding reduction to the east, with no change apparent 60m from the SSSI crossing on both sides; and
- the construction of the Main Construction Area platform (including excavating the temporary ditch diversion and infilling the existing ditch, stockpiling arisings, installation of sheet piles, and improvement for the approach embankment) would result in a loss of part of the existing functional floodplain associated with Sizewell Marshes SSSI. However, compensatory flood storage has already been created, and advice from the EA in the DCO Environmental Statement when this was considered alongside floodplain loss due to the Main Construction Area identifies that when comparing the maximum water levels for the baseline with the development scheme scenarios, the loss contributes to a maximum relative difference of less than 15mm across the floodplain. As such, compensation would not be required due to the small magnitude, and as floodplain connectivity will not be at risk (Paragraph 19.6.70 Sizewell C ES Volume 2, Chapter 19 Groundwater and Surface Water [8]).

3.1.1.2 A summary of related SZC permits is provided below.

Table 3.1 Other related SZC MDS permits, licences and consents

Permit type	SZC permit application reference	Regulator	Regulator permit reference	Activities covered	Status	Location	Timing	Further information
FRAP	MDS/FRA/50	EA	EPR/BB3590JX	Construction of temporary site access tracks for SSSI vegetation clearance (including tree stump removal). Erection of fencing (security and ecological), water voles habitat destruction, including vegetation clearance	Obtained and being implemented	Centroid of MDS: TM473640 SSSI Clearance within the 'SSSI triangle' corners: TM 46972 64083 TM 46996 64446 TM 47392 64532 Water Vole displacement area: Upstream- TM 47298 64506 Downstream- TM 47339 64518	Now implemented	This is to facilitate the SSSI crossing works and ensures that the vegetation within the footprint of the crossing has already been cleared.
FRAP (variation)	MDS/FRA/73	EA	EPR/BB3590JX/V001	Variation for BB3590JX for name change from NNB Generation Company (SZC) Limited to Sizewell C Limited.	Obtained	N/A	N/A	N/A – Admin change only
FRAP	MCA/FRA/53	EA	EPR/BB3590JX/V002	Variation for SSSI vegetation clearance consent (EPR_BB3590JX), extension of water vole clearance dates	Obtained	TM 47298 64506 to TM 47339 64518	Now implemented	This is to facilitate the SSSI crossing works and ensures that the vegetation within the footprint of the crossing has already been cleared.
FRAP (Variation)	MDS/FRA/56	EA	EPR/BB3590JX/V003	SSSI UXO and vegetation clearance	Obtained and being implemented	Centroid of MDS: TM473640	Now implemented	This is to facilitate the SSSI crossing works and ensures that the vegetation within the footprint of the crossing has already been cleared.
LDC	MDS/LDC/21 MDS/LDC/40 MDS/LDC/41 MDS/LDC/42	ESWMB	22_07411_C 22_07412_C 22_07413_C 22_07414_C 22_07415_C 23_07743_C 23_23639_C 23_23643_C 23_24431_C 23_24434_C 24_26691_C	Mink trapping and monitoring raft. Installing culverts for access. Erection of fencing (security and ecology). Retainment of existing culvert. Installation of silt curtains.	Obtained	MDS/LDC/21 SSSI Clearance within the 'SSSI triangle' corners: TM 46972 64083, TM 46996 64446, TM 47392 64532 Also around Drain Realignment area: Upstream- TM 46972 64083, Downstream- TM 47003 63625 Water Vole displacement area: Upstream- TM 49695 64071,	Now implemented	This is to facilitate the SSSI crossing works and ensures that the vegetation within the footprint of the crossing has already been cleared.

