101339752
Revision 01
EA-SZC-21831Y

Sizewell C
The power of good for Britain

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

File Ref: 101339752
Unique Number: EA-SZC-21831Y
Your Ref: N/A

Tuesday 10th September 2024

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

Dear Ms Lang,

FOR ASSESSMENT: APPLICATION FOR A WATER RESOURCES LICENCE MCA/WRA/7

As part of the construction phase of the Sizewell C nuclear new build project, localised temporary dewatering is required to facilitate to the construction of the bridge over the Leiston Drain located at the Main Construction Area (MCA).

We have enclosed six documents pertaining to the application for a Water Resources Licence in the MCA site (Sizewell C permit ref. MCA/WRA/7) for the dewatering activity required as part of the construction of the pile caps of the Site of Special Scientific Interest (SSSI) Crossing.

A plan of the dewatering and discharge locations are included in the supporting documentation (Enclosure 5, Annexure A). Estimated flow rates are presented in Form B (Enclosure 2), with a maximum value of 510 m^3/day split equally across the two dewatering areas located on each side of Leiston Drain. The dewatering will be undertaken within cofferdams, that will act as a hydraulic barrier to limit inflow rates and minimise the change in water levels in the wider environment.

We have updated the submission to take into account feedback supplied by the Environment Agency on draft documentation circulated for review last month.

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	Maria Alvarez	DocuSigned by: Maria Alvarez ACC6DE37B531408...
Independent Verification	Head of Environmental Consenting and Compliance	Stuart Woodings	DocuSigned by: Stuart Woodings D16CC91AFFEA410...
Approval	Safety Security and Assurance Director	Mina Golshan	DocuSigned by: Mina Golshan E66626D568434E7...

Yours sincerely,

DocuSigned by:
Clare Proctor
03A24C4523754F5...

Clare Proctor
Environmental Manager – Construction Permits and Consents
Sizewell C Limited

Copy: rio@sizewellc.com
environment.pcl@sizewellc.com
psc-waterresources@environment-agency.gov.uk
sizewellcnnb@environment-agency.gov.uk

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Enclosures

	Document Title	EDRMS Reference Number	Version Number	Protective marking	Transmitted via
1.	Water Resources Licence Part A (Form W328)	101327713	001	UK PROTECT – PERSONAL DATA	Teamcenter
2.	Water Resources Licence Part B (Form W330)	101327715	001	NOT PROTECTIVELY MARKED	Teamcenter
3.	Water Resources Licence Part C (Form W332)	101327717	001	NOT PROTECTIVELY MARKED	Teamcenter
4.	Water Resources Licence Part E (Form WR390)	101327718	001	NOT PROTECTIVELY MARKED	Teamcenter
5.	SSSI Crossing Impact Statement	101327695	001	NOT PROTECTIVELY MARKED	Teamcenter
6.	Appendix C: Package to Inform Countryside Rights of Way (CRoW) Act Assessment and Habitats Regulations Assessment, Permit MCA/FRA/2, MCA/LDC/1 and MCA/WRA/7 (SSSI Crossing)	101267587	001	NOT PROTECTIVELY MARKED	Teamcenter

MCA/WRA/7 SSSI Crossing Impact Statement

Contents

MCA/WRA/7 SSSI Crossing Impact Statement

1. Introduction

To facilitate construction access between the Main Construction Area (MCA) and the Temporary Construction Area (TCA) it is necessary to construct a bridge crossing across the Leiston Drain. This Technical Note presents an assessment of potential effects associated with temporary dewatering necessary to allow construction of the foundations for the bridge abutments. The location of the bridge abutments is in close proximity to the Sizewell Marshes Special Scientific Interest (SSSI). Works will be carried out within the area of SSSI that is to be permanently lost, offset by the establishment of compensatory habitat as set out in the DCO. The information supplied is in support of permit application MCA/WRA/7 for the water abstraction licence required for the SSSI Crossing dewatering activity which is required 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 Outlet DWO1 (NGR TM 47361 64528). Impacts associated with discharge of the abstracted water are considered under a construction water discharge permit that has been submitted to the EA (known as MDS/CWDA/18).

2. H1 Assessment summary

An Inflow and Discharge H1 Assessment SSSI Crossing Dewatering Technical Note was prepared in relation to the SSSI Crossing dewatering and it is appended to the application as Annexure B for reference.

Ground level at the area of the SSSI Crossing is approximately 0.7 metres above ordnance datum (m AOD).

Ground conditions comprise peat, which extends to approximately -6.5 m AOD in the vicinity of the SSSI bridge crossing area (Atkins, 2020b), and Crag deposits extending to approximately -44 m AOD.

Average surface water level in the Leiston Drain, adjacent to the SSSI Crossing is 0.356 m AOD. Contours produced using observed groundwater levels from boreholes screened within the Crag aquifer suggest that the groundwater level within the vicinity of the SSSI crossing area range between 0.3 and 0.8 m AOD. Water levels from boreholes screened within the Peat suggest that groundwater level ranges between 0.23 to 0.75 m AOD in this area (Atkins, 2022 Groundwater Monitoring Report 2020-2022) – Main Development Site and Associated Developments). Where groundwater levels are higher than ground level this is a result of groundwater emergence during winter months.

During construction of the SSSI Crossing, abutments must be constructed on either side of the Leiston Drain. This will comprise a pile cap constructed on top of piles to be installed in the Crag. On each side of the Leiston Drain there is a need for short duration localised dewatering to facilitate dry working conditions during construction of pile caps. The dewatering will take place on each side of the watercourse within a cofferdam to limit hydraulic connection with the wider groundwater body.

The dewatering is required to lower groundwater to 0.5 m below the base of the pile cap, which gives a target water level during construction of -1.3 m AOD, equivalent to approximately 2 m below natural groundwater levels. The cofferdam will extend to approximately -11 m AOD.5 The cofferdam will be 5 m x 73 m and formed by driving sheet piles around the perimeter of the area to be excavated.

The H1 assessment includes the details of a two-dimensional numerical groundwater model constructed in Seep/W (Seequent, n.d.) that was used to estimate the potential flow rates during dewatering. The model simulates a

MCA/WRA/7 SSSI Crossing Impact Statement

reduced water level within sheet pile walls in line with the required drawdown during construction. The sheet pile walls are represented as a vertical barrier with lower hydraulic conductivity partially penetrating the Crag. The rest of the model media represents the Crag aquifer, overlying Peat deposits and the Leiston Drain. Conservative values are assigned to the hydraulic properties of the Crag and Peat. The model was run in steady state.

The dewatering of the SSSI crossing was anticipated to be required for up to 70 days based on the original construction schedule considered in the H1 assessment, with dewatering of the excavation undertaken 24/7. Based on the model results the total volume of water abstracted would be 36,470m^3. The model results indicate that the drawdowns outside the cofferdam during dewatering would be less than one millimetre (mm). Since the H1 modelling was completed the construction programme has been revised and the anticipated period of dewatering has increased to 155 days. The increased duration is due to a number of contributing factors including:

- increased number of concrete pours to limit the lateral pressure on the sheet pile line;
- increased preparation of the concrete pours in a confined space; and
- staggered start date between the northern and southern abutments due to varied site release dates.

This means the total volume of water to be abstracted has increased to 80,755m^3. While the duration of dewatering is now longer and the total volume that may need to be abstracted has increased the instantaneous and daily rates remain the same.

The anticipated magnitude of change, and impact to the environment, remains the same as reported in the H1 modelling as the assessment was carried out using steady state conditions. This means that the increased duration of the works does not require additional modelling as the steady state modelling represents the maximum degree of change once the influence of the dewatering has stabilised.

3. Receptors for potential effects

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

- Sizewell Marshes SSSI
- Minsmere and Walberswick Heaths and Marshes SSSI
- Minsmere-Walberswick SPA/Ramsar site
- Minsmere New Cut
- Leiston Drain (distance 0 km)
- Licensed groundwater abstractions
    - 7/35/03/*G/0045 (potentially revoked)
    - 7/35/03/*G/0074 (potentially revoked)
    - 7/35/03/*G/0051
    - 7/35/03/*G/0046
    - An/035/0003/007 (4 records)
    - 7/35/03/*G/0089
    - 7/35/03/*G/0049
    - An/035/0003/009
    - 7/35/03/*G/044

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  - An/035/0003/003 (6 records)
  - 7/35/03/*G/0065 (potentially revoked)
  - 7/35/03/*G/0025
  - 7/35/03/*G/0064
  - 7/35/03/*G/0051
- Licensed surface water abstractions:
  - 7/35/03/*S/0051 (southern abstraction at Rackham Pits)
  - 7/35/03/*S/0075 (northern abstraction at Two Penny Bridge)
- Marsh Harrier compensation habitat
- Surface water bodies – various dams, reservoirs and lakes
- Groundwater body – Crag aquifer (water body from which abstraction is proposed)

4. Potential effects from the dewatering activity

The dewatering of the SSSI crossing 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; and
- 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.

The first two potential effects are discussed in Section 5, 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 CWDA-18.

5. Potential effects at receptors

Given the small magnitude of change predicted outside the cofferdam it is not considered that there is a mechanism for impact on any of the identified receptors. 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. As such, it is not considered proportionate to consider each identified receptor individually.

Taking into account the small magnitude of change predicted outside the cofferdam, and the short duration of the dewatering, it is not considered that there is a credible mechanism for effect at any of the identified receptors.

6. Managing potential effects at receptors

Whilst there is no credible mechanism for observable change at the identified receptors, the potential effects considered in Section 5 are based on the predicted change during dewatering from the numerical modelling reported in the H1 Assessment Technical Note. In order to ensure that the predicted change is not exceeded during

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implementation of the dewatering, the effectiveness of the hydraulic barrier provided by the cofferdam will need to be in line with that represented in the model.

The flow rates applied for as part of the abstraction licence application are based on the inflow estimates in the numerical model. If the cofferdam is less effective than that in the numerical model the flow rates will be higher than anticipated and the required drawdown for construction will not be achieved. In this case one of the following corrective courses of action would be implemented:

- Further work will be required to improve the performance of the cofferdam, subject to necessary permitting requirements, prior to construction dewatering being carried out.
- A revised H1 Assessment to determine whether the increased flow rate is acceptable for discharge, and associated variation to the abstraction licence with a revised impact assessment for the water environment.

It is proposed to use existing monitoring infrastructure within the Sizewell Marshes SSSI to identify whether there is any unanticipated change in water levels outside the cofferdam. Monitoring of water levels is currently undertaken in accordance with the Water Monitoring and Management Plan (WMMP), secured under Requirement 11 of the DCO, which was discharged on 09/04/24. Water levels are monitored at 15-minute intervals at several locations across the Sizewell Marshes SSSI as set out in the WMMP. The scope of this ongoing monitoring is overseen by the Water Management Working Group, which includes representation from the Environment Agency.
Following initiation of dewatering within the cofferdams, water level monitoring data from the locations identified in the WMMP will be reviewed to identify any deviation from baseline pre-abstraction conditions.

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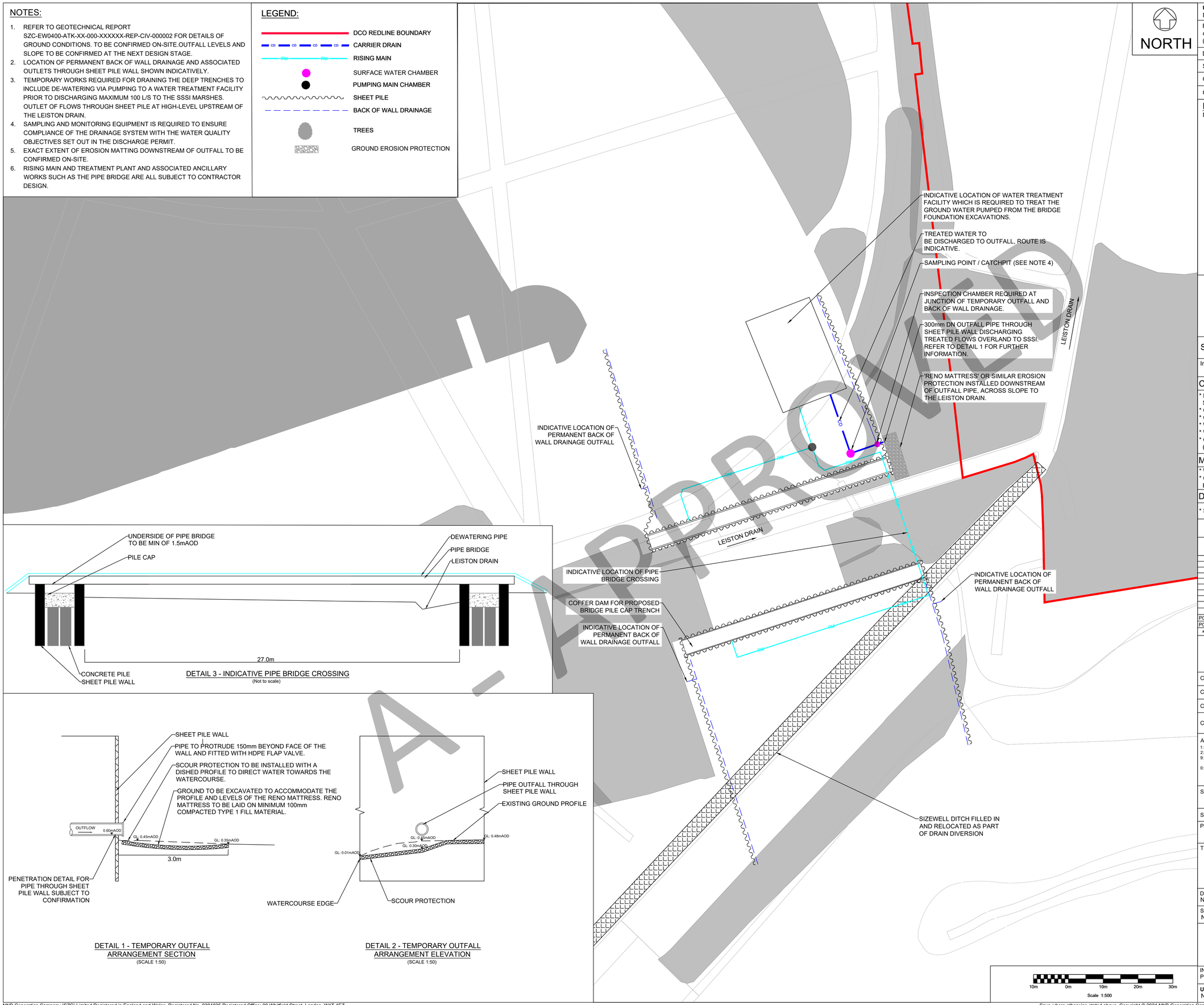
Annexure A – SSSI Crossing Area of Dewatering and Discharge Point (Outlet DWO1) Location Plan

NOTES:

1. REFER TO GEOTECHNICAL REPORT SZC-EW0400-ATK-XX-000-XXXXXX-REP-CIV-000002 FOR DETAILS OF GROUND CONDITIONS. TO BE CONFIRMED ON-SITE.OUTFALL LEVELS AND SLOPE TO BE CONFIRMED AT THE NEXT DESIGN STAGE.
2. LOCATION OF PERMANENT BACK OF WALL DRAINAGE AND ASSOCIATED OUTLETS THROUGH SHEET PILE WALL SHOWN INDICATIVELY.
3. TEMPORARY WORKS REQUIRED FOR DRAINING THE DEEP TRENCHES TO INCLUDE DE-WATERING VIA PUMPING TO A WATER TREATMENT FACILITY PRIOR TO DISCHARGING MAXIMUM 100 L/S TO THE SSSI MARSHES. OUTLET OF FLOWS THROUGH SHEET PILE AT HIGH-LEVEL UPSTREAM OF THE LEISTON DRAIN.
4. SAMPLING AND MONITORING EQUIPMENT IS REQUIRED TO ENSURE COMPLIANCE OF THE DRAINAGE SYSTEM WITH THE WATER QUALITY OBJECTIVES SET OUT IN THE DISCHARGE PERMIT.
5. EXACT EXTENT OF EROSION MATTING DOWNSTREAM OF OUTFALL TO BE CONFIRMED ON-SITE.
6. RISING MAIN AND TREATMENT PLANT AND ASSOCIATED ANCILLARY WORKS SUCH AS THE PIPE BRIDGE ARE ALL SUBJECT TO CONTRACTOR DESIGN.

LEGEND:

- DCO REDLINE BOUNDARY
- CD CD CD CD CD CARRIER DRAIN
- RM RM RISING MAIN
- SURFACE WATER CHAMBER
- PUMPING MAIN CHAMBER
- SHEET PILE
- BACK OF WALL DRAINAGE
- TREES
- GROUND EROSION PROTECTION



DETAIL 3 - INDICATIVE PIPE BRIDGE CROSSING
(Not to scale)

DETAIL 1 - TEMPORARY OUTFALL ARRANGEMENT SECTION
(SCALE 1:50)

DETAIL 2 - TEMPORARY OUTFALL ARRANGEMENT ELEVATION
(SCALE 1:50)

NORTH

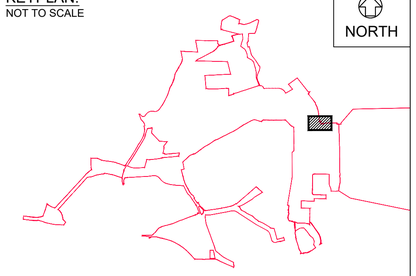
UK PROTECTIVE MARKING:
NOT PROTECTIVELY MARKED

DRAWING GRID / COORDINATE SYSTEM:

SITE LOCAL GRID	☐	NATIONAL GRID OSGB36	☒
OTHER GRID	☐	(To be defined in the contract project plan)	

CONTRACT PROJECT PLAN DOC. REF. No: N/A

KEYPLAN:
NOT TO SCALE



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

CONSTRUCTION

* DROWNING - WORKING CLOSE TO WATERCOURSES AND MARSHY AREAS SUBJECT TO PERIODIC FLOODING.
* CONTACT WITH HAZARDOUS FLOWS (E.G. WEIL'S DISEASE).
* CONTAMINATION OF THE SSSI SIZEWELL MARSHES.
* WATERCOURSE BANK COLLAPSE DUE TO SLOPE INSTABILITY.
* WORKING AT HEIGHT ALONGSIDE WATERCOURSE BANKS.
* CONTAMINATION FROM UNTREATED CONTAMINATED SPILL (FUEL, FOUL, CONCRETE ETC).

MAINTENANCE/CLEANING

* WORKING AT HEIGHT IN THE SAMPLING POINT/CATCHPIT.
* CONSTRUCTION RISKS ASSOCIATED WITH THE WATERCOURSE ARE ALSO RELEVANT DURING MAINTENANCE/ CLEANING OF THE HEADWALLS.

DECOMMISSIONING/DEMOLITION

* SEE CONSTRUCTION AND MAINTENANCE NOTES ABOVE.

The above risks are listed in the Design Risk Register reference SZC-EW0000-ATK-XX-000-XXXXXX-REG-CIV-000009

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

REV.	DATE	PREPARED BY	CHECKED BY	STATUS	REASONS FOR REVISION	APPROVED BY
P01	26/02/24	SN	RD	P1	First Revision	SF
P02.05	---	---	---	P1		---

NNB GenCo (SZC) LTD.

1st partner: Sizewell C — The power of good for Britain

2nd partner: AtkinsRéalis

CONTRACTOR COMPANY TRADE NAME : AtkinsRéalis

CONTRACTOR REF. No. SZC-EW0921-ATK-XX-WSO-02XXXX-DRW-CIV-900004

CONTRACT NUMBER : Early Works EWXXXX_098_01

CONTRACTOR WBS CODE : EW0921 | QRA RELATED Yes ☐ No ☒

APPLICABILITY:
1: Document related to Unit 1
2: Document related to Unit 2
9: Document that applies to buildings/systems common to Unit 1 & 2
0: Documents that relate exclusively to buildings or systems that are common to the whole site (e.g. parking, ancillary buildings...)

NUCL/REP/EPR/UKX			
SZC (doc: SZ)			
0	1	2	9
X			

BUILDING: N/A

SYSTEM: WSO

SCALE 1:500

SIZE A1

PAGE 1/1

DESCRIPTION: SSSI Foundation Dewatering Location Plan

TEAMCENTER DOCUMENT REFERENCE No.: 101220114

DOCUMENT SUB -TYPE: N/A

EDF CLASSIFICATION CODE: N/A

SUBCONTRACTOR COMPANY TRADE NAME: N/A

SUBCONTRACTOR DOCUMENT REF. No: 5213850-SNC-02-XX-DDRW-X-900004

This pattern must be entirely readable
For A0 and A1 : ABERPFTHLUOOCGQUVWMNSZKKY
zsaeocmuvnwxirfkhdpqgyjlt 71423855690
0 1 2 3 4 5 6 7 8 9 10

INTELLECTUAL PROPERTY OWNERSHIP:	NNB:	EDF:	CONTRACTOR:
	N/A	N/A	N/A

UK PROTECTIVE MARKING:
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MCA/WRA/7 SSSI Crossing Impact Statement

Annexure B – An Inflow and Discharge H1 Assessments SSSI Crossing Dewatering Technical Note

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Inflow and Discharge H1 Assessments
SSSI Crossing Dewatering Technical Note

Project	**SZC: Sizewell C**	Teamcenter ID	
Teamcenter Contract	Choose an item.		
Client	**NNB Generation Co.**	Contractor Reference	**SSSI Crossing Dewatering Technical Note**
Contractor	**Civil Works Alliance**	Contractor Rev	**P01.01**
Purpose of Issue	**P1 - Published for Implementation**		
Supplier	**AtkinsRéalis**	Originators Ref	**5213850-SNC-02-XX-TREP-H-900001**
Prepared by	**T.Wilkins**	Role	**Associate**
Reviewed by	**J.Houghton**	Role	**Associate**
Approved by	**---**	Role	**Permit Coordinator**

REVISION HISTORY

Revision	Purpose	Amendment	Prepared By	Date
P01.01	P1 - Published for Implementation	First Revision	TW	---

Notice

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Document history

PW Revision	Status	Purpose description	Originated	Checked	Reviewed	Authorised	Date
WIP		Draft for comment	BP/JE	AD	TW	JH	09/10/23
P1.01		1st Revision	TW/JE	BP/TW	JH		07/12/23

Contents

Figures

1. Introduction

1.1. Overall Project Scope

This Scope of Works is part of a suite of documents describing 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

EW0123- The SSSI Crossing packages form part of the Enabling Works package. The Site of Special Scientific Interest (SSSI) crossings provide an essential link between the Temporary Construction Area (TCA) and Main Construction Area (MCA). The SSSI construction requires installation of an environmental barrier, which also forms permanent formwork for the abutment pile caps.

Figure 1-1 below presents the location of the SSSI crossing.

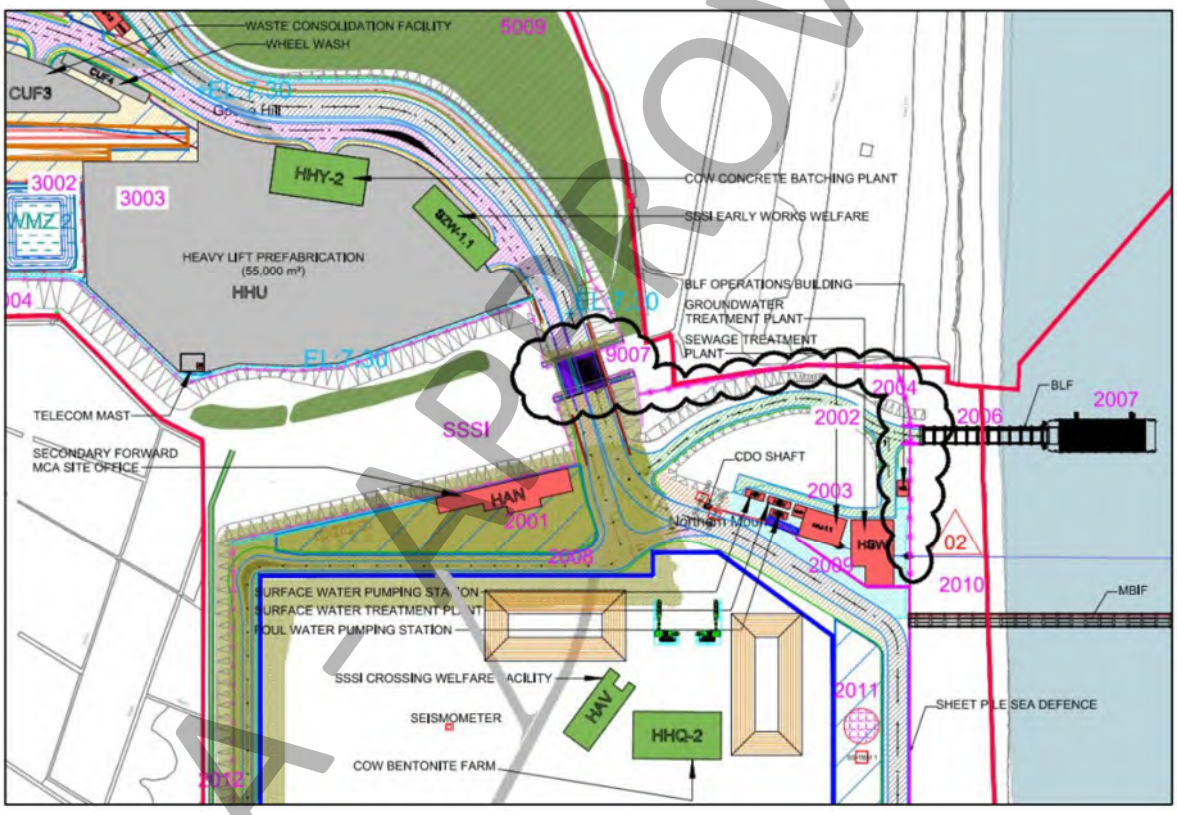


Figure 1-1 - Location of SSSI Crossing

1.3. Dewatering Requirements

Atkins were asked to estimate likely water ingress from the footprint and sidewalls of a sheet piled cofferdam which will be installed to facilitate the construction of bridge pile caps associated with north and south wing walls for SSSI crossing bridge. The pile caps are situated within the north and south wing walls. The sheet piles also provide an environmental barrier, protecting the SSSI from the lateral movement of any potential contamination (typically pH resulting from the construction of concrete piles/pile caps). The dewatering will enable a safe working environment to be maintained during pile cap construction, refer to Figure 1-2 and Figure 1-3.

This report aims to determine how much water will need to be pumped out of the excavation, the amount of potential draw down water. The north wing walls are modelled here as the Crag is more prevalent meaning maximum dewatering volumes will be calculated as well as maximum drawdown outside of the cofferdam.

A Phase 1 (screening assessment) H1 Risk Assessment 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 the treatment methods if required. A H1 Assessment is required for the permitting of discharge containing priority hazardous substances, priority substances and “other pollutants” to surface waters (Environment Agency, December 2019). The classification of substances and pollutants is covered by the Environmental Quality Standards Directive (EQSD) (Environment Agency, December 2016).

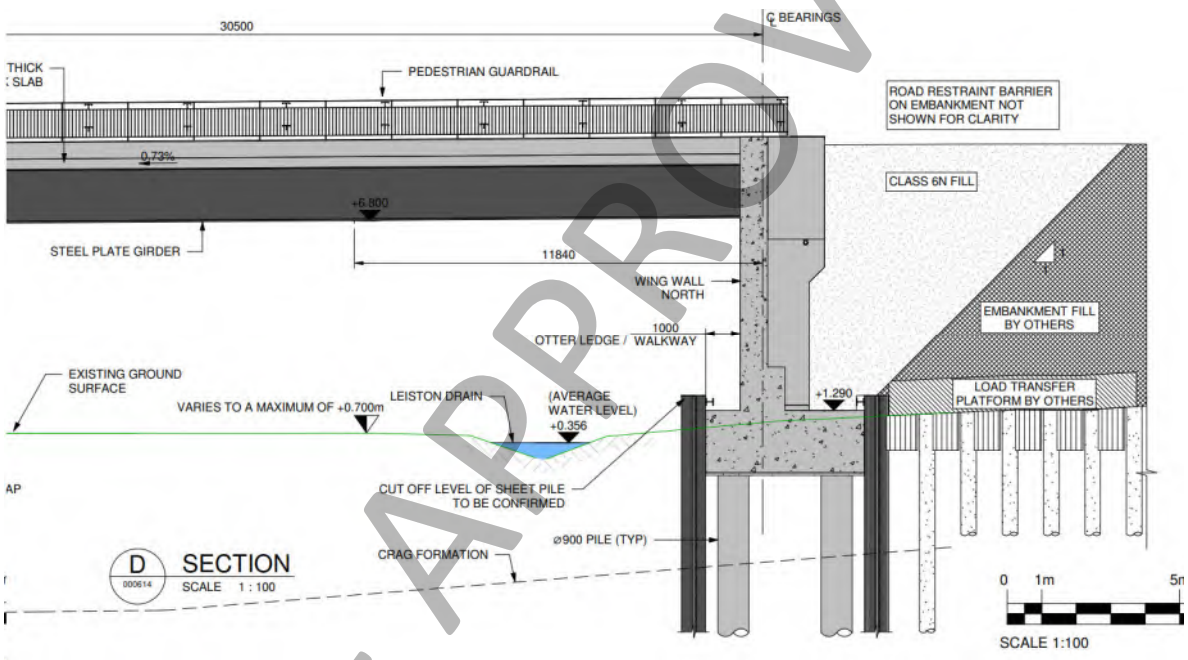


Figure 1-2 - Excerpt of Outline Design Drawing showing the sheet piles and pile cap

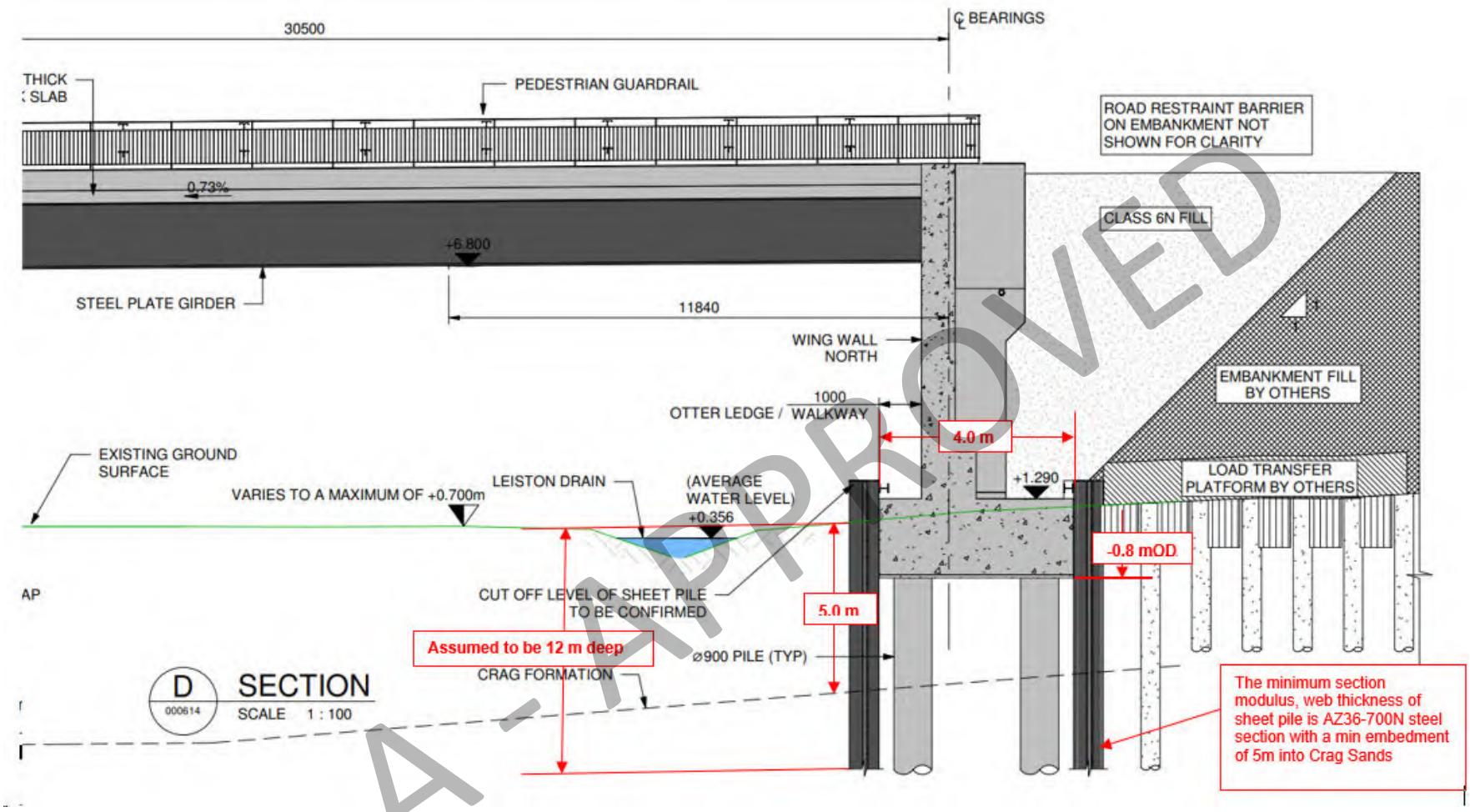


Figure 1-3 - Design Geometry

2. Environmental Setting

2.1. Site Location

The location of the proposed SSSI crossing is within the DCO Redline boundary encompassing the development site as illustrated in Figure 1-1**Error! Reference source not found.**. Located north of the existing Sizewell B power station and the proposed Sizewell C location, the SSSI crossing will provide a link between the Temporary Construction Area (TCA) and Main Construction Area (MCA) of the SZC site.

2.2. Geology

The regional geology of Sizewell C itself predominantly comprises Made Ground and Superficial Deposits containing Peat/ Alluvium over the bedrock including Crag Group and London Clay and Chalk Group (Atkins, 2020b).

Local to the proposed SSSI bridge crossing site, the Crag outcrops in the north and is proven to a depth of approximately 44 m to the top of the underlying London Clay (Atkins, 2020b; Structural Soils; EDF NNB GenCo., 2014). Peat deposits are present towards the south of the proposed SSSI bridge crossing area and have an average thickness of 3 to 4 m across large areas of the wider Sizewell C site but increase in thickness to approximately 8 to 10 m in the Sizewell Marshes SSSI (adjacent to the proposed SSSI bridge crossing area) (Atkins, 2022). The peat extends to approximately seven meters below ground level (m bgl) in the vicinity of the SSSI bridge crossing area (Atkins, 2020b).

2.3. Hydrogeology

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

Contours produced using observed groundwater levels from boreholes screened within the Crag aquifer suggest that the groundwater level within the vicinity of the SSSI crossing area range between 0.3 – 0.8 meters above ordnance datum (m AOD). Water levels from boreholes screened within the Peat suggest that groundwater level ranges between 0.23 to 0.75 m AOD in this area (Atkins, 2022). The groundwater model produced by Atkins (Atkins, 2020b) indicates that the head of water within the Crag can be increased up to 2 m AOD during the operational period of proposed power plant. The model suggests that changes in head with depth in the Crag aquifer are limited with changes in head of 10 cm over 20+ m depth. Borehole BDGA1, located in the vicinity of the SSSI crossing site and screened within the Crag aquifer had an average groundwater level of 0.36 m AOD. A water level of 0.36 m AOD was taken forward and used in the model.

Hydraulic head of Crag groundwater is 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.

Leiston Drain is present within the SSSI crossing site. It has been reported (AMEC, 2012) that drains in Sizewell Marsh are 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.

Hydraulic conductivity of the Crag was found to be within 0.02 to 37 metres/day (m/d) based on rising and falling head tests (Atkins, 2020b). The hydraulic conductivity of the Peat was found to range between 0.009 to 17 m/d. In the 2020 model a hydraulic conductivity of 0.2 m/d ($2.0x10^{-06}$ m/s) was used for the Peat and 30 m/d ($3.54x10^{-4}$ m/s) for the Crag as described in the 2020 SZC modelling report (Atkins, 2020b).

2.4. 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 (that the SSSI crossing site lies between) (Atkins, 2022). 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 (sPAH), volatile organic compounds (VOCs) and semi volatile organic compounds (SVOCs).

The Atkins 2022 monitoring report (Atkins, 2022) found that there were elevated contaminants of concern including inorganics, metals/ metalloids, TPH and PAHs recorded in the groundwater samples tested underlying the MCA and parts of the TCA of Sizewell C. This area is subject to significant saline intrusion that is likely to have contributed to the concentrations of inorganic contaminants being reported within the groundwater and may also be affected by the underlying geology, adjacent marshes and farming activities.

The monitoring report undertook an assessment of risk from the contaminated groundwater to primary controlled waters receptors identified (underlying principal Crag aquifer and surface watercourses within the SSSI). The risk was considered to be low to moderate/low risk. However, elevated concentrations of organic contaminants have been identified in groundwater during some monitoring rounds across the MCA and TCA and the source of the contaminants is unknown at this time.

Locally, quality results have been obtained for five boreholes (C3S, C3D, C4S, C4D and P10) which are in the vicinity of the SSSI bridge crossing. The boreholes are screened in the superficial deposits (C3S and C4S), the Crag (C3D and C4D) and the Peat (P10). Borehole logs have been included in Appendix A. The boreholes have been monitored in total on four occasions during a period of 2020-2022 and the results have been compared against the relevant freshwater Environment Quality Standards (EQS) to assess potential impact to sensitive receptors. A summary of exceedances is presented in Table 2-1. The screening sheets have been included within Appendix B. The laboratory results are included as Appendix C.