Permit type	SZC permit application reference	Regulator	Regulator permit reference	Activities covered	Status	Location	Timing	Further information
						Downstream- TM 47395 64529 MDS/LDC/40 647071 264181 +/- 10m 647178 264299 647033 263738 or 647017 263722 MDS/LDC/41 From 646954 263284 to 647400 264541 MDS/LDC/42 From 646954 263284 to 647400 to 647400 264541		
FRAP	MCA/FRA/2	EA	To be confirmed – application not yet submitted	Construction of SSSI Crossing including bridge over Leiston Drain and temporary realignment of Leiston Drain.	In preparation	southern end: TM 47339 64432; northern end: TM 47296 64563.	January to March 2025	Approximately 1.8km east of AD6 bridleway crossing of Leiston Drain. Similar water quality protection measures will be implemented as standard for the Sizewell C project. Clear span bridge avoiding works within the Leiston Drain.
Water Resources Abstraction (WRA)	MCA/WRA/7	EA	To be confirmed – application not yet submitted	Construction of SSSI Crossing – including bridge over Leiston Drain. Dewatering for piling headscap, to create foundation for the new bridge structures to build upon. Sheet piling driven in to the ground, concrete piling used for trench in between.	In preparation	Crossing: southern end: TM 47339 64432; northern end: TM 47296 64563. Corners of cofferdams to be dewatered: Northern cofferdam: 47283 54512, 47284 64508, 47351 64534, 47353 64530 Southern cofferdam: 47293 64482, 47294 64477, 47361 64504, 47363 64500 Water course activities: upstream point: TM 47281 64500;	Winter 2024/2025	Dewatering of the cofferdams for installation of the pile caps on the SSSI bridge abutments is integral to delivering the SSSI Crossing and will be undertaken simultaneously.

Permit type	SZC permit application reference	Regulator	Regulator permit reference	Activities covered	Status	Location	Timing	Further information
						downstream point: TM 47347 64522.		
Construction Water Discharge Activity (CWDA)	MDS/CWDA/18	EA	EPR/RP3820SH	Early site drainage, surface water discharges from MCA/TCA/ACA.	In determination	E01 NGR: TM 47654 64054 DW01 NGR: TM 47349 64530 O5 NGR: TM 46463 65940 O7 NGR: TM 46528 63491 O6a NGR: TM 45443 63501 O6b NGR: TM 45442 63495 O6c NGR: TM 45474 63488 O8a NGR: TM 44614 64000 O8 NGR: TM 44466 63737	Estimated from October 2024 to December 2036	Inherently linked to the AD6 bridleway permits (AD6/ FRA/1 and AD6/WRA/14), and SSSI Crossing permits (MCA/WRA/7 and MCA/FRA/2) because all five permits will be implemented simultaneously and the abstracted water from the cofferdams for both AD6 bridleway works and the SSSI crossing works, and runoff from the SSSI crossing structure will be treated and then discharged using consent CWDA/18. The outlets on AD6 are to be constructed under a minor works license but the discharge is covered by CWDA/18.
Flood Risk Activity (FRA)	MCA/FRA/8	EA	To be confirmed - application not yet submitted	Sizewell Drain realignment – connection into Leiston Drain including headwall installation and works in/ loss of floodplain due to installation of MCA environmental sheet pile barrier	In preparation	NGR for the reach of Sizewell Drain being realigned: from TM 47021 63731 to TM 47394 64540. NGR for new connection point of Sizewell Drain into Leiston Drain: TM 47038 64437.	Winter 2024/25	Approximately 1.7km east of the AD6 bridleway works on Sizewell Drain (which drains into Leiston Drain downstream of the AD6 bridleway crossing). Permanent connection to Leiston Drain following realignment will replace the temporary connection created for the SSSI Crossing and will be undertaken later (not simultaneously).
Land Drainage Consent (LDC)	MCA/LDC/5	ESWMB	To be confirmed - application not yet submitted	Sizewell Drain realignment	In preparation	NGR for the reach of Sizewell Drain being realigned: from TM 47021 63731 to TM 47394 64540. NGR for new connection point of Sizewell Drain into Leiston Drain: TM 47038 64437.	Winter 2024/25	Approximately 1.7km east of the AD6 bridleway works on Sizewell Drain (which drains into Leiston Drain downstream of the AD6 bridleway crossing). Permanent connection to Leiston Drain following realignment will replace the temporary connection created for the SSSI Crossing and will be undertaken later (not simultaneously).

Permit type	SZC permit application reference	Regulator	Regulator permit reference	Activities covered	Status	Location	Timing	Further information
Fish Pass Approval (FPA)	MCA/FPA/1	EA	To be confirmed – application not yet submitted	Sizewell Drain realignment – fish/eel pass	In preparation	NGR for the reach of Sizewell Drain being realigned from TM 47021 63731 to TM 47394 64540.	Winter 2024/25	Likely to be undertaken simultaneously with the AD6 bridleway crossing works. Fish pass is ecologically positive and will not have negative effects in combination with the SSSI Crossing or the AD6 bridleway works (which will not involve any in channel works).
Water Resources Impoundment Licence (WRIL)	MCA/WRIL/2	EA	To be confirmed – application not yet submitted	Sizewell Drain realignment – permanent level control structure -– weir and control structures on connecting lateral drains	In preparation	Approx NGR: TM 47392 64524.	Winter 2024/2025	Approximately 1.7km east of the AD6 bridleway works on Sizewell Drain (which drains into Leiston Drain downstream of the AD6 bridleway crossing). The structure is proposed to be set back from the confluence of Sizewell Drain and Leiston Drain by a short distance (ideally by 5 m to 10 m up Sizewell Drain). This weir is being included as a positive structure to enable better control of flows in the Sizewell Drain when and if desired. It is therefore environmentally positive. Likely to be undertaken after the AD6 works. Blocking of lateral drains being undertaken to enable Sizewell Drain permanent realignment and to prevent hydrological or water quality impacts on Sizewell Marshes SSSI (and thus its role as supporting habitat for birds of Minsmere-Walberswick SPA). These works will therefore work to avoid adverse effects. Hydrological modelling of the straightening of the Sizewell Drain itself (which will be subject to a Land Drainage Consent application) was undertaken for the DCO and will be discussed and presented in the permit to be submitted for the permanent realignment. Modelling confirmed no impact on water quality or hydrology in Sizewell Marshes following drain realignment. Therefore no in combination effects. Similar water quality protection measures will be implemented as standard for the Sizewell C project.

Permit type	SZC permit application reference	Regulator	Regulator permit reference	Activities covered	Status	Location	Timing	Further information
Flood Risk Activity (FRA)	AD6/FRA/1	EA	To be confirmed – application not yet submitted	Construction of crossing of Leiston Drain including works within the floodplain (e.g. mammal tunnel) for bridleway AD6	In preparation	Approximately TM 45444 63497	January to February 2025 then resuming in September 2025 to avoid bird nesting season.	Will be undertaken over the same timescale to the dewatering works covered by this permit and is directly linked as the dewatering is for the pile caps for the bridleway crossing of Leiston Drain. Similar water quality protection measures will be implemented as standard for the Sizewell C project. Clear span bridge avoiding works within the Leiston Drain.

4 APPENDICES

4.1.1.1 The following appendices set out the assessment of EA risks for each permit for each SSSI or European site.

HABITATS REGULATION ASSESSMENT AND
COUNTRYSIDE RIGHTS OF WAY ACT ASSESSMENT SUPPORTING INFORMATION

EA RISKS RELEVANT TO PERMIT AD6/WRA/14

EA Risks Relevant to Sizewell Marshes SSSI

A.1 EA Risks Relevant to Permit AD6/WRA/14 and Sizewell Marshes SSSI

EA Risk	Assemblage of breeding and wintering birds	Ditches	Floodplain fen and lowland mire	Invertebrate assemblages [1]	Lowland mire grassland and rush pasture	Vascular plants	Justification
Reduced dilution capacity	X	X	X	X	X	X	Changes in the flow or the velocity regime of a watercourse could result in an inability to dilute and manage discharges into the same habitat. Reduced dilution capacity could have a direct effect on some of the interest features for which the SSSI is partly designated (notably the ditch habitat and invertebrate populations) as well as indirectly on other SSSI features through potential effects on prey fish and invertebrates, although the Leiston Drain is only one of many watercourses within the foraging distances of relevant SSSI birds. Abstraction of ground water related to this permit application have been shown to have minimal (if any impact) on water levels and quality in Leiston Drain, and thus won't affect dilution capacity, as groundwater is in hydraulic continuity with the Leiston Drain and water will be returned to the drain. Moreover, a sheet piling retaining wall will be in place to limit hydraulic connection to the wider groundwater body. Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the retaining wall during dewatering would be less than one millimetre (mm). There will be no effects on the SSSI habitats, plants or invertebrates.
Habitat Loss	X	X	X	X	X	X	Abstraction will not cause habitat loss in Leiston Drain or elsewhere in the SSSI (i.e. through drying out of fen and mire) due to the small drawdown levels and the fact that SSSI vegetation within the footprint of the bridge structure will have already been cleared under the DCO. Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no drying out of SSSI habitats or those that support SSSI plants or invertebrate species, or fish on which some SSSI birds feed.
Entrapment/ impingement	X	X	X	X	X	X	Since it is dewatering of groundwater from within a sheet piling retaining wall and will result in negligible change in water levels or flows beyond the sheet piling retaining wall, abstraction will not result in any entrapment or impingement of fish species on which SSSI birds might prey and would therefore have no indirect effect on the ability of the SSSI to meet its conservation objectives.
Changes in water levels or table	X	X	X	X	X	X	Abstraction will not cause reduction in water levels in Leiston Drain, or SSSI fen or mire habitats due to the small drawdown in water levels outside the sheet piling retaining wall. Noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18, results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in water levels in Leiston Drain or other SSSI features and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which some SSSI birds feed. There will be no direct or indirect effects on SSSI habitats, plants or invertebrates.