The screening results in Table 2-1 show elevated concentrations when compared to freshwater Environmental Quality Standards (EQS) (Secretary of State, 2015) of inorganics and metals. The elevated concentrations of observed determinands within the three boreholes, especially chloride, ammonium and sodium are likely to be influenced by saline intrusion and may also be affected by the underlying geology, adjacent marshes and farming activities. While exceedances of EQS were identified, all determinands were within one order of magnitude of the screening criteria, except for manganese and nitrite. Based on the above results, the risk to sensitive receptors is considered to be low from the dewatering discharge, however, it is recommended to undertake quality analysis for the water dewatered to validate the risk level prior to discharge.

2.5. Construction Sequence

The construction methodology for the works required at the SSSI crossing is yet to be fully determined. Upon completion of the detailed design phase the construction sequence will be better understood. The dewatering volume calculations detailed on section 3 assume the following about the construction sequence:

- Northern and southern pile caps will be constructed concurrently
- Construction period will be 70 days (1 day per m)
- Dewatering of the excavations will be undertaken 24/7
- Pile cap will be excavated in 5 m long strips

These assumptions provide a conservative estimate of the *worst credible* dewatering volumes.

2.6. Discharge Arrangements

The discharge arrangements are yet to be finalised. It is likely however that the groundwater expected to be encountered is of a coastal and estuarine nature and may therefore require treatment before being discharged into the Leiston Drain (inland freshwater body). To ensure the dewatering is monitored throughout the works the flow rate will be measured and logged at the beginning and end of each shift. An agreed standard of water quality is yet to be agreed with the EA, but once this is established (for example as set out in permitting requirements), testing in accordance with regulatory requirements (e.g., monitoring method and frequency) will be undertaken.

The current options for management of the groundwater anticipated to be encountered and requiring discharge are listed below:

- Use a mobile treatment plant (such as settlement tanks) to treat the water to appropriate water quality limits and discharge into the Leiston Drain (receiving surface watercourse), OR
- Collect and treat the groundwater and pump to discharge into the sea.

Discussion with the consents and construction team during detailed design will enable the selection of the appropriate option.

The works will be undertaken with a view to minimising the total amount of dewatering and risk of pollution. It is proposed that:

- The sheet piled cofferdam is used as permanent work form

- The length of exposed excavation open at any one time will be minimised as far as reasonably practicable.
- Furthermore, the sheet pile length has been optimised with the structural design requirements so that the amount of dewatering associated with the installation of the SSSI crossing is minimised as far as possible.

Table 2-1 - Summary of exceedances (2020-2022)

Constituent	Unit-	Screening Criteria	No. of Samples	Max. Value	No. of Exceedances	Locations of Exceedances
Freshwater EQS Exceedances						
pH		6-9	16	9.4	2	C3S; C4S
Chloride	mg/l	250	16	2100	6	C3S; C3s; C4D; C3S; C4D; P10
Ammoniacal Nitrogen	mg/l	0.2	16	1.4	8	C3s; C4S; C4D; C3S; C3D; P10; C4S; C4D
Nitrite	mg/l	0.01	16	0.34	6	C3S; C3S; C3D; P10; C4S; C4D
Cadmium (Dissolved)	mg/l	0.00025	16	0.00084	6	C3s; C3S; C3D; P10; C4S; C4D
Iron (Dissolved)	mg/l	1	16	1.3	1	C4D
Manganese (Dissolved)	mg/l	0.123	16	14	8	C3D; C3s; C4D; C3S; C3S; C3D; P10; C4D
Nickel (Dissolved)	mg/l	0.00859	16	0.031	4	C3S; C3s; C4S; C4D
Zinc (Dissolved)	mg/l	0.0348	16	0.035	1	C4D
Nitrite	mg/l	0.01	16	0.34	6	C3S; C3S; C3D; P10; C4S; C4D

3. Dewatering volume requirements

3.1. Modelling approach

Atkins were asked to estimate likely water ingress from the footprint and sidewalls of a sheet piled cofferdam which will be installed to facilitate the construction of bridge pile caps associated with north and south wing walls for SSSI crossing bridge.

The groundwater flow modelling package SEEP/W (Seequent, 2022) was used to simulate groundwater flow into the pile cap excavation via leakage through and flow under the coffer dam walls.

The pile caps are situated within the north and south wing walls. The north wing wall was modelled as here Crag is more prevalent meaning maximum dewatering volumes will be calculated.

3.2. Conceptual Overview and Input Parameters

A hydrogeological conceptual site model (CSM) has been developed for the site of the excavation required for installation of the north wing wall and surrounding area. This model has been developed to help inform the methodology for the prediction of dewatering volumes, including determination of appropriate hydrogeological parameters and boundary conditions. The information used to inform the CSM has been obtained from the following information sources:

- Drawing 5213850-SNC-MR-XX-DDRW-H-000614, Permanent bridge haul and bridge general arrangement sheet 1. (Atkins, 2023)
- Drawing 5213850-SNC-MR-XX-DDRW-H-000612, Permanent bridge haul and bridge general arrangement sheet 2. (Atkins, 2022)
- Drawing SZC-EW0120-ATK-XX-000-XXXXXX-DRW-CIV-000001, SSSI Crossing Key Plan. (Atkins, 2022)
- Teams call dated 15/11/22: SZC support to permits, SSSI foundation dewatering. (Atkins, 2022)
- Atkins 2020 scenario modelling report. (Atkins, 2020b)
- BH log BDG01A from Structural soils 2014 GI. (Atkins, 2022) (Appendix A).

The CSM is displayed in Figure 3-1 and the preliminary input parameters are detailed in Table 3-1.

Figure 3-1 - Conceptual site model of north wing wall

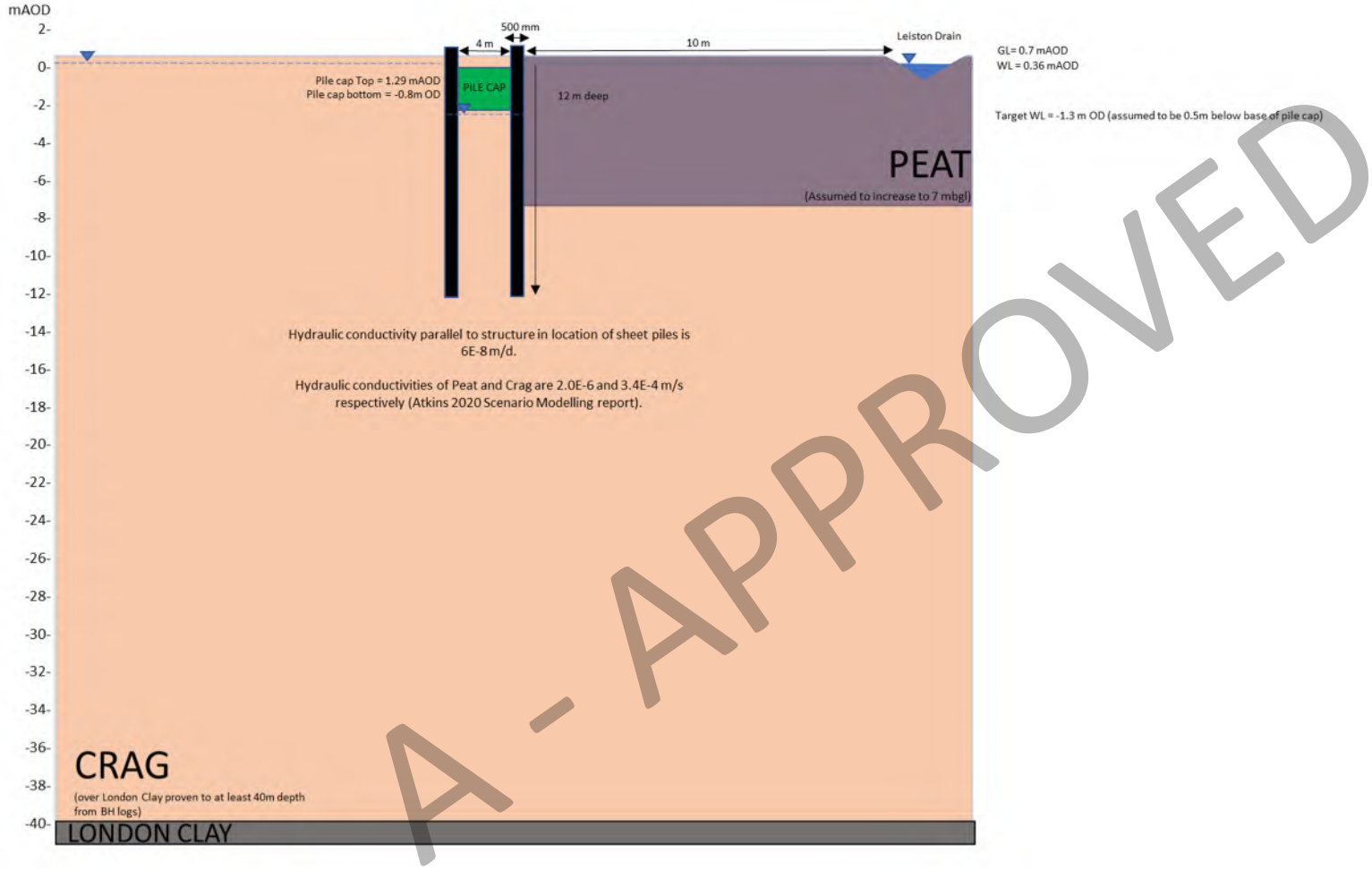


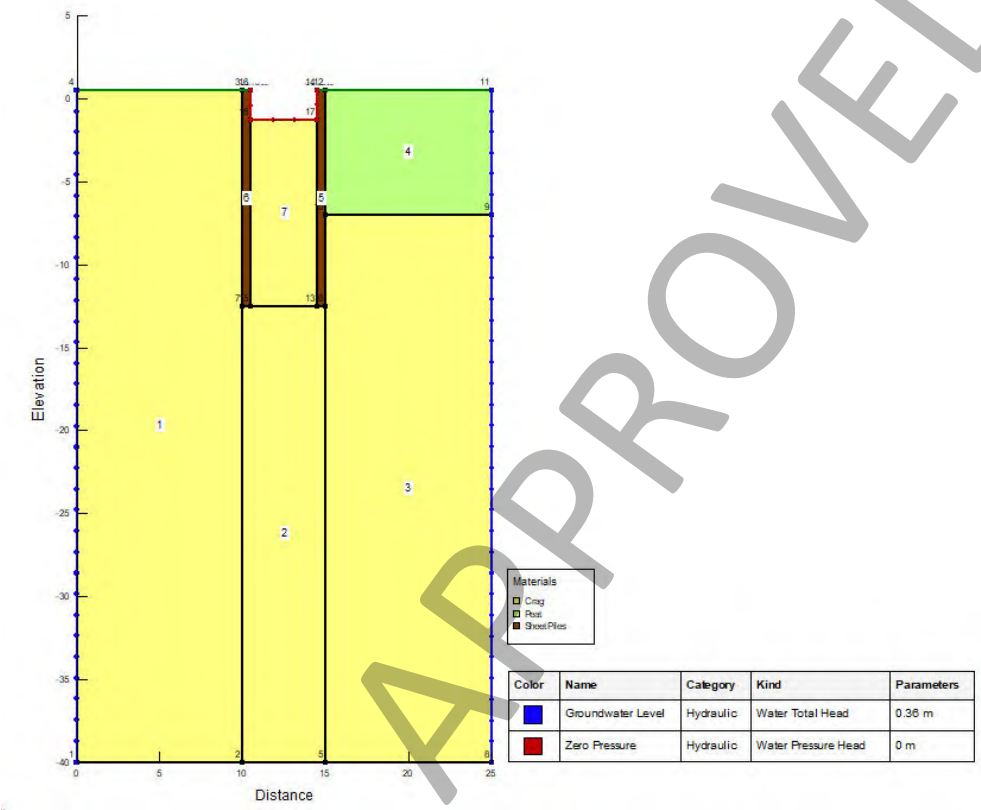
Table 3-1 - Input parameters

Parameter	Value	Reference
Cofferdam information		
Length	70m	(Fowler, 2022)
Width	4m	(Fowler, 2022)
Pile information		
Sheet pile thickness	500mm Note this is the width of each sheet pile.	(Fowler, 2022)
Distance between sheet piles	4m	(Atkins, 2022)
Sheet pile depth	12m	(Atkins, 2022)
Elevation of pile cap top	1.29m AOD	(Atkins, 2022)
Elevation of pile cap bottom	2m from top of pile cap	(Atkins, 2022)
Ground and groundwater levels		
Ground level	0.7 m AOD	(Atkins, 2022)
Groundwater level	0.36 m AOD	(Atkins, 2022)
Target water level after dewatering	0.5m from base of pile cap (-1.3 m AOD)	(Atkins, 2022)
Unit thickness		
Peat depth and thickness	7 m bgl	(Atkins, 2020b)
Crag depth and thickness	At least 40 m bgl	(Atkins, 2020b) (Structural Soils)
Hydraulic Conductivity		
Peat	$2.0x10^{-6}$ m/s	(Atkins, 2020b)
Crag	$3.54x10^{-4}$ m/s	(Atkins, 2020b)
Sheet piles	$3.5x10^{-11}$ m/s	(Arcelor Mittal, 2015) The hydraulic conductivity of sheet piles has been scaled up to $3.5x10^{-11}$ m/s considering its width (500 mm) and metal thickness (10 mm).
Volumetric Water Content (maximum)		
Peat	0.25	(Atkins, 2020b)
Crag	0.1	(Atkins, 2020b)
Sheet piles	$1x10^{-04}$	(Atkins, 2020b)

3.3. Model Set Up

The two-dimensional model domain used for the assessment undertaken in Seep/W (Seequent, n.d.) was conceptualised as a cross section orientated on an approximate north-west to south-east orientation. The vertical model domain extends to a maximum of 0.7 m AOD where the ground level has been assumed and extends down to -40 m AOD. The model has been extended laterally 10 m either side of the proposed sheet piles and is bound by the Leiston Drain in the east. The drain is represented as a constant head boundary condition. It is assumed that during dewatering the water level within the drain will remain constant. The groundwater model (Atkins, 2020b) suggests that head within the Crag remains mostly consistent with depth therefore it is considered that the constant head boundary is appropriate. Based on the provided information it is assumed that a local excavation will extend to -2.5 m AOD and will be 4 m wide. An element thickness of 70 m was set within the model to represent the length of the cofferdam. The extent of the model can be seen in Figure 3-2.

Figure 3-2 - Seepage model of north wing wall



A constant head boundary of 0.36 m AOD was set to the lateral extents of the model, this was based on the level within Leiston Drain [3]. The lateral boundary was set 10 m in either direction of the sheet piles – this is the distance depicted between the pile and the middle of the drain in the drawings package [3]. No infiltration in the ground through precipitation has been considered in this model and no boundary condition was applied to ground level in this model.

The excavation was modelled with a zero-pressure boundary on the base and internal side walls of the excavation and specified as a potential seepage face. To determine calculated inflow into an excavation, calculated water rate across each node of the seepage face was summed to obtain a water flow rate for the whole excavation area.

3.4. Model Results

A steady state model was run using Seep/W to give an idea of potential flow rates into the excavation through the bottom in the peat and through the excavation walls through the sheet piles.

Figure 3-3 shows the resulting flow vectors through each material and Figure 3-4 shows the individual flow out of each node into the excavation.

Figure 3-3 - Model results: flow vectors and water head

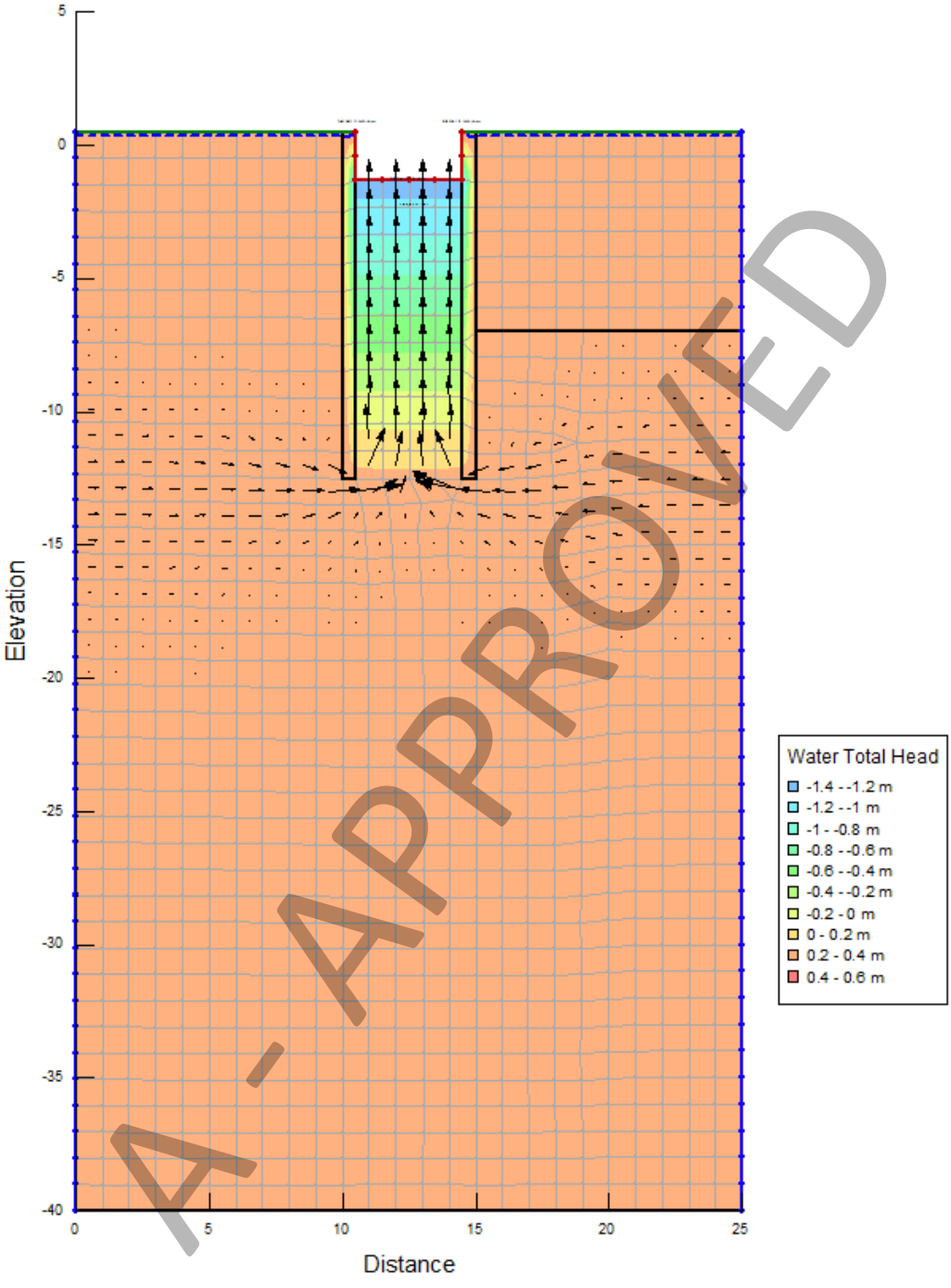
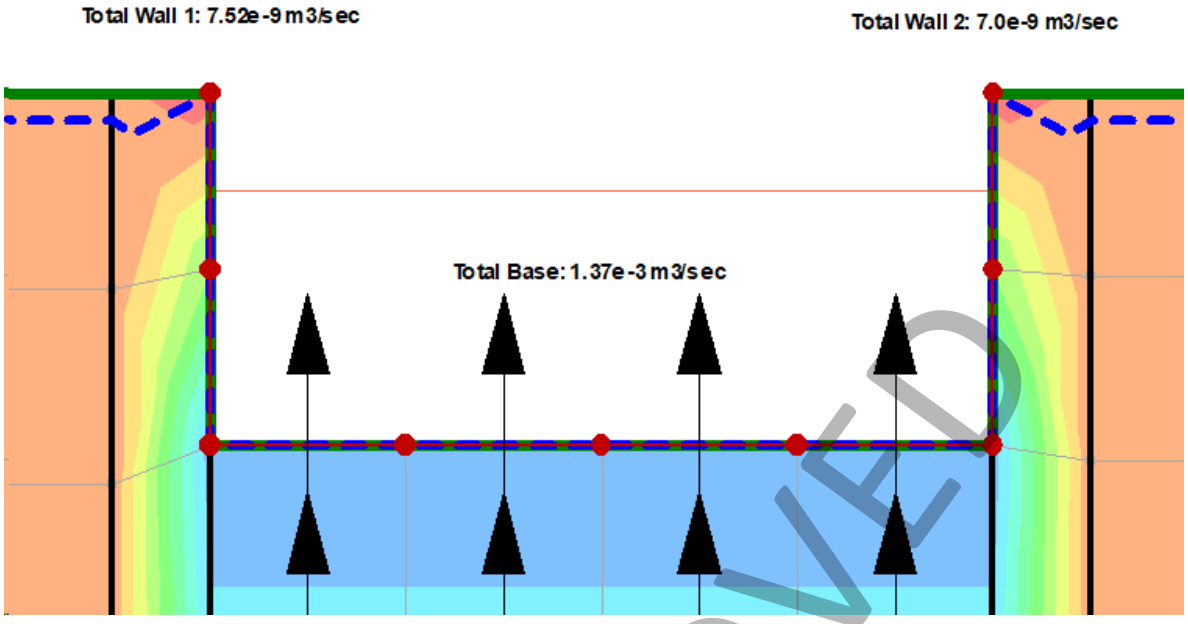


Figure 3-4 - Flow into the excavation



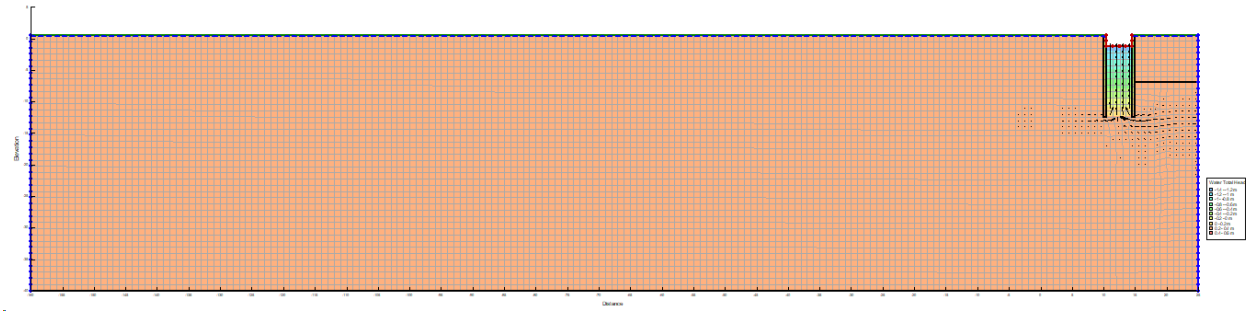
A steady flow rate of 1.37x10-^{03} m^3/s was calculated through the base of the excavation and a rate of 14.52x10-^{09} m^3/s through the walls of sheet piles. This totals an amount of 1.37x10-^{03} m^3/s flow rate into the excavation through the base and walls overall.

The drawdowns were observed to be less than one millimetre (mm) on both sides of the excavation. However, these observed drawdowns will be limited by the size of model domain, particularly distance to northern boundary where fixed head boundary condition was applied. As such, a sensitivity was undertaken by increasing this distance in Section **Error! Reference source not found.**.

3.5. Sensitivity Analysis on size of model domain

The SEEP/W model was amended and the fixed head boundary condition applied on the north side of the excavation was moved away from the excavation edge by 160 m, which is an approximate radius of influence calculated based on CIRIA guidance C750 (Preene, Roberts, & Powrie, 2016) for this required drawdown of dewatering (without sheet pile wall). The boundary condition on the south side of the excavation representing the Leiston Drain remained at 10 m from the excavation edge. Both north and south boundary conditions were set to 0.36 m representing the groundwater level. The rest of the model input parameters remained the same. This model also assumed that surface water level will remain constant and will not change during the dewatering. The model set up is presented in Figure 3-5.

Figure 3-5 - Model set up for amended model domain



The result of this exercise indicates that a total flow rate of 1.35x10-^{03} m^3/s through the excavation base and walls has been calculated using the SEEP/W model when the boundary condition on the northern site of the excavation is moved to a distance of 160 m from the excavation edge. The flow rate into the excavation is very similar to the original model scenario rate which was calculated to be 1.37x10^{-03} m^3/s.

A drawdown of 38 mm was calculated north of the excavation and less than 1 mm south of the excavation. This is an increase of over 37 mm in the north of the excavation compared to the original model.

3.6. Sensitivity Analysis on hydraulic conductivity of Crag

The hydraulic conductivity of the Crag in the model was taken from the groundwater model used for the SZC DCO Submission (Atkins, 2020b). A model scenario was run with a high hydraulic conductivity of 7.08x10^{-04} m/s (60 m/d) which is double the hydraulic conductivity applied in the original model.

This resulted in increased flows through the base of the excavation and a doubling in flow overall (base and walls) to 2.74x10^{-03} m^3/s compared to the original scenario. A drawdown of <1 mm was observed either side of the excavation.

3.7. Sensitivity Analysis on groundwater level

The baseline groundwater level for the model was set to 0.36 m AOD, based on an average water level in the vicinity of the SSSI Bridge Crossing site area. The model's sensitivity to the baseline groundwater level was testing by increasing the water level to 1.5 m AOD as indicated by observed and modelled groundwater level data.

The results are presented in below in Figure 10. The groundwater level is above the modelled ground level suggesting there will be periods of flooding in the SSSI crossing area. An increase in groundwater level resulted in an increase in flow through both the base and sides of the excavation to 2.31x10^{-03} m^3/s, a 69% increase in flows overall from the baseline scenario.

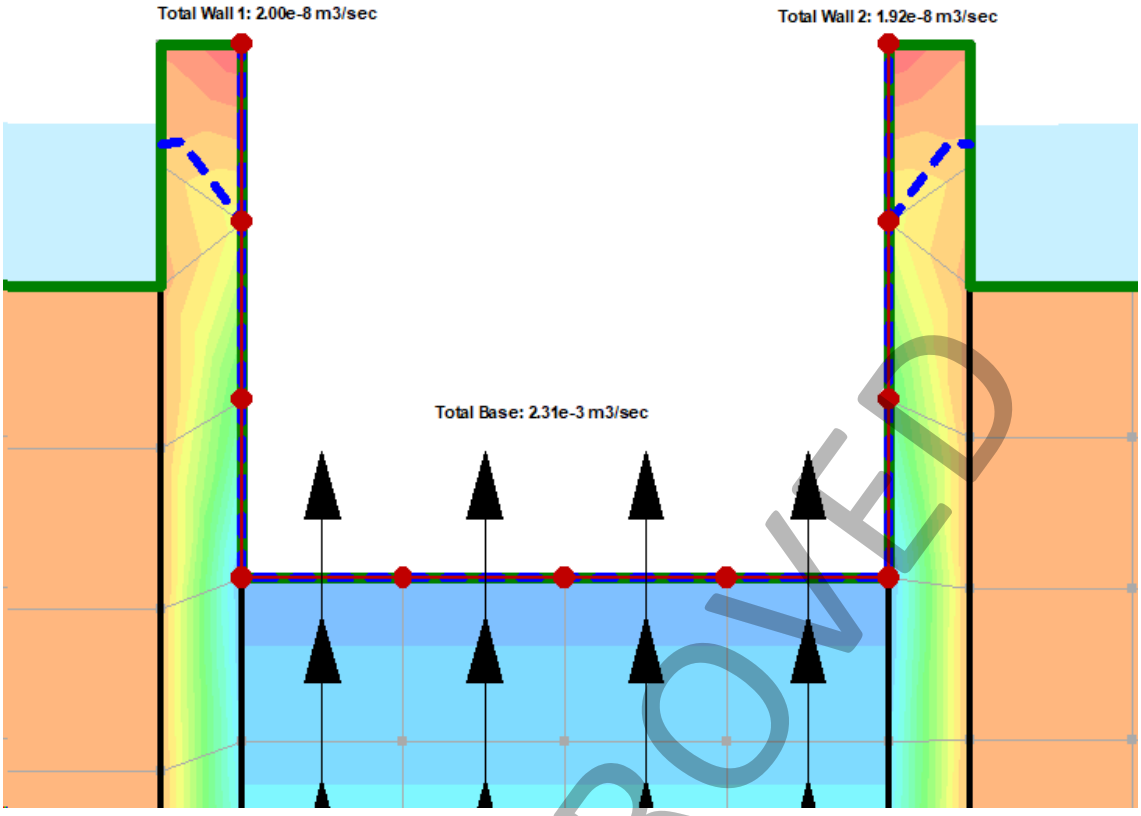


Figure 3-6 - Flow into excavation and drawdown with increased baseline groundwater level

3.8. Summary

A summary of SEEP/W model results is presented in Table 3-2. It can be seen that a flow rate of $1.37x10^{-03}$ m^3/s through the excavation base and walls has been calculated for the baseline model. Sensitivity analysis indicates that the flow rate can be increased up to $2.74x10^{-03}$ m^3/s and the drawdown can be up to 4 cm in north side of the excavation for north walls.

The dewatering assessment undertaken has been based on the construction of excavated structures with proposed dimensions correct at the time of writing. Due to the ongoing refinement of the design of the temporary works there is a recognition that the final design dimensions of these structures and excavation may change significantly. Depending on the magnitude of these changes implications for dewatering volumes may be significant, and the dewatering assessment undertaken should be repeated on the basis of any revisions to both site design and scheduling of excavation works, and also incorporating data from any ongoing site characterisation works. Further detailed modelling, for example using three-dimensional modelling approaches would allow for further optimisation of any proposed dewatering approach as well as consideration of mitigation measures.

The total volume of water to be pumped out is directly related to the duration that the excavation is open. The duration of excavation has been estimated as 1 day per metre length of pile cap construction. Assuming that the pile cap will be cast in 3 m lengths at a time, the total volume of water to be pumped out per day will be:

1 day = 86400 s.

$2.74x10^{-3}$ m^3/s x 86400 s = 237 m^3/day.

Assuming both abutments are progressed simultaneously, the worst credible total volume of discharge per day = 237 m^3/day x 2No abutments = 473 m^3/day.

There are risks that the construction method chosen later in the design phase, will be different than that assumed above. At this stage a risk factor of 1.1 is considered appropriate and should be added to the daily volume value to accommodate minor changes to construction methodology.

For the purposes of applying for a dewatering permit. The proposal is that a daily volume of 521 m^3 (approximately 473 m^3 x 1.1) would be a conservative value to request. The mean flow rate is 521 m3/day / 86400 s/day = 0.00603 m^3/s. A sensible maximum flow rate would be 100 Litres per second (0.1 m^3/s), which would allow for clearance pumping to be carried out intermittently.

Table 3-2 - Summary of sensitivity analysis results

Scenario		Flow (m^3/sec)				Drawdown (m)	
		Northern side	Southern side	Base	Total	Northern side	Southern side
1	Baseline	7.52 x 10^{-09}	1.30 x 10^{-08}	1.37 x 10^{-03}	1.37 x 10^{-03}	<0.001	<0.001
2	Distance to northern boundary of model – increased to 160 m from sheet piles of dewatering cofferdam	7.16 x 10^{-09}	7.00 x 10^{-09}	1.35 x 10^{-03}	1.35 x 10^{-03}	0.04	<0.001
3	Crag hydraulic conductivity - increased to 6.94x10-04 m/s (60 m/d)	7.52 x 10^{-09}	7.00 x 10^{-09}	2.74 x 10^{-03}	2.74 x 10^{-03}	<0.001	<0.001
4	Specified head boundary condition - increased to 1.5 m AOD	2.00 x 10^{-08}	1.92 x 10^{-08}	2.31 x 10^{-03}	2.31 x 10^{-03}	<0.001	<0.001

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 (Environment Agency, 2022) as it is being proposed to discharge groundwater from the SSSI crossing to surface water, the Leiston Drain. Specifically, the screening assessment has been carried out to:

- Assess the feasibility of discharging dewatered groundwater into the Leiston Drain;
- Assess the need for treatment of the groundwater prior to discharge due to the presence of specific substances including chromium (III) and (VI), iron, cadmium, copper, nickel and lead;
- 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 assessment will be carried out in accordance with Environment Agency (EA) guidance Surface water pollution risk assessment for your environmental permit (Environment Agency, 2022) and more detailed supporting EA internal guidance, “Permitting of hazardous chemicals and elements in discharged to surface waters” (H1 Risk Assessment) (Environment Agency, December 2019).

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. Flow data for the receiving watercourse

The Leiston Drain is classified as a Main River and a Water Framework Directive (WFD) designated waterbody (GB105035046271 - Leiston Beck) (Environment Agency, 2021). Furthermore it is located within Sizewell Marshes SSSI, upstream of the proposed crossing and in Minsmere-Walberswick Heaths and Marshes SSSI downstream of the crossing.

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 have been derived from five flow monitoring locations that has previously been carried out on the Leiston Drain and Sizewell Drain between the period 2013 to 2022. These are reported within the Surface Water Quality Flow and Baseline (Atkins, 2023).

The EA has supplied a Q95 value to use in the assessment of 0.0258 m^3/s. .

4.3. Surface Water Screening

4.3.1. Methodology

The groundwater quality data presented in section 2.4 and included in Appendix B was used to represent the quality of the discharge in the screening assessment. This includes a total of 16 groundwater samples analysed for a range of inorganic and organic determinands.

Upstream background surface water quality data measured from samples collected from upstream monitoring points G3, G4, G5, G6A and G7A between 2013 and 2022.

All substances that have been measured above the laboratory limit of detection (LOD) in groundwater were run through screening. In addition, substances that were not detected in groundwater above the LOD, but where the LOD is higher than 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 groundwater will be discounted.

The surface water screening assessment was undertaken using the methodology for phase 1: screening for freshwaters given in EA guidance (Environment Agency, December 2019). 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.

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.

Any substance that fails Test 3 or Test 4 is considered liable to potentially 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 specific substances surface water pollution risk assessment guidance (Environment Agency, 2022).

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.

Prior to screening, surface water data has been processed through the Environment Agency WFD Metal Bioavailability Assessment tool (M-BAT) (Water Framework Directive - United Kingdom Technical Advisory Group (WFD-UKTAG), 2014) which has been used to derive Predicted no effect concentrations (PNEC) for copper, lead, nickel, manganese and zinc. The 10th Percentile calculated PNEC for each substance was used to give a conservative assessment of the bioavailable EQS to be used in the screening exercise, in line with the guidance. 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 Environment Agency guidance (Environment Agency, April 2008).

4.3.2. Results

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

Out of the 209 analysed substances, 172 were either not present in the discharge (with a LOD below the relevant EQS value) or do not have an EQS value. A further 18 substances were screened out at test 1, leaving 19 substances which were taken forward for test 2.

No substances were screened out at test 2 so all 19 substances (which failed test 1) were taken forward to tests 3 and 4.

Of the 19 substances taken forward, five substances – copper, iron, lead, sulphate and zinc - passed both tests 3 and 4 and are therefore screened out as not liable to cause pollution.

Six of the twelve substances which failed one of Test 3 or 4 have not been detected above LOD in any of the groundwater samples. They were included in the screening tests because the LOD is

greater than the EQS. This group includes hexavalent chromium and five PAHs. These substances are not considered likely to be present in baseline groundwater and are therefore not considered further.

Seven remaining substances were determined as liable to cause pollution in the receiving surface water body, as they are both measured in the discharge and fail one of tests 3 or 4. These comprise: chloride, ammoniacal nitrogen / ammonium, cadmium, manganese, nickel, nitrite and phosphorous. For these seven substances, a summary of the result of tests 3 and 4 is shown in Table 4-1.

Three of these – ammoniacal nitrogen, nitrite and phosphorus – fail on test four only, due to upstream water quality being above the EQS. It is noted that the concentration of these substances in the discharge concentration is lower than the BC (upstream background quality), showing that the discharge is not expected to impact surface water quality for those substances.

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 only substance measured in groundwater to which a significant load limit applies is cadmium, which was detected above LOD in seven of 16 samples. Annual cadmium load from the discharge, conservatively assuming all values below the LOD were detected at the LOD, was calculated as 5.2×10^{-5} kg/year, which is significantly lower than the limit specified in the guidance, which is 5 kg/year. Accordingly no substance in the discharge is significant on the basis of the Part B significant load test.

Table 4-1 – 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)	BC: Mean Upstream Concentration (values below LOD treated as LOD) mg/l	Discharge mean (values below LOD treated as LOD)	detections above LOD in groundwater discharge	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)
Chloride	1	250	108	351	16/16	154	YES	n/a***	no	n/a***
Ammoniacal Nitrogen as N**	0.05	0.47*	2.96	0.283	12/16	2.45	no	n/a***	YES	n/a***
Nitrite**	0.02	0.01	0.328	0.0696	6/16	0.279	no	n/a***	YES	n/a***
Phosphorus**	0.02	0.008	0.154	0.0533	10/16	0.135	no	n/a***	YES	n/a***
Cadmium	0.00008	0.00025	0.00011	0.000275	7/16	0.00014	YES	no	no	no
Manganese	0.001	0.123	0.19	1.18	15/16	0.375	YES	n/a***	YES	n/a***
Nickel	0.001	0.0086	0.0026	0.0074	12	0.0035	YES	YES	no	no

Notes: * 90th percentile EQS. ** PEC is lower than BC, showing that the discharge is not expected to impact surface water quality for these substances. *** No maximum allowable concentration (MAC) EQS.

4.3.3. Discussion

As shown in Table 4-1, certain parameters failed the screening tests due to a high mean concentration identified in upstream water samples (ammoniacal nitrogen, nitrite and phosphorus). The mean concentration of these substances in upstream samples exceeded EQS values prior to the addition of discharge. It is noted that the PEC (expected downstream water quality) is lower than the BC (upstream background quality), showing that the discharge is not expected to impact surface water quality for those substances.