[1] W211 – Open water on disturbed sediments and W314 reed-fen & pools

EA Risk	Assemblage of breeding and wintering birds	Ditches	Floodplain fen and lowland mire	Invertebrate assemblages [1]	Lowland mire grassland and rush pasture	Vascular plants	Justification
Change in flow or velocity regime	X	X	X	X	X	X	Abstraction will not cause any change in the flow or velocity regime in Leiston Drain, or other SSSI watercourse, due to the small drawdown in water levels outside the sheet piling retaining wall. Results of modelling for similar dewatering exercises around the Leiston Drain results indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in flow or velocity in Leiston Drain and therefore no effect on SSSI habitats, plants or fauna dependent on flows in Leiston Drain or Sizewell Drain.
Changes in surface water flooding	X	X	X	X	X	X	Abstraction will not cause any change in surface water flooding within Sizewell Marshes SSSI due to the small drawdown in water levels outside the sheet piling retaining wall. Noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18, results of modelling for similar dewatering exercises around the Leiston Drain results indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in flooding in the SSSI and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SSSI birds feed, or habitats on which SSSI birds might roost in the SSSI. There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.
Change in water chemistry	X	X	X	X	X	X	Abstraction will not affect water chemistry in the surrounding area of SSSI habitats, or Leiston Drain, as the sheet piling retaining wall installed to ensure that a finite volume exists for dewatering will also act as an environmental barrier to the surrounding groundwater and thus surface water (as evidenced by the fact that drawdown beyond the sheet piling retaining wall is expected to be less than 1mm). Changes in water chemistry due to the discharge of abstracted water are covered by a separate permit application (MDS/CWDA/18). As a result there will be no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SSSI birds feed, or habitats on which SSSI birds might roost in the SSSI. There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.
Change in salinity regime	X	X	X	X	X	X	Abstraction will not cause any change in the salinity regime in Leiston Drain or other watercourses in the SSSI due to the small drawdown in water levels outside the sheet piling retaining wall, the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in salinity regime in SSSI watercourses.
Change in freshwater **flows to** estuary	X	X	X	X	X	X	The abstraction will not affect flows in the Leiston Drain and there is no estuarine component to Sizewell Marshes SSSI.

A.2 EA Risks Relevant to Permit AD6/WRA/14 and Minsmere to Walberswick Heaths and Marshes SSSI

EA Risk	Aggregations of breeding and non-breeding birds[2]	Habitats [3]	Invertebrate assemblages[4]	Botanical interest and vascular plant assemblage[5]	Justification
Reduced dilution capacity	X	X	X	X	Changes in the flow or the velocity regime of a watercourse could result in an inability to dilute and manage discharges into the same habitat. Reduced dilution capacity could have an indirect effect on some of the interest features for which the SSSI is partly designated through potential effects on prey fish and invertebrates, although the Leiston Drain is only one of many watercourses within the foraging distances of relevant SSSI birds. Abstraction of ground water related to this permit application have been shown to have minimal (if any impact) on water levels and quality in Leiston Drain, and thus won't affect dilution capacity, as groundwater is in hydraulic continuity with the Leiston Drain and water will be returned to the drain. Moreover, a sheet piling retaining wall will be in place to limit hydraulic connection to the wider groundwater body. Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the retaining wall during dewatering would be less than one millimetre (mm). There will be no effects on the SSSI habitats, plants or invertebrates.
Habitat Loss	X	X	X	X	Abstraction will not cause habitat loss in Leiston Drain due to the small drawdown levels. Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no drying out of habitats that would support wetland fish or invertebrate species, or aquatic plants, on which some SSSI birds feed. There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.
Entrapment/impingement	X	X	X	X	Since it is dewatering of groundwater from within a sheet piling retaining wall and will result in negligible change in water levels or flows beyond the sheet piling retaining wall, abstraction will not result in any entrapment or impingement of fish species on which SSSI birds might prey and would therefore have no indirect effect on the ability of the SSSI to meet its conservation objectives. There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.
Changes in water levels or table	X	X	X	X	Abstraction will not cause reduction in water levels in Leiston Drain due to the small drawdown in water levels outside the sheet piling retaining wall, the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in water levels in Leiston Drain and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which some SSSI birds feed. There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.

[2] See section 3.3 for the full list of avian features
[3] See section 3.3 for the full list of designated habitats
[4] See section 3.3 for the full list of invertebrate assemblage features
[5] See section 3.3 for the full list of designated botanical interest features, including vascular plant assemblage.

EA Risk	Aggregations of breeding and non-breeding birds[2]	Habitats [3]	Invertebrate assemblages[4]	Botanical interest and vascular plant assemblage[5]	Justification
Change in flow or velocity regime	X	X	X	X	Abstraction will not cause any change in the flow or velocity regime in Leiston Drain due to the small drawdown in water levels outside the sheet piling retaining wall, the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in flow or velocity in Leiston Drain and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SSSI birds feed. There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.
Changes in surface water flooding					Abstraction will not cause any change in surface water flooding within Sizewell Marshes SSSI due to the small drawdown in water levels outside the sheet piling retaining wall, the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in flooding in the SSSI and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SSSI birds feed, or habitats on which SSSI birds might roost in the SSSI. There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.
Change in water chemistry	X	X	X	X	Abstraction will not affect water chemistry in the surrounding area or Leiston Drain, as the sheet piling retaining wall s installed to ensure that a finite volume exists for dewatering will also act as an environmental barrier to the surrounding groundwater and thus surface water (as evidenced by the fact that expected drawdown beyond the sheet piling retaining wall is less than 1mm). Changes in water chemistry due to the discharge of abstracted water are covered by a separate permit application (MDS/CWDA/18). As a result there will be no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SSSI birds feed, or habitats on which SSSI birds might roost in the SSSI. There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.
Change in salinity regime					Abstraction will not cause any change in the salinity regime in Leiston Drain due to the small drawdown in water levels outside the sheet piling retaining wall , the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in salinity regime in Leiston Drain and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SSSI birds feed. There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.
Change in freshwater **flows to estuary**	X	X	X	X	The abstraction will not affect flows in the Leiston Drain. There is no estuary that would be affected by abstraction or discharges via Leiston Drain. The Leiston Drain ultimately drains to the sea via a control structure on Minsmere New Cut. Therefore there will be no change in freshwater flows to sea.

A.3 EA Risks Relevant to Permit AD6/WRA/14 and Minsmere to Walberswick Heaths and Marshes SAC

EA Risk	Annual vegetation of drift lines	European dry heaths	Perennial vegetation on stony banks	Justification
Reduced dilution capacity	X	X	X	All three SAC habitats are dry habitats that rely on freely draining substrates and are not dependent on flowing or standing water, or a high-water table.
Habita Loss	X	X	X	
Entrapment/impingement	X	X	X	
Changes in water levels or table	X	X	X	
Change in flow or velocity regime	X	X	X	
Changes in surface water flooding	X	X	X	
Change in water chemistry	X	X	X	
Change in salinity regime	X	X	X	
Change in freshwater **flows to estuary**	X	X	X	

EA Risks Relevant to Minsmere-Walberswick SPA

A.4 EA Risks Relevant to Permit AD6/WRA/14 and Minsmere-Walberswick SPA

EA Risk	Aggregations of breeding and non-breeding birds[6]	Justification
Reduced dilution capacity	X	Changes in the flow or the velocity regime of a watercourse could result in an inability to dilute and manage discharges into the same habitat. Reduced dilution capacity could have an indirect effect on some of the interest features for which the SPA is designated through potential effects on prey fish and invertebrates, although the Leiston Drain is only one of many watercourses within the foraging distances of relevant SPA birds. Drawdown won't affect levels in Leiston drain and thus won't affect dilution capacity, as groundwater is in hydraulic continuity with the Leiston Drain and water will be returned to the drain. Moreover, a sheet piling retaining wall will be in place to