The concentration of chloride, cadmium, manganese and nickel in the discharge is considered to be liable to cause pollution in the Leiston Drain. The mean groundwater concentration of manganese was elevated due to a peak concentration of 14 mg/l identified on one occasion only. This potential outlier was removed from the data set and an additional screening exercise was undertaken, however, the tests indicated manganese was still liable to cause pollution. All four substances are expected to occur naturally in groundwater, and the potential impact in the Leiston Drain is considered mild for the following reasons:

- chloride is considered to be elevated in groundwater due to the effects of saline intrusion, and is already elevated in surface waters further downstream of the discharge (Atkins, 2023);
- measured cadmium, manganese and nickel concentrations in groundwater is considered the same as the natural background levels in the Crag aquifer, based on published values (Ander, Shand, & Wood, 2006).
- Manganese is considered likely to oxidise and precipitate fairly quickly after mixing with oxygenated surface waters.

It is recommended Phase 2 modelling is undertaken, in accordance with the guidance (Environment Agency, December 2019) to assess the pollution risk to the Leiston Drain associated with chloride, manganese and nitrite in the dewatered groundwater. This will be used to inform whether treatment of the discharge is necessary and if so, the acceptable limit to treat to.

5. Summary and Conclusion

5.1. Dewatering volume

The groundwater flow modelling package SEEP/W (Seequent, 2022) was used to simulate groundwater flow into the pile cap excavations within sheet piled cofferdams which will be installed to facilitate the construction of bridge pile caps associated with north and south wing walls for SSSI crossing bridge.

The model outputs indicate negligible drawdown of groundwater levels in the Crag and Peat aquifers immediately outside the coffer dam, when water levels are drawn down to the required level of -1.3 m OD.

The model outputs indicate a worst credible total groundwater inflow volume to the excavation of 237 m^3/day.

There are risks that the construction method chosen later in the design phase, will be different than that assumed above. At this stage a risk factor of 1.1 is considered appropriate and should be added to the daily volume value to accommodate minor changes to construction methodology.

For the purposes of applying for a dewatering permit. The proposal is that a daily volume of 521 m^3 is used. This allows for dewatering of both north and south wing walls at the same time and adds factor of safety of 1.1 to accommodate minor changes to construction methodology.

The discharge mean flow rate is 521 m3/day / 86400 s/day = 0.00603 m^3/s. A sensible maximum flow rate would be 100 Litres per second (0.1 m^3/s), which would allow for clearance pumping to be carried out intermittently.

5.2. H1 Assessment

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 the concentration of chloride, cadmium, manganese and nickel in discharge is liable to cause pollution in the Leiston Drain. These substances are elevated in the discharge compared to background upstream surface water quality and failed test 3 of the Part A screening tests. Manganese is the only of these which additionally failed test 4. All three substances are expected to occur naturally in groundwater and surface water, and the potential impact in the Leiston Drain is considered mild. Manganese is considered likely to oxidise and precipitate fairly quickly after mixing with oxygenated surface waters.

Part B of the Phase 1 screening for freshwaters comprises a significant load test which applies to any Priority Hazardous Substances in the discharge. The assessment indicated no substance in the discharge constitutes a significant load.

It is recommended Phase 2 modelling is undertaken, in accordance with the guidance (Environment Agency, December 2019) to assess the pollution risk to the Leiston Drain associated with chloride, manganese and phosphorous in dewatered groundwater. This will be used to inform whether treatment of the discharge is necessary and if so, the acceptable limit to treat to.

It is recommended to undertake quality analysis for the water dewatered to validate the risk level prior to discharge. The completed Phase 2 modelling will inform the magnitude of the risk of pollution, and may be used to inform the basis of parameters and frequency for monitoring.

6. References

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Appendix A. Borehole logs

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Borehole Log

Borehole No.
BH C3S
Sheet 1 of 1

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647319E - 264638N	Hole Type CP
Location:	Sizewell		Level:	2.80	Scale 1:50
Client:	NNB GenCo		Dates:		Logged By JG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
	▼				0.05	2.75		Dark brown loamic TOPSOIL with leaf litter and tree roots. Topsoil
					0.50	2.30		Loose mid brown / coffee brown fine and medium SAND with tree roots. SD_ALV_S
								Loose orange and light brown slightly silty fine and medium SAND with rarefine tree roots to 0.60m and rare subangular to subrounded medium andcoarse flint, chert and quartz to 3.00m. 1.70-2.30 m Clayey bands. 3.20 m 10cmband of soft dark red / brown, light grey and orange mottled sandyclay. 4.20 m 5cm band of soft dark orange, brown and light grey laminated verysandy clay. SD_ALV_S
					7.00	-4.20		End of Borehole at 7.00m

1 2 3 4 5 6 7 8 9 10

Remarks

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Borehole Log

Borehole No.
BH C3D
Sheet 1 of 3

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647320E - 264639N	Hole Type CP
Location:	Sizewell		Level:	2.77	Scale 1:50
Client:	NNB GenCo		Dates:		Logged By JG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.05	2.72		Dark brown loamic TOPSOIL with leaf litter and tree roots. Topsoil
					0.50	2.27		Loose mid brown / coffee brown fine and medium SAND with tree roots. SD_ALV_S
	▼							Loose orange and light brown slightly silty fine and medium SAND with rarefine tree roots to 0.60m and rare subangular to subrounded medium andcoarse flint, chert and quartz to 3.00m. 1.70-2.30 m clayey bands. 3.20 m 100mm band of soft dark red/brown light grey and orange mottled sandy clay. 4.20 m 50mm band of soft dark orange brown and light grey laminated very sandy clay. SD_ALV_S
					9.00	-6.23		Mid brown silty fine and medium SAND. 9.00 m 50mm band of soft darkorange brown and light grey laminated very sandy clay. NCG
								Continued on Next Sheet

1 2 3 4 5 6 7 8 9 10

Remarks

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Borehole Log

Borehole No.
BH C3D
Sheet 2 of 3

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647320E - 264639N	Hole Type CP
Location:	Sizewell		Level:	2.77	Scale 1:50
Client:	NNB GenCo		Dates:		Logged By JG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Mid brown silty fine and medium SAND. 9.00 m 50mm band of soft darkorange brown and light grey laminated very sandy clay. NCG
					13.00	-10.23		Mid brown/dark red silty fine to medium SAND with fine shell fragments and rare fine flint gravel. NCG
					20.00	-17.23		Continued on Next Sheet

11 12 13 14 15 16 17 18 19 20

Remarks

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Borehole Log

Borehole No.
BH C3D
Sheet 3 of 3

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647320E - 264639N	Hole Type CP
Location:	Sizewell		Level:	2.77	Scale 1:50
Client:	NNB GenCo		Dates:		Logged By JG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Light grey medium to coarse SAND with frequent shell fragments. RCG
					24.00	-21.23		End of Borehole at 24.00m

Remarks

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Borehole Log

Borehole No.
BH C4D
Sheet 1 of 3

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647001E - 264442N	Hole Type CP
Location:	Sizewell		Level:	1.42	Scale 1:50
Client:	NNB GenCo		Dates:		Logged By JG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.05	1.37		Dark brown TOPSOIL with rootlets. Topsoil
					0.60	0.82		Loose brown orange fine to medium SAND with rare medium subangular tosubrounded flint gravel. SD_ALV_S
								Light brown, cream and yellow/orange fine to medium SAND. Damp. Dark greymottled inclusions - weakly cemented. SD_ALV_S
	▼				1.40	0.02		
					1.60	-0.18		Soft brown and light grey mottled sandy slightly gravelly peaty silty CLAY.Gravel is medium and coarse subangular to subrounded of quartz and flint. Rareblack organic pockets - organic odour. SD_ALV_C
					2.00	-0.58		
					2.20	-0.78		Orange brown silty fine and medium SAND with frequent clayey pockets SD_ALV_S
								Firm orange light brown and light grey laminated sandy CLAY. SD_ALV_C
								Orange brown silty fine to medium SAND with frequent clayey pockets. NCG
					6.00	-4.58		Orange brown very silty fine to medium SAND. NCG
					9.00	-7.58		Brown slightly silty slightly clayey fine and medium SAND with finesubangular ferrous nodules weakly cemented. NCG
					10.00	-8.58		Continued on Next Sheet

Remarks

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Borehole Log

Borehole No.
BH C4D
Sheet 2 of 3

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647001E - 264442N	Hole Type CP
Location:	Sizewell		Level:	1.42	Scale 1:50
Client:	NNB GenCo		Dates:		Logged By JG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Brown slightly silty fine and medium SAND with fine rare subangular ferrousnodules weakly cemented and frequent fine shell fragments. 15.00 m darkbrown/red hard cemented and laminated nodule - ferrous? NCG
					20.00	-18.58		Continued on Next Sheet

Remarks

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Borehole Log

Borehole No.
BH C4D
Sheet 3 of 3

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647001E - 264442N	Hole Type CP
Location:	Sizewell		Level:	1.42	Scale 1:50
Client:	NNB GenCo		Dates:		Logged By JG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Brown fine to coarse SAND with fine to medium off white and red shell fragments and rare fine subrounded flint gravel. RCG
					22.00	-20.58		Brown grey fine to coarse SAND with fine white and red shell fragments andfrequent fine to coarse light grey bladed mudstone gravel. RCG
					23.50	-22.08		End of Borehole at 23.50m

Remarks

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Borehole Log

Borehole No.
BH C4S
Sheet 1 of 1

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords: 647002E - 264442N	Hole Type CP
Location:	Sizewell		Level: 1.42	Scale 1:50
Client:	NNB GenCo		Dates:	Logged By JG

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.05	1.37		Dark brown TOPSOIL with rootlets. Topsoil
					0.60	0.82		Loose brown orange fine to medium SAND with rare medium subangular tosubrounded flint gravel. SD_ALV_S
	▼				1.40	0.02		Light brown, cream and yellow/orange fine to medium SAND. Damp. Dark greymottled inclusions - weakly cemented. SD_ALV_S
					1.60	-0.18		Soft brown and light grey mottled sandy slightly gravelly peaty silty CLAY.Gravel is medium and coarse subangular to subrounded of quartz and flint. Rareblack organic pockets - organic odour. SD_ALV_C
					2.00	-0.58		Orange brown silty fine and medium SAND with frequent clayey pockets SD_ALV_S
					2.20	-0.78		Firm orange light brown and light grey laminated sandy CLAY. SD_ALV_C
								Orange brown silty fine to medium SAND with frequent clayey pockets. NCG
					6.00	-4.58		End of Borehole at 6.00m

1 2 3 4 5 6 7 8 9 10

Remarks

AGS

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Borehole Log

Borehole No.
P10
Sheet 1 of 1

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647323E - 264466N	Hole Type BH
Location:	Sizewell		Level:	0.54	Scale 1:50
Client:	NNB GenCo		Dates:	01/01/2013	Logged By

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					1.56	-1.02		PEAT. PEAT End of Borehole at 1.56m

Remarks

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Borehole Log

Borehole No.
BDG01A
Sheet 1 of 4

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647324E - 264544N	Hole Type CP
Location:	Sizewell		Level:	1.68	Scale 1:50
Client:	NNB GenCo		Dates:	10/03/2014	Logged By SHaynes

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10	D					Brown to orangish brown slightly gravelly fine to medium SAND. Gravel is subrounded fine to medium quartzite and flint. Rootlets and bark <20mm in diameter. SD_ALV_S
		0.10 - 0.60	B					
		0.80	D		0.80	0.88		Yellow medium SAND interbedded with soft brown very sandy laminated CLAY. Laminae are thin brown, orange and grey sandy clay. SD_ALV_S
		0.80 - 1.20	B					
	▽	1.20 - 1.65	B					
		1.20 - 1.65	D					
		1.20	SPT	N=8				
		2.00 - 2.45	B					
		2.00 - 2.45	D					
		2.00	SPT	N=12				
					2.50	-0.82		Medium dense orangish buff slightly gravelly medium to coarse SAND. Gravel is angular and tabular coarse brown mudstone. SD_ALV_S
		3.00 - 3.45	B					*At 3.00m, thin lamination of soft brown clay 3mm.*
		3.00 - 3.45	D					
		3.00	SPT	N=12				
		4.00 - 4.45	B					*At 4.00m, thin lamination of soft brown clay 4mm-5mm.*
		4.00 - 4.45	D					
		4.00	SPT	N=12				
		5.00 - 5.45	B					
		5.00 - 5.45	D					
		5.00	SPT	N=12				
					5.50	-3.82		Medium dense brown to reddish brown slightly gravelly coarse SAND with thin laminations of dark red and brown cemented sand and mudstone. Gravel is angular fine shell fragments and tabular brown mudstone. NCG
		6.00	D					
		6.00 - 6.45	B					
		6.00	SPT	N=14				
		7.00	D					
		7.50 - 7.95	B					
		7.50	SPT	N=14				
		8.00	D					
		9.00	D					
		9.00 - 9.45	B					*Below 9.00m, shell fragments become fine to coarse and include whole shell <15mm.*
		9.00	SPT	N=16				
		10.00	D					

Continued on Next Sheet

Remarks

1. Inspection pit hand dug to 1.20m. 2. Groundwater struck at 1.30m, rising to 1.20m after 20 minutes. 3. Blowing sand from 19.00m. 4. Water and polymer added to assist drilling.

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Borehole Log

Borehole No. **BDG01A**
Sheet 2 of 4

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647324E - 264544N	Hole Type CP
Location:	Sizewell		Level:	1.68	Scale 1:50
Client:	NNB GenCo		Dates:	10/03/2014	Logged By SHaynes

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	
		10.50 - 10.95	B					Medium dense brown to reddish brown slightly gravelly coarse SAND with thin laminations of dark red and brown cemented sand and mudstone. Gravel is angular fine shell fragments and tabular brown mudstone. NCG	
		10.50	SPT	N=16					
		11.00	D						11
		12.00	D						
		12.00 - 12.45	B					*At 12.00m, thin lamination of soft grey clay 3mm-4mm .*	12
		12.00	SPT	N=18					
		13.00	D						13
		13.50 - 13.95	B						
		13.50	SPT	N=34				*Below 13.50m, becomes dense.*	
		14.00	D					*Below 14.00m, becomes gravelly and redish brown in colour.*	14
		15.00	D						
		15.00 - 15.45	B						15
		15.00	SPT	N=42					
		16.00	D						16
		16.50 - 16.95	B						
		16.50	SPT	N=83*					
		17.00	D					*At 17.00m, thin lamination of greenish grey sandy clay 4mm.*	17
		18.00	D		18.00	-16.32			
		18.00 - 18.35	B					Dense brown to bluish grey slightly gravelly to gravelly to coarse SAND with occasional thick laminations of weak grey siltstone <15mm . Gravel is angular fine flint and shell fragments. RCG	18
		18.00	SPT	N=79*					
		19.00	D						19
		19.50 - 20.00	B						
		20.00	D						20

Continued on Next Sheet

Remarks

1. Inspection pit hand dug to 1.20m. 2. Groundwater struck at 1.30m, rising to 1.20m after 20 minutes. 3. Blowing sand from 19.00m. 4. Water and polymer added to assist drilling.

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Borehole Log

Borehole No.
BDG01A
Sheet 3 of 4

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647324E - 264544N	Hole Type CP
Location:	Sizewell		Level:	1.68	Scale 1:50
Client:	NNB GenCo		Dates:	10/03/2014	Logged By SHaynes

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		20.50 - 21.00	B					Dense brown to bluish grey slightly gravelly to gravelly to coarse SAND with occasional thick laminations of weak grey siltstone <15mm . Gravel is angular fine flint and shell fragments. RCG	
		21.00	D						21
		21.50 - 21.85 21.50	B SPT	 N=77*				*Below 21.50m, becomes bluish grey.*	
		22.00	D					*At 22.00m, thin lamination of soft grey clay 4mm.*	22
		23.00 23.00 - 23.33 23.00	D B SPT	 N=81*				*Below 23.00m, becomes slightly gravelly.*	23
		24.00	D						24
		24.50 24.50	B SPT	 N=86*					
		25.00	D						25
		26.00 26.00 - 26.30 26.00	D B SPT	 N=120*				*At 26.00m, occasional whole shell <20mm.*	26
		27.00	D		27.00	-25.32		Dense bluish grey very gravelly coarse SAND with frequent thick laminations of weak grey siltstone <20mm. Gravel is angular fine to medium shell fragments. RCG	27
		27.50 27.50	B SPT	 N=214*					
		28.00	D						28
		29.00 29.00 - 29.45 29.00	D B SPT	 N=158*					29
		30.00	D						30

Continued on Next Sheet

Remarks

1. Inspection pit hand dug to 1.20m. 2. Groundwater struck at 1.30m, rising to 1.20m after 20 minutes. 3. Blowing sand from 19.00m. 4. Water and polymer added to assist drilling.

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Borehole Log

Borehole No. **BDG01A**
Sheet 4 of 4

Project Name:	Sizewell C Enabling Works	Project No. 5190666	Co-ords:	647324E - 264544N	Hole Type CP
Location:	Sizewell		Level:	1.68	Scale 1:50
Client:	NNB GenCo		Dates:	10/03/2014	Logged By SHaynes

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
		30.50	B					Dense bluish grey very gravelly coarse SAND with frequent thick laminations of weak grey siltstone <20mm. Gravel is angular fine to medium shell fragments. RCG
		30.50	SPT	N=167*				
		31.00	D					
		32.00	D					
		32.00 - 32.30	B					
		32.00	SPT	N=130*				
		33.00	D					*At 33.00m, very thin bed of gravel of whole and shell fragments <80mm.*
		33.50 - 33.80	B					
		33.50	SPT	N=158*				
		34.00	D					
		35.00	D					
		35.00 - 35.80	B					
		35.00	SPT	N=158*				
		36.00	D					*Below 36.00m, becomes grey.*
		36.50	B					
		36.50	SPT	N=158*				
		37.00	D					
		38.00	D					
		38.50	B					
		38.50	SPT	N=167*				
		39.00	D					*Below 39.00m, becomes extremely weakly cemented in bands <20mm.*
		39.50	B					
		39.50	SPT	N=167*				
		40.00	D		40.00	-38.32		End of Borehole at 40.00m

Remarks

1. Inspection pit hand dug to 1.20m. 2. Groundwater struck at 1.30m, rising to 1.20m after 20 minutes. 3. Blowing sand from 19.00m. 4. Water and polymer added to assist drilling.

AGS

Appendix B. Freshwater EQS screening sheets

Assessment Criteria : *Manual SSAC*

CaCO (mg/l): 351.00 **pH** 8.02

Calcium (mg/l): 144.00 **DOC (mg/l)** 10.30 **Catchment area:** Freshwater not listed

Constituents	Unit	Limit of Detection	Generic Assessment Criteria	Number of Samples	Minimum Value	Maximum Value	Number of Exceedences	Locations of Exceedences	C3S	C3D	C4S	C3s	C3d	C4S	C4D	C3S	C3D	C4S	C4D	C3S	C3D	P10	C4S	C4D
Sample ID									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depth									-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m
Date									10/11/2020	10/11/2020	11/11/2020	13/05/2021	13/05/2021	18/05/2021	18/05/2021	16/11/2021	16/11/2021	16/11/2021	16/11/2021	23/06/2022	23/06/2022	23/06/2022	28/06/2022	28/06/2022
Strata									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zone									-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH		N/A	6-9	16	5.9	9.4	0		5.9	8.2	8.6	7.5	8.2	8	7.8	8.2	8.3	7.8	7.2	8.1	8.6	8.1	9.4	8.8
Electrical Conductivity	µS/cm	1.0	No WSV	16	200	3300	0		1300	360	240	3300	400	200	1400	880	330	250	2600	1400	1500	1900	290	1100
Suspended Solids At 105C	mg/l	5.0	No WSV	16	9	100	0		9	28	26	25	20	12	29	37	54	84	68	35	73	56	100	29
Alkalinity (Total)	mg/l	10	No WSV	16	<10	220	0		<10	78	22	<10	55	11	220	<10	53	14	170	55	96	100	24	170
Chloride	mg/l	1.0	250	16	26	2100	6	C3S; C3s; C4D; C3S; C4D; P10	380	53	26	1100	51	26	330	300	46	26	680	140	71	2100	46	240
Ammonium	mg/l	0.050	0.26	16	<0.05	1.3	6	C3s; C4D; C3S; P10; C4S; C4D	0.063	0.2	<0.05	0.31	0.19	<0.05	0.051	0.09	0.072	0.26	0.27	0.41	0.23	0.29	0.56	1.3
Ammoniacal Nitrogen	mg/l	0.050	0.2	16	<0.05	1.4	8	C3s; C4S; C4D; C3S; C3D; P10; C4S; C4D	<0.05	0.17	<0.05	0.24	0.16	<0.05	<0.05	0.075	0.062	0.21	0.21	0.34	0.22	0.24	1	1.4
Nitrite	mg/l	0.020	0.01	16	<0.02	0.34	6	C3S; C3S; C3D; P10; C4S; C4D	0.033	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.097	0.065	0.058	0.34	0.32
Nitrate	mg/l	0.50	N/A	16	<0.5	26	0		2.4	<0.5	17	1.8	<0.5	16	<0.5	5.8	<0.5	26	<0.5	3.1	<0.5	<0.5	6	2.2
Phosphate	mg/l	0.200	No WSV	16	<0.2	0.35	0		<0.2	0.35	0.32	<0.2	0.25	0.29	<0.2	<0.2	0.21	0.28	<0.2	<0.2	0.32	<0.2	<0.2	<0.2
Phosphorus (Dissolved)	mg/l	0.020	No WSV	16	<0.02	0.11	0		0.024	0.11	0.1	0.022	0.082	0.095	0.039	<0.02	0.069	0.091	<0.02	<0.02	0.1	<0.02	<0.02	<0.02
Sulphate	mg/l	1.0	400	16	25	95	0		27	36	28	53	32	25	47	34	36	25	50	32	43	95	42	61
Total Oxidised Nitrogen	mg/l	0.20	No WSV	16	<0.2	5.9	0		0.54	<0.2	3.8	0.41	<0.2	3.6	<0.2	1.3	<0.2	5.9	<0.2	0.72	<0.2	<0.2	1.5	0.59
Cyanide (Free) Low-Level	mg/l	0.0050	No WSV	16	<0.005	<0.005	0		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/l	5.0	N/A	16	4.6	680	0		16	37	8.1	48	30	5.2	200	10	33	6.7	330	5.3	39	680	4.6	150
Potassium	mg/l	0.50	N/A	16	1.7	17	0		8.6	1.7	3.3	11	2	2.6	12	5.7	2	2.8	14	3.5	2.2	17	3	11
Magnesium	mg/l	0.50	N/A	16	1.3	91	0		27	1.3	5.6	91	2.2	5.2	13	19	1.7	6.2	19	9.1	2.2	71	6.1	11
Sodium	mg/l	0.50	N/A	16	21	430	0		110	23	24	430	25	21	53	120	24	24	120	60	26	200	25	39
Arsenic (Dissolved)	mg/l	0.001	0.05	16	<0.0002	0.0027	0		<0.001	0.0018	<0.001	<0.0002	0.0013	0.0006	0.00086	<0.0002	0.0014	0.0018	0.0011	0.00088	0.0027	0.00076	0.0021	0.0025
Boron (Dissolved)	mg/l	0.02	No WSV	16	<0.01	0.92	0		0.042	<0.02	<0.02	0.041	0.014	0.014	0.034	0.9	0.76	0.92	0.83	0.029	<0.01	0.021	0.19	0.048
Cadmium (Dissolved)	mg/l	0.00008	0.00025	16	<0.00008	0.00084	6	C3s; C3S; C3D; P10; C4S; C4D	0.00013	<0.00008	<0.00008	0.00046	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	0.00065	0.00084	0.00035	0.00042	0.00062
Chromium (Dissolved)	mg/l	0.001	See Cr VI as first pass	16	<0.0005	0.073	0		0.0026	<0.001	0.0029	0.0071	0.0068	0.073	0.045	<0.0005	<0.0005	<0.0005	<0.0005	0.0058	<0.0005	<0.0005	0.006	0.0091
Copper (Dissolved)	mg/l	0.001	0.0134	16	<0.0005	0.0097	0		0.0012	<0.001	<0.001	0.0007	0.0097	0.0017	0.0011	0.00054	<0.0005	0.0038	0.0035	0.0012	<0.0005	<0.0005	0.00061	0.0018
Iron (Dissolved)	mg/l	0.02	1	16	<0.005	1.3	1	C4D	0.35	0.17	<0.02	0.034	0.024	0.31	0.2	0.027	<0.005	0.67	1.3	<0.005	<0.005	0.11	0.028	0.03
Manganese (Dissolved)	mg/l	0.001	0.123	16	<0.001	14	8	C3D; C3s; C4D; C3S; C3S; C3D; P10; C4D	<0.001	0.16	0.0019	14	0.12	0.013	0.19	2.3	0.11	0.078	0.1	0.87	0.21	0.59	0.034	0.15
Nickel (Dissolved)	mg/l	0.001	0.00859	16	<0.0005	0.031	4	C3S; C3s; C4S; C4D	0.016	<0.001	<0.001	0.024	0.0039	0.031	0.02	0.0058	<0.0005	0.0011	0.0023	0.002	<0.0005	0.0011	0.0035	0.0053
Lead (Dissolved)	mg/l	0.001	0.00607	16	<0.0005	0.0019	0		<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0012	0.0019	<0.0005	0.0012	<0.0005	0.00074	0.00092
Selenium (Dissolved)	mg/l	0.0005	N/A	16	0	0	0																	
Zinc (Dissolved)	mg/l	0.001	0.0348	16	0.0024	0.035	1	C4D	0.0078	0.0024	0.0032	0.015	<0.003	<0.003	<0.003	0.013	<0.0025	0.023	0.035	0.0093	0.0038	0.0039	0.015	0.015
Mercury Low Level	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Low-Level Chromium (Hexavalent)	mg/l	0.0001	No WSV	16	<0.0001	0.0053	0		<0.0001	<0.0001	0.00095	0.0044	0.00038	0.0053	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001					
Chromium (Trivalent)	mg/l	0.001	No WSV	16	<0.001	0.068	0		0.003	<0.001	0.002	0.003	0.006	0.068	0.045					0.006	<0.001	<0.001	0.006	0.009
Chromium (Hexavalent)	mg/l	0.02	0.0034	16	<0.02	<0.02	0													<0.02	<0.02	<0.02	<0.02	<0.02
Dissolved Organic Carbon Low Level	mg/l	N/A	No WSV	16	0.72	9.7	0		5.2	3.3	3.1	9.7	0.72	0.73	0.91	3.7	1	1.6	1.9					
Total TPH >C6-C40	mg/l	0.01	No WSV	16	<0.01	<0.01	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
Naphthalene	mg/l	0.00001	0.002	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Acenaphthylene	mg/l	0.00001	Screen BaP only	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Acenaphthene	mg/l	0.00001	Screen BaP only	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Fluorene	mg/l	0.00001	N/A	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Phenanthrene	mg/l	0.00001	Screen BaP only	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Anthracene	mg/l	0.00001	0.0001	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Fluoranthene	mg/l	0.00001	0.0000063	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Pyrene	mg/l	0.00001	N/A	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo[a]anthracene	mg/l	0.00001	Screen BaP only	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Chrysene	mg/l	0.00001	Screen BaP only	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo fluoranthene	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo[k]fluoranthene	mg/l	0.00001	Screen BaP only	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo[a]pyrene	mg/l	0.00001	0.00000017	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Indeno(1,2,3-c,d)Pyrene	mg/l	0.00001	Screen BaP only	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Dibenz(a,h)Anthracene	mg/l	0.00001	N/A	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo[g,h,i]perylene	mg/l	0.00001	Screen BaP only	16	<0.00001	<0.00001	0		<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total Of 16 PAH's	mg/l	0.0002	No WSV	16	<0.0002	<0.0002	0		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Dichlorodifluoromethane	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chloromethane	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vinyl Chloride	mg/l	0.0001	N/A	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bromomethane	mg/l	0.002	No WSV	16	<0.002	<0.002	0		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chloroethane	mg/l	0.0002	No WSV	16	<0.0002	<0.0002	0		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Trichlorofluoromethane	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1-Dichloroethene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Trans 1,2-Dichloroethene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1-Dichloroethane	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
cis 1,2-Dichloroethene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bromochloromethane	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Trichloromethane	mg/l	0.0001	0.0025	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1,1-Trichloroethane	mg/l	0.0001	0.1	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tetrachloromethane	mg/l	0.0001	0.012	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1-Dichloropropene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzene	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2-Dichloroethane	mg/l	0.0002	0.01	16	<0.0002	<0.0002	0		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Trichloroethene	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2-Dichloropropane	mg/l	0.0001	N/A	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dibromomethane	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bromodichloromethane	mg/l	0.0005	N/A	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
cis-1,3-Dichloropropene	mg/l	0.001	No WSV	16	<0.001	<0.001	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	mg/l	0.0001	0.074	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Trans-1,3-Dichloropropene	mg/l	0.001	No WSV	16	<0.001	<0.001	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	mg/l	0.0001	0.4	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tetrachloroethene	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,3-Dichloropropane	mg/l	0.0002	No WSV	16	<0.0002	<0.0002	0		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Dibromochloromethane	mg/l	0.001	N/A	16	<0.001	<0.001	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dibromoethane	mg/l	0.0005	N/A	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chlorobenzene	mg/l	0.0001	N/A	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1,1,2-Tetrachloroethane	mg/l	0.0002	No WSV	16	<0.0002	<0.0002	0		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Ethylbenzene	mg/l	0.0001	0.02	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
m & p-Xylene	mg/l	0.0001	See Xylenes (total)	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
o-Xylene	mg/l	0.0001	See Xylenes (total)	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Styrene	mg/l	0.0001	0.05	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tribromomethane	mg/l	0.001	No WSV	16	<0.001	<0.001	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Isopropylbenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bromobenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichloropropane	mg/l	0.005	No WSV	16	<0.005	<0.005	0		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
N-Propylbenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
2-Chlorotoluene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,3,5-Trimethylbenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
4-Chlorotoluene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tert-Butylbenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,4-Trimethylbenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sec-Butylbenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,3-Dichlorobenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
4-Isopropyltoluene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,4-Dichlorobenzene	mg/l	0.0001	0.02	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
N-Butylbenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2-Dichlorobenzene	mg/l	0.0001	0.02	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2-Dibromo-3-Chloropropane	mg/l	0.005	N/A	16	<0.005	<0.005	0		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2,4-Trichlorobenzene	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Hexachlorobutadiene	mg/l	0.0001	0.0006	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	mg/l	0.0002	No WSV	16	<0.0002	<0.0002	0		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Methyl Tert-Butyl Ether	mg/l	0.0001	No WSV	16	<0.0001	<0.0001	0		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
N-Nitrosodimethylamine	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Phenol	mg/l	0.0005	0.0077	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Chlorophenol	mg/l	0.0005	0.05	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis-(2-Chloroethyl)Ether	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,4-Dichlorobenzene	mg/l	0.0005	0.02	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichlorobenzene	mg/l	0.0005	0.02	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Methylphenol (o-Cresol)	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-Chloroisopropyl)Ether	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexachloroethane	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Nitrosodi-n-propylamine	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Methylphenol	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Nitrobenzene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Isophorone	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

ATKINS

Assessment Criteria :	Manual SSAC								
CaCO (mg/l):	351.00	pH	8.02						
Calcium (mg/l):	144.00	DOC (mg/l)	10.30	Catchment area:	Freshwater not listed				

Constituents	Unit	Limit of Detection	Generic Assessment Criteria	Number of Samples	Minimum Value	Maximum Value	Number of Exceedences	Locations of Exceedences	Location	C3S	C3D	C4S	C3s	C3d	C4S	C4D	C3S	C3D	C4S	C4D	C3S	C3D	P10	C4S	C4D
									Sample ID	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
									Depth	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m
									Date	10/11/2020	10/11/2020	11/11/2020	13/05/2021	13/05/2021	18/05/2021	18/05/2021	16/11/2021	16/11/2021	16/11/2021	16/11/2021	23/06/2022	23/06/2022	23/06/2022	28/06/2022	28/06/2022
									Strata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
									Zone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4-Dimethylphenol	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-Chloroethoxy)Methane	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4-Dichlorophenol	mg/l	0.0005	0.0042	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2,4-Trichlorobenzene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Naphthalene	mg/l	0.0005	0.002	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Chloroaniline	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexachlorobutadiene	mg/l	0.0005	0.0006	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Chloro-3-Methylphenol	mg/l	0.0005	0.04	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Methylnaphthalene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexachlorocyclopentadiene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4,6-Trichlorophenol	mg/l	0.0005	N/A	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4,5-Trichlorophenol	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Chloronaphthalene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Nitroaniline	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Acenaphthylene	mg/l	0.0005	Screen BaP only	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dimethylphthalate	mg/l	0.0005	0.8	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,6-Dinitrotoluene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Acenaphthene	mg/l	0.0005	Screen BaP only	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3-Nitroaniline	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dibenzofuran	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Chlorophenylphenylether	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4-Dinitrotoluene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Fluorene	mg/l	0.0005	N/A	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Diethyl Phthalate	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Nitroaniline	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Methyl-4,6-Dinitrophenol	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Azobenzene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Bromophenylphenyl Ether	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexachlorobenzene	mg/l	0.0005	0.00005	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pentachlorophenol	mg/l	0.0005	0.0004	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Phenanthrene	mg/l	0.0005	Screen BaP only	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Anthracene	mg/l	0.0005	0.0001	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Carbazole	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Di-N-Butyl Phthalate	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Fluoranthene	mg/l	0.0005	0.0000063	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pyrene	mg/l	0.0005	N/A	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Butylbenzyl Phthalate	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo[a]anthracene	mg/l	0.0005	Screen BaP only	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chrysene	mg/l	0.0005	Screen BaP only	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-Ethylhexyl)Phthalate	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Di-N-Octyl Phthalate	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo fluoranthene	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo[k]fluoranthene	mg/l	0.0005	Screen BaP only	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo[a]pyrene	mg/l	0.0005	0.00000017	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Indeno(1,2,3-c,d)Pyrene	mg/l	0.0005	Screen BaP only	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dibenz(a,h)Anthracene	mg/l	0.0005	N/A	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo[g,h,i]perylene	mg/l	0.0005	Screen BaP only	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Nitrophenol	mg/l	0.0005	No WSV	16	<0.0005	<0.0005	0			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB 28	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 81	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 52	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 77	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 105	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 90+101	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 114	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 118	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 118	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 153	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 123	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 138	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 126	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 180	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 156	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 157	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 167	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 169	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 189	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total PCBs (12 Congeners)	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total PCBs (7 congeners)	mg/l	0.00001	No WSV	16	<0.00001	<0.00001	0			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total Phenols	mg/l	0.030	No WSV	16	<0.03	<0.03	0			<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Aggressive Dissolved CO2	mg/l	0.60	No WSV	16	<0.6	14	0										2.9	1.5	<0.6	14					
Benzene	mg/l	0.0001	0.01	16	0	0	0																		
Toluene	mg/l	0.0001	0.074	16	0	0	0																		
Ethylbenzene	mg/l	0.0001	0.02	16	0	0	0																		
m & p-Xylene	mg/l	0.0001	See Xylenes (total)	16	0	0	0																		
o-Xylene	mg/l	0.0001	See Xylenes (total)	16	0	0	0																		
Total Organic Carbon	mg/l	2.0	No WSV	16	0	0	0																		
Aliphatic TPH >C5-C6	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C6-C8	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C8-C10	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C10-C12	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C12-C16	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C16-C21	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C21-C35	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C35-C44	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total Aliphatic Hydrocarbons	mg/l	0.005	No WSV	16	<0.005	<0.005	0														<0.005	<0.005	<0.005	<0.005	<0.005
Aromatic TPH >C5-C7	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C7-C8	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C8-C10	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C10-C12	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C12-C16	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C16-C21	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C21-C35	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C35-C44	mg/l	0.0001	0.01	16	<0.0001	<0.0001	0														<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total Aromatic Hydrocarbons	mg/l	0.005	No WSV	16	<0.005	<0.005	0														<0.005	<0.005	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons	mg/l	0.01	No WSV	16	<0.01	<0.01	0														<0.01	<0.01	<0.01	<0.01	<0.01

Appendix C. Laboratory Sheets

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

UKAS TESTING 2183

Final Report

Report No.:	20-30618-1
Initial Date of Issue:	18-Nov-2020
Client	Atkins Ltd
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF
Contact(s):	Jenny Wilcox
Project	5185703
Quotation No.:	Q20-21888
Date Received:	12-Nov-2020
Order No.:	5185703.001.17112020
Date Instructed:	12-Nov-2020
No. of Samples:	1
Turnaround (Wkdays):	5
Results Due:	18-Nov-2020
Date Approved:	18-Nov-2020
Approved By:	
Details:	Glynn Harvey, Technical Manager

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

UKAS TESTING 2183

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Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF
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Results Due:	18-Nov-2020
Date Approved:	18-Nov-2020
Approved By:	
Details:	Glynn Harvey, Technical Manager

Results - Water

Project: 5185703

Client: Atkins Ltd			**Chemtest Job No.:**		20-30618
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
			Sample Type:		WATER
			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
pH	U	1010		N/A	8.2
Electrical Conductivity	U	1020	µS/cm	1.0	360
Suspended Solids At 105C	U	1030	mg/l	5.0	28
Alkalinity (Total)	U	1220	mg/l	10	78
Chloride	U	1220	mg/l	1.0	53
Ammonium	U	1220	mg/l	0.050	0.20
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.17
Nitrite	U	1220	mg/l	0.020	< 0.020
Nitrate	U	1220	mg/l	0.50	< 0.50
Phosphate	U	1220	mg/l	0.200	0.35
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.11
Sulphate	U	1220	mg/l	1.0	36
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	1415	mg/l	5.0	37
Potassium	U	1415	mg/l	0.50	1.7
Magnesium	U	1415	mg/l	0.50	1.3
Sodium	U	1415	mg/l	0.50	23
Arsenic (Dissolved)	U	1450	µg/l	1.0	1.8
Boron (Dissolved)	U	1450	µg/l	20	< 20
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080
Chromium (Dissolved)	U	1450	µg/l	1.0	< 1.0
Copper (Dissolved)	U	1450	µg/l	1.0	< 1.0
Iron (Dissolved)	N	1450	µg/l	20	170
Manganese (Dissolved)	U	1450	µg/l	1.0	160
Nickel (Dissolved)	U	1450	µg/l	1.0	< 1.0
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0
Zinc (Dissolved)	U	1450	µg/l	1.0	2.4
Mercury Low Level	U	1460	µg/l	0.010	< 0.010
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	< 0.10
Chromium (Trivalent)	U	1450	µg/l	1	< 1
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A	3.3
Total TPH >C6-C40	U	1670	µg/l	10	< 10
Naphthalene	N	1700	µg/l	0.010	< 0.010
Acenaphthylene	N	1700	µg/l	0.010	< 0.010
Acenaphthene	N	1700	µg/l	0.010	< 0.010
Fluorene	N	1700	µg/l	0.010	< 0.010
Phenanthrene	N	1700	µg/l	0.010	< 0.010
Anthracene	N	1700	µg/l	0.010	< 0.010

Results - Water

Project: 5185703

Client: Atkins Ltd			**Chemtest Job No.:**		20-30618
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
			Sample Type:		WATER
			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Fluoranthene	N	1700	µg/l	0.010	< 0.010
Pyrene	N	1700	µg/l	0.010	< 0.010
Benzo[a]anthracene	N	1700	µg/l	0.010	< 0.010
Chrysene	N	1700	µg/l	0.010	< 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010	< 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010	< 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010	< 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20	< 0.20
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

Results - Water

Project: 5185703

Client: Atkins Ltd			**Chemtest Job No.:**		20-30618
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
			Sample Type:		WATER
			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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	5.0	< 5.0
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	5.0	< 5.0
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

Results - Water

Project: 5185703

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Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
			Sample Type:		WATER
			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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

Results - Water

Project: 5185703

Client: Atkins Ltd			**Chemtest Job No.:**		20-30618
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
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			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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
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
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.
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

UKAS TESTING 2183

Final Report

Report No.:	20-30686-1
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	5185703 Sizewell C
Quotation No.:	Q20-21888
Order No.:	5185703.001.17112020
No. of Samples:	1
Turnaround (Wkdays):	5
Date Approved:	18-Nov-2020
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	12-Nov-2020
Date Instructed:	12-Nov-2020
Results Due:	18-Nov-2020

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30686
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095421
			Sample Location:		C3S
			Sample Type:		WATER
			Top Depth (m):		6.00
			Bottom Depth (m):		6.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
pH	U	1010		N/A	5.9
Electrical Conductivity	U	1020	µS/cm	1.0	1300
Suspended Solids At 105C	U	1030	mg/l	5.0	9.0
Alkalinity (Total)	U	1220	mg/l	10	< 10
Chloride	U	1220	mg/l	1.0	380
Ammonium	U	1220	mg/l	0.050	0.063
Ammoniacal Nitrogen	U	1220	mg/l	0.050	< 0.050
Nitrite	U	1220	mg/l	0.020	0.033
Nitrate	U	1220	mg/l	0.50	2.4
Phosphate	U	1220	mg/l	0.200	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.024
Sulphate	U	1220	mg/l	1.0	27
Total Oxidised Nitrogen	U	1220	mg/l	0.20	0.54
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050
Calcium	U	1415	mg/l	5.0	16
Potassium	U	1415	mg/l	0.50	8.6
Magnesium	U	1415	mg/l	0.50	27
Sodium	U	1415	mg/l	0.50	110
Arsenic (Dissolved)	U	1450	µg/l	1.0	< 1.0
Boron (Dissolved)	U	1450	µg/l	20	42
Cadmium (Dissolved)	U	1450	µg/l	0.080	0.13
Chromium (Dissolved)	U	1450	µg/l	1.0	2.6
Copper (Dissolved)	U	1450	µg/l	1.0	1.2
Iron (Dissolved)	N	1450	µg/l	20	350
Manganese (Dissolved)	U	1450	µg/l	1.0	< 1.0
Nickel (Dissolved)	U	1450	µg/l	1.0	16
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0
Zinc (Dissolved)	U	1450	µg/l	1.0	7.8
Mercury Low Level	U	1460	µg/l	0.010	< 0.010
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	< 0.10
Chromium (Trivalent)	U	1450	µg/l	1	3
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A	5.2
Total TPH >C6-C40	U	1670	µg/l	10	< 10
Naphthalene	N	1700	µg/l	0.010	< 0.010
Acenaphthylene	N	1700	µg/l	0.010	< 0.010
Acenaphthene	N	1700	µg/l	0.010	< 0.010
Fluorene	N	1700	µg/l	0.010	< 0.010
Phenanthrene	N	1700	µg/l	0.010	< 0.010
Anthracene	N	1700	µg/l	0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30686
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095421
			Sample Location:		C3S
			Sample Type:		WATER
			Top Depth (m):		6.00
			Bottom Depth (m):		6.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Fluoranthene	N	1700	µg/l	0.010	< 0.010
Pyrene	N	1700	µg/l	0.010	< 0.010
Benzo[a]anthracene	N	1700	µg/l	0.010	< 0.010
Chrysene	N	1700	µg/l	0.010	< 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010	< 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010	< 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010	< 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20	< 0.20
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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30686
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095421
			Sample Location:		C3S
			Sample Type:		WATER
			Top Depth (m):		6.00
			Bottom Depth (m):		6.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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	5.0	< 5.0
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	5.0	< 5.0
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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30686
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095421
			Sample Location:		C3S
			Sample Type:		WATER
			Top Depth (m):		6.00
			Bottom Depth (m):		6.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30686
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095421
			Sample Location:		C3S
			Sample Type:		WATER
			Top Depth (m):		6.00
			Bottom Depth (m):		6.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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
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
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.
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

UKAS TESTING 2183

Final Report

Report No.:	20-30950-1
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
Order No.:	5185703.001.17112020
No. of Samples:	1
Turnaround (Wkdays):	5
Date Approved:	19-Nov-2020
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	13-Nov-2020
Date Instructed:	13-Nov-2020
Results Due:	19-Nov-2020

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30950
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096467
			Sample Location:		C4S
			Sample Type:		WATER
			Top Depth (m):		00
			Bottom Depth (m):		4.00
			Date Sampled:		11-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
pH	U	1010		N/A	8.6
Electrical Conductivity	U	1020	µS/cm	1.0	240
Suspended Solids At 105C	U	1030	mg/l	5.0	26
Alkalinity (Total)	U	1220	mg/l	10	22
Chloride	U	1220	mg/l	1.0	26
Ammonium	U	1220	mg/l	0.050	< 0.050
Ammoniacal Nitrogen	U	1220	mg/l	0.050	< 0.050
Nitrite	U	1220	mg/l	0.020	< 0.020
Nitrate	U	1220	mg/l	0.50	17
Phosphate	U	1220	mg/l	0.200	0.32
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.10
Sulphate	U	1220	mg/l	1.0	28
Total Oxidised Nitrogen	U	1220	mg/l	0.20	3.8
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050
Calcium	U	1415	mg/l	5.0	8.1
Potassium	U	1415	mg/l	0.50	3.3
Magnesium	U	1415	mg/l	0.50	5.6
Sodium	U	1415	mg/l	0.50	24
Arsenic (Dissolved)	U	1450	µg/l	1.0	< 1.0
Boron (Dissolved)	U	1450	µg/l	20	< 20
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080
Chromium (Dissolved)	U	1450	µg/l	1.0	2.9
Copper (Dissolved)	U	1450	µg/l	1.0	< 1.0
Iron (Dissolved)	N	1450	µg/l	20	< 20
Manganese (Dissolved)	U	1450	µg/l	1.0	1.9
Nickel (Dissolved)	U	1450	µg/l	1.0	< 1.0
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0
Zinc (Dissolved)	U	1450	µg/l	1.0	3.2
Mercury Low Level	U	1460	µg/l	0.010	< 0.010
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	0.95
Chromium (Trivalent)	U	1450	µg/l	1	2
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A	3.1
Total TPH >C6-C40	U	1670	µg/l	10	< 10
Naphthalene	N	1700	µg/l	0.010	< 0.010
Acenaphthylene	N	1700	µg/l	0.010	< 0.010
Acenaphthene	N	1700	µg/l	0.010	< 0.010
Fluorene	N	1700	µg/l	0.010	< 0.010
Phenanthrene	N	1700	µg/l	0.010	< 0.010
Anthracene	N	1700	µg/l	0.010	< 0.010

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30950
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096467
			Sample Location:		C4S
			Sample Type:		WATER
			Top Depth (m):		00
			Bottom Depth (m):		4.00
			Date Sampled:		11-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Fluoranthene	N	1700	µg/l	0.010	< 0.010
Pyrene	N	1700	µg/l	0.010	< 0.010
Benzo[a]anthracene	N	1700	µg/l	0.010	< 0.010
Chrysene	N	1700	µg/l	0.010	< 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010	< 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010	< 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010	< 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20	< 0.20
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

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30950
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096467
			Sample Location:		C4S
			Sample Type:		WATER
			Top Depth (m):		00
			Bottom Depth (m):		4.00
			Date Sampled:		11-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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	5.0	< 5.0
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	5.0	< 5.0
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

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30950
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096467
			Sample Location:		C4S
			Sample Type:		WATER
			Top Depth (m):		00
			Bottom Depth (m):		4.00
			Date Sampled:		11-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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

Results - Water

Project: S185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		20-30950
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1096467
			Sample Location:		C4S
			Sample Type:		WATER
			Top Depth (m):		00
			Bottom Depth (m):		4.00
			Date Sampled:		11-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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
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
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.
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

UKAS TESTING 2183

Final Report

Report No.:	21-16308-1
Initial Date of Issue:	25-May-2021
Client	Atkins Ltd
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF
Contact(s):	Natasha Glynn Alice Smith
Project	5185703 Sizewell C
Quotation No.:	Q20-21888
Order No.:	5185703/CHEM/250521
No. of Samples:	6
Turnaround (Wkdays):	5
Date Approved:	21-May-2021
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	17-May-2021
Date Instructed:	17-May-2021
Results Due:	21-May-2021

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd				**Chemtest Job No.:**	21-16308	21-16308	21-16308	21-16308	21-16308	21-16308
Quotation No.: Q20-21888				**Chemtest Sample ID.:**	1201629	1201630	1201631	1201632	1201633	1201634
				Sample Location:	C3s	C3d	G1	P13	C2s	C2d
				Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
				Top Depth (m):	5.00	16.00		1.50	4.50	18.00
				Date Sampled:	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
pH	U	1010		N/A	7.5	8.2	8.2	7.3	7.7	8.1
Electrical Conductivity	U	1020	µS/cm	1.0	3300	400	910	1000	750	970
Suspended Solids At 105C	U	1030	mg/l	5.0	25	20	520	190	28	100
Alkalinity (Total)	U	1220	mg/l	10	< 10	55	270	270	47	390
Chloride	U	1220	mg/l	1.0	1100	51	110	210	140	63
Ammonium	U	1220	mg/l	0.050	0.31	0.19	1.0	< 0.050	0.39	2.5
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.24	0.16	0.86	< 0.050	0.31	2.1
Nitrite	U	1220	mg/l	0.020	< 0.020	< 0.020	0.067	< 0.020	< 0.020	< 0.020
Nitrate	U	1220	mg/l	0.50	1.8	< 0.50	0.76	< 0.50	45	< 0.50
Phosphate	U	1220	mg/l	0.200	< 0.20	0.25	< 0.20	< 0.20	< 0.20	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.022	0.082	0.026	0.036	0.025	0.030
Sulphate	U	1220	mg/l	1.0	53	32	60	< 1.0	81	49
Total Oxidised Nitrogen	U	1220	mg/l	0.20	0.41	< 0.20	< 0.20	< 0.20	10	< 0.20
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	48	30	120	96	53	150
Potassium	U	1455	mg/l	0.50	11	2.0	6.6	5.6	2.9	2.9
Magnesium	U	1455	mg/l	0.20	91	2.2	12	35	7.2	13
Sodium	U	1455	mg/l	1.50	430	25	52	62	73	41
Arsenic (Dissolved)	U	1455	µg/l	0.20	< 0.20	1.3	2.4	18	0.84	1.0
Boron (Dissolved)	U	1455	µg/l	10.0	41	14	38	57	44	36
Cadmium (Dissolved)	U	1455	µg/l	0.11	0.46	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	7.1	6.8	7.1	8.1	7.4	7.6
Copper (Dissolved)	U	1455	µg/l	0.50	0.70	9.7	0.56	0.81	< 0.50	< 0.50
Iron (Dissolved)	N	1455	µg/l	5.0	34	24	190	38000	750	150
Manganese (Dissolved)	U	1455	µg/l	0.50	14000	120	1000	2700	73	2100
Nickel (Dissolved)	U	1455	µg/l	0.50	24	3.9	4.7	19	4.4	4.1
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Zinc (Dissolved)	U	1455	µg/l	3.0	15	< 3.0	< 3.0	< 3.0	< 3.0	3.5
Mercury Low Level	U	1460	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	[B] 4.4	[B] 0.38	[B] 3.7	[B] < 0.10	[B] 1.1	[B] < 0.10
Chromium (Trivalent)	U	1450	µg/l	1	3	6	3	8	6	8
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A	9.7	0.72	13	45	3.3	3.3
Total TPH >C6-C40	U	1670	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 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	< 0.010
Acenaphthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 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	< 0.010
Phenanthrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 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	< 0.010
Fluoranthene	N	1700	µg/l	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.:	21-16308	21-16308	21-16308	21-16308	21-16308
Quotation No.: Q20-21888					Chemtest Sample ID.:	1201629	1201630	1201631	1201632	1201633	1201634
					Sample Location:	C3s	C3d	G1	P13	C2s	C2d
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	5.00	16.00		1.50	4.50	18.00
					Date Sampled:	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Pyrene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 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	< 0.010
Chrysene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 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	< 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 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	< 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	< 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 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	< 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dichlorodifluoromethane	N	1760	µg/l	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
Vinyl Chloride	N	1760	µg/l	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
Chloroethane	N	1760	µg/l	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
1,1-Dichloroethene	N	1760	µg/l	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
1,1-Dichloroethane	N	1760	µg/l	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
Bromochloromethane	N	1760	µg/l	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
1,1,1-Trichloroethane	N	1760	µg/l	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
1,1-Dichloropropene	N	1760	µg/l	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
1,2-Dichloroethane	N	1760	µg/l	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
1,2-Dichloropropane	N	1760	µg/l	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
Bromodichloromethane	N	1760	µg/l	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
Toluene	N	1760	µg/l	0.10		< 0.10	< 0.10	< 0.10	14	< 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
1,1,2-Trichloroethane	N	1760	µg/l	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
1,3-Dichloropropane	N	1760	µg/l	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
1,2-Dibromoethane	N	1760	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	21-16308	21-16308	21-16308	21-16308	21-16308
Quotation No.: Q20-21888					Chemtest Sample ID.:	1201629	1201630	1201631	1201632	1201633	1201634
					Sample Location:	C3s	C3d	G1	P13	C2s	C2d
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	5.00	16.00		1.50	4.50	18.00
					Date Sampled:	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
1,1,1,2-Tetrachloroethane	N	1760	µg/l	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
m & p-Xylene	N	1760	µg/l	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
Styrene	N	1760	µg/l	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
Isopropylbenzene	N	1760	µg/l	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
1,2,3-Trichloropropane	N	1760	µg/l	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
2-Chlorotoluene	N	1760	µg/l	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
4-Chlorotoluene	N	1760	µg/l	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
1,2,4-Trimethylbenzene	N	1760	µg/l	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
1,3-Dichlorobenzene	N	1760	µg/l	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
1,4-Dichlorobenzene	N	1760	µg/l	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
1,2-Dichlorobenzene	N	1760	µg/l	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
1,2,4-Trichlorobenzene	N	1760	µg/l	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
1,2,3-Trichlorobenzene	N	1760	µg/l	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
N-Nitrosodimethylamine	N	1790	µg/l	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
2-Chlorophenol	N	1790	µg/l	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
1,3-Dichlorobenzene	N	1790	µg/l	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
1,2-Dichlorobenzene	N	1790	µg/l	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
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	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
N-Nitrosodi-n-propylamine	N	1790	µg/l	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
Nitrobenzene	N	1790	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	21-16308	21-16308	21-16308	21-16308	21-16308
Quotation No.: Q20-21888					Chemtest Sample ID.:	1201629	1201630	1201631	1201632	1201633	1201634
					Sample Location:	C3s	C3d	G1	P13	C2s	C2d
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	5.00	16.00		1.50	4.50	18.00
					Date Sampled:	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
2-Nitrophenol	N	1790	µg/l	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
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	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
1,2,4-Trichlorobenzene	N	1790	µg/l	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
4-Chloroaniline	N	1790	µg/l	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
4-Chloro-3-Methylphenol	N	1790	µg/l	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
Hexachlorocyclopentadiene	N	1790	µg/l	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
2,4,5-Trichlorophenol	N	1790	µg/l	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
2-Nitroaniline	N	1790	µg/l	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
Dimethylphthalate	N	1790	µg/l	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
Acenaphthene	N	1790	µg/l	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
Dibenzofuran	N	1790	µg/l	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
2,4-Dinitrotoluene	N	1790	µg/l	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
Diethyl Phthalate	N	1790	µg/l	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
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	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
4-Bromophenylphenyl Ether	N	1790	µg/l	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
Pentachlorophenol	N	1790	µg/l	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
Anthracene	N	1790	µg/l	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
Di-N-Butyl Phthalate	N	1790	µg/l	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
Pyrene	N	1790	µg/l	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
Benzo[a]anthracene	N	1790	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-16308	21-16308	21-16308	21-16308	21-16308
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1201629	1201630	1201631	1201632	1201633	1201634
					Sample Location:	C3s	C3d	G1	P13	C2s	C2d
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	5.00	16.00		1.50	4.50	18.00
					Date Sampled:	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021	13-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	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
Benzo[b]fluoranthene	N	1790	µg/l	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
Benzo[a]pyrene	N	1790	µg/l	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
Dibenz(a,h)Anthracene	N	1790	µg/l	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
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
PCB 28	N	1815	µg/l	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
PCB 52	N	1815	µg/l	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
PCB 105	N	1815	µg/l	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
PCB 114	N	1815	µg/l	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
PCB 118	N	1815	µg/l	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
PCB 123	N	1815	µg/l	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
PCB 126	N	1815	µg/l	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
PCB 156	N	1815	µg/l	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
PCB 167	N	1815	µg/l	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
PCB 189	N	1815	µg/l	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
Total PCBs (7 congeners)	N	1815	µg/l	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

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:
1201629			C3s	13-May-2021	B	Coloured Winchester 1000ml
1201629			C3s	13-May-2021	B	EPA Vial 40ml
1201629			C3s	13-May-2021	B	Plastic Bottle 1000ml
1201630			C3d	13-May-2021	B	Coloured Winchester 1000ml
1201630			C3d	13-May-2021	B	EPA Vial 40ml
1201630			C3d	13-May-2021	B	Plastic Bottle 1000ml
1201631			G1	13-May-2021	B	Coloured Winchester 1000ml
1201631			G1	13-May-2021	B	EPA Vial 40ml
1201631			G1	13-May-2021	B	Plastic Bottle 1000ml
1201632			P13	13-May-2021	B	Coloured Winchester 1000ml
1201632			P13	13-May-2021	B	EPA Vial 40ml
1201632			P13	13-May-2021	B	Plastic Bottle 1000ml
1201633			C2s	13-May-2021	B	Coloured Winchester 1000ml
1201633			C2s	13-May-2021	B	EPA Vial 40ml
1201633			C2s	13-May-2021	B	Plastic Bottle 1000ml
1201634			C2d	13-May-2021	B	Coloured Winchester 1000ml
1201634			C2d	13-May-2021	B	EPA Vial 40ml
1201634			C2d	13-May-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.
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"
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 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 Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-16868-1
Initial Date of Issue:	26-May-2021
Client	Atkins Ltd
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF
Contact(s):	Natasha Glynn Alice Smith
Project	5185703 Sizewell C
Quotation No.:	Q20-21888
Order No.:	5185703/CHEM/250521
No. of Samples:	5
Turnaround (Wkdays):	5
Date Approved:	26-May-2021
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	20-May-2021
Date Instructed:	20-May-2021
Results Due:	26-May-2021

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd				**Chemtest Job No.:**	21-16868	21-16868	21-16868	21-16868	21-16868
Quotation No.: Q20-21888				**Chemtest Sample ID.:**	1204423	1204424	1204425	1204426	1204427
				Sample Location:	P12	C4S	C4D	G3	G4
				Sample Type:	WATER	WATER	WATER	WATER	WATER
				Top Depth (m):	1.5	4.5	16.00		
				Date Sampled:	18-May-2021	18-May-2021	18-May-2021	18-May-2021	18-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
pH	U	1010		N/A	8.2	8.0	7.8	8.1	8.2
Electrical Conductivity	U	1020	µS/cm	1.0	300	200	1400	880	1100
Suspended Solids At 105C	U	1030	mg/l	5.0	15	12	29	43	39
Alkalinity (Total)	U	1220	mg/l	10	87	11	220	370	220
Chloride	U	1220	mg/l	1.0	35	26	330	58	120
Ammonium	U	1220	mg/l	0.050	0.75	< 0.050	0.051	0.19	0.15
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.64	< 0.050	< 0.050	0.16	0.12
Nitrite	U	1220	mg/l	0.020	< 0.020	< 0.020	< 0.020	0.13	0.19
Nitrate	U	1220	mg/l	0.50	< 0.50	16	< 0.50	3.2	54
Phosphate	U	1220	mg/l	0.200	0.26	0.29	< 0.20	< 0.20	0.68
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.085	0.095	0.039	0.025	0.22
Sulphate	U	1220	mg/l	1.0	31	25	47	93	86
Total Oxidised Nitrogen	U	1220	mg/l	0.20	< 0.20	3.6	< 0.20	0.77	12
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	35	5.2	200	150	130
Potassium	U	1455	mg/l	0.50	1.7	2.6	12	7.6	11
Magnesium	U	1455	mg/l	0.20	3.4	5.2	13	12	9.9
Sodium	U	1455	mg/l	1.50	18	21	53	32	64
Arsenic (Dissolved)	U	1455	µg/l	0.20	0.67	0.60	0.86	0.68	1.1
Boron (Dissolved)	U	1455	µg/l	10.0	31	14	34	30	40
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	42	73	45	49	40
Copper (Dissolved)	U	1455	µg/l	0.50	1.2	1.7	1.1	1.4	2.5
Iron (Dissolved)	N	1455	µg/l	5.0	380	310	200	220	230
Manganese (Dissolved)	U	1455	µg/l	0.50	300	13	190	18	61
Nickel (Dissolved)	U	1455	µg/l	0.50	18	31	20	21	18
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5	< 3.0	< 3.0	< 3.0	< 3.0	3.5
Mercury Low Level	U	1460	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	< 0.10	5.3	< 0.10	4.6	5.3
Chromium (Trivalent)	U	1450	µg/l	1	42	68	45	44	35
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A	5.2	0.73	0.91	4.7	6.2
Total TPH >C6-C40	U	1670	µg/l	10	< 10	< 10	< 10	< 10	< 10
Naphthalene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoranthene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		21-16868	21-16868	21-16868	21-16868	21-16868
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1204423	1204424	1204425	1204426	1204427
			Sample Location:		P12	C4S	C4D	G3	G4
			Sample Type:		WATER	WATER	WATER	WATER	WATER
			Top Depth (m):		1.5	4.5	16.00		
			Date Sampled:		18-May-2021	18-May-2021	18-May-2021	18-May-2021	18-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
Pyrene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010	[C] < 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20	[C] < 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dichlorodifluoromethane	N	1760	µg/l	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
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	< 0.20
Trichloroethene	N	1760	µg/l	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
Dibromomethane	N	1760	µg/l	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
cis-1,3-Dichloropropene	N	1760	µg/l	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
Trans-1,3-Dichloropropene	N	1760	µg/l	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
Tetrachloroethene	N	1760	µg/l	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
Dibromochloromethane	N	1760	µg/l	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
Chlorobenzene	N	1760	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-16868	21-16868	21-16868	21-16868
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1204423	1204424	1204425	1204426	1204427
					Sample Location:	P12	C4S	C4D	G3	G4
					Sample Type:	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	1.5	4.5	16.00		
					Date Sampled:	18-May-2021	18-May-2021	18-May-2021	18-May-2021	18-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
1,1,1,2-Tetrachloroethane	N	1760	µg/l	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
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
N-Nitrosodimethylamine	N	1790	µg/l	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
2-Chlorophenol	N	1790	µg/l	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
1,3-Dichlorobenzene	N	1790	µg/l	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
1,2-Dichlorobenzene	N	1790	µg/l	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
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	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
N-Nitrosodi-n-propylamine	N	1790	µg/l	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
Nitrobenzene	N	1790	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	21-16868	21-16868	21-16868	21-16868
Quotation No.: Q20-21888					Chemtest Sample ID.:	1204423	1204424	1204425	1204426	1204427
					Sample Location:	P12	C4S	C4D	G3	G4
					Sample Type:	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	1.5	4.5	16.00		
					Date Sampled:	18-May-2021	18-May-2021	18-May-2021	18-May-2021	18-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
2-Nitrophenol	N	1790	µg/l	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
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	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
1,2,4-Trichlorobenzene	N	1790	µg/l	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
4-Chloroaniline	N	1790	µg/l	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
4-Chloro-3-Methylphenol	N	1790	µg/l	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
Hexachlorocyclopentadiene	N	1790	µg/l	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
2,4,5-Trichlorophenol	N	1790	µg/l	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
2-Nitroaniline	N	1790	µg/l	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
Dimethylphthalate	N	1790	µg/l	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
Acenaphthene	N	1790	µg/l	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
Dibenzofuran	N	1790	µg/l	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
2,4-Dinitrotoluene	N	1790	µg/l	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
Diethyl Phthalate	N	1790	µg/l	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
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	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
4-Bromophenylphenyl Ether	N	1790	µg/l	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
Pentachlorophenol	N	1790	µg/l	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
Anthracene	N	1790	µg/l	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
Di-N-Butyl Phthalate	N	1790	µg/l	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
Pyrene	N	1790	µg/l	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
Benzo[a]anthracene	N	1790	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-16868	21-16868	21-16868	21-16868
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1204423	1204424	1204425	1204426	1204427
					Sample Location:	P12	C4S	C4D	G3	G4
					Sample Type:	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	1.5	4.5	16.00		
					Date Sampled:	18-May-2021	18-May-2021	18-May-2021	18-May-2021	18-May-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	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
Benzo[b]fluoranthene	N	1790	µg/l	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
Benzo[a]pyrene	N	1790	µg/l	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
Dibenz(a,h)Anthracene	N	1790	µg/l	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
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
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
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
PCB 105	N	1815	µg/l	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
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
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
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
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
PCB 157	N	1815	µg/l	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
PCB 169	N	1815	µg/l	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
Total PCBs (12 Congeners)	N	1815	µg/l	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	[C] < 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:
1204423			P12	18-May-2021	C	EPA Vial 40ml
1204423			P12	18-May-2021	C	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.
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"
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 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

UKAS TESTING
2183

Final Report

Report No.:	21-40629-1
Initial Date of Issue:	09-Dec-2021
Client	Atkins Ltd
Client Address:	The Axis 10 Holliday Street Birmingham West Midlands B1 1TF
Contact(s):	Natasha Glynn
Project	5185703 Sizewell C
Quotation No.:	Q20-21888
Order No.:	IFS10554
No. of Samples:	12
Turnaround (Wkdays):	5
Date Approved:	03-Dec-2021
Approved By:	
Details:	Glynn Harvey, Technical Manager

Date Received:	19-Nov-2021
Date Instructed:	19-Nov-2021
Results Due:	25-Nov-2021

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888					Chemtest Sample ID.:	1322890	1322891	1322892	1322893	1322894	1322895	1322896	1322897
					Sample Location:	BP23	C3S	C3D	G1	P13	C4S	C4D	G6a
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	9.00	5.00	15.00	0.00	1.50	4.50	16.00	0.00
					Date Sampled:	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
pH	U	1010		N/A		8.3	8.2	8.3	7.8	7.4	7.8	7.2	7.6
Electrical Conductivity	U	1020	µS/cm	1.0		970	880	330	1000	950	250	2600	1100
Suspended Solids At 105C	U	1030	mg/l	5.0		27	37	54	38	940	84	68	36
Aggressive Dissolved CO2	N	1160	mg/l	0.60		< 0.60	2.9	1.5		21	< 0.60	14	
Alkalinity (Total)	U	1220	mg/l	10		88	< 10	53	380	200	14	170	360
Chloride	U	1220	mg/l	1.0		140	300	46	140	210	26	680	120
Ammonium	U	1220	mg/l	0.050		< 0.050	0.090	0.072	0.39	< 0.050	0.26	0.27	0.33
Ammoniacal Nitrogen	U	1220	mg/l	0.050		< 0.050	0.075	0.062	0.31	< 0.050	0.21	0.21	0.26
Nitrite	U	1220	mg/l	0.020		< 0.020	< 0.020	< 0.020	0.28	< 0.020	< 0.020	< 0.020	0.15
Nitrate	U	1220	mg/l	0.50		110	5.8	< 0.50	16	< 0.50	26	< 0.50	21
Phosphate	U	1220	mg/l	0.200		< 0.20	< 0.20	0.21	< 0.20	< 0.20	0.28	< 0.20	0.26
Phosphorus (Dissolved)	U	1220	mg/l	0.020		0.049	< 0.020	0.069	0.039	0.039	0.091	< 0.020	0.085
Sulphate	U	1220	mg/l	1.0		65	34	36	73	< 1.0	25	50	74
Total Oxidised Nitrogen	U	1220	mg/l	0.20		25	1.3	< 0.20	3.6	< 0.20	5.9	< 0.20	4.8
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		100	10	33	140	95	6.7	330	140
Potassium	U	1455	mg/l	0.50		8.9	5.7	2.0	8.3	7.1	2.8	14	8.0
Magnesium	U	1455	mg/l	0.20		22	19	1.7	12	29	6.2	19	11
Sodium	U	1455	mg/l	1.50		36	120	24	56	48	24	120	51
Arsenic (Dissolved)	U	1455	µg/l	0.20		0.31	< 0.20	1.4	0.88	29	1.8	1.1	0.76
Boron (Dissolved)	U	1455	µg/l	10.0		870	900	760	840	1100	920	830	820
Cadmium (Dissolved)	U	1455	µg/l	0.11		< 0.11	< 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	< 0.50	< 0.50	1.1	< 0.50	< 0.50	< 0.50
Copper (Dissolved)	U	1455	µg/l	0.50		< 0.50	0.54	< 0.50	0.71	4.6	3.8	3.5	0.71
Iron (Dissolved)	N	1455	µg/l	5.0		< 5.0	27	< 5.0	43	36000	670	1300	26
Manganese (Dissolved)	U	1455	µg/l	0.50		2.7	2300	110	250	1900	78	100	190
Nickel (Dissolved)	U	1455	µg/l	0.50		0.72	5.8	< 0.50	0.76	9.6	1.1	2.3	0.73
Lead (Dissolved)	U	1455	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	0.79	1.2	1.9	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5		5.4	13	< 2.5	8.8	31	23	35	9.0
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
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chromium (Trivalent) LL	U	1450	µg/l	1		< 1	< 1	< 1	< 1	1	< 1	< 1	< 1
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A		2.0	3.7	1.0	8.1	23	1.6	1.9	7.0
Total TPH >C6-C40	U	1670	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 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	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 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	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 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	< 0.010	< 0.010	< 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888					Chemtest Sample ID.:	1322890	1322891	1322892	1322893	1322894	1322895	1322896	1322897
					Sample Location:	BP23	C3S	C3D	G1	P13	C4S	C4D	G6a
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	9.00	5.00	15.00	0.00	1.50	4.50	16.00	0.00
					Date Sampled:	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Fluoranthene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 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	< 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	< 0.010	< 0.010	< 0.010
Chrysene	N	1700	µg/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 0.20	< 0.20	< 0.20
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	20	< 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
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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888					Chemtest Sample ID.:	1322890	1322891	1322892	1322893	1322894	1322895	1322896	1322897
					Sample Location:	BP23	C3S	C3D	G1	P13	C4S	C4D	G6a
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	9.00	5.00	15.00	0.00	1.50	4.50	16.00	0.00
					Date Sampled:	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
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
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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888					Chemtest Sample ID.:	1322890	1322891	1322892	1322893	1322894	1322895	1322896	1322897
					Sample Location:	BP23	C3S	C3D	G1	P13	C4S	C4D	G6a
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	9.00	5.00	15.00	0.00	1.50	4.50	16.00	0.00
					Date Sampled:	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
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
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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888					**Chemtest Sample ID.:**	1322890	1322891	1322892	1322893	1322894	1322895	1322896	1322897
					Sample Location:	BP23	C3S	C3D	G1	P13	C4S	C4D	G6a
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	9.00	5.00	15.00	0.00	1.50	4.50	16.00	0.00
					Date Sampled:	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
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
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
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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1322898	1322899	1322900	1322903
			Sample Location:		G8	DUP A	BP1028	BP28
			Sample Type:		WATER	WATER	WATER	WATER
			Top Depth (m):		0.00	0.00	18.00	18.00
			Date Sampled:		16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
pH	U	1010		N/A	7.7	7.7	7.5	8.5
Electrical Conductivity	U	1020	µS/cm	1.0	1200	1100	700	750
Suspended Solids At 105C	U	1030	mg/l	5.0	26	47	19	27
Aggressive Dissolved CO2	N	1160	mg/l	0.60			8.9	< 0.60
Alkalinity (Total)	U	1220	mg/l	10	370	340	28	28
Chloride	U	1220	mg/l	1.0	210	120	86	82
Ammonium	U	1220	mg/l	0.050	0.28	0.31	0.13	0.053
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.23	0.25	0.10	< 0.050
Nitrite	U	1220	mg/l	0.020	0.26	0.15	< 0.020	< 0.020
Nitrate	U	1220	mg/l	0.50	15	21	98	98
Phosphate	U	1220	mg/l	0.200	< 0.20	0.26	< 0.20	< 0.20
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.039	0.085	0.021	0.039
Sulphate	U	1220	mg/l	1.0	74	75	60	58
Total Oxidised Nitrogen	U	1220	mg/l	0.20	3.4	4.8	22	22
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	140	140	60	62
Potassium	U	1455	mg/l	0.50	9.1	8.3	11	11
Magnesium	U	1455	mg/l	0.20	15	12	13	13
Sodium	U	1455	mg/l	1.50	79	52	30	30
Arsenic (Dissolved)	U	1455	µg/l	0.20	0.86	0.75	0.32	0.44
Boron (Dissolved)	U	1455	µg/l	10.0	880	70	75	100
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11	< 0.11	0.50	0.46
Chromium (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	< 0.50	0.51
Copper (Dissolved)	U	1455	µg/l	0.50	1.0	0.51	1.1	1.0
Iron (Dissolved)	N	1455	µg/l	5.0	34	32	< 5.0	< 5.0
Manganese (Dissolved)	U	1455	µg/l	0.50	340	200	60	75
Nickel (Dissolved)	U	1455	µg/l	0.50	0.83	0.69	17	15
Lead (Dissolved)	U	1455	µg/l	0.50	< 0.50	< 0.50	0.66	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5	13	7.4	8.2	6.7
Mercury Low Level	U	1460	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	< 0.10	< 0.10	< 0.10	U/S
Chromium (Trivalent) LL	U	1450	µg/l	1	< 1	< 1	< 1	U/S
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A	8.9	7.1	3.2	3.2
Total TPH >C6-C40	U	1670	µg/l	10	< 10	< 10	< 10	< 10
Naphthalene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Acenaphthylene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Acenaphthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Fluorene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Phenanthrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			Chemtest Job No.:		21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888			Chemtest Sample ID.:		1322898	1322899	1322900	1322903
			Sample Location:		G8	DUP A	BP1028	BP28
			Sample Type:		WATER	WATER	WATER	WATER
			Top Depth (m):		0.00	0.00	18.00	18.00
			Date Sampled:		16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Fluoranthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Pyrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Benzo[a]anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Chrysene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010	< 0.010	< 0.010	< 0.010	[C] < 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20	< 0.20	< 0.20	< 0.20	[C] < 0.20
Dichlorodifluoromethane	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Chloromethane	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Vinyl Chloride	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Bromomethane	N	1760	µg/l	2.0	< 2.0	[C] < 2.0	< 2.0	< 2.0
Chloroethane	N	1760	µg/l	0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20
Trichlorofluoromethane	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,1-Dichloroethene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Trans 1,2-Dichloroethene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,1-Dichloroethane	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
cis 1,2-Dichloroethene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Bromochloromethane	N	1760	µg/l	0.50	< 0.50	[C] < 0.50	< 0.50	< 0.50
Trichloromethane	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	0.10	< 0.10
1,1,1-Trichloroethane	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Tetrachloromethane	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,1-Dichloropropene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Benzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,2-Dichloroethane	N	1760	µg/l	0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20
Trichloroethene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,2-Dichloropropane	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Dibromomethane	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Bromodichloromethane	N	1760	µg/l	0.50	< 0.50	[C] < 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	N	1760	µg/l	1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0
Toluene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Trans-1,3-Dichloropropene	N	1760	µg/l	1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	N	1760	µg/l	0.1	< 0.1	[C] < 0.1	< 0.1	< 0.1
Tetrachloroethene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,3-Dichloropropane	N	1760	µg/l	0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20
Dibromochloromethane	N	1760	µg/l	1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0
1,2-Dibromoethane	N	1760	µg/l	0.50	< 0.50	[C] < 0.50	< 0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			Chemtest Job No.:		21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888			Chemtest Sample ID.:		1322898	1322899	1322900	1322903
			Sample Location:		G8	DUP A	BP1028	BP28
			Sample Type:		WATER	WATER	WATER	WATER
			Top Depth (m):		0.00	0.00	18.00	18.00
			Date Sampled:		16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Chlorobenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,1,1,2-Tetrachloroethane	N	1760	µg/l	0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20
Ethylbenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
m & p-Xylene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
o-Xylene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Styrene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Tribromomethane	N	1760	µg/l	1.0	< 1.0	[C] < 1.0	< 1.0	< 1.0
Isopropylbenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Bromobenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,2,3-Trichloropropane	N	1760	µg/l	5	< 5	[C] < 5	< 5	< 5
N-Propylbenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
2-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,3,5-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
4-Chlorotoluene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Tert-Butylbenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,2,4-Trimethylbenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Sec-Butylbenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,3-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
4-Isopropyltoluene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,4-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
N-Butylbenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,2-Dichlorobenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,2-Dibromo-3-Chloropropane	N	1760	µg/l	5	< 5	[C] < 5	< 5	< 5
1,2,4-Trichlorobenzene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
Hexachlorobutadiene	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	N	1760	µg/l	0.20	< 0.20	[C] < 0.20	< 0.20	< 0.20
Methyl Tert-Butyl Ether	N	1760	µg/l	0.10	< 0.10	[C] < 0.10	< 0.10	< 0.10
N-Nitrosodimethylamine	N	1790	µg/l	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
2-Chlorophenol	N	1790	µg/l	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
1,3-Dichlorobenzene	N	1790	µg/l	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
1,2-Dichlorobenzene	N	1790	µg/l	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
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	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
N-Nitrosodi-n-propylamine	N	1790	µg/l	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
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1322898	1322899	1322900	1322903
			Sample Location:		G8	DUP A	BP1028	BP28
			Sample Type:		WATER	WATER	WATER	WATER
			Top Depth (m):		0.00	0.00	18.00	18.00
			Date Sampled:		16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Isophorone	N	1790	µg/l	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
2,4-Dimethylphenol	N	1790	µg/l	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
2,4-Dichlorophenol	N	1790	µg/l	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
Naphthalene	N	1790	µg/l	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
Hexachlorobutadiene	N	1790	µg/l	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
2-Methylnaphthalene	N	1790	µg/l	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
2,4,6-Trichlorophenol	N	1790	µg/l	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
2-Chloronaphthalene	N	1790	µg/l	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
Acenaphthylene	N	1790	µg/l	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
2,6-Dinitrotoluene	N	1790	µg/l	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
3-Nitroaniline	N	1790	µg/l	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
4-Chlorophenylphenylether	N	1790	µg/l	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
Fluorene	N	1790	µg/l	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
4-Nitroaniline	N	1790	µg/l	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
Azobenzene	N	1790	µg/l	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
Hexachlorobenzene	N	1790	µg/l	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
Phenanthrene	N	1790	µg/l	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
Carbazole	N	1790	µg/l	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
Fluoranthene	N	1790	µg/l	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
Butylbenzyl Phthalate	N	1790	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd		**Chemtest Job No.:**			21-40629	21-40629	21-40629	21-40629
Quotation No.: Q20-21888		**Chemtest Sample ID.:**			1322898	1322899	1322900	1322903
				Sample Location:	G8	DUP A	BP1028	BP28
				Sample Type:	WATER	WATER	WATER	WATER
				Top Depth (m):	0.00	0.00	18.00	18.00
				Date Sampled:	16-Nov-2021	16-Nov-2021	16-Nov-2021	16-Nov-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Chrysene	N	1790	µg/l	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
Di-N-Octyl Phthalate	N	1790	µg/l	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
Benzo[k]fluoranthene	N	1790	µg/l	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
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	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
Benzo[g,h,i]perylene	N	1790	µg/l	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
PCB 28	N	1815	µg/l	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
PCB 52	N	1815	µg/l	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
PCB 105	N	1815	µg/l	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
PCB 114	N	1815	µg/l	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
PCB 118	N	1815	µg/l	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
PCB 123	N	1815	µg/l	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
PCB 126	N	1815	µg/l	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
PCB 156	N	1815	µg/l	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
PCB 167	N	1815	µg/l	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
PCB 189	N	1815	µg/l	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
Total PCBs (7 congeners)	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030	< 0.030	[C] < 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:
1322899			DUP A	16-Nov-2021	C	Coloured Winchester 1000ml
1322899			DUP A	16-Nov-2021	C	Plastic Bottle 1000ml
1322903			BP28	16-Nov-2021	C	EPA Vial 40ml
1322903			BP28	16-Nov-2021	C	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.
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"
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.:	22-23813-1
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
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
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