[6] See section 3.5 for the full list of avian features

EA Risk	Aggregations of breeding and non-breeding birds[6]	Justification
		limit hydraulic connection to the wider groundwater body. Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). There will be no direct effects on the SPA itself.
Habitat Loss	X	Abstraction will not cause habitat loss in Leiston Drain due to the small drawdown levels. This has been modelled and the results indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no drying out of habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SPA birds feed. There will be no direct effects on the SPA itself.
Entrapment/impingement	X	Since it is dewatering of groundwater from within a sheet piling retaining wall and will result in negligible change in water levels or flows beyond the sheet piling retaining wall, abstraction will not result in any entrapment or impingement of fish species on which SPA birds might prey and would therefore have no indirect effect on the ability of the SPA to meet its conservation objectives. There will be no direct effects on the SPA itself.
Changes in water levels or table	X	Abstraction will not cause reduction in water levels in Leiston Drain due to the small drawdown in water levels outside the sheet piling retaining wall , the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in water levels in Leiston Drain and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SPA birds feed. There will be no direct effects on the SPA itself.
Change in flow or velocity regime	X	Abstraction will not cause any change in the flow or velocity regime in Leiston Drain due to the small drawdown in water levels outside the sheet piling retaining wall , the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in flow or velocity in Leiston Drain and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SPA birds feed. There will be no direct effects on the SPA itself.
Changes in surface water flooding	X	Abstraction will not cause any change in surface water flooding within Sizewell Marshes SSSI due to the small drawdown in water levels outside the sheet piling retaining wall , the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in flooding in the SSSI and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SPA birds feed, or habitats on which SPA birds might roost in the SSSI. There will be no direct effects on the SPA itself.
Change in water chemistry	X	Abstraction will not affect water chemistry in the surrounding area or Leiston Drain, as the sheet piling retaining wall s installed to ensure that a finite volume exists for dewatering will also act as an environmental barrier to the surrounding groundwater and thus surface water (as evidenced by the fact that expected drawdown beyond the sheet piling retaining wall is less than 1mm). Changes in water chemistry due to the discharge of abstracted water are covered by a separate permit application (MDS/CWDA/18). As a result there will be no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SPA birds feed, or habitats on which SPA birds might roost in the SSSI. There will be no direct effects on the SPA itself.
Change in salinity regime	X	Abstraction will not cause any change in the salinity regime in Leiston Drain due to the small drawdown in water levels outside the sheet piling retaining wall , the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be

EA Risk	Aggregations of breeding and non-breeding birds[6]	Justification
		no change in salinity regime in Leiston Drain and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which SPA birds feed. There will be no direct effects on the SPA itself.
Change in freshwater **flows to estuary**	X	The abstraction will not affect flows in the Leiston Drain. There is no estuary that would be affected by abstraction or discharges via Leiston Drain. The Leiston Drain ultimately drains to the sea via a control structure on Minsmere New Cut. Therefore there will be no change in freshwater flows to sea.

EA Risks Relevant to Minsmere-Walberswick Ramsar

A.5 EA Risks Relevant to Permit AD6/WRA/14 and Minsmere-Walberswick Ramsar

EA Risk	Criterion 1 (habitats[7])	Criterion 2 (plants, breeding birds and invertebrates[8])	Justification
Reduced dilution capacity	X	X	Changes in the flow or the velocity regime of a watercourse could result in an inability to dilute and manage discharges into the same habitat. Reduced dilution capacity could have an indirect effect on some of the interest features for which the Ramsar is partly designated through potential effects on prey fish and invertebrates, although the Leiston Drain is only one of many watercourses within the foraging distances of relevant Ramsar birds. Drawdown won't affect levels in Leiston drain and thus won't affect dilution capacity, as groundwater is in hydraulic continuity with the Leiston Drain and water will be returned to the drain. Moreover, a sheet piling retaining wall will be in place to limit hydraulic connection to the wider groundwater body. Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). There will be no direct effects on the Ramsar itself and no direct or indirect effects on Ramsar habitats, plants or invertebrates.
Habitat Loss	X	X	Abstraction will not cause habitat loss in Leiston Drain due to the small drawdown levels. Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no drying out of habitats that would support wetland fish or invertebrate species, or aquatic plants, on which some Ramsar birds feed. There will be no direct effects on the Ramsar itself and no direct or indirect effects on Ramsar habitats, plants or invertebrates.
Entrapment/impingement	X	X	Since it is dewatering of groundwater from within a sheet piling retaining wall and will result in negligible change in water levels or flows beyond the sheet piling retaining wall , abstraction will not result in any entrapment or impingement of fish species on which Ramsar birds might prey and would therefore have no indirect effect on the ability of the Ramsar to meet its conservation objectives. There will be no direct effects on the Ramsar itself and no direct or indirect effects on Ramsar habitats, plants or invertebrates.