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

UKAS TESTING 2183

Final Report

Report No.:	22-24515-1
Initial Date of Issue:	07-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:	6
Turnaround (Wkdays):	5
Date Approved:	07-Jul-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	30-Jun-2022
Date Instructed:	30-Jun-2022
Results Due:	06-Jul-2022

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd			**Chemtest Job No.:**		22-24515	22-24515	22-24515	22-24515	22-24515	22-24515
Quotation No.: Q21-25865			**Chemtest Sample ID.:**		1458384	1458385	1458386	1458387	1458388	1458389
			Sample Location:		P12	C4S	C4D	CW6a	PZ16	GW18
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER
			Top Depth (m):		1.5	5.5	22	0.0	12.26	
			Date Sampled:		28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
pH	U	1010		N/A	9.0	9.4	8.8	8.9	8.9	9.3
Electrical Conductivity	U	1020	µS/cm	1.0	1100	290	1100	980	1100	230
Suspended Solids At 105C	U	1030	mg/l	5.0	820	100	29	190	16	33
Alkalinity (Total)	U	1220	mg/l	10	190	24	170	190	170	34
Chloride	U	1220	mg/l	1.0	67	46	240	110	190	37
Ammonium	U	1220	mg/l	0.050	1.0	0.56	1.3	0.54	0.70	0.40
Ammoniacal Nitrogen	U	1220	mg/l	0.050	1.2	1.0	1.4	0.61	0.76	0.62
Nitrite	U	1220	mg/l	0.020	0.34	0.34	0.32	0.75	0.23	0.20
Nitrate	U	1220	mg/l	0.50	1.1	6.0	2.2	5.8	0.69	9.7
Phosphate	U	1220	mg/l	0.200	0.31	< 0.20	< 0.20	< 0.20	< 0.20	0.27
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.10	< 0.020	< 0.020	< 0.020	< 0.020	0.088
Sulphate	U	1220	mg/l	1.0	26	42	61	110	13	3.7
Total Oxidised Nitrogen	U	1220	mg/l	0.20	0.36	1.5	0.59	1.5	0.23	2.3
Cyanide (Free) Low-Level	N	1300	mg/l	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Calcium	U	1455	mg/l	2.00	33	4.6	150	140	130	8.2
Potassium	U	1455	mg/l	0.50	2.2	3.0	11	7.1	4.9	1.8
Magnesium	U	1455	mg/l	0.20	2.7	6.1	11	12	11	2.8
Sodium	U	1455	mg/l	1.50	24	25	39	55	70	9.9
Arsenic (Dissolved)	U	1455	µg/l	0.20	3.8	2.1	2.5	2.8	1.9	2.0
Boron (Dissolved)	U	1455	µg/l	10.0	210	190	48	40	43	20
Cadmium (Dissolved)	U	1455	µg/l	0.11	0.56	0.42	0.62	0.56	0.44	0.67
Chromium (Dissolved)	U	1455	µg/l	0.50	8.5	6.0	9.1	10	7.3	17
Copper (Dissolved)	U	1455	µg/l	0.50	1.4	0.61	1.8	2.1	0.71	1.9
Iron (Dissolved)	N	1455	µg/l	5.0	990	28	30	36	35	29
Manganese (Dissolved)	U	1455	µg/l	0.50	340	34	150	6.0	180	77
Nickel (Dissolved)	U	1455	µg/l	0.50	5.0	3.5	5.3	4.7	3.0	8.4
Lead (Dissolved)	U	1455	µg/l	0.50	1.0	0.74	0.92	0.95	0.94	0.97
Zinc (Dissolved)	U	1455	µg/l	2.5	10	15	15	9.6	16	19
Mercury Low Level	U	1460	µg/l	0.010	< 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
Chromium (Trivalent) LL	U	1450	µg/l	1	8	6	9	6	7	12
Total Organic Carbon	U	1610	mg/l	2.0	17	< 2.0	< 2.0	4.4	4.2	< 2.0
Aliphatic TPH >C5-C6	N	1675	µg/l	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
Aliphatic TPH >C8-C10	N	1675	µg/l	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
Aliphatic TPH >C12-C16	N	1675	µg/l	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
Aliphatic TPH >C21-C35	N	1675	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	22-24515	22-24515	22-24515	22-24515	22-24515	22-24515
Quotation No.: Q21-25865					Chemtest Sample ID.:	1458384	1458385	1458386	1458387	1458388	1458389
					Sample Location:	P12	C4S	C4D	CW6a	PZ16	GW18
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	1.5	5.5	22	0.0	12.26	
					Date Sampled:	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Total Aliphatic Hydrocarbons	N	1675	µg/l	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
Aromatic TPH >C7-C8	N	1675	µg/l	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
Aromatic TPH >C10-C12	N	1675	µg/l	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
Aromatic TPH >C16-C21	N	1675	µg/l	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
Aromatic TPH >C35-C44	N	1675	µg/l	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
Total Petroleum Hydrocarbons	N	1675	µg/l	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
Chloromethane	N	1760	µg/l	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
Bromomethane	N	1760	µg/l	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
Trichlorofluoromethane	N	1760	µg/l	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
Trans 1,2-Dichloroethene	N	1760	µg/l	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
cis 1,2-Dichloroethene	N	1760	µg/l	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
Trichloromethane	N	1760	µg/l	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
Tetrachloromethane	N	1760	µg/l	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
Benzene	N	1760	µg/l	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
Trichloroethene	N	1760	µg/l	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
Dibromomethane	N	1760	µg/l	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
cis-1,3-Dichloropropene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	N	1760	µg/l	0.10		5.6	< 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
1,1,2-Trichloroethane	N	1760	µg/l	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
1,3-Dichloropropane	N	1760	µg/l	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
1,2-Dibromoethane	N	1760	µg/l	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.:**	22-24515	22-24515	22-24515	22-24515	22-24515	22-24515
Quotation No.: Q21-25865					**Chemtest Sample ID.:**	1458384	1458385	1458386	1458387	1458388	1458389
					Sample Location:	P12	C4S	C4D	CW6a	PZ16	GW18
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	1.5	5.5	22	0.0	12.26	
					Date Sampled:	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Chlorobenzene	N	1760	µg/l	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
Ethylbenzene	N	1760	µg/l	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
o-Xylene	N	1760	µg/l	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
Tribromomethane	N	1760	µg/l	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
Bromobenzene	N	1760	µg/l	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
N-Propylbenzene	N	1760	µg/l	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
1,3,5-Trimethylbenzene	N	1760	µg/l	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
Tert-Butylbenzene	N	1760	µg/l	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
Sec-Butylbenzene	N	1760	µg/l	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
4-Isopropyltoluene	N	1760	µg/l	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
N-Butylbenzene	N	1760	µg/l	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
1,2-Dibromo-3-Chloropropane	N	1760	µg/l	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
Hexachlorobutadiene	N	1760	µg/l	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
Methyl Tert-Butyl Ether	N	1760	µg/l	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
Phenol	N	1790	µg/l	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
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	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
1,4-Dichlorobenzene	N	1790	µg/l	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
2-Methylphenol (o-Cresol)	N	1790	µg/l	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
Hexachloroethane	N	1790	µg/l	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
4-Methylphenol	N	1790	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	22-24515	22-24515	22-24515	22-24515	22-24515	22-24515
Quotation No.: Q21-25865					**Chemtest Sample ID.:**	1458384	1458385	1458386	1458387	1458388	1458389
					Sample Location:	P12	C4S	C4D	CW6a	PZ16	GW18
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	1.5	5.5	22	0.0	12.26	
					Date Sampled:	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Isophorone	N	1790	µg/l	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
2,4-Dimethylphenol	N	1790	µg/l	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
2,4-Dichlorophenol	N	1790	µg/l	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
Naphthalene	N	1790	µg/l	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
Hexachlorobutadiene	N	1790	µg/l	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
2-Methylnaphthalene	N	1790	µg/l	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
2,4,6-Trichlorophenol	N	1790	µg/l	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
2-Chloronaphthalene	N	1790	µg/l	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
Acenaphthylene	N	1790	µg/l	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
2,6-Dinitrotoluene	N	1790	µg/l	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
3-Nitroaniline	N	1790	µg/l	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
4-Chlorophenylphenylether	N	1790	µg/l	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
Fluorene	N	1790	µg/l	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
4-Nitroaniline	N	1790	µg/l	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
Azobenzene	N	1790	µg/l	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
Hexachlorobenzene	N	1790	µg/l	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
Phenanthrene	N	1790	µg/l	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
Carbazole	N	1790	µg/l	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
Fluoranthene	N	1790	µg/l	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
Butylbenzyl Phthalate	N	1790	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					Chemtest Job No.:	22-24515	22-24515	22-24515	22-24515	22-24515	22-24515
Quotation No.: Q21-25865					Chemtest Sample ID.:	1458384	1458385	1458386	1458387	1458388	1458389
					Sample Location:	P12	C4S	C4D	CW6a	PZ16	GW18
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	1.5	5.5	22	0.0	12.26	
					Date Sampled:	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Chrysene	N	1790	µg/l	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
Di-N-Octyl Phthalate	N	1790	µg/l	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
Benzo[k]fluoranthene	N	1790	µg/l	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
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
Dibenz(a,h)Anthracene	N	1790	µg/l	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
4-Nitrophenol	N	1790	µg/l	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
Acenaphthylene	N	1800	µg/l	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
Fluorene	N	1800	µg/l	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
Anthracene	N	1800	µg/l	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
Pyrene	N	1800	µg/l	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
Chrysene	N	1800	µg/l	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
Benzo[k]fluoranthene	N	1800	µg/l	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
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
Dibenz(a,h)Anthracene	N	1800	µg/l	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
Total Of 16 PAH's	N	1800	µg/l	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
PCB 81	N	1815	µg/l	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
PCB 77	N	1815	µg/l	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
PCB 90+101	N	1815	µg/l	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
PCB 118	N	1815	µg/l	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
PCB 153	N	1815	µg/l	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
PCB 138	N	1815	µg/l	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

Results - Water

Project: 5185703 Sizewell C

Client: Atkins Ltd					**Chemtest Job No.:**	22-24515	22-24515	22-24515	22-24515	22-24515	22-24515
Quotation No.: Q21-25865					**Chemtest Sample ID.:**	1458384	1458385	1458386	1458387	1458388	1458389
					Sample Location:	P12	C4S	C4D	CW6a	PZ16	GW18
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Top Depth (m):	1.5	5.5	22	0.0	12.26	
					Date Sampled:	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022	28-Jun-2022
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
PCB 180	N	1815	µg/l	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
PCB 157	N	1815	µg/l	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
PCB 169	N	1815	µg/l	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
Total PCBs (12 Congeners)	N	1815	µg/l	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
Total Phenols	U	1920	mg/l	0.030		< 0.030	< 0.030	< 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.
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

Results - Water

Project: 5185703

Client: Atkins Ltd			**Chemtest Job No.:**		20-30618
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
			Sample Type:		WATER
			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
pH	U	1010		N/A	8.2
Electrical Conductivity	U	1020	µS/cm	1.0	360
Suspended Solids At 105C	U	1030	mg/l	5.0	28
Alkalinity (Total)	U	1220	mg/l	10	78
Chloride	U	1220	mg/l	1.0	53
Ammonium	U	1220	mg/l	0.050	0.20
Ammoniacal Nitrogen	U	1220	mg/l	0.050	0.17
Nitrite	U	1220	mg/l	0.020	< 0.020
Nitrate	U	1220	mg/l	0.50	< 0.50
Phosphate	U	1220	mg/l	0.200	0.35
Phosphorus (Dissolved)	U	1220	mg/l	0.020	0.11
Sulphate	U	1220	mg/l	1.0	36
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	1415	mg/l	5.0	37
Potassium	U	1415	mg/l	0.50	1.7
Magnesium	U	1415	mg/l	0.50	1.3
Sodium	U	1415	mg/l	0.50	23
Arsenic (Dissolved)	U	1450	µg/l	1.0	1.8
Boron (Dissolved)	U	1450	µg/l	20	< 20
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080
Chromium (Dissolved)	U	1450	µg/l	1.0	< 1.0
Copper (Dissolved)	U	1450	µg/l	1.0	< 1.0
Iron (Dissolved)	N	1450	µg/l	20	170
Manganese (Dissolved)	U	1450	µg/l	1.0	160
Nickel (Dissolved)	U	1450	µg/l	1.0	< 1.0
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0
Zinc (Dissolved)	U	1450	µg/l	1.0	2.4
Mercury Low Level	U	1460	µg/l	0.010	< 0.010
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	< 0.10
Chromium (Trivalent)	U	1450	µg/l	1	< 1
Dissolved Organic Carbon Low Level	N	1610	mg/l	N/A	3.3
Total TPH >C6-C40	U	1670	µg/l	10	< 10
Naphthalene	N	1700	µg/l	0.010	< 0.010
Acenaphthylene	N	1700	µg/l	0.010	< 0.010
Acenaphthene	N	1700	µg/l	0.010	< 0.010
Fluorene	N	1700	µg/l	0.010	< 0.010
Phenanthrene	N	1700	µg/l	0.010	< 0.010
Anthracene	N	1700	µg/l	0.010	< 0.010

Results - Water

Project: 5185703

Client: Atkins Ltd			**Chemtest Job No.:**		20-30618
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
			Sample Type:		WATER
			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Fluoranthene	N	1700	µg/l	0.010	< 0.010
Pyrene	N	1700	µg/l	0.010	< 0.010
Benzo[a]anthracene	N	1700	µg/l	0.010	< 0.010
Chrysene	N	1700	µg/l	0.010	< 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010	< 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010	< 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010	< 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20	< 0.20
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

Results - Water

Project: 5185703

Client: Atkins Ltd			**Chemtest Job No.:**		20-30618
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
			Sample Type:		WATER
			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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	5.0	< 5.0
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	5.0	< 5.0
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

Results - Water

Project: 5185703

Client: Atkins Ltd			**Chemtest Job No.:**		20-30618
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
			Sample Type:		WATER
			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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

Results - Water

Project: 5185703

Client: Atkins Ltd			**Chemtest Job No.:**		20-30618
Quotation No.: Q20-21888			**Chemtest Sample ID.:**		1095141
			Sample Location:		C3D
			Sample Type:		WATER
			Top Depth (m):		16.00
			Bottom Depth (m):		16.00
			Date Sampled:		10-Nov-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
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
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
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
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.
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

Appendix D. Upstream surface water quality data

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)	Chromium (Trivalent)	Chromium (Hexavalent)	Cyanide (Free) Low-Level	Calcium	Potassium	Magnesium
			-	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	µg/l	µg/l	mg/l	mg/l	mg/l	mg/l
G3	WATER	11/11/2014	8	740	< 1.0	19	39	260	55		1.1		21			61					< 0.005	120	7.9	7.4
G3	WATER	09/06/2015	8.2	870	< 1.0	20	16	430	59	0.22	0.28	0.19	2.3	0.069	0.023	97	0.59				< 0.005	180	8.7	12
G3	WATER	15/07/2015	7.4	880	13	27	36	430	58	0.44	0.56	0.024	< 0.50	0.62	0.21	91	< 0.20				< 0.0050	130	8.1	12
G4	WATER	11/11/2014	7.9	890	2	18	37	280	62		0.59		42			75					< 0.005	140	6.5	8.1
G4	WATER	09/06/2015	8.1	990	< 1.0	25	29	360	94	0.48	0.62	1	56	0.47	0.16	100	13				< 0.005	150	8.2	10
G4	WATER	15/07/2015	7.9	970	< 1.0	9.9	< 5.0	450	88	0.28	0.36	0.56	47	0.77	0.26	100	11				< 0.0050	130	9.8	10
G5	WATER	11/11/2014	8	920	< 1.0	13	110	250	84		0.6		53			78					< 0.005	140	7.8	7.9
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				< 0.005	160	12	11
G6a	WATER	10/11/2014	8.1	650	3	41	7	250	66		0.91		17			55					< 0.005	120	6.9	7
G6A	WATER	17/06/2015	8.6	940	< 1.0	11	< 5.0	260	96	0.078	0.1	0.14	34	0.45	0.15	96	7.7				< 0.005	130	7.7	11
G6A	WATER	22/07/2015	7.9	950	3.4	8.7	28	360	92	0.44	0.57	0.29	47	0.52	0.17	100	11				< 0.0050	120	7.3	10
G7a	WATER	13/11/2014	7.9	760	4	24	38	220	91		0.31		7.2			53					< 0.005	99	7.8	8.6
G7A	WATER	17/06/2015	8.5	1200	< 1.0	13	34	290	240	0.28	0.36	0.1	3.2	0.27	0.09	64	0.75				< 0.005	150	4.6	14
G7a	WATER	23/07/2015	8.4	1100	16	88	27	400	220	0.65	0.83	< 0.020	< 0.50	0.26	0.087	54	< 0.20				< 0.0050	120	3.8	12
SW10	WATER	22/07/2015	7.8	940	< 1.0	12	410	330	130	0.074	0.095	0.3	22	0.43	0.14	78	5				0.006	130	7.5	10
SW2	WATER	10/06/2015	8.1	990	1.8	9	< 5.0	210	95		0.34		44			100					< 0.005	170	9.8	14
SW2	WATER	23/07/2015	8.5	990	5	12	14	400	130	0.23	0.3	0.16	44	0.58	0.19	90	9.9				< 0.0050	110	6.6	9.3
SW3	WATER	17/06/2015	8.6	930	< 1.0	10	9	310	98	0.061	0.078	0.13	33	0.46	0.15	98	7.5				< 0.005	130	7.8	11
SW4	WATER	09/06/2015	8.3	840	< 1.0	12	17	420	56	0.1	0.13	< 0.020	< 0.50	0.05	< 0.020	80	< 0.20				< 0.005	160	6.3	13
SW4	WATER	15/07/2015	7.9	830	< 1.0	9.8	< 5.0	470	50	0.44	0.57	0.06	< 0.50	0.078	0.026	66	< 0.20				< 0.0050	140	6.4	13
G3	WATER	18/07/2018	7.7	960			< 5.0	330	77	0.19	0.25	0.54	15	< 0.20		110	3.6		< 20	< 20	< 0.0050	150	8.7	12
G3A	WATER	18/07/2018	7.7	970			< 5.0	340	77	0.2	0.26	0.56	14	< 0.20		110	3.4		< 20	< 20	< 0.0050	180	10	14
G4	WATER	18/07/2018	7.8	1100			< 5.0	360	120	0.11	0.14	0.2	38	0.44		110	8.6		< 20	< 20	< 0.0050	200	10	13
G6A	WATER	19/07/2018	7.7	1100			5	350	120	0.16	0.2	0.15	34	0.33		99	7.7		< 20	< 20	< 0.0050	180	11	14
G5	WATER	17/07/2018	7.7	1200			< 5.0	350	150	0.16	0.2	0.58	51	0.31		110	12		< 20	< 20	< 0.0050	130	10	9.2
G5A	WATER	17/07/2018	7.7	1200			< 5.0	350	150	0.15	0.19	0.58	50	0.31		110	12		< 20	< 20	< 0.0050	150	10	10
G7A	WATER	24/07/2018	8.3	1100			50	310	190	0.086	0.11	0.15	5.8	0.26		79	1.4		< 20	< 20	< 0.0050	140	5.6	11
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	1		< 0.0050	150	12	12
G6a	WATER	11/06/2019	8	100			11	360	140	0.37	0.47	0.2	53	0.51	0.17	98	12	< 0.10	2		< 0.0050	150	12	11
G7a	WATER	13/06/2019	8.6	460			24	440	160	0.35	0.45	0.34	7.1	0.23	0.077	78	1.7	< 0.10	1		< 0.0050	160	8.7	14
G4	WATER	13/06/2019	8.5	860			13	400	64	0.26	0.34	0.16	0.68	< 0.20	0.06	93	0.2	< 0.10	< 1		< 0.0050	170	11	14
G5	WATER	12/11/2020	8.4	1200			23	310	150	0.42	0.48	0.32	54	1.6		99	12	< 0.10	2		< 0.0050	170	16	11
G3	WATER	12/11/2020	7.5	970			96	570	64	0.1	0.13	0.2	5.5	0.3		98	1.3	[B] 0.99	3		< 0.0050	150	11	12
G4	WATER	12/11/2020	7.8	1200			8	510	140	0.093	0.12	0.18	44	1.5		100	9.9	[B] 0.78	3		< 0.0050	180	17	13
G6A	WATER	20/11/2020	7.4	970			1400	340	110	0.76	0.97	0.37	2	0.32		63	0.57	< 0.10	3		< 0.0050	86	11	10
G6a	WATER	12/05/2021	8.3	880			770	290	86	0.29	0.33	0.74	8.4	< 0.20		67	2.1	< 0.10	15		< 0.0050	110	6.1	9.9
G7A	WATER	11/05/2021	8.4	910			< 5.0	110	120	0.39	0.44	0.073	5.1	< 0.20		54	1.2	< 0.10	45		< 0.0050	120	6.4	12
G3	WATER	18/05/2021	8.1	880			43	370	58	0.16	0.19	0.13	3.2	< 0.20		93	0.77	4.6	44		< 0.0050	150	7.6	12
G4	WATER	18/05/2021	8.2	1100			39	220	120	0.12	0.15	0.19	54	0.68		86	12	5.3	35		< 0.0050	130	11	9.9
G5	WATER	19/05/2021	8	940			130	540	73	0.65	0.79	0.86	31	0.49		81	7.2	2.2	11		< 0.0050	130	7.1	9
G7a	WATER	17/11/2021	8.3	1300			11	400	130	0.54	0.63	0.22	14	< 0.20		74	3.2	3.8			< 0.0050	130	8	12
G6a	WATER	16/11/2021	7.6	1100			36	360	120	0.26	0.33	0.15	21	0.26		74	4.8	< 0.10			< 0.0050	140	8	11
G3	WATER	18/11/2021	7.5	870			10	430	59	0.31	0.39	0.37	11	0.6		97	2.5	< 0.10			< 0.0050	150	7.7	12
G4	WATER	18/11/2021	7.5	1100			14	390	85	0.13	0.17	0.15	43	0.31		92	9.7	< 0.10			< 0.0050	150	9	10
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			< 0.0050	150	8.1	10
G3	WATER	14/06/2022	7.2	160			25	230	97	51	64	0.37	5.9	1.2		110	1.5			< 20	< 0.0050	140	9.1	12
G4	WATER	14/06/2022	7.9	150			13	160	110	67	82	0.15	23	1.3		110	5.2			< 20	< 0.0050	150	8.9	12
G5	WATER	16/06/2022	9.2	770			30	730	180	0.51	0.36	1.1	66	1.2		130	15			[B] < 20	< 0.0050	150	17	13
G7A	WATER	22/06/2022	8.1	950			16	460	150	0.23	0.27	0.2	7.1	< 0.20		90	1.7			< 20	< 0.0050	140	9.5	12
G6a	WATER	28/06/2022	8.9	980			190	190	110	0.61	0.54	0.75	5.8	< 0.20		110	1.5			< 20	< 0.0050	140	7.1	12
Summary	Max		9.2	1300	16	88	1400	730	240	67	82	1.1	72	1.6	0.26	130	16	5.3	45	0	0.006	200	17	14
Summary	Min		7.2	100	1.8	8.7	5	110	50	0.061	0.078	0.024	0.68	0.05	0.023	53	0.2	1.1	1	0	0.006	86	3.8	7
Summary	Average		8.04	920	6.025	19.72	97	353	108	2.96	3.29	0.34	28.4	0.54	0.14	89.2	6.4445	3.4	13.75	#DIV/0!	0.006	143.1	8.92	11.2
Summary	Count of detection		50	50	8	20	40	50	50	44	50	42	46	34	17	50	40	5	12	0	1	50	50	50
Summary	Count of tests		50	50	20	20	50	50	50	50	50	50	50	50	24	50	50	18	21	13	50	50	50	50
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	45	20	0.006	200	17	14
Summary	Min (values below LOD treated as LOD)		7.2	100	1	8.7	5	110	50	0.061	0.078	0.02	0.5	0.05	0.02	53	0.2	0.1	1	20	0.005	86	3.8	7
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	15.3	20	0.00502	143.1	8.922	11.206

Client Sample ID.:	Sample Type:	Date Sampled:	Sodium	Arsenic (Dissolved)	Boron (Dissolved)	Cadmium (Dissolved)	Chromium (Dissolved)	Copper (Dissolved)	Manganese (Dissolved)	Nickel (Dissolved)	Lead (Dissolved)	Zinc (Dissolved)	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)
			mg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	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
G3	WATER	11/11/2014	29	< 1.0	< 20	< 0.080	< 1.0	2.1		1.3	< 1.0	12	< 0.010	30											
G3	WATER	09/06/2015	29	1.5	200	< 0.080	2	< 1.0		1.1	< 1.0	7.8	< 0.010	440											
G3	WATER	15/07/2015	30	1.7	440	< 0.080	4.3	< 1.0		1.1	< 1.0	6.1	< 0.010	20											
G4	WATER	11/11/2014	34	1.2	38	< 0.080	< 1.0	1.9		1.2	< 1.0	14	< 0.010	30											
G4	WATER	09/06/2015	54	1.3	320	< 0.080	2.6	2.2		2.1	< 1.0	15	< 0.010	430											
G4	WATER	15/07/2015	55	1.6	42	< 0.080	4.5	1.7		3.9	< 1.0	8.9	< 0.010	< 20											
G5	WATER	11/11/2014	43	< 1.0	20	< 0.080	< 1.0	2.2		1.6	< 1.0	17	< 0.010	30											
G5	WATER	09/06/2015	79	1.3	230	0.087	3.1	3.1		5.1	< 1.0	18	< 0.010	430											
G6a	WATER	10/11/2014	31	< 1.0	< 20	0.2	< 1.0	2.3		2.1	< 1.0	14	< 0.010	200											
G6A	WATER	17/06/2015	54	2.9	48	< 0.080	16	2.1		1.7	< 1.0	13	< 0.010	< 20											
G6A	WATER	22/07/2015	46	1.5	36	< 0.080	8.6	1.9		< 1.0	< 1.0	8.8	0.19	< 20											
G7a	WATER	13/11/2014	40	5.4	690	< 0.080	68	3.9		1.4	< 1.0	6.9	< 0.010	150											
G7A	WATER	17/06/2015	70	3.5	44	< 0.080	13	< 1.0		1	< 1.0	8.5	< 0.010	< 20											
G7a	WATER	23/07/2015	56	3.2	23	< 0.080	3.7	< 1.0		< 1.0	< 1.0	5.3	< 0.010	80											
SW10	WATER	22/07/2015	49	2.3	26	< 0.080	6.8	1.2		< 1.0	< 1.0	6	0.011	< 20											
SW2	WATER	10/06/2015	67	1.8	50	0.088	10	2.2		1.3	< 1.0	14	< 0.010	530											
SW2	WATER	23/07/2015	48	1.1	< 20	< 0.080	2.3	1.6		< 1.0	< 1.0	9.9	< 0.010	< 20											
SW3	WATER	17/06/2015	55	2.2	50	< 0.080	10	1.9		1.8	< 1.0	14	< 0.010	< 20											
SW4	WATER	09/06/2015	37	1.3	250	< 0.080	3.2	< 1.0		< 1.0	< 1.0	5.3	< 0.010	420											
SW4	WATER	15/07/2015	27	1.5	< 20	< 0.080	3.3	< 1.0		< 1.0	< 1.0	4.2	< 0.010	< 20											
G3	WATER	18/07/2018	47	1.6	30	< 0.080	1.5	< 1.0	21	< 1.0	< 1.0	1.8	< 0.010	390	0.026	1.6	31	< 0.080	1.6	< 1.0	400	22	< 1.0	< 1.0
G3A	WATER	18/07/2018	53	1.4	28	< 0.080	1.4	< 1.0	33	< 1.0	< 1.0	1.4	< 0.010	350	0.028	1.5	28	< 0.080	1.5	< 1.0	360	35	< 1.0	< 1.0
G4	WATER	18/07/2018	76	2.2	43	< 0.080	2.6	2.2	12	1.2	< 1.0	6.9	< 0.010	450	0.14	2.2	45	< 0.080	2.8	1.9	450	12	1.2	< 1.0
G6A	WATER	19/07/2018	81	2.6	34	< 0.080	2.1	3.1	7.4	< 1.0	< 1.0	2.9	< 0.010	410	0.11	2.1	36	< 0.080	2.4	2.7	390	7.6	1	< 1.0
G5	WATER	17/07/2018	68	2	41	< 0.080	2.1	< 1.0	< 1.0	1.2	< 1.0	3.8	< 0.010	400	0.1	1.9	42	< 0.080	2.2	< 1.0	420	< 1.0	1.2	< 1.0
G5A	WATER	17/07/2018	70	1.8	38	< 0.080	2	< 1.0	< 1.0	1.1	< 1.0	3.8	< 0.010	380	0.1	1.8	38	< 0.080	2	< 1.0	390	< 1.0	1.2	< 1.0
G7A	WATER	24/07/2018	57	3.9	55	< 0.080	8.6	4.2	57	< 1.0	< 1.0	3.4	< 0.010	550	0.085	4.4	59	< 0.080	11	3.3	560	60	< 1.0	< 1.0
G5	WATER	11/06/2019	68	1.8	54	< 0.080	1.4	< 1.0	640	1.7	< 1.0	17	< 0.010	310											
G6a	WATER	11/06/2019	69	1.6	54	< 0.080	2.1	< 1.0	96	1.6	< 1.0	14	< 0.010	260											
G7a	WATER	13/06/2019	68	2.2	63	< 0.080	1.3	< 1.0	150	< 1.0	< 1.0	7.8	< 0.010	360											
G4	WATER	13/06/2019	40	1.6	64	< 0.080	< 1.0	< 1.0	2900	1	< 1.0	9.8	< 0.010	390											
G5	WATER	12/11/2020	98	1.3	29	< 0.080	2.5	1.4	110	< 1.0	< 1.0	5.8	< 0.010	440	0.52										
G3	WATER	12/11/2020	35	1	< 20	< 0.080	3.6	< 1.0	8.4	< 1.0	< 1.0	3.6	< 0.010	650	0.098										
G4	WATER	12/11/2020	93	1.7	28	< 0.080	3.8	1.4	68	1.4	< 1.0	7.5	< 0.010	650	0.49										
G6A	WATER	20/11/2020	44	2	26	< 0.080	3.1	1.1	32	3.1	< 1.0	25	< 0.010	450	0.1										
G6a	WATER	12/05/2021	45	1.3	800	< 0.11	15	1.2	120	6.1	< 0.50	4.4	< 0.010	190	0.026										
G7A	WATER	11/05/2021	48	1.4	39	< 0.11	45	2.5	40	15	< 0.50	26	< 0.010	190	0.031										
G3	WATER	18/05/2021	32	0.68	30	< 0.11	49	1.4	18	21	< 0.50	< 3.0	< 0.010	220	0.025										
G4	WATER	18/05/2021	64	1.1	40	< 0.11	40	2.5	61	18	< 0.50	3.5	< 0.010	230	0.22										
G5	WATER	19/05/2021	48	0.69	32	< 0.11	13	1.9	11	7	< 0.50	19	< 0.010	140	0.16										
G7a	WATER	17/11/2021	55	0.86	35	< 0.11	7.8	1.8	120	< 0.50	< 0.50	< 2.5	< 0.010	33	0.039										
G6a	WATER	16/11/2021	51	0.76	820	< 0.11	< 0.50	0.71	190	0.73	< 0.50	9	< 0.010	26	0.085										
G3	WATER	18/11/2021	33	0.61	750	< 0.11	< 0.50	< 0.50	370	< 0.50	< 0.50	3.3	< 0.010	7.5	0.2										
G4	WATER	18/11/2021	55	0.66	710	< 0.11	< 0.50	0.75	180	0.87	< 0.50	4.7	< 0.010	24	0.1										
G5	WATER	18/11/2021	54	0.82	490	< 0.11	< 0.50	0.99	230	1	< 0.50	5.3	< 0.010	27	0.055										
G3	WATER	14/06/2022	52	0.74	160	< 0.11	1.1	< 0.50	12	< 0.50	< 0.50	3.6	< 0.010	< 5.0	0.39										
G4	WATER	14/06/2022	59	1.2	180	< 0.11	< 0.50	< 0.50	51	< 0.50	< 0.50	5.9	< 0.010	< 5.0	0.42										
G5	WATER	16/06/2022	97	1.9	66	< 0.11	0.75	3	11	0.83	< 0.50	13	< 0.010	16	0.39										
G7A	WATER	22/06/2022	59	1.8	520	0.37	< 0.50	2.2	22	0.57	< 0.50	4.9	0.29	6.2	0.052										
G6a	WATER	28/06/2022	55	2.8	40	0.56	10	2.1	6	4.7	0.95	9.6	< 0.010	36	< 0.020										
Summary	Max		98	5.4	820	0.56	68	4.2	2900	21	0.95	26	0.29	650	0.52	4.4	59	0	11	3.3	560	60	1.2	0
Summary	Min		27	0.61	20	0.087	0.75	0.71	6	0.57	0.95	1.4	0.011	6.2	0.025	1.5	28	0	1.5	1.9	360	7.6	1	0
Summary	Average		54.1	1.7302128	173	0.261	9.7730769	2.02	199	3.48	0.95	9.0708333	0.1636667	259	0.16	2.2142857	39.857143	#DIV/0!	3.3571429	2.6333333	424.28571	27.32	1.15	#DIV/0!
Summary	Count of detection		50	47	45	5	39	32	28	33	1	48	3	40	25	7	7	0	7	3	7	5	4	0
Summary	Count of tests		50	50	50	50	50	50	50	50	50	50	50	50	26	7	7	7	7	7	7	7	7	7
Summary	Max (values below LOD treated as LOD)		98	5.4	820	0.56	68	4.2	2900	21	1	26	0.29	650	0.52	4.4	59	0.08	11	3.3	560	60	1.2	1
Summary	Min (values below LOD treated as LOD)		27	0.61	20	0.08	0.5	0.5	1	0.5	0.5	1.4	0.01	5	0.02	1.5	28	0.08	1.5	1	360	1	1	1
Summary	Average (values below LOD treated as LOD)		54.14	1.6864	158.12	0.1059	7.783	1.625	185.96	2.596	0.859	8.818	0.01922	210.914	0.1542308	2.2142857	39.857143	0.08	3.3571429	1.7	424.28571	19.8	1.0857143	1