[7] Ramsar Criterion 1: The site contains a mosaic of marine, freshwater, marshland and associated habitats, complete with transition areas in between. Contains the largest continuous stand of reedbeds in England and Wales and rare transition in grazing marsh ditch plants from brackish to fresh water.
[8] Ramsar Criterion 2: This site supports nine nationally scarce plants and at least 26 red data book invertebrates. Supports a population of the mollusc *Vertigo angustior* (Habitats Directive Annex II; British Red Data Book Endangered), recently discovered on the Blyth estuary river walls. An important assemblage of rare breeding birds associated with marshland and reedbeds including: *Botaurus stellaris, Anas strepera, Anas crecca, Anas clypeata, Circus aeruginosus, Recurvirostra avosetta, Panurus biarmicus*

EA Risk	Criterion 1 (habitats[7])	Criterion 2 (plants, breeding birds and invertebrates[8])	Justification
Changes in water levels or table	X	X	Abstraction will not cause reduction in water levels in Leiston Drain due to the small drawdown in water levels outside the sheet piling retaining wall , the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in water levels in Leiston Drain and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which some Ramsar birds feed. There will be no direct effects on the Ramsar itself and no direct or indirect effects on Ramsar habitats, plants or invertebrates.
Change in flow or velocity regime	X	X	Abstraction will not cause any change in the flow or velocity regime in Leiston Drain due to the small drawdown in water levels outside the sheet piling retaining wall , the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in flow or velocity in Leiston Drain and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which Ramsar birds feed. There will be no direct effects on the Ramsar itself and no direct or indirect effects on Ramsar habitats, plants or invertebrates.
Changes in surface water flooding	X	X	Abstraction will not cause any change in surface water flooding within Sizewell Marshes SSSI due to the small drawdown in water levels outside the sheet piling retaining wall , the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in flooding in the SSSI and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which Ramsar birds feed, or habitats on which Ramsar birds might roost in the SSSI. There will be no direct effects on the Ramsar itself and no direct or indirect effects on Ramsar habitats, plants or invertebrates.
Change in water chemistry	X	X	Abstraction will not affect water chemistry in the surrounding area or Leiston Drain, as the sheet piling retaining wall s installed to ensure that a finite volume exists for dewatering will also act as an environmental barrier to the surrounding groundwater and thus surface water (as evidenced by the fact that expected drawdown beyond the sheet piling retaining wall is less than 1mm). Changes in water chemistry due to the discharge of abstracted water are covered by a separate permit application (MDS/CWDA/18). As a result there will be no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which Ramsar birds feed, or habitats on which Ramsar birds might roost in the SSSI. There will be no direct effects on the Ramsar itself and no direct or indirect effects on Ramsar habitats, plants or invertebrates.
Change in salinity regime	X	X	Abstraction will not cause any change in the salinity regime in Leiston Drain due to the small drawdown in water levels outside the sheet piling retaining wall , the fact that groundwater and surface water are in continuity, and the fact that abstracted water will be discharged into Leiston Drain as quickly as it can be released without causing erosion (noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). Results of modelling for similar dewatering exercises around the Leiston Drain indicate that the drawdowns outside the sheet piling retaining wall during dewatering would be less than one millimetre (mm). As a result there will be no change in salinity regime in Leiston Drain and therefore no effect on habitats that would support wetland fish or invertebrate species, or aquatic plants, on which Ramsar birds feed. There will be no direct effects on the Ramsar itself and no direct or indirect effects on Ramsar habitats, plants or invertebrates.
Change in **freshwater flows** to estuary	X	X	The abstraction will not affect flows in the Leiston Drain. There is no estuary that would be affected by abstraction or discharges via Leiston Drain. The Leiston Drain ultimately drains to the sea via a control structure on Minsmere New Cut. Therefore there will be no change in freshwater flows to sea.