Client Sample ID.:	Sample Type:	Date Sampled:	Zinc (Total)	Dissolved Organic Carbon	Total Organic Carbon	Dissolved Organic Carbon Low Level	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	Benzo[g,h,i]perylene	Total Of 16 PAH's
			µg/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	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G3	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	< 0.010	< 0.010	< 0.20
G3	WATER	09/06/2015			8.9		< 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	< 0.010	< 0.010	< 0.20
G3	WATER	15/07/2015			11		< 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	< 0.010	< 0.010	< 0.20
G4	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	< 0.010	< 0.010	< 0.20
G4	WATER	09/06/2015			6		< 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	< 0.010	< 0.010	< 0.20
G4	WATER	15/07/2015			2.2		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	< 0.010	< 0.010	< 0.20
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	< 0.010	< 0.010	< 0.20
G5	WATER	09/06/2015			9.6		< 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	< 0.010	< 0.010	< 0.20
G6a	WATER	10/11/2014					< 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	< 0.010	< 0.010	< 0.20
G6A	WATER	17/06/2015			4.1		< 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	< 0.010	< 0.010	< 0.20
G6A	WATER	22/07/2015			5		< 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	< 0.010	< 0.010	< 0.20
G7a	WATER	13/11/2014					< 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	< 0.010	< 0.010	< 0.20
G7A	WATER	17/06/2015			6		< 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	< 0.010	< 0.010	< 0.20
G7a	WATER	23/07/2015			5.8		< 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	< 0.010	< 0.010	< 0.20
SW10	WATER	22/07/2015			5.5		< 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	< 0.010	< 0.010	< 0.20
SW2	WATER	10/06/2015			2.6		< 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	< 0.010	< 0.010	< 0.20
SW2	WATER	23/07/2015			5.5		< 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	< 0.010	< 0.010	< 0.20
SW3	WATER	17/06/2015			6.1		< 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	< 0.010	< 0.010	< 0.20
SW4	WATER	09/06/2015			9.2		< 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	< 0.010	< 0.010	< 0.20
SW4	WATER	15/07/2015			4		27	< 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	< 0.010	< 0.20
G3	WATER	18/07/2018	2.2	7.6	9.7		< 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	< 0.10	< 0.10	< 2.0
G3A	WATER	18/07/2018	1.7	7.1	7.4		< 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	< 0.10	< 0.10	< 2.0
G4	WATER	18/07/2018	7.1	9.7	11		< 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	< 0.10	< 0.10	< 2.0
G6A	WATER	19/07/2018	3	8.1	8.8		< 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	< 0.10	< 0.10	< 2.0
G5	WATER	17/07/2018	3.7	10	10		< 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	< 0.10	< 0.10	< 2.0
G5A	WATER	17/07/2018	4.1	11	12		< 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	< 0.10	< 0.10	< 2.0
G7A	WATER	24/07/2018	3.3	6.5	8		< 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	< 0.10	< 0.10	< 2.0
G5	WATER	11/06/2019			11	10	< 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	< 0.010	< 0.010	< 0.20
G6a	WATER	11/06/2019			12	10	< 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	< 0.010	< 0.010	< 0.20
G7a	WATER	13/06/2019			13	10	< 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	< 0.010	< 0.010	< 0.20
G4	WATER	13/06/2019			7	6.6	< 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	< 0.010	< 0.010	< 0.20
G5	WATER	12/11/2020				11	< 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	< 0.010	< 0.010	< 0.20
G3	WATER	12/11/2020				6.7	< 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	< 0.010	< 0.010	< 0.20
G4	WATER	12/11/2020				10	42	< 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	< 0.010	< 0.20
G6A	WATER	20/11/2020				92	< 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	< 0.010	< 0.010	< 0.20
G6a	WATER	12/05/2021				11	< 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	< 0.010	< 0.010	< 0.20
G7A	WATER	11/05/2021				9.2	< 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	< 0.010	< 0.010	< 0.20
G3	WATER	18/05/2021				4.7	< 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	< 0.010	< 0.010	< 0.20
G4	WATER	18/05/2021				6.2	< 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	< 0.010	< 0.010	< 0.20
G5	WATER	19/05/2021				5.9	< 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	< 0.010	< 0.010	< 0.20
G7a	WATER	17/11/2021				8	< 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	< 0.010	< 0.010	< 0.20
G6a	WATER	16/11/2021				7	< 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	< 0.010	< 0.010	< 0.20
G3	WATER	18/11/2021				4.1	71	< 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	< 0.010	< 0.20
G4	WATER	18/11/2021				4.5	190	< 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	< 0.010	< 0.20
G5	WATER	18/11/2021				4.7	< 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	< 0.010	< 0.010	< 0.20
G3	WATER	14/06/2022			4.5			< 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	< 0.50	< 0.20
G4	WATER	14/06/2022			5.6			< 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	< 0.50	< 0.20
G5	WATER	16/06/2022			7.7			< 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	< 0.50	< 0.20
G7A	WATER	22/06/2022			5.3			< 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	< 0.50	< 0.20
G6a	WATER	28/06/2022			4.4			< 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	< 0.50	< 0.20
Summary	Max		7.1	11	13	92	190	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Min		1.7	6.5	2.2	4.1	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Average		3.5857143	8.5714286	7.38	12.3	68	#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!	#DIV/0!
Summary	Count of detection		7	7	31	18	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary	Count of tests		7	27	36	18	45	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Summary	Max (values below LOD treated as LOD)		7.1	11	13	92	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	0.5	2
Summary	Min (values below LOD treated as LOD)		1.7	6.5	2.2	4.1	10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.2
Summary	Average (values below LOD treated as LOD)		3.5857143	8.5714286	7.383871	12.311111	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	0.0716	0.452

Client Sample ID.:	Sample Type:	Date Sampled:	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	1,1-Dichloropropene	Benzene	1,2-Dichloroethane	Trichloroethene	1,2-Dichloropropane	Dibromomethane	Bromodichloromethane	cis-1,3-Dichloropropene
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G3	WATER	11/11/2014	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G3	WATER	09/06/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G3	WATER	15/07/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G4	WATER	11/11/2014	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G4	WATER	09/06/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G4	WATER	15/07/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G5	WATER	11/11/2014	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G5	WATER	09/06/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G6a	WATER	10/11/2014	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G6A	WATER	17/06/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G6A	WATER	22/07/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G7a	WATER	13/11/2014	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G7A	WATER	17/06/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G7a	WATER	23/07/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
SW10	WATER	22/07/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
SW2	WATER	10/06/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
SW2	WATER	23/07/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
SW3	WATER	17/06/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
SW4	WATER	09/06/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
SW4	WATER	15/07/2015	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G3	WATER	18/07/2018	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G3A	WATER	18/07/2018	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G4	WATER	18/07/2018	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G6A	WATER	19/07/2018	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G5	WATER	17/07/2018	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G5A	WATER	17/07/2018	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G7A	WATER	24/07/2018	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G5	WATER	11/06/2019	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G6a	WATER	11/06/2019	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G7a	WATER	13/06/2019	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G4	WATER	13/06/2019	< 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	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 10	< 5.0	< 10
G5	WATER	12/11/2020	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G3	WATER	12/11/2020	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G4	WATER	12/11/2020	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G6A	WATER	20/11/2020	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G6a	WATER	12/05/2021	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G7A	WATER	11/05/2021	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G3	WATER	18/05/2021	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G4	WATER	18/05/2021	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G5	WATER	19/05/2021	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G7a	WATER	17/11/2021	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G6a	WATER	16/11/2021	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G3	WATER	18/11/2021	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G4	WATER	18/11/2021	< 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	< 0.10	< 0.10	< 0.20	0.59	< 0.10	< 0.10	< 0.50	< 1.0
G5	WATER	18/11/2021	< 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	< 0.10	< 0.10	< 0.20	0.77	< 0.10	< 0.10	< 0.50	< 1.0
G3	WATER	14/06/2022	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G4	WATER	14/06/2022	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G5	WATER	16/06/2022	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G7A	WATER	22/06/2022	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
G6a	WATER	28/06/2022	< 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	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 1.0
Summary	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.77	0	0	0	0
Summary	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.59	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!	#DIV/0!	0.68	#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	0	2	0	0	0	0
Summary	Count of tests		50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Summary	Max (values below LOD treated as LOD)		1	1	1	5	2	1	1	1	1	1	5	1	1	1	1	1	2	1	1	10	5	10
Summary	Min (values below LOD treated as LOD)		0.1	0.1	0.1	2	0.2	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.5	1
Summary	Average (values below LOD treated as LOD)		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	0.658	0.658	1.316	0.6812	0.658	6.238	3.29	6.58

Client Sample ID.:	Sample Type:	Date Sampled:	Toluene	Trans-1,3-Dichloropropene	1,1,2-Trichloroethane	Tetrachloroethene	1,3-Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Chlorobenzene	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
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G3	WATER	11/11/2014	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G3	WATER	09/06/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G3	WATER	15/07/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G4	WATER	11/11/2014	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G4	WATER	09/06/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G4	WATER	15/07/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G5	WATER	11/11/2014	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G5	WATER	09/06/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G6a	WATER	10/11/2014	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G6A	WATER	17/06/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G6A	WATER	22/07/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G7a	WATER	13/11/2014	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G7A	WATER	17/06/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G7a	WATER	23/07/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
SW10	WATER	22/07/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
SW2	WATER	10/06/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
SW2	WATER	23/07/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
SW3	WATER	17/06/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
SW4	WATER	09/06/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
SW4	WATER	15/07/2015	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G3	WATER	18/07/2018	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G3A	WATER	18/07/2018	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G4	WATER	18/07/2018	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G6A	WATER	19/07/2018	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G5	WATER	17/07/2018	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G5A	WATER	17/07/2018	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G7A	WATER	24/07/2018	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G5	WATER	11/06/2019	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G6a	WATER	11/06/2019	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G7a	WATER	13/06/2019	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G4	WATER	13/06/2019	< 1.0	< 10	< 10	< 1.0	< 2.0	< 10	< 5.0	< 1.0	< 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
G5	WATER	12/11/2020	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G3	WATER	12/11/2020	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G4	WATER	12/11/2020	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G6A	WATER	20/11/2020	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G6a	WATER	12/05/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G7A	WATER	11/05/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G3	WATER	18/05/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G4	WATER	18/05/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G5	WATER	19/05/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G7a	WATER	17/11/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G6a	WATER	16/11/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G3	WATER	18/11/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G4	WATER	18/11/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G5	WATER	18/11/2021	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G3	WATER	14/06/2022	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G4	WATER	14/06/2022	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G5	WATER	16/06/2022	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G7A	WATER	22/06/2022	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
G6a	WATER	28/06/2022	< 0.10	< 1.0	< 0.1	< 0.10	< 0.20	< 1.0	< 0.50	< 0.10	< 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
Summary	Max		0	0	0	0	0	0	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	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!	#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	0	0	0	0	0	0
Summary	Count of tests		50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Summary	Max (values below LOD treated as LOD)		1	10	10	1	2	10	5	1	2	1	1	1	1	1	1	1	50	1	1	1	1	1
Summary	Min (values below LOD treated as LOD)		0.1	1	0.1	0.1	0.2	1	0.5	0.1	0.2	0.1	0.1	0.1	0.1	1	0.1	0.1	5	0.1	0.1	0.1	0.1	0.1
Summary	Average (values below LOD treated as LOD)		0.658	6.58	6.238	0.658	1.316	6.58	3.29	0.658	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

Client Sample ID.:	Sample Type:	Date Sampled:	1,2,4-Trimethylbenzene	Sec-Butylbenzene	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	PCB 180	Total PCBs (7 congeners)	Total Phenols	PCB 81
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	µg/l
G3	WATER	11/11/2014	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G3	WATER	09/06/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G3	WATER	15/07/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G4	WATER	11/11/2014	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G4	WATER	09/06/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G4	WATER	15/07/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G5	WATER	11/11/2014	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G5	WATER	09/06/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G6a	WATER	10/11/2014	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G6A	WATER	17/06/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G6A	WATER	22/07/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G7a	WATER	13/11/2014	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G7A	WATER	17/06/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G7a	WATER	23/07/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
SW10	WATER	22/07/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
SW2	WATER	10/06/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
SW2	WATER	23/07/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
SW3	WATER	17/06/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
SW4	WATER	09/06/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
SW4	WATER	15/07/2015	< 1.0	< 1.0	< 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	< 0.010	< 0.010	< 0.030	
G3	WATER	18/07/2018	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G3A	WATER	18/07/2018	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G4	WATER	18/07/2018	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G6A	WATER	19/07/2018	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G5	WATER	17/07/2018	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G5A	WATER	17/07/2018	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G7A	WATER	24/07/2018	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G5	WATER	11/06/2019	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G6a	WATER	11/06/2019	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G7a	WATER	13/06/2019	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G4	WATER	13/06/2019	< 1.0	< 1.0	< 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	< 0.010	< 0.030	< 0.010
G5	WATER	12/11/2020	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G3	WATER	12/11/2020	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G4	WATER	12/11/2020	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G6A	WATER	20/11/2020	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G6a	WATER	12/05/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G7A	WATER	11/05/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G3	WATER	18/05/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G4	WATER	18/05/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G5	WATER	19/05/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G7a	WATER	17/11/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G6a	WATER	16/11/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G3	WATER	18/11/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G4	WATER	18/11/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G5	WATER	18/11/2021	< 0.10	< 0.10	< 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	< 0.010	< 0.010	< 0.030	< 0.010
G3	WATER	14/06/2022	< 0.10	< 0.10	< 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				< 0.010
G4	WATER	14/06/2022	< 0.10	< 0.10	< 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				< 0.010
G5	WATER	16/06/2022	< 0.10	< 0.10	< 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				< 0.010
G7A	WATER	22/06/2022	< 0.10	< 0.10	< 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				< 0.010
G6a	WATER	28/06/2022	< 0.10	< 0.10	< 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				< 0.010
Summary	Max		0	0	0	0	0	0	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	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!	#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	0	0	0	0	0	0
Summary	Count of tests		50	50	50	50	50	50	50	50	50	50	50	50	50	50	20	50	50	50	45	45	45	30
Summary	Max (values below LOD treated as LOD)		1	1	1	1	1	1	1	50	1	1	2	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.01
Summary	Min (values below LOD treated as LOD)		0.1	0.1	0.1	0.1	0.1	0.1	0.1	5	0.1	0.1	0.2	0.1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.01
Summary	Average (values below LOD treated as LOD)		0.658	0.658	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	0.01	0.01	0.03	0.01

Client Sample ID.:	Sample Type:	Date Sampled:	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)	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
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G3	WATER	11/11/2014																						
G3	WATER	09/06/2015																						
G3	WATER	15/07/2015																						
G4	WATER	11/11/2014																						
G4	WATER	09/06/2015																						
G4	WATER	15/07/2015																						
G5	WATER	11/11/2014																						
G5	WATER	09/06/2015																						
G6a	WATER	10/11/2014																						
G6A	WATER	17/06/2015																						
G6A	WATER	22/07/2015																						
G7a	WATER	13/11/2014																						
G7A	WATER	17/06/2015																						
G7a	WATER	23/07/2015																						
SW10	WATER	22/07/2015																						
SW2	WATER	10/06/2015																						
SW2	WATER	23/07/2015																						
SW3	WATER	17/06/2015																						
SW4	WATER	09/06/2015																						
SW4	WATER	15/07/2015																						
G3	WATER	18/07/2018	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010										
G3A	WATER	18/07/2018	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010										
G4	WATER	18/07/2018	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010										
G6A	WATER	19/07/2018	< 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	< 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	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010										
G7A	WATER	24/07/2018	< 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	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	11/06/2019	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7a	WATER	13/06/2019	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	13/06/2019	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	12/11/2020	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	WATER	12/11/2020	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	12/11/2020	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6A	WATER	20/11/2020	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	12/05/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7A	WATER	11/05/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	WATER	18/05/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	18/05/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	19/05/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7a	WATER	17/11/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	16/11/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	WATER	18/11/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	18/11/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G5	WATER	18/11/2021	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	WATER	14/06/2022	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010								< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	14/06/2022	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010								< 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	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010								< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7A	WATER	22/06/2022	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010								< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	28/06/2022	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010								< 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	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	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!	#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	0	0	0	0	0	0
Summary	Count of tests		30	30	30	30	30	25	25	25	25	25	25	25	23	23	23	23	23	23	23	23	23	23
Summary	Max (values below LOD treated as LOD)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Summary	Min (values below LOD treated as LOD)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	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)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Client Sample ID.:	Sample Type:	Date Sampled:	Isophorone	2-Nitrophenol	2,4-Dimethylphenol	Bis(2-Chloroethoxy)Methane	2,4-Dichlorophenol	4-Chloroaniline	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	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
G3	WATER	11/11/2014																						
G3	WATER	09/06/2015																						
G3	WATER	15/07/2015																						
G4	WATER	11/11/2014																						
G4	WATER	09/06/2015																						
G4	WATER	15/07/2015																						
G5	WATER	11/11/2014																						
G5	WATER	09/06/2015																						
G6a	WATER	10/11/2014																						
G6A	WATER	17/06/2015																						
G6A	WATER	22/07/2015																						
G7a	WATER	13/11/2014																						
G7A	WATER	17/06/2015																						
G7a	WATER	23/07/2015																						
SW10	WATER	22/07/2015																						
SW2	WATER	10/06/2015																						
SW2	WATER	23/07/2015																						
SW3	WATER	17/06/2015																						
SW4	WATER	09/06/2015																						
SW4	WATER	15/07/2015																						
G3	WATER	18/07/2018																						
G3A	WATER	18/07/2018																						
G4	WATER	18/07/2018																						
G6A	WATER	19/07/2018																						
G5	WATER	17/07/2018																						
G5A	WATER	17/07/2018																						
G7A	WATER	24/07/2018																						
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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7a	WATER	13/06/2019	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	13/06/2019	< 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	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6A	WATER	20/11/2020	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	12/05/2021	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7A	WATER	11/05/2021	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	WATER	18/05/2021	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	18/05/2021	< 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	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7a	WATER	17/11/2021	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	16/11/2021	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	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	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	WATER	14/06/2022	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	14/06/2022	< 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	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7A	WATER	22/06/2022	< 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	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	28/06/2022	< 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	< 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	0	0	0	0	0	0
Summary	Min		0	0	0	0	0	0	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!	#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	0	0	0	0	0	0
Summary	Count of tests		23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
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	0.5	0.5	0.5	0.5	0.5	0.5
Summary	Min (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	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	0.5	0.5	0.5	0.5	0.5	0.5

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
G3	WATER	11/11/2014										
G3	WATER	09/06/2015										
G3	WATER	15/07/2015										
G4	WATER	11/11/2014										
G4	WATER	09/06/2015										
G4	WATER	15/07/2015										
G5	WATER	11/11/2014										
G5	WATER	09/06/2015										
G6a	WATER	10/11/2014										
G6A	WATER	17/06/2015										
G6A	WATER	22/07/2015										
G7a	WATER	13/11/2014										
G7A	WATER	17/06/2015										
G7a	WATER	23/07/2015										
SW10	WATER	22/07/2015										
SW2	WATER	10/06/2015										
SW2	WATER	23/07/2015										
SW3	WATER	17/06/2015										
SW4	WATER	09/06/2015										
SW4	WATER	15/07/2015										
G3	WATER	18/07/2018										
G3A	WATER	18/07/2018										
G4	WATER	18/07/2018										
G6A	WATER	19/07/2018										
G5	WATER	17/07/2018										
G5A	WATER	17/07/2018										
G7A	WATER	24/07/2018										
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
G6a	WATER	11/06/2019	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7a	WATER	13/06/2019	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	13/06/2019	< 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
G3	WATER	12/11/2020	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	12/11/2020	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6A	WATER	20/11/2020	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	12/05/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G7A	WATER	11/05/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	WATER	18/05/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	18/05/2021	< 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
G7a	WATER	17/11/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	16/11/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	WATER	18/11/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	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	18/11/2021	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G3	WATER	14/06/2022	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G4	WATER	14/06/2022	< 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
G7A	WATER	22/06/2022	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
G6a	WATER	28/06/2022	< 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		23	23	23	23	23	23	23	23	23	23
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	Min (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 E. H1 Surface water screening tests

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

CaCO (mg/l):	353.00	pH	8.04
Calcium (mg/l):	144.00	DOC (mg/l)	12.30

RFR: Watercourse Q95 flow m^3/s	EFR: Effluent flow rate (maximum) m^3/s	EFR: Effluent flow rate (mean) m^3/s
0.0258	0.10000	0.00603

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?
Chloride	mg/l	1	250	N/A	16	26	2100	351	16	16	yes	yes
Ammonium	mg/l NH4	0.05	0.6	N/A	16	<0.05	1.3	0.2748	16	14	yes	yes
Ammoniacal Nitrogen	mg/l N	0.05	0.47	N/A	16	<0.05	1.4	0.2829	16	12	yes	yes
Nitrite	mg/l	0.02	0.01	N/A	16	<0.02	0.34	0.0696	16	6	yes	NO
Phosphorus (Dissolved)	mg/l	0.02	0.008	N/A	16	<0.02	0.11	0.0533	16	10	yes	NO
Cadmium (Dissolved)	mg/l	0.00008	0.00025	0.0015	16	<0.00008	0.00084	0.0003	16	7	yes	yes
Manganese (Dissolved)	mg/l	0.001	0.123	N/A	16	<0.001	14	1.1830	16	15	yes	yes
Nickel (Dissolved)	mg/l	0.001	0.0086	0.034	16	<0.0005	0.031	0.0074	16	12	yes	yes
Lead (Dissolved)	mg/l	0.001	0.0012	0.014	16	<0.0005	0.0019	0.0008	16	5	yes	yes
Chromium (Hexavalent)	mg/l	0.02	0.0034	N/A	16	<0.02	<0.02	0.0200	5	0	NO	NO
Fluoranthene	mg/l	0.00001	0.0000063	0.0012	16	<0.00001	<0.00001	0.00001	16	0	NO	NO
Benzo[a]pyrene	mg/l	0.00001	0.00000017	0.0027	16	<0.00001	<0.00001	0.00001	16	0	NO	NO
Hexachlorobenzene	mg/l	0.0005	0.00005	0.00005	16	<0.0005	<0.0005	0.0005	16	0	NO	NO
Pentachlorophenol	mg/l	0.0005	0.0004	0.001	16	<0.0005	<0.0005	0.0005	16	0	NO	NO
Anthracene	mg/l	0.0005	0.0001	0.0001	16	<0.0005	<0.0005	0.0005	16	0	NO	NO
Sulphate	mg/l	1	400	N/A	16	25	95	41.6250	16	16	yes	yes
Copper (Dissolved)	mg/l	0.001	0.013	N/A	16	<0.0005	0.0097	0.0018	16	11	yes	yes
Iron (Dissolved)	mg/l	0.02	1	N/A	16	<0.005	1.3	0.2055	16	12	yes	yes
Zinc (Dissolved)	mg/l	0.001	0.033	N/A	16	0.0024	0.035	0.0099	16	12	yes	yes
Arsenic (Dissolved)	mg/l	0.001	0.05	N/A	16	<0.0002	0.0027	0.0013	16	12	yes	yes
pH		N/A	6-9	6-9	16	5.9	9.4	8.0438	16	16	yes	yes
Electrical Conductivity	µS/cm	1.0	No EQS	N/A	16	200	3300	1090.6250	16	16	yes	yes
Suspended Solids At 105C	mg/l	5.0	No EQS	N/A	16	9	100	42.8125	16	16	yes	yes
Alkalinity (Total)	mg/l	10	No EQS	N/A	16	<10	220	68.6250	16	13	yes	yes
Nitrate	mg/l	0.50	N/A	N/A	16	<0.5	26	5.2375	16	9	yes	yes
Phosphate	mg/l	0.200	No EQS	N/A	16	<0.2	0.35	0.2388	16	7	yes	yes
Total Oxidised Nitrogen	mg/l	0.20	No EQS	N/A	16	<0.2	5.9	1.2350	16	9	yes	yes
Calcium	mg/l	5.0	N/A	N/A	16	4.6	680	100.1813	16	16	yes	yes
Potassium	mg/l	0.50	N/A	N/A	16	1.7	17	6.4000	16	16	yes	yes
Magnesium	mg/l	0.50	N/A	N/A	16	1.3	91	18.1625	16	16	yes	yes
Sodium	mg/l	0.50	N/A	N/A	16	21	430	82.7500	16	16	yes	yes
Boron (Dissolved)	mg/l	0.02	No EQS	N/A	16	<0.01	0.92	0.2433	16	13	yes	yes
Chromium (Dissolved)	mg/l	0.001	See Cr VI as first pass	N/A	16	<0.0005	0.073	0.0101	16	9	yes	yes
Low-Level Chromium (Hexavalent)	mg/l	0.0001	No EQS	N/A	16	<0.0001	0.0053	0.0011	11	4	yes	yes
Chromium (Trivalent)	mg/l	0.001	No EQS	N/A	16	<0.001	0.068	0.0126	12	9	yes	yes
Dissolved Organic Carbon Low Level	mg/l	N/A	No EQS	N/A	16	0.72	9.7	2.8964	11	11	yes	yes
Aggressive Dissolved CO2	mg/l	0.60	No EQS	N/A	16	<0.6	14	4.7500	4	3	yes	yes
Naphthalene	mg/l	0.00001	0.002		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Anthracene	mg/l	0.00001	0.0001		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Trichloromethane	mg/l	0.0001	0.0025		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,1,1-Trichloroethane	mg/l	0.0001	0.1		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Tetrachloromethane	mg/l	0.0001	0.012		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Benzene	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,2-Dichloroethane	mg/l	0.0002	0.01		16	<0.0002	<0.0002	0.0002	16	0	NO	yes
Trichloroethene	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Toluene	mg/l	0.0001	0.074		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,1,2-Trichloroethane	mg/l	0.0001	0.4		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Tetrachloroethene	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Ethylbenzene	mg/l	0.0001	0.02		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
m & p-Xylene	mg/l	0.0001	0.03		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
o-Xylene	mg/l	0.0001	0.03		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Styrene	mg/l	0.0001	0.05		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,4-Dichlorobenzene	mg/l	0.0001	0.02		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,2-Dichlorobenzene	mg/l	0.0001	0.02		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Phenol	mg/l	0.0005	0.0077		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
2-Chlorophenol	mg/l	0.0005	0.05		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
1,4-Dichlorobenzene	mg/l	0.0005	0.02		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
1,2-Dichlorobenzene	mg/l	0.0005	0.02		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
4-Chloro-3-Methylphenol	mg/l	0.0005	0.04		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Dimethylphthalate	mg/l	0.0005	0.8		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Aliphatic TPH >C5-C6	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aliphatic TPH >C6-C8	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aliphatic TPH >C8-C10	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aliphatic TPH >C10-C12	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aliphatic TPH >C12-C16	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aliphatic TPH >C16-C21	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aliphatic TPH >C21-C35	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aliphatic TPH >C35-C44	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aromatic TPH >C5-C7	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aromatic TPH >C7-C8	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aromatic TPH >C8-C10	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aromatic TPH >C10-C12	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aromatic TPH >C12-C16	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aromatic TPH >C16-C21	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aromatic TPH >C21-C35	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Aromatic TPH >C35-C44	mg/l	0.0001	0.01		16	<0.0001	<0.0001	0.0001	5	0	NO	yes
Hexachlorobutadiene	mg/l	0.0001	0.0006		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
2,4-Dichlorophenol	mg/l	0.0005	0.0042		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Naphthalene	mg/l	0.0005	0.002		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Cyanide (Free) Low-Level	mg/l	0.0050	No EQS		16	<0.005	<0.005	0.0050	16	0	NO	yes
Mercury Low Level	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Total TPH >C6-C40	mg/l	0.01	No EQS		16	<0.01	<0.01	0.0100	11	0	NO	yes
Acenaphthylene	mg/l	0.00001	Screen BaP only		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Acenaphthene	mg/l	0.00001	Screen BaP only		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Fluorene	mg/l	0.00001	N/A		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Phenanthrene	mg/l	0.00001	Screen BaP only		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Pyrene	mg/l	0.00001	N/A		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Benzo[a]anthracene	mg/l	0.00001	Screen BaP only		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Chrysene	mg/l	0.00001	Screen BaP only		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Benzo fluoranthene	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Benzo[k]fluoranthene	mg/l	0.00001	Screen BaP only		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Indeno(1,2,3-c,d)Pyrene	mg/l	0.00001	Screen BaP only		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Dibenz(a,h)Anthracene	mg/l	0.00001	N/A		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Benzo[g,h,i]perylene	mg/l	0.00001	Screen BaP only		16	<0.00001	<0.00001	0.0000	16	0	NO	yes
Total Of 16 PAH's	mg/l	0.0002	No EQS		16	<0.0002	<0.0002	0.0002	16	0	NO	yes
Dichlorodifluoromethane	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Chloromethane	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Vinyl Chloride	mg/l	0.0001	N/A		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Bromomethane	mg/l	0.002	No EQS		16	<0.002	<0.002	0.0020	16	0	NO	yes
Chloroethane	mg/l	0.0002	No EQS		16	<0.0002	<0.0002	0.0002	16	0	NO	yes
Trichlorofluoromethane	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,1-Dichloroethene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Trans 1,2-Dichloroethene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,1-Dichloroethane	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
cis 1,2-Dichloroethene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Bromochloromethane	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
1,1-Dichloropropene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,2-Dichloropropane	mg/l	0.0001	N/A		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Dibromomethane	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Bromodichloromethane	mg/l	0.0005	N/A		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
cis-1,3-Dichloropropene	mg/l	0.001	No EQS		16	<0.001	<0.001	0.0010	16	0	NO	yes
Trans-1,3-Dichloropropene	mg/l	0.001	No EQS		16	<0.001	<0.001	0.0010	16	0	NO	yes
1,3-Dichloropropane	mg/l	0.0002	No EQS		16	<0.0002	<0.0002	0.0002	16	0	NO	yes
Dibromochloromethane	mg/l	0.001	N/A		16	<0.001	<0.001	0.0010	16	0	NO	yes
1,2-Dibromoethane	mg/l	0.0005	N/A		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Chlorobenzene	mg/l	0.0001	N/A		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,1,1,2-Tetrachloroethane	mg/l	0.0002	No EQS		16	<0.0002	<0.0002	0.0002	16	0	NO	yes
Tribromomethane	mg/l	0.001	No EQS		16	<0.001	<0.001	0.0010	16	0	NO	yes
Isopropylbenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Bromobenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,2,3-Trichloropropane	mg/l	0.005	No EQS		16	<0.005	<0.005	0.0050	16	0	NO	yes
N-Propylbenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
2-Chlorotoluene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,3,5-Trimethylbenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
4-Chlorotoluene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Tert-Butylbenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,2,4-Trimethylbenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
Sec-Butylbenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,3-Dichlorobenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
4-Isopropyltoluene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
N-Butylbenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,2-Dibromo-3-Chloropropane	mg/l	0.005	N/A		16	<0.005	<0.005	0.0050	16	0	NO	yes
1,2,4-Trichlorobenzene	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
1,2,3-Trichlorobenzene	mg/l	0.0002	No EQS		16	<0.0002	<0.0002	0.0002	16	0	NO	yes
Methyl Tert-Butyl Ether	mg/l	0.0001	No EQS		16	<0.0001	<0.0001	0.0001	16	0	NO	yes
N-Nitrosodimethylamine	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Bis-(2-Chloroethyl)Ether	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
1,3-Dichlorobenzene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
2-Methylphenol (o-Cresol)	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Bis(2-Chloroisopropyl)Ether	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Hexachloroethane	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
N-Nitrosodi-n-propylamine	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
4-Methylphenol	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Nitrobenzene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Isophorone	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
2-Nitrophenol	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
2,4-Dimethylphenol	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Bis(2-Chloroethoxy)Methane	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
1,2,4-Trichlorobenzene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
4-Chloroaniline	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
2-Methylnaphthalene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes
Hexachlorocyclopentadiene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes

Constituents	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 Concentraion (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 Concentraion (PEC) (max) (mg/l)	Test 3 failed? (MAC)	AA test failed? (AA PEC above AA EQS)	MAC test failed? (MAC-PEC above MAC-EQS)
Chloride	25	yes	n/a	n/a	66.5	10	yes	n/a	n/a	n/a	154	108	Yes	240	n/a	n/a	NO	n/a
Ammonium	0.0600	yes	n/a	n/a	0.05205	0.024	yes	n/a	n/a	n/a	2.72	3.29	no	82.00	n/a	n/a	Yes	n/a
Ammoniacal Nitrogen	0.0467	yes	n/a	n/a	0.0536	0.01867	yes	n/a	n/a	n/a	2.453	2.96	no	67.00	n/a	n/a	Yes	n/a
Nitrite	0.0010	yes	n/a	n/a	0.01318	0.0004	yes	n/a	n/a	n/a	0.28	0.33	no	1.10	n/a	n/a	Yes	n/a
Phosphorus (Dissolved)	0.0008	yes	n/a	n/a	0.01009	0.00032	yes	n/a	n/a	n/a	0.14	0.1542	no	0.5200	n/a	n/a	Yes	n/a
Cadmium (Dissolved)	3E-05	yes	0.00015	yes	5.2E-05	0.00001	yes	0.00067	0.00006	yes	0.00014	0.000106	Yes	0.000560	0.00069	NO	NO	NO
Manganese (Dissolved)	0.0123	yes	n/a	n/a	0.22411	0.00492	yes	n/a	n/a	n/a	0.37	0.19	Yes	2.90	n/a	n/a	Yes	n/a
Nickel (Dissolved)	0.0009	yes	0.0034	yes	0.00141	0.00034	yes	0.02464	0.00136	yes	0.00	0.00260	Yes	0.02100	0.025	yes	NO	NO
Lead (Dissolved)	0.0001	yes	0.0014	yes	0.00015	4.8E-05	yes	0.00151	0.00056	yes	0.0008	0.000859	no	0.001000	0.002	NO	NO	NO
Chromium (Hexavalent)	0.0003	yes	n/a	n/a	0.00379	0.00014	yes	n/a	n/a	n/a	0.0047	0.00113	Yes	0.02000	n/a	n/a	Yes	n/a
Fluoranthene	0.000001	yes	0.00012	yes	1.9E-06	2.5E-07	yes	0.0000079	0.000048	NO	0.0001	0.0000716	no	0.0005000	0.00002	NO	Yes	NO
Benzo[a]pyrene	0.000000	yes	0.00027	yes	1.9E-06	6.8E-09	yes	0.0000079	0.000108	NO	0.0001	0.0000716	no	0.0005000	0.00002	NO	Yes	NO
Hexachlorobenzene	0.00001	yes	5E-06	yes	9.5E-05	2E-06	yes	0.0003975	0.000002	yes	0.0005	0.00050	no	0.00050	0.00050	NO	Yes	yes
Pentachlorophenol	0.00004	yes	0.0001	yes	9.5E-05	1.6E-05	yes	0.0003975	0.00004	yes	0.0005	0.00050	no	0.00050	0.00050	NO	Yes	NO
Anthracene	0.00001	yes	0.00001	yes	9.5E-05	4E-06	yes	0.0003975	0.000004	yes	0.0002	0.000072	Yes	0.000500	0.00041	NO	Yes	yes
Sulphate	40	yes	n/a	n/a	7.8856	16	NO	n/a	n/a	n/a	7.9579	0.089180	no	0.130000	n/a	n/a	NO	NO
Copper (Dissolved)	0.0013	yes	n/a	n/a	0.00035	0.00052	NO	n/a	n/a	n/a	0.0017	0.001625	no	0.004200	n/a	n/a	NO	NO
Iron (Dissolved)	0.1000	yes	n/a	n/a	0.03893	0.04	NO	n/a	n/a	n/a	0.2099	0.210914	no	0.650000	n/a	n/a	NO	NO
Zinc (Dissolved)	0.0033	yes	n/a	n/a	0.00187	0.00132	yes	n/a	n/a	n/a	0.0090	0.008818	no	0.026000	n/a	n/a	NO	NO
Arsenic (Dissolved)	0.0050	No	n/a	n/a														
pH	n/a	N/A	n/a	n/a														
Electrical Conductivity	n/a	N/A	n/a	n/a														
Suspended Solids At 105C	n/a	N/A	n/a	n/a														
Alkalinity (Total)	n/a	N/A	n/a	n/a														
Nitrate	n/a	N/A	n/a	n/a														
Phosphate	n/a	N/A	n/a	n/a														
Total Oxidised Nitrogen	n/a	N/A	n/a	n/a														
Calcium	n/a	N/A	n/a	n/a														
Potassium	n/a	N/A	n/a	n/a														
Magnesium	n/a	N/A	n/a	n/a														
Sodium	n/a	N/A	n/a	n/a														
Boron (Dissolved)	n/a	N/A	n/a	n/a														
Chromium (Dissolved)	n/a	N/A	n/a	n/a														
Low-Level Chromium (Hexavalent)	n/a	N/A	n/a	n/a														
Chromium (Trivalent)	n/a	N/A	n/a	n/a														
Dissolved Organic Carbon Low Level	n/a	N/A	n/a	n/a														
Aggressive Dissolved CO2	n/a	N/A	n/a	n/a														

Constituents	C3S -m 10/11/2020	C3D -m 10/11/2020	C4S -m 11/11/2020	C3s -m 13/05/2021	C3d -m 13/05/2021	C4S -m 18/05/2021	C4D -m 18/05/2021	C3S -m 16/11/2021	C3D -m 16/11/2021	C4S -m 16/11/2021	C4D -m 16/11/2021	C3S -m 23/06/2022	C3D -m 23/06/2022	P10 -m 23/06/2022	C4S -m 28/06/2022	C4D -m 28/06/2022
Chloride	380	53	26	1100	51	26	330	300	46	26	680	140	71	2100	46	240
Ammonium	0.063	0.2	<0.05	0.31	0.19	<0.05	0.051	0.09	0.072	0.26	0.27	0.41	0.23	0.29	0.56	1.3
Ammoniacal Nitrogen	<0.05	0.17	<0.05	0.24	0.16	<0.05	<0.05	0.075	0.062	0.21	0.21	0.34	0.22	0.24	1	1.4
Nitrite	0.033	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.097	0.065	0.058	0.34	0.32
Phosphorus (Dissolved)	0.024	0.11	0.1	0.022	0.082	0.095	0.039	<0.02	0.069	0.091	<0.02	<0.02	0.1	<0.02	<0.02	<0.02
Cadmium (Dissolved)	0.00013	<0.00008	<0.00008	0.00046	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	0.00065	0.00084	0.00035	0.00042	0.00062
Manganese (Dissolved)	<0.001	0.16	0.0019	14	0.12	0.013	0.19	2.3	0.11	0.078	0.1	0.87	0.21	0.59	0.034	0.15
Nickel (Dissolved)	0.016	<0.001	<0.001	0.024	0.0039	0.031	0.02	0.0058	<0.0005	0.0011	0.0023	0.002	<0.0005	0.0011	0.0035	0.0053
Lead (Dissolved)	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0012	0.0019	<0.0005	0.0012	<0.0005	0.00074	0.00092
Chromium (Hexavalent)												<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo[a]pyrene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Hexachlorobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pentachlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Anthracene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Sulphate	27	36	28	53	32	25	47	34	36	25	50	32	43	95	42	61
Copper (Dissolved)	0.0012	<0.001	<0.001	0.0007	0.0097	0.0017	0.0011	0.00054	<0.0005	0.0038	0.0035	0.0012	<0.0005	<0.0005	0.00061	0.0018
Iron (Dissolved)	0.35	0.17	<0.02	0.034	0.024	0.31	0.2	0.027	<0.005	0.67	1.3	<0.005	<0.005	0.11	0.028	0.03
Zinc (Dissolved)	0.0078	0.0024	0.0032	0.015	<0.003	<0.003	<0.003	0.013	<0.0025	0.023	0.035	0.0093	0.0038	0.0039	0.015	0.015
Arsenic (Dissolved)	<0.001	0.0018	<0.001	<0.0002	0.0013	0.0006	0.00086	<0.0002	0.0014	0.0018	0.0011	0.00088	0.0027	0.00076	0.0021	0.0025
pH	5.9	8.2	8.6	7.5	8.2	8	7.8	8.2	8.3	7.8	7.2	8.1	8.6	8.1	9.4	8.8
Electrical Conductivity	1300	360	240	3300	400	200	1400	880	330	250	2600	1400	1500	1900	290	1100
Suspended Solids At 105C	9	28	26	25	20	12	29	37	54	84	68	35	73	56	100	29
Alkalinity (Total)	<10	78	22	<10	55	11	220	<10	53	14	170	55	96	100	24	170
Nitrate	2.4	<0.5	17	1.8	<0.5	16	<0.5	5.8	<0.5	26	<0.5	3.1	<0.5	<0.5	6	2.2
Phosphate	<0.2	0.35	0.32	<0.2	0.25	0.29	<0.2	<0.2	0.21	0.28	<0.2	<0.2	0.32	<0.2	<0.2	<0.2
Total Oxidised Nitrogen	0.54	<0.2	3.8	0.41	<0.2	3.6	<0.2	1.3	<0.2	5.9	<0.2	0.72	<0.2	<0.2	1.5	0.59
Calcium	16	37	8.1	48	30	5.2	200	10	33	6.7	330	5.3	39	680	4.6	150
Potassium	8.6	1.7	3.3	11	2	2.6	12	5.7	2	2.8	14	3.5	2.2	17	3	11
Magnesium	27	1.3	5.6	91	2.2	5.2	13	19	1.7	6.2	19	9.1	2.2	71	6.1	11
Sodium	110	23	24	430	25	21	53	120	24	24	120	60	26	200	25	39
Boron (Dissolved)	0.042	<0.02	<0.02	0.041	0.014	0.014	0.034	0.9	0.76	0.92	0.83	0.029	<0.01	0.021	0.19	0.048
Chromium (Dissolved)	0.0026	<0.001	0.0029	0.0071	0.0068	0.073	0.045	<0.0005	<0.0005	<0.0005	<0.0005	0.0058	<0.0005	<0.0005	0.006	0.0091
Low-Level Chromium (Hexavalent)	<0.0001	<0.0001	0.00095	0.0044	0.00038	0.0053	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001					
Chromium (Trivalent)	0.003	<0.001	0.002	0.003	0.006	0.068	0.045					0.006	<0.001	<0.001	0.006	0.009
Dissolved Organic Carbon Low Level	5.2	3.3	3.1	9.7	0.72	0.73	0.91	3.7	1	1.6	1.9					
Aggressive Dissolved CO2								2.9	1.5	<0.6	14					
Naphthalene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Anthracene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Trichloromethane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1,1-Trichloroethane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tetrachloromethane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2-Dichloroethane	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Trichloroethene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Toluene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1,2-Trichloroethane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tetrachloroethene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Ethylbenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
m & p-Xylene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
o-Xylene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Styrene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,4-Dichlorobenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2-Dichlorobenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Phenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Chlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,4-Dichlorobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2-Dichlorobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Chloro-3-Methylphenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dimethylphthalate	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Aliphatic TPH >C5-C6												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C6-C8												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C8-C10												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C10-C12												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C12-C16												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C16-C21												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C21-C35												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aliphatic TPH >C35-C44												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C5-C7												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C7-C8												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C8-C10												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C10-C12												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C12-C16												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C16-C21												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C21-C35												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Aromatic TPH >C35-C44												<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Hexachlorobutadiene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
2,4-Dichlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Naphthalene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cyanide (Free) Low-Level	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury Low Level	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total TPH >C6-C40	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
Acenaphthylene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Acenaphthene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Fluorene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Phenanthrene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Pyrene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo[a]anthracene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Chrysene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo fluoranthene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo[k]fluoranthene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Indeno(1,2,3-c,d)Pyrene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Dibenz(a,h)Anthracene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Benzo[g,h,i]perylene	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total Of 16 PAH's	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Dichlorodifluoromethane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chloromethane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vinyl Chloride	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bromomethane	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chloroethane	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Trichlorofluoromethane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1-Dichloroethene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Trans 1,2-Dichloroethene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1-Dichloroethane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
cis 1,2-Dichloroethene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bromochloromethane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1-Dichloropropene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2-Dichloropropane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dibromomethane	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bromodichloromethane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
cis-1,3-Dichloropropene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trans-1,3-Dichloropropene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichloropropane	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Dibromochloromethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dibromoethane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chlorobenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,1,1,2-Tetrachloroethane	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Tribromomethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Isopropylbenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bromobenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichloropropane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
N-Propylbenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
2-Chlorotoluene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,3,5-Trimethylbenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
4-Chlorotoluene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tert-Butylbenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,4-Trimethylbenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Sec-Butylbenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,3-Dichlorobenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
4-Isopropyltoluene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
N-Butylbenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2-Dibromo-3-Chloropropane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2,4-Trichlorobenzene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Methyl Tert-Butyl Ether	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
N-Nitrosodimethylamine	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis-(2-Chloroethyl)Ether	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Methylphenol (o-Cresol)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-Chloroisopropyl)Ether	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexachloroethane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Nitrosodi-n-propylamine	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Methylphenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Nitrobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Isophorone	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Nitrophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4-Dimethylphenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-Chloroethoxy)Methane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,2,4-Trichlorobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Chloroaniline	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Methylnaphthalene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Hexachlorocyclopentadiene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

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

CaCO (mg/l):	353.00	pH	8.04	RFR: Watercourse Q95 flow m³/s	EFR: Effluent flow rate (maximum) m³/s	EFR: Effluent flow rate (mean) m³/s
Calcium (mg/l):	144.00	DOC (mg/l)	12.30	0.0258	0.10000	0.00603

											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?	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 Concentraion (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 Concentraion (PEC) (max) (mg/l)	Test 3 failed? (MAC)	AA test failed? (AA PEC above AA EQS)	MAC test failed? (MAC-PEC above MAC-EQS)
2,4,6-Trichlorophenol	mg/l	0.0005	N/A		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
2,4,5-Trichlorophenol	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
2-Chloronaphthalene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
2-Nitroaniline	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Acenaphthylene	mg/l	0.0005	Screen BaP only		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
2,6-Dinitrotoluene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Acenaphthene	mg/l	0.0005	Screen BaP only		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
3-Nitroaniline	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Dibenzofuran	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
4-Chlorophenylphenylether	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
2,4-Dinitrotoluene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Fluorene	mg/l	0.0005	N/A		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Diethyl Phthalate	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
4-Nitroaniline	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
2-Methyl-4,6-Dinitrophenol	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Azobenzene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
4-Bromophenylphenyl Ether	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Phenanthrene	mg/l	0.0005	Screen BaP only		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Carbazole	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Di-N-Butyl Phthalate	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Pyrene	mg/l	0.0005	N/A		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Butylbenzyl Phthalate	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Benzo[a]anthracene	mg/l	0.0005	Screen BaP only		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Chrysene	mg/l	0.0005	Screen BaP only		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Bis(2-Ethylhexyl)Phthalate	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Di-N-Octyl Phthalate	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Benzo fluoranthene	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Benzo[k]fluoranthene	mg/l	0.0005	Screen BaP only		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Indeno(1,2,3-c,d)Pyrene	mg/l	0.0005	Screen BaP only		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Dibenz(a,h)Anthracene	mg/l	0.0005	N/A		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
Benzo[g,h,i]perylene	mg/l	0.0005	Screen BaP only		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
4-Nitrophenol	mg/l	0.0005	No EQS		16	<0.0005	<0.0005	0.0005	16	0	NO	yes																		
PCB 28	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 81	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 52	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 77	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 105	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 90+101	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 114	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 118	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 118	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 153	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 123	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 138	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 126	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 180	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 156	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 157	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 167	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 169	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
PCB 189	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
Total PCBs (12 Congeners)	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
Total PCBs (7 congeners)	mg/l	0.00001	No EQS		16	<0.00001	<0.00001	0.0000	16	0	NO	yes																		
Total Phenols	mg/l	0.030	No EQS		16	<0.03	<0.03	0.0300	16	0	NO	yes																		
Total Aliphatic Hydrocarbons	mg/l	0.005	No EQS		16	<0.005	<0.005	0.0050	5	0	NO	yes																		
Total Aromatic Hydrocarbons	mg/l	0.005	No EQS		16	<0.005	<0.005	0.0050	5	0	NO	yes																		
Total Petroleum Hydrocarbons	mg/l	0.01	No EQS		16	<0.01	<0.01	0.0100	5	0	NO	yes																		

Constituents	C3S	C3D	C4S	C3s	C3d	C4S	C4D	C3S	C3D	C4S	C4D	C3S	C3D	P10	C4S	C4D
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m
	10/11/2020	10/11/2020	11/11/2020	13/05/2021	13/05/2021	18/05/2021	18/05/2021	16/11/2021	16/11/2021	16/11/2021	16/11/2021	23/06/2022	23/06/2022	23/06/2022	28/06/2022	28/06/2022
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4,5-Trichlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Chloronaphthalene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Nitroaniline	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Acenaphthylene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,6-Dinitrotoluene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Acenaphthene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3-Nitroaniline	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dibenzofuran	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Chlorophenylphenylether	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2,4-Dinitrotoluene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Fluorene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Diethyl Phthalate	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Nitroaniline	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2-Methyl-4,6-Dinitrophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Azobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Bromophenylphenyl Ether	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Phenanthrene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Carbazole	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Di-N-Butyl Phthalate	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Pyrene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Butylbenzyl Phthalate	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo[a]anthracene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chrysene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bis(2-Ethylhexyl)Phthalate	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Di-N-Octyl Phthalate	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo fluoranthene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo[k]fluoranthene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Indeno(1,2,3-c,d)Pyrene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dibenz(a,h)Anthracene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Benzo[g,h,i]perylene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4-Nitrophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
PCB 28	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 81	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 52	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 77	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 105	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 90+101	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 114	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 118	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 118	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 153	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 123	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 138	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 126	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 180	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 156	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 157	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 167	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 169	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
PCB 189	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total PCBs (12 Congeners)	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total PCBs (7 congeners)	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total Phenols	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Total Aliphatic Hydrocarbons												<0.005	<0.005	<0.005	<0.005	<0.005
Total Aromatic Hydrocarbons												<0.005	<0.005	<0.005	<0.005	<0.005
Total Petroleum Hydrocarbons												<0.01	<0.01	<0.01	<0.01	<0.01

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

Permit MCA/FRA/2, MCA/LDC/1 and MCA/WRA/7 (SSSI Crossing)

DOCUMENT CONTROL

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

Prepared by:	[redacted] Senior Ecologist
Verified by:	[redacted] Technical Director (Ecology)
Reviewed by:	[redacted] Environmental Permitting Delivery Lead
Approved by:	[redacted] Sizewell C Environment Manager – Construction Permits and Consents

REVISION HISTORY

Rev	Status	Amendment	Prepared By	Date
0.1	Draft	Drafting initial document	[redacted]	31/07/24
0.2	Draft	For Environment Agency informal review	[redacted]	08/08/24
01	Updated	For submission	[redacted]	05/09/24

CONTENTS

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) [3] (hereafter referred to as the 'SoS HRA') 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. Construction permits are required for a number of project-related activities (including, for example, water discharges and realignment of channels), several of which require HRA or have Countryside Rights of Way 2000 (CRoW) Act considerations.

1.1.1.3 The Competent Authority (Environment Agency, EA) has screened each permit to determine a potential zone of influence (ZoI) of the activities covered by the permit on both European sites and Sites of Special Scientific Interest (SSSI). Through the EA Screening Tool a risk has been identified to Sizewell Marshes SSSI and Minsmere to Walberswick Heath and Marshes SSSI from two permit applications (SZC reference MCA/FRA/2 and MCA/WRA/7). 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 these permit applications.

1.2 Purpose of Report

1.2.1.1 This package to inform HRA and SSSI assessments has been produced to support the EA in their assessment of permit applications MCA/FRA/2 and MCA/WRA/7. The former permit is a Flood Risk Activity Permit (FRAP) for the construction of the temporary and permanent bridge structures across the Leiston Drain connecting the Temporary Construction Area (TCA) with the Main Construction Area (MCA). The latter permit is a Water Resource Activity Licence (WRAL) for the dewatering of the pile caps associated with the bridge abutments. This document is also intended to inform an HRA and SSSI assessment to be produced on behalf of the East Suffolk Water Management Board (ESWMB) for a Land Drainage Consent (LDC) (MCA/LDC/1) for the same works. Since the works for which LDC is to be sought overlap entirely with the works for which the FRAP is being sought, these are covered by the same sections of this report.

1.3 Key Definitions

Term / Abbreviation	Definition
CoCP	Code of Construction Practice
CPT	Cone Penetration Testing
CRoW	Countryside Rights of Way
DCO	Development Consent Order

Term / Abbreviation	Definition
EA	Environment Agency
ECoW	Ecological Clerk of Works
ES	Environmental Statement
ESWMB	East Suffolk Water Management Board
FRA	Flood Risk Assessment
FRAP	Flood Risk Activity Permit
HRA	Habitats Regulations Assessment
INNS	Invasive non-native species
LDC	Land Drainage Consent
MCA	Main Construction Area
MDS	Main Development Site
mm	Millimetre
NGR	National Grid Reference
SAC	Special Area of Conservation
SID	Supporting Information Document
SoS	Secretary of State
SPA	Special Protection Area
SSSI	Sites of Special Scientific Interest
SZC Project	The Sizewell C Project
TCA	Temporary Construction Area
UXO	Unexploded Ordinance
WRAL	Water Resource Abstraction Licence
ZoI	Zone of Influence

1.4 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
5	Atkins, Hyder, Royal Haskoning DHV. 2015. Sizewell C SSSI Crossings: Environmental appraisal of options under consideration. November 2015	Unpublished but available on requested	Unpublished but available on requested

Ref	Title	Location	Document No. / Link
6	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)
7	Sizewell C Ltd (2021). Vol 5.2 Main Development Site Flood Risk Assessment Addendum, Rev 1.0, January 2021	Online	AS-157
8	Chapter 14 (Terrestrial Ecology) of DCO Environmental Statement	Online	EN010012-001844-SZC_Bk6_ES_V2_Ch14_Terrestrial Ecology and Ornithology.pdf (planninginspectorate.gov.uk)
9	DCO Shadow HRA	Online	EN010012-001765-SZC_Bk5_5.10_V1_Shadow_HRA_Report_Part_1_of_5.pdf (planninginspectorate.gov.uk)
10	SZC On-site Marsh Harrier Compensatory Habitat Strategy	Online	EN010012-008111-Carly Vince - Other- Control Document - On-site Marsh Harrier Compensatory Habitat (clean version).pdf (planninginspectorate.gov.uk)
11	Chapter 14 (Terrestrial Ecology) of DCO Environmental Statement	Online	EN010012-001844-SZC_Bk6_ES_V2_Ch14_Terrestrial Ecology and Ornithology.pdf (planninginspectorate.gov.uk)
12	Appendix 14A3 of the DCO Environmental Statement Ecology Chapter	Online	https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-001879-SZC_Bk6_ES_V2_Ch14_Terrestrial_Ecology_Ornithology_Appx14A3_Plants_Habitats.pdf
13	Lighting Management Plan for Construction and Operational Sites, part of DCO documentation	Online	infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010012/EN010012-008159-Carly Vince - Other- Control Document - Lighting Management Plan (clean version).pdf
14	Wildlife and Countryside Act 1981	Online	Wildlife and Countryside Act 1981 (legislation.gov.uk)
15	Surface Water Quality Flow and Baseline Report	Unpublished	Available on request
17	Paragraph 14.7.127 of Terrestrial Ecology ES Chapter for DCO	Online	EN010012-001844-SZC_Bk6_ES_V2_Ch14_Terrestrial Ecology and Ornithology.pdf (planninginspectorate.gov.uk)
18	Groundwater and surface water DCO ES chapter	Online	EN010012-001912-SZC_Bk6_ES_V2_Ch19_Groundwater_and_Surface_Water.pdf (planninginspectorate.gov.uk)
19	Annexure B AtkinsRéalis (December 2023). Sizewell C - Inflow and Discharge H1 Assessments. SSSI Crossing Dewatering Technical Note (version P01.01)	Part of the permit package	N/A

Ref	Title	Location	Document No. / Link
20	The Sizewell C Project 8.11/10.2 Code of Construction Practice (COCP), October 2021, DCO Examination Library Reference REP10-072	Online	EN010012-008183-Carly Vince - Other- Code of Construction Practice (clean version).pdf (planninginspectorate.gov.uk)
21	Freshwater Fish and Aquatic Invertebrates Mitigation Strategy	Online	EN010012-002900-SZC_Bk8_8.11(A)A_Freshwater_Fish_and_Aquatic_Invertebrates_Mitigation_Strategy.pdf (planninginspectorate.gov.uk)

2 PERMIT DETAILS AND DESCRIPTION OF PROPOSAL

2.1 Permit Details

2.1.1.1 This report provides technical detail specifically regarding impacts on SSSIs, SACs, SPAs and Ramsar sites, for the EA to undertake its duties in relation to the CRoW Act and The Conservation of Habitats and Species Regulations 2017 (as amended). The following section provides a brief summary of the permitted activities for each Permit application, by way of introduction.

2.1.1.2 Permit MCA/FRA/2 is a FRAP application for the construction and installation of the crossing of Leiston Drain at Sizewell. The FRAP relates to works carried out within 8m of Leiston Drain and within the wider floodplain. Permit MCA/WRA/7 is a WRAL application specifically for groundwater dewatering to enable the construction of the above Leiston Drain crossing.

2.1.1.3 In brief, activities being applied for under the MCA/FRA/2 comprise:

- excavate a temporary ditch diversion and infill the existing channel in the works area for the southern abutment;
- single-span bridge crossings comprising staged construction approach: a short term temporary vehicular access bridge (the Temporary Crossing) providing an early crossing; a long-term temporary construction-stage steel haul bridge (the Haul Bridge Crossing); a permanent bridge (the Permanent Crossing) for the operational phase of the proposed development, 15m wide;
- construction of a temporary pipe bridge across the Leiston Drain associated with pile cap dewatering
- construction phase primary utility corridors for the site – routed along either side of the main site access road over the SSSI Crossing, in either the western corridor or eastern corridor;
- environmental sheet pile barriers are proposed around the footprint of the embankment (on both the northern and southern sides of the Leiston Drain) to reduce the risk of contamination of the SSSI by providing a physical barrier; and
- the ground improvement design for the approach embankment.

2.1.1.4 In brief activities being applied for under permit MCA/WRA/7 comprise:

- temporary groundwater dewatering within cofferdams to allow installation of pile caps associated with SSSI crossing abutments in relation to construction of SSSI Crossing including bridge over Leiston Drain.

2.1.1.5 For clarity, **Table 2.1** lists the activities covered by each permit application.

Table 2.1 List of activities covered by permit applications

Activity No.	Activity	FRAP	LDC	WRL	Notes
1.1	Unexploded Ordinance (UXO) – Cone Penetration Testing (CPT) probing	Y	N	N	FRAP only required for area of northern abutment within 8m of Leiston Drain
1.2	Access tracks, culverts, storage of side case material, and load out areas in SSSI floodplain	Y	Y	N	FRAP interest is for raised tracks, storage of side castings, and load out areas that could reduce floodplain storage. LDC interest is in culverts in ditches along access tracks.
1.3	Temporary diversion of Sizewell Drain, including infilling of former course to make way for southern abutment	Y	Y	N	Largely a matter for LDC, but FRAP will be required for connection into Leiston Drain main river.
1.4	SSSI crossing northern abutment	Y	N	Y	FRAP required because this is within 8m of Leiston Drain; WRAL needed for temporary construction dewatering. No impact on ordinary watercourses, so no LDC
1.5	SSSI crossing southern abutment	Y	N	Y	FRAP required because this is a new raised structure within the Leiston Drain floodplain; WRL needed for temporary construction dewatering. Assume no LDC because Sizewell Drain already moved out of the way
1.6	Construction of temporary pipe bridge	Y	N	N	FRAP needs to cover installation, operation and removal
1.7	Scour protection for dewatering outfall	Y	N	N	FRAP required because this is within 8m of the Leiston Drain
1.8	SSSI Temporary Crossing	Y	N	N	FRAP needs to cover installation, operation and removal
1.9	SSSI Haul Bridge Crossing	Y	N	N	FRAP needs to cover installation, operation and removal
1.10	SSSI Permanent Crossing	Y	N	N	FRAP needs to cover installation and operation. Assume permanent, so no need to cover removal

3 PROTECTED SITES AND RISKS UNDER CONSIDERATION

3.1 SSSI and Habitats Sites

3.1.1.1 The following SSSI, SACs, SPAs and Ramsar sites have the potential to be affected by the EA's pre-identified risks. Other SSSIs, SACs, SPAs and Ramsar sites were also considered but dismissed from needing detailed consideration due to a combination of distance and lack of connecting pathways of impact (risk pathways). Outer Thames Estuary SPA is approximately 300m east of the SSSI crossing but is a wholly marine site designated for overwintering red-throated diver that travel widely across the coastal waters in the East of England. No connecting impact pathways were identified. Leiston-Aldburgh SSSI and Sandlings SPA are located approx. 2.3km south of the SSSI crossing; there is no hydrological connection and the distance is too great for material disturbance of SPA or SSSI birds.

Table 3.1 Sensitive Receptor Sites

Sensitive Receptor Site	Distance from Permit location
Sizewell Marshes SSSI	Permit activities are located within this SSSI. The Leiston Drain and the location of the southern bridge abutments are within the SSSI.
Minsmere to Walberswick SSSI	Permit activities are located circa 20m west of this SSSI. The Leiston Drain flows through the SSSI east of the SSSI crossing location.
Minsmere to Walberswick Heaths and Marshes SAC	Permit activities are located circa 40m west of this SAC. The Leiston Drain flows through the SAC east of the SSSI crossing location.
Minsmere-Walberswick SPA	Permit activities are located circa 40m west of this SPA. The Leiston Drain flows through the SPA east of the SSSI crossing location.
Minsmere-Walberswick Ramsar site	Permit activities are located circa 40m west of this Ramsar site. The Leiston Drain flows through the Ramsar site east of the SSSI crossing location.

3.1.1.2 The following sections identify the designation / qualifying features of the above sites. Feature condition information is provided for the SSSIs but similar information is not published for SACs, SPAs or Ramsar sites and is therefore not included for those sites.

3.2 Sizewell Marshes SSSI

Table 3.2 Features present within Sizewell Marshes SSSI and their condition

Feature	Condition
Assemblage of breeding birds - Lowland damp grasslands	Favourable
Ditches	Favourable
Floodplain fen (lowland)	Favourable
Invertebrate assemblage W211 - Open water on disturbed sediments	Unfavourable - Recovering
Invertebrate assemblage W314 reed-fen & pools	Favourable
Lowland mire grassland and rush pasture	Favourable
Vascular plant assemblage	Not recorded

3.3 Minsmere to Walberswick SSSI

Table 3.3 Features present within Minsmere to Walberswick SSSI and their condition

Feature	Condition
Aggregations of breeding birds – Avocet	Favourable
Aggregations of breeding birds - Bearded tit	Unfavourable – Declining
Aggregations of breeding birds - Bittern	Favourable
Aggregations of breeding birds - Cetti's warbler	Favourable
Aggregations of breeding birds - Gadwall	Favourable
Aggregations of breeding birds - Garganey	Favourable
Aggregations of breeding birds - Marsh harrier	Favourable
Aggregations of breeding birds - Nightjar	Favourable
Aggregations of breeding birds - Shoveler	Favourable
Aggregations of breeding birds - Teal	Unfavourable – No change
Aggregations of breeding birds - Tufted duck	Not recorded
Aggregations of breeding birds - Water rail	Unfavourable – Declining
Aggregations of breeding birds - Woodlark	Favourable
Aggregations of non-breeding birds - Dunlin	Favourable
Aggregations of non-breeding birds - Redshank	Favourable
Aggregations of non-breeding birds - variety of passage species	Not recorded
Aggregations of non-breeding birds - variety of wintering species	Not recorded
Assemblages of breeding birds - Lowland damp grasslands	Unfavourable – Declining
Assemblages of breeding birds - variety of species	Favourable
Coastal vegetated shingle (SD1-3)	Partially Destroyed
Ditches	Not recorded
Fixed dune grassland	Favourable
Floodplain fen (lowland)	Not recorded
Invert. assemblage F111 bare sand & chalk	Favourable
Invert. assemblage F112 open short sward	Favourable
Littoral sediment	Not recorded
Lowland calcareous grassland (CG7)	Favourable
Lowland dry acid grassland (U1b,c,d,f)	Not recorded
Lowland dry acid grassland (U4)	Not recorded
Lowland dry heath	Not recorded
Mire grasslands and rush pastures (upland)	Not recorded
Population of Schedule 8 plant - Filago lutescens, Red-tipped Cudweed	Not recorded
Saline coastal lagoons	Not recorded
Sand dune; strandline, embryo and mobile dunes (SD1-6)	Favourable
SM4-28 - Saltmarsh	Not recorded
Vascular plant assemblage	Not recorded
Wet woodland	Unfavourable - Recovering

3.4 Minsmere to Walberswick Heaths and Marshes SAC

3.4.1.1 The site qualifies due to the presence of the following Annex I habitats:

- annual vegetation of drift lines;
- European dry heaths; and
- perennial vegetation of stony banks.

3.5 Minsmere to Walberswick SPA

3.5.1.1 During the breeding season the area regularly supports:

Qualifies under Article 4.1, by supporting, in summer, nationally important breeding populations of the following Annex 1 species:

- Bittern *Botaurus stellaris* (breeding);
- Marsh Harrier *Circus aeruginosus* (breeding);
- Avocet *Recurvirostra avosetta* (breeding);
- Little tern *Sternula albifrons* (breeding); and
- Nightjar *Caprimulgus europaeus* (breeding).

Qualifies under Article 4.1 by regularly supporting, in winter, a nationally important wintering population of:

- Hen harrier *Circus cyaneus* (non-breeding).

Qualifies under Article 4.2 by supporting, in summer, in recent years, nationally important breeding populations of three regularly occurring migratory species:

- Eurasian teal *Anas crecca* (breeding);
- Gadwall *Anas strepera* (breeding); and
- Shoveler *Anas clypeata* (breeding).

3.5.1.2 Qualifies under Article 4.2 by supporting nationally important wintering populations of three migratory waterfowl:

- Greater white-fronted goose *Anser albifrons albifrons* (non-breeding);
- Gadwall (non-breeding); and
- Shoveler (non-breeding).

3.6 Minsmere to Walberswick Ramsar site

3.6.1.1 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.

3.6.1.2 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. The site also supports 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* and *Panurus biarmicus.*

3.7 Environment Agency Risks

3.7.1.1 When considering the potential for an activity to impact upon a protected site the focus of the EA's assessment is risk-based. There are specific risks for specific types of permit, and these are the focus of the EA assessment. For the two EA permits in question the risks are as follows. The risks for the LDC are assumed to be identical to those for the FRAP:

3.7.2 Permit MCA/FRA/2 (and Land Drainage Consent MCA/LDC/1)

- change in flow or velocity regime;
- change in freshwater flow to estuary;
- change in physical regime;
- change in surface water flooding;
- change in water chemistry;
- competition from non-native species;
- killing/injury or removal of fish or other animals;
- physical damage;
- turbidity;
- habitat /community simplification;
- habitat loss; and
- disturbance.

3.7.3 Permit MCA/WRA/7

- reduced dilution capacity;
- habitat loss;
- entrapment/impingement;
- changes in water levels or table;
- change in flow or velocity regime;
- changes in surface water flooding;
- changed water chemistry;
- change in salinity regime; and
- change in freshwater flow to estuary.

3.7.3.1 Not all risks are necessarily relevant to all applications; for example, a WRA licence can cover consumptive abstraction whereas in this case it covers dewatering of pile caps with no consumptive loss prior to discharge. In order to inform the EA's assessment, **Appendix A** of this report provides the applicant's view on each of these risks as they apply to each feature of each designated site.

4 TECHNICAL INFORMATION

4.1 Permit MCA/FRA/2 and MCA/LDC/1

4.1.1 Overview of the intended operation

4.1.1.1 In order to connect the TCA for SZC with the MCA, it is necessary for a construction access to be created via a clear span bridge across the Leiston Drain. The only works within Leiston Drain will be the connection of the temporarily realigned Sizewell Drain, a new drainage outlet and associated scour protection.

4.1.1.2 Section 4 of the document MCA/FRA/2 Application Supporting Information Document (SID) sets out the works required, their methodology, and phasing, in detail. As set out in **Section 2** of this document, the following activities are covered by the FRAP:

- probing for deep UXO along the piling lines using Cone Penetration Testing (‘UXO CPT probing’);
- construction of access tracks, storage of side cast material, culverts and load out areas in SSSI floodplain;
- creation of the temporary diversion of the Sizewell Drain where it lies within the footprint of the SSSI crossing, including infilling of the former course to make way for southern bridge abutment;
- construction of the SSSI crossing northern abutment including sheet piling;
- construction of the SSSI crossing southern abutment including sheet piling;
- creation of a temporary pipe bridge over and dewatering outfall into Leiston Drain;
- scour protection for outfall DW01;
- creation of a temporary bailey bridge (the Temporary Crossing) across the Leiston Drain and the floodplain;
- creation of the long-term temporary construction-stage steel haul bridge (the Haul Bridge Crossing) comprised of fabricated steel girders acting compositely with an in-situ reinforced concrete deck slab. This will use the same abutments as the permanent bridge and will sit adjacent to it, until the end of the construction phase when it will be removed; and
- creation of the 15m wide permanent bridge (the Permanent Crossing) for the operational phase.

4.1.1.3 The crossings over the Leiston Drain occurs across three stages. The temporary stage, the construction stage and the permanent stage. The temporary stage is approximately 18months long during which the Temporary Crossing of approximately 20m width crosses the Leiston drain. The construction phase extends for the duration of the construction work within the MCA and during this time two decks span over the Leiston drain with a combined width of 40m. Upon completion of the construction stage the construction stage deck, which is 25m wide, is removed leaving only a 15m wide permanent bridge in place. During the construction stage there are utilities within the decks of the construction stage deck and the permanent stage deck.

4.1.1.4 Environmental sheet pile barriers are proposed around the footprint of the embankment (on both the northern and southern sides of the Leiston Drain) to reduce the risk of contamination of the SSSI by providing a physical barrier and to create a cofferdam for temporary dewatering to allow construction of the pile caps. The location of the sheet piling on both sites of the Leiston Drain is shown in Figure 2.2 of the MCA/FRA/2 application SID. The positioning of the environmental sheet pile barriers provides a 25.8m clear span between the northern and southern embankment footprints, and a soffit level of 6.8mAOD.

This provides a clearance of more than 6m from the bank top and average water level in the Leiston Drain to the underside of the bridge.

4.1.1.5 The approach embankment and wingwalls/abutments will be reinforced with tubular piles installed using rotary bored piling.

4.1.1.6 CPT will be required in the location of the bridge crossing, to locate UXO.

4.1.1.7 The installation of three culverts within the Sizewell Drain for access tracks and the temporary diversion of the Sizewell Drain including infilling the old course are both also subject to MCA/LDC/1.

4.1.1.8 Dewatering of pile caps at the northern and southern bridge abutments will be required. The dewatering is part of permit application MCA/WRA/7, and the discharge is part of permit application MDS/CWDA/18. However the installation of a temporary pipe bridge across the Leiston Drain and of the outfall to the Leiston Drain from the northern abutment is part of this FRAP.

4.1.1.9 Scour protection measures (5m in length) will be installed to reduce potential impacts upon banks and downstream from the dewatering discharge outfall. This may include a 'reno mattress' (a wire mesh encased in galvanised steel filled with soil or other materials) or similar protection which will be installed downstream of the outfall pipe, and across the slope to Leiston Drain. Water will be discharged onto the mattress from the outfall thus reducing its velocity and avoiding damage to Leiston Drain.

4.1.1.10 Excavated material will be temporarily side cast alongside the temporary drain and will be managed in accordance with the Materials Management Plan developed as part of the discharge of Requirement 2 of the DCO. Surface water runoff and drainage of the material will be managed so that no existing watercourses are impacted. Once bridge foundations are complete, the surround will be backfilled with excavated material where possible, unless design and environmental requirements specify otherwise. Loose materials will be visually monitored for dust, employing dust suppression measures if required.

4.1.1.11 The sequence of works is provided below.

Table 4.1 Indicative programme dates and timings of proposed works

Asset/construction	Construction activity start time	Construction activity end time
UXO – Cone Penetration Testing (CPT) probing	Site Delivery activity. To commence as soon as permits allow.	TBC. Assume done within one month of commencement.
Access tracks, culverts, load out areas in SSSI floodplain	Within SSSI, once permits allow	Duration of ditch diversion / environmental barrier installation: until April 2026
Temporary arising side casting in SSSI floodplain associated with SSSI crossing construction	From January 25 for temporary ditch diversion.	Duration of temp diversion. Allow 12 months from permit discharge.

Asset/construction	Construction activity start time	Construction activity end time
Temporary diversion of Sizewell Drain, including infilling of former course to make way for southern abutment	From January 2025 (ASAP from permit discharge)	Allow 12 months from permit discharge.
SSSI northern abutment construction	Outside permitted areas– from October 2024. Remainder, ASAP from permit discharge	Allow 15 months from permit discharge.
SSSI southern abutment construction	Outside permitted areas– from October 2024. Remainder, ASAP from permit discharge	Allow 15 months from permit discharge.
Temporary pipe bridge including dewatering outfall, scour protection	From January 2025	Allow 15 months from permit discharge.
SSSI Temporary Crossing	From October 2025	Removal 12 to 15 months after installation date.
SSSI Haul Bridge Crossing	Bridge beam installation from April 2026	Haul bridge construction: +9-month construction period from beam installation. Haul bridge will remain in place until 2045.
SSSI Permanent Crossing	Bridge beam installation from April 2026	Permanent bridge construction: +9 months construction period from beam installation.

4.1.2 Location details including maps and national grid references and clear summary of the relation between the activity and the waterbody

4.1.2.1 Drawing SZC-EW0921-ATK-XX-WSO-02XXXX-DRW-CIV-900004 (included in **Appendix D** of this application package) is the SSSI Crossing Foundation Dewatering Plan and shows the exact location of the cofferdams around the crossing structure. The cofferdams will be approximately 12.5m deep. Each cofferdam enclosure will be 73m by 5m. Each sheet pile will be standard thickness. The National Grid Reference (NGR) of the proposed works area and watercourse for the SSSI Crossing are as follows:

4.1.2.2 NGRs of crossing:

- southern end: TM 47339 64432; and
- northern end: TM 47296 64563.

4.1.2.3 NGR of corners of cofferdams to be dewatered are:

- Northern cofferdam: 47283 54512, 47284 64508, 47351 64534, 47353 64530
- Southern cofferdam: 47293 64482, 47294 64477, 47361 64504, 47363 64500

4.1.2.4 NGRs of water course activities will be bounded by:

- upstream point: TM 47281 64500; and
- downstream point: TM 47347 64522.

4.1.2.5 The northern abutment will lie c. 2-3m back from the bank top of Leiston Drain and largely outside the floodplain and the Sizewell Marshes SSSI. The southern abutment will lie c. 18m back from the bank top but will be partially located within the floodplain and Sizewell Marshes SSSI.

4.1.2.6 During construction of the pile caps on each side of the crossing groundwater levels within each cofferdam will be temporarily lowered by approximately 2m to provide dry working conditions. The presence of the cofferdams, extending 12.5m below ground level, will provide a hydraulic barrier to flow that will limit the drawdown of water levels externally. The use of cofferdams to reduce inflows into excavations is a standard construction technique, and the performance requirements and cut-off depth of the cofferdams has been defined in the modelling reported in Annexure B of the Dewatering Impact Assessment. It is not possible to quantify the reduction in inflows relative to an open excavation as no modelling has been carried out for such a scenario as the ground conditions preclude this approach. However, the modelling undertaken demonstrates the effectiveness of the cofferdam in limiting change in water levels in the wider environment with a negligible reduction (in the order of 1mm) in groundwater levels immediately outside the cofferdam.

4.1.2.7 In order to facilitate the bridge construction, the line of the Sizewell Drain must be diverted, as it currently lies directly within the southern abutment footprint. Once the new temporary diversion channel has been created, the Sizewell Drain either side of the construction zone will be blocked off and the section of Sizewell Drain within the works footprint will be infilled. The temporary connection of the Sizewell Drain to Leiston Drain will be at approximately NGR TM 47291 64502.

4.1.2.8 The diversion of Sizewell Drain will be temporary and will be replaced in the long-term by the permanent realignment of Sizewell Drain (which will have different connection point to Leiston Drain). That permanent realignment and connection to Leiston Drain will be subject to separate permits (SZC references MCA/LDC/5 and MCA/FRA/8).

4.1.2.9 Drainage outlet DW01, which will be used to discharge water from dewatering the pile cap cofferdams and road embankment runoff, is anticipated to be situated at approximately NGR TM 47361 64528. A drawing showing the outlet and its location within the Leiston Drain is available in **Appendix D** submitted as part of this permit application. The temporary connection with Sizewell Drain, and associated scour protection are the only works within the Leiston Drain itself.

4.1.3 Details of any modelling undertaken and the results/outcome of said modelling

4.1.3.1 The Environmental Appraisal of the SSSI crossing options [5] 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.

4.1.3.2 Hydraulic modelling was used to assess the flood risk impacts of the proposed SZC Main Development Site (MDS) development as a whole. This was reported in the MDS FRA Addendum [7] that was produced in response to design changes proposed during the DCO Examination, including the adoption of a clear span bridge for the SSSI Crossing in preference to the originally proposed culvert. The hydraulic modelling included representation of the SSSI Crossing, the building out of the MCA embankment into the 'SSSI Triangle', the permanent realignment of the Sizewell Drain and the incorporation of additional flood storage into the Marsh Harrier Compensation Habitat area (as reported in Section 3.2 of the MDS FRA Addendum [7]). The flood modelling results as reported in Table 3.1 of the FRA Addendum [7] demonstrated minimal changes in peak flood level that did not have a significant impact on flood risk within the SSSI or to off-site receptors. The maximum increase in flood levels as a result of the scheme is up to 0.01m in the vicinity of the SSSI Crossing and there was no significant change in flood velocity or hazard rating when compared to the baseline scenario (as reported in Section 3.3 Table 3.1 of the MDS FRA Addendum [7]).

4.1.4 Details of any assessment undertaken in regard to noise or visual disturbance

4.1.4.1 Noise modelling was undertaken for all Phases of the Sizewell C project to inform the Environmental Statement (ES) for the Sizewell C DCO. This included specific modelling for Phase 1 of construction of the development. This included the creation of the SSSI crossing but also include all other Phase 1 construction works across the TCA and MCA including archaeological and protected species mitigation works, installation of fencing and general site clearance, demolition of above and below ground structures and buildings and diversion of existing utilities, erection of contractor compounds and office accommodation, and storage and materials processing/handling areas. As such, the results may exaggerate the effect from the SSSI crossing works alone.

4.1.4.2 The best summary of the noise and visual disturbance assessment is in paragraphs 14.12.60 - 14.12.125 of the ES Chapter [8] with the Minsmere-Walberswick SPA covered in paragraphs 14.12.76 - 14.12.100, Minsmere to Walberswick Heaths & Marshes SSSI from paragraphs 14.12.116 - 14.12.120, and Sizewell Marshes SSSI from paragraphs 14.12.121 - 14.12.125. For each designation, each qualifying bird interest features is discussed in turn. The DCO HRA [9] also discusses construction period noise and visual impacts on Minsmere-Walberswick SPA in paragraphs 8.8.100 to 8.8.103 (breeding avocet), 8.8.131 to 8.8.134 (breeding bittern), 8.8.216 to 8.8.260 (breeding marsh harrier), 8.8.304 to 8.8.306 (breeding little tern), 8.8.357 to 8.8.364 (breeding gadwall), 8.8.381 to 8.8.388 (breeding shoveler), 8.8.404 to 8.8.408 (breeding teal), 8.8.424 to 8.8.426 (breeding nightjar), 8.8.445 to 8.8.449 (non-breeding hen harrier), 8.8.488 to 8.8.492 (non-breeding gadwall), 8.8.523 to 8.8.527 (non-breeding shoveler), and 8.8.540 to 8.8.547 (non-breeding white fronted goose). Section 8.9 of the HRA report provides the same analysis for the Ramsar site. Functional linkage is considered (for example the role of the Minsmere South Levels in supporting the avocet population of the Minsmere-Walberwick SPA). In summary, the conclusion in that analysis is that no adverse effect will arise due to either (or a combination of) distance (such that locations are beyond the extent of predicted noise and visual disturbance), evidence from survey that suggests use of the affected areas is absent or limited, or limited susceptibility of the bird species in question to disturbance.

4.1.4.3 For Minsmere-Walberswick SPA and Ramsar site, the exception is breeding marsh harrier where the ES concludes that given the temporary but long-term duration (approximately 9-

12 years) nature of the construction period, the potential loss of approximately 15% of foraging resource within 4km of Minsmere could conceivably affect the overall breeding productivity (paragraph 14.12.91 of the Ecology ES chapter for DCO [11]). Paragraphs 8.8.244 to 8.8.246 of the shadow HRA [9] concluded that noise and visual disturbance associated with construction of the MDS could result in the displacement of marsh harriers from functionally linked foraging habitat in the Sizewell Marshes and, to a lesser extent, the Minsmere South Levels. In other words, there was concluded to be a temporary noise and visual disturbance barrier preventing marsh harrier accessing some of the foraging area to the south of the SPA/Ramsar.

4.1.4.4 On the basis of a number of highly precautionary assumptions, such displacement was considered to have the potential to lead to an adverse effect on the SPA marsh harrier population, with this being addressed through the creation of 48.7ha of compensatory foraging habitat on former arable land within the EDF Sizewell estate to the north of the main development site, adjacent to the SPA. This compensatory habitat includes both terrestrial and wetland components. The terrestrial habitat creation has already been completed and is described in SZC On-site Marsh Harrier Compensatory Habitat Strategy [10].

4.1.4.5 For Sizewell Marshes SSSI, paragraphs 14.12.122 to 14.12.124 of the ecology ES chapter [11] conclude that as more than 50% of the Sizewell Marshes SSSI would be directly affected, a large proportion of birds using Sizewell Marshes SSSI for breeding and foraging could potentially be affected by adverse noise impacts. However, they also document how boundary features and bunds are included within the construction masterplan to minimise noise, lighting and visual disturbance to adjacent designated sites or valuable habitats.

4.1.4.6 In relation to visual impacts, measures set out within the Lighting Management Plan for Construction and Operational Sites would ensure minimal light-spill onto the adjacent habitats in vicinity of the works associated with the SSSI crossing. Paragraph 14.13.133 of the ecology ES chapter [11] states that at the proposed SSSI Crossing, the light levels can be controlled to below 1lux. Moreover, paragraph 14.12.124 sets out that replacement habitat has already been created at Aldhurst Farm, primarily to compensate for the anticipated losses of these habitats from the SSSI associated with the SSSI Crossing and the western edge of the new SZC platform. This new habitat already supports a number of the relevant bird species and this would compensate to some extent for the potential disturbance effects on Sizewell Marshes SSSI and any related displacement associated with the construction phase.

4.1.5 Details/assessment of prevailing environmental conditions

4.1.5.1 Paragraph 14.9.1 of the Ecology ES chapter for the DCO [11] states that glass (young) eels (*Anguilla anguilla*) were found in the Leiston Drain during aquatic macrophyte surveys showing that the Minsmere sluice is permeable to eels and that eels are therefore present within the ditch network of Sizewell Marshes SSSI. Paragraph 14.8.99 of the Ecology ES chapter [11] states that Norfolk hawker is found in the Sizewell Drain and the Leiston Drain.

4.1.5.2 According to paragraph 1.4.86 of the plants and habitats appendix of the Ecology ES chapter [12] identified that this section of the Leiston Drain supported two scarce aquatic plant species: frogbit and soft hornwort, but that the ditches in this area did not support as diverse aquatic communities as elsewhere within the Sizewell Marshes SSSI, due to shading from dense riparian vegetation. Pages 551 and 552 of the plants and habitats appendix [12] note that the vegetation communities on the Leiston Drain are S26 Common Reed-Common Nettle tall-herb fen, A2 Common Duckweed aquatic community, A16 Common Water starwort aquatic community, typical sub-community. Page 564 states that ‘

The Leiston Drain was choked by Common Reed, with Branched Bur-reed, Floating Sweetgrass and Lesser Water-parsnip scattered throughout'.

4.1.5.3 The invasive plant Nuttall's Waterweed is known to be present on the section of Sizewell Drain to be infilled. It has not been identified in Leiston Drain.

4.1.5.4 Although the SSSI crossing lies within the SSSI boundary the terrestrial vegetation in that location has already been cleared as part of DCO implementation, other than tree stumps. Since the habitat has effectively already been cleared, it is not considered part of the impact of the activities for which this permit is being sought.

4.1.5.5 Table 14.10 of the ecology ES chapter [10] identifies the extent of each habitat to be lost from Sizewell Marshes SSSI due to the main platform and SSSI crossing, the realignment of Sizewell Drain and the restringing of pylons (only the SSSI crossing is the subject of this permit application). This was accounted for in the DCO and Paragraph 14.4.11 of the Ecology ES chapter [8] sets out the primary mitigation measures for permanent loss of Sizewell Marshes SSSI due to the MCA and other works. These include creation of replacement reedbed and ditch habitat implemented at Aldhurst Farm, and a fen meadow plan and wet woodland plan, which would create new, permanent fen meadow to compensate for the loss of fen meadow habitats through construction activities to establish the main platform.

4.1.6 Details of any mitigation

4.1.6.1 Section 7 of the application SID sets out the measures to be deployed to protect the environment. This includes (in Section 7.6.1) measures to manage Nutall's Waterweed. Most of these measures are standard good practice controls regarding flood risk, sediment control, runoff and bank stability, pollution prevention and waste management, and have not been specifically introduced to protect Sizewell Marshes SSSI or Minsmere-Walberwick SPA/Ramsar or Minsmere to Walberswick Heaths and Marshes SAC.

4.1.6.2 Mitigation measures specifically relevant to Sizewell Marshes SSSI are:

- in relation to visual impacts, measures set out within the Lighting Management Plan for Construction and Operational Sites (Volume 2, Appendix 2B [13]) would ensure minimal light-spill onto the adjacent habitats in vicinity of the works associated with the SSSI crossing;
- changes from an originally proposed culvert to a clear span bridge to minimise impacts upon the SSSI;
- use of precast permanent formwork in the formation of the abutments of the SSSI simplifies the construction, reduces construction waste and saves time on site, as well as reducing the possibility of concrete spillage into the SSSI during construction;
- environmental sheet pile barriers to form cofferdams are essential for the dewatering to be effective, but sheet piled walls around the abutments are also designed to minimise potential for contamination to the SSSI and surrounding area;
- to alleviate potential impacts to the drain, silt controls will be locally installed downstream using a combination of silt protection measures (such as silt mats and silt curtains), at the time of working. The use of silt curtains within the Leiston 1 and 2 Drains is already consented under LDC 23_24431_C and 23_24434_C; and
- paragraph 14.8.99 of the Ecology ES chapter [11] states that Norfolk hawker is a protected species under Schedule 5 of the Wildlife and Countryside Act (1981) [14] and a mitigation plan to recover larvae of this species along with other macro-invertebrates in the impacted lengths of the Sizewell Drain, the Leiston Drain and related ditches will be developed.

4.1.6.3 No specific mitigation measures are required as part of this permit to protect Minsmere-Walberswick Heaths & Marshes SAC or Minsmere-Walberswick SPA, beyond those which would be required as part of general environmental protection measures (e.g. water quality).

4.1.6.4 Measures have been introduced to address the habitat loss impact on Sizewell Marshes SSSI, and the temporary disturbance impact of Sizewell C construction on nesting marsh harrier for Minsmere to Walberswick Heaths & Marshes SSSI, and Minsmere-Walberswick SPA and Ramsar site. These include the marsh harrier compensation area, creation of replacement ditch habitat implemented at Aldhurst Farm, and a fen meadow strategy to create new, permanent fen meadow to compensate for the loss of fen meadow habitats through construction activities to establish the main platform. However, these have been introduced to address the impacts of Sizewell C construction as a whole, rather than this permit specifically.

4.2 Permit MCA/WRA/7

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

4.2.1.1 Water will be pumped out of each cofferdam once installed around the bridge abutment piling locations, following installation of the piles. The purpose of the dewatering is to provide a dry working environment to trim the top of individual piles and allow installation of a pile cap. Abstraction on both sides of the Leiston Drain will last up to seventy days. Abstracted water will be immediately discharged back into the receiving watercourse (Leiston Drain) through Outlet DWO1 at approximate location TM 47349 64530. The only intervening activity will be passage of water through a settlement tank to remove suspended solids prior to discharge. The discharge of 521m^3 per day is to be consented separately via permit MDS/CWDA/18 as is the treatment of discharged water. See section B6 of Application for a Water Resources Abstraction Licence Part B.

4.2.1.2 Sheet piled cofferdams will be used to contain the area being dewatering, limit flow rates and minimise change in the wider water environment. The presence of the cofferdam acts to increase the length of the flow path that water must travel to enter the excavation. This acts to reduce the hydraulic gradient, which controls the rate at which water flows. By extending the cofferdam significantly below the required depth of dewatering the flow rates recharging the abstracted water are reduced relative to an open excavation with no hydraulic cut-off. The predicted reduction in water levels outside the cofferdam 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. The cofferdams are shown by the grey polygons on accompanying Annexure A SSSI Crossing Area of Dewatering and Discharge Point Location Plan. The northern cofferdam will be at approximate location TM 47318 64520. The southern cofferdam will be at approximate location TM 47327 64494. Paragraph 4.2.7.1 and 4.1.2.1 of this report provides further details on the cofferdams including depth, thickness, area being dewatered and how they are being installed.

4.2.2 Fish screening details; type, size, etc

4.2.2.1 No fish screening required as the abstractions will not be from a watercourse but from groundwater within a sheet piled cofferdam.

4.2.3 Groundwater investigation consent details if applicable

4.2.3.1 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).

4.2.4 Pump test results if applicable

4.2.4.1 There are no applicable pump test results. Water levels from boreholes screened within the Peat suggest that groundwater level ranges between 0.23 to 0.75 m AOD in this area.

4.2.5 Groundwater modelling if applicable

4.2.5.1 For the groundwater modelling please refer to Section 3 of the accompanying Annexure B Inflow and Discharge H1 Assessments Dewatering Technical Note. This includes the details of a two-dimensional numerical groundwater model constructed in Seep/W that was used to estimate the potential flow rates during dewatering. The model simulates a reduced water level within sheet pile walls in line with the required drawdown during construction. A flow rate of 1.37x10-03 m^3/s through the excavation base and walls has been calculated for the baseline model, which is based on conservative assumptions and material hydraulic properties. The total volume of water to be pumped out is directly related to the duration that the excavation is open. The duration of excavation has been estimated as 1 day per metre length of pile cap construction. Assuming that the pile cap will be cast in 3 m lengths at a time, the total volume of water to be pumped out per day will be: 1 day = 86400 s. 2.74x10-3 m^3/s x 86400 s = 237 m^3/day per cofferdam. The modelling shows that as a result of this abstraction there is a reduction of less than 1mm in water levels outside the cofferdam.

4.2.6 Surface water modelling if applicable

4.2.6.1 Surface water modelling is not relevant since abstraction will be purely from groundwater, within cofferdams.

4.2.7 Impoundment details; size, structure type, footprint of construction, diagrams, schematics

4.2.7.1 There will be no impoundment of Leiston Drain or any surface watercourse. Sheet piled cofferdams will be used to contain the area being dewatering, limit flow rates, and minimise change in the wider water environment. The cofferdams are shown by the grey polygons on accompanying Annexure A SSSI Crossing Area of Dewatering and Discharge Point Location Plan, which also shows the exact location of the cofferdams around the crossing structure. The accompanying SSSI Crossing Dewatering Impact Statement (Section 2) states that each cofferdam will be 5 m x 73 m (365m^2 each side of the Leiston Drain) and formed by driving sheet piles around the perimeter of the area to be excavated. The cofferdams will be

12m deep. Each sheet pile will be 500mm in thickness. Full grid references for the cofferdams to be dewatered are in paragraph 4.1.2.3 of this document.

4.2.8 Details of intended operation of impoundment structure

4.2.8.1 The sheet piled cofferdams will be separated from Leiston Drain and any other surface watercourse. These will be static once installed.

4.2.9 Maps and drawings

4.2.9.1 The location of the dewatering, cofferdams and discharge are shown on Annexure A SSSI Crossing Area of Dewatering and Discharge Point Location Plan.

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

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

4.2.11 Non-native invasive species surveys

4.2.11.1 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 cofferdams. Nuttall's waterweed is present on Sizewell Drain within the footprint of the SSSI crossing but this will not be affected by the dewatering as it will have already been addressed and that section of Sizewell Drain infilled before the cofferdam on the southern side of Leiston Drain is installed.

4.2.12 Protected species surveys

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

4.2.13 Estimation of any habitat loss

4.2.13.1 No habitat loss from Leiston Drain or any designated site will occur due to the dewatering. Modelling reported in Sections 3.4 and 3.5 of the accompanying Annexure B Inflow and Discharge H1 Assessments Dewatering Technical Note shows that drawdowns outside the cofferdam during dewatering would be less than one millimetre (mm) at the Leiston Drain. This magnitude of change outside the cofferdam is considered negligible given the natural range of groundwater variation. Additionally it will only occur temporarily during active dewatering, anticipated to last for up to 155 days. Following cessation of dewatering there will be no further reduction in groundwater levels outside the cofferdam. . This is confirmed in Section 2 of the accompanying SSSI Crossing Dewatering Impact Statement.

4.2.13.2 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.

4.2.14 Details of proposed quantities and abstraction period

4.2.14.1 The abstraction will last for 155 days and is expected to take place in winter. This may change depending on the timing of permit determination and the resultant start date for the construction programme. A total of up to 521 m^3 per day (up to 260.5 m^3 per day from the northern dewatering location and the same amount from the southern dewatering location) will be abstracted. The maximum flow rate would be 100 litres per second (0.1 m^3/s), which would allow for clearance pumping to be carried out intermittently. See Section B13 of Application for a Water Resources Abstraction Licence Part B. These quantities were

calculated using the groundwater flow modelling package SEEP/W. For the calculation of dewatering volumes please refer to Section 3 of the accompanying Annexure B Inflow and Discharge H1 Assessments Dewatering Technical Note. Pumped flow rates will be minimised by the presence of the cofferdam to achieve the target drawdown for the construction of the SSSI Crossing.

4.2.14.2 The dewatering of the SSSI crossing was originally anticipated to be required for up to 70 days based on the original construction schedule considered in the H1 assessment, with dewatering of the excavation undertaken 24/7. Based on the model results the total volume of water abstracted would be 36,470m^3. The model results indicate that the drawdowns outside the cofferdam during dewatering would be less than one millimetre (mm). Since the H1 modelling was completed the construction programme has been revised and the anticipated period of dewatering has increased to 155 days. The increased duration is due to a number of contributing factors including:

- Increased number of concrete pours to limit the lateral pressure on the sheet pile line;
- Increased preparation of the concrete pours in a confined space; and
- Staggered start date between the northern and southern abutments due to varied site release dates.

4.2.14.3 This means the total volume of water to be abstracted has increased to 80,755m^3. While the duration of dewatering is now longer and the total volume that may need to be abstracted has increased the instantaneous and daily rates remain the same. The anticipated magnitude of change, and impact to the environment, remains the same as reported in the H1 modelling as the assessment was carried out using steady state conditions. This means that the increased duration of the works does not require additional modelling as the steady state modelling represents the maximum degree of change once the influence of the dewatering has stabilised.

4.2.15 Hydrological impact assessment if applicable

4.2.15.1 The hydrological impacts are assessed in the groundwater drawdown assessment already referenced.

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

4.2.16.1 Section 4.2 of the accompanying Annexure B Inflow and Discharge H1 Assessments Dewatering Technical Note states that flow rate summary statistics have been derived from five flow monitoring locations that has previously been carried out on the Leiston Drain and Sizewell Drain between the period 2013 to 2022. The upstream monitoring points used were G3, G4, G5, G6A and G7A. These are reported within the unpublished Surface Water Quality Flow and Baseline Report [15]. Flow and level readings were collected at 15 minute intervals at G4, G5, G6A and G7a. Level readings were collected at G3 and converted to flow using an empirical relationship for the v-notch measuring plate installed at this location. Readings were taken at all locations using automated measuring and recording

instrumentation, with manual flow readings carried out to calibrate and validate data. A copy of the report with the data and its interpretation can be made available.

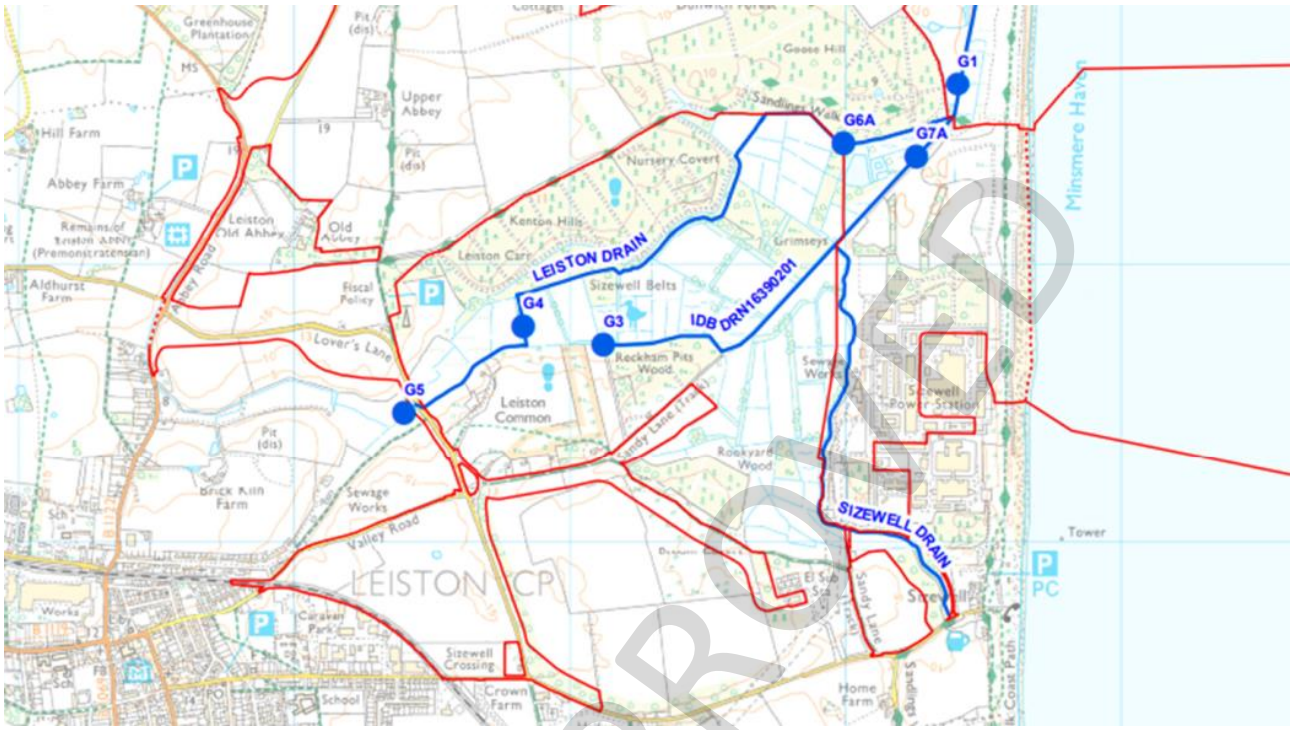

Figure 1: water level monitoring locations

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

4.2.17.1 Discharge of water abstracted including water quality is covered by the application for permit MDS/CWDA/18. Section 4.3.2, 5.2 and Appendix E of the accompanying Annexure B Inflow and Discharge H1 Assessments Dewatering Technical Note sets out details of the quality of the abstracted water. The Phase 1 screening tests indicated that the concentration of chloride, cadmium, manganese and nickel in discharge is liable to cause pollution in the Leiston Drain. These substances are elevated in the discharge compared to background upstream surface water quality and failed test 3 of the Part A screening tests. Manganese is the only of these which additionally failed test 4. All three substances are expected to occur naturally in groundwater and surface water, and the potential impact in the Leiston Drain is considered mild. Manganese is considered likely to oxidise and precipitate fairly quickly after mixing with oxygenated surface waters. Part B of the Phase 1 screening for freshwaters comprises a significant load test which applies to any Priority Hazardous Substances in the discharge. The assessment indicated no substance in the discharge constitutes a significant load. Treatment and discharge of abstracted water are not part of this permit but are part of the application for permit MDS/CWDA/18.

4.2.18 Details/assessment of prevailing environmental conditions

4.2.18.1 Flow conditions in the Leiston Drain are not relevant to this permit since the dewatering will be from groundwater without any direct interaction with Leiston Drain, the drawdown calculated outside the cofferdam will be less than 1mm, and the abstracted water will be returned immediately to Leiston Drain as quickly as possible, with no retention, consumption or use of abstracted water. Discharge is covered by permit application MDS/CWDA/18. The

location of designated sites in relation to the abstraction location is already discussed in **Section 2** of this document, including the condition of relevant SSSI Management Units.

4.2.19 Details of any mitigation

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

5 INFORMATION TO INFORM THE IN-COMBINATION ASSESSMENT

5.1.1.1 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 strategy, and in an area of wet woodland to the west of the Grove. Therefore, any significant habitat loss in the SSSI has already happened under this permit and the DCO itself and will not take place under permit MCA/FRA/2. This permit will therefore not affect the plant, invertebrate or bird interest features of the SSSI. As cited in paragraph 14.7.127 of the Ecology Chapter [11] Natural England indicated that they were confident that the [then proposed] wetland habitat creation at Aldhurst Farm would provide satisfactory compensation in quality and quantity for the permanent loss of reedbed habitats at Sizewell Marshes SSSI;
- the noise assessment for Phase 1 of the DCO has already been discussed in Section 4.1.4of this report;
- the Environmental Appraisal of the SSSI crossing options [5], 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 [18]).

5.1.1.2 A summary of other related SZC MDS permits, licences and consents is provided in Table 2.1 – Table 2.3 of the MCA/FRA/2 application SID. It is reproduced overleaf. It should be noted these all fall within the overall umbrella of the DCO.

Table 5.1 Other related SZC MDS permits, licences and consents

Permit type	SZC permit application reference	Regulator	Regulator permit reference	Activities covered	Status	Timing	Location	Relationship to permits MCA/FRA/2, MCA/LDC/1 and MCA/WRA/7
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	Now 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	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	Now implemented	TM 47298 64506 to TM 47339 64518	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	Now implemented	Centroid of MDS: TM473640	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	Vegetation clearance. Mink trapping and monitoring raft. Installing culverts for access. Erection of fencing (security and ecology). Retainment of existing culvert. Installation of silt curtains.	Obtained	Now implemented	 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,	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	Timing	Location	Relationship to permits MCA/FRA/2, MCA/LDC/1 and MCA/WRA/7
							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	
Construction Water Discharge Activity (CWDA)	MDS/CWDA/18	EA	EPR/RP3820SH	Early site drainage, surface water discharges from MCA/TCA/ACA.	In determination	Estimated from October 2024 to December 2036	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	Inherently linked to the dewatering permit (MCA/WRA/7) and to the SSSI Crossing FRAP (MCA/FRA/2) because all three permits will be implemented simultaneously and the abstracted water from the cofferdams and runoff from the SSSI crossing structure will be treated and then discharged using consent CWDA/18. The outlet is to be constructed under MCA/FRA/2 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	In preparation	Winter 2024/25	NGR for the reach of Sizewell Drain being realigned: from TM 47021 63731 to TM	Permanent connection to Leiston Drain following realignment will replace the temporary connection created for the

Permit type	SZC permit application reference	Regulator	Regulator permit reference	Activities covered	Status	Timing	Location	Relationship to permits MCA/FRA/2, MCA/LDC/1 and MCA/WRA/7
				due to installation of MCA environmental sheet pile barrier			47394 64540. NGR for new connection point of Sizewell Drain into Leiston Drain: TM 47038 64437.	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	Winter 2024/25	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.	Permanent connection to Leiston Drain following realignment will replace the temporary connection created for the SSSI Crossing and will be undertaken later (not simultaneously).
Fish Pass Approval (FPA)	MCA/FPA/1	EA	To be confirmed - application not yet submitted	Sizewell Drain realignment - fish/eel pass	In preparation	Winter 2024/25	NGR for the reach of Sizewell Drain being realigned: from TM 47021 63731 to TM 47394 64540. Likely to be undertaken after the SSSI Crossing 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	Winter 2024/25	Approx NGR: TM 47392 64524.	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). Likely to be undertaken after the SSSI Crossing works.
Water Resources Abstraction (WRA)	AD6/WRA/14	EA	To be confirmed – application not yet submitted	Dewatering of pile caps for bridge across Leiston Drain on bridleway AD6	In preparation	January to February 2025 then resuming in September 2025 to avoid bird nesting season.	Approximately TM 45417 63520	Likely to be undertaken over a similar timescale to the SSSI Crossing works. Located on Lovers Lane immediately upstream of Sizewell Marshes SSSI and approx. 1.8km from the Sizewell Drain realignment and 2.1km upstream of the SSSI Crossing.
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	January to February 2025 then resuming in September 2025 to avoid bird nesting season.	TM 45444 63497	Likely to be undertaken over a similar timescale to the SSSI Crossing works.

6 APPENDICES

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

EA RISKS RELEVANT TO PERMIT MCA/FRA/2 AND MCA/LDC/1

EA Risks Relevant to Sizewell Marshes SSSI

A.1 EA Risks Relevant to Permit MCA/FRA/2 and MCA/LDC/1 on the 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
Change in flow or velocity regime	X	X	X	X	x	x	The SSSI Crossing works are located within the Sizewell Marshes SSSI. Specifically, the Leiston Drain itself and all works to the south of Leiston Drain up to and including the existing alignment of the Sizewell Drain within the crossing footprint, are within the SSSI. The temporary realignment of Sizewell Drain to allow the construction of the SSSI Crossing will also be within the SSSI. There will be no change in flow or velocity regime within the Leiston Drain as a result of direct obstruction or changes in channel morphology, because the crossing works do not impinge on the watercourse itself. The northern abutment is c. 2-3m from the bank top of the Leiston Drain while the southern abutment is c. 18m from the bank top. A section of the Sizewell Drain must be infilled to allow construction of the crossing. However, the Sizewell Drain is a low velocity watercourse and a diversion will be introduced before the existing channel is infilled, to provide a new temporary connection such that there will be no material change in flow or velocity regime from Sizewell Drain into Leiston Drain. The temporary ditch will be designed to ensure that the flow and velocity within the ditch system are maintained. The section on surface water flooding below indicates that the works, including stockpiles, will not cause a material increase in flooding. There is a new outlet to be installed into the Leiston Drain (DWO1). However, discharges from this outlet have been assessed as part of another permit (MDS/CWDA/18). Scour protection will be installed at the top of the bank to reduce the velocity of discharged water and protect Leiston Drain from erosion. The Environmental Appraisal of the SSSI crossing options [5] 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. It is not anticipated that this permit will alter the flow or velocity regime within the Sizewell Drain or Leiston Drain. It will therefore not affect the plant, invertebrate or bird interest features of the Sizewell Marshes SSSI through this impact pathway.
Change in freshwater	X	X	X	X	X	X	As detailed above in the ‘Changes in flow or velocity regime’ assessment, the works covered by this permit will not affect the flows or velocity of the water regime. (Paragraph 19.6.6 to 19.6.43. Volume 2, Chapter 19 Groundwater and Surface

[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
flow to estuary							Water [18]). Further, this clarified that the Works (construction or operation) will not affect freshwater flows. Furthermore, there is no estuary within or downstream of the SSSI and it is not a designated feature.
Change in physical regime	**X**	**X**	**X**	**X**	**X**	**X**	The crossing structure will not directly impinge on Leiston Drain as the abutments will be 2-3m from the bank top on the north side and 18m from the bank top on the south side. The Leiston Drain is a low gradient, low flow velocity watercourse and there is therefore no expectation of significant planform movement or profile deepening over time which could impinge on the SSSI crossing structure or compromise the stability/ connectivity of the confluence between the realigned Sizewell Drain. The water will be discharged in accordance with permit (MDS/CWDA/18). The outfall will be attenuated to remove sediment and contaminants prior to outfall into the Leiston drain. Scour protection will be installed to prevent erosion from the dewatering discharge at the SSSI crossing. This is set out in Section 4.4.9 of the Application SID for the permit. It is not anticipated that this permit will alter the physical regime within the Sizewell Marshes SSSI. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Change in surface water flooding	**X**	**X**	**X**	**X**	**X**	**X**	The northern abutments for the permanent and temporary structures over the Leiston Drain will be set back 2-3m from the Leiston Drain itself such that they will not impede flow in the drain and will be located outside the floodplain (see Figure 2.2 of the Application SID). The southern abutment of the permanent and temporary bridge is located within the floodplain but will be c. 18m from the bank top of Leiston Drain. The construction of the MCA platform (Including excavating the temporary ditch diversion and infilling the existing ditch, storage of side cast 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 ES when this was considered alongside floodplain loss due to the MCA 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 of [18]). The Temporary Crossing was not modelled during the DCO. However, it will sit on the permanent foundations for the north and south wingwalls of the SSSI crossing which were modelled as part of the DCO work. On 16th May 2024, the EA confirmed that *'whilst the deck height is notably lower than the soffit height of the permanent crossing it's still a long way above the fluvial 1 in 100 flood level and therefore of no concern given this is a temporary arrangement'.* Given there will be no material impact on flooding at Sizewell Marshes SSSI, it will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Change in water chemistry	**X**	**X**	**X**	**X**	**X**	**X**	During installation, the permitted works have the potential to change the water chemistry within the Leiston Drain and Sizewell Drain which are both SSSI features in this location and support other SSSI features such as plants, birds and invertebrates, as well as being functionally connected to the fen, mire and rush pasture interest features of the SSSI. However, an environmental sheet pile barrier will be installed either side of each abutment (set back from the drain) (paragraph 4.4.4 and 4.4.7 of the application SID) to protect the surrounding SSSI, including the Leiston Drain from the lateral

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
							movement of any potential contamination (typically pH resulting from the construction of concrete piles/pile caps), and capping [19]. Moreover, there are a series of standard pollution control measures set out in the Environmental Risk Assessment accompanying the permit application within Section 6 the application SID. While there will be discharges from new outlet DWO1, the discharge is being consented through a separate permit (MDS/CWDA/18). Scour protection will be installed at the top of the bank to reduce the velocity of discharged water and protect Leiston Drain from erosion. It is therefore not anticipated that this permit will alter water chemistry within Sizewell Marshes SSSI. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Competition from non-native species	X	X	X	X	X	X	Nuttall's waterweed is an invasive species that has been recorded within the SSSI Crossing works area within the section of Sizewell Drain to be infilled and realigned. As part of standard good site practice and management, the Code of Construction Practice (CoCP) [20] requires a biosecurity risk assessment to be undertaken and a management plan to be implemented to avoid potentially facilitating the spread of invasive non-native species (INNS) (paragraph 14.4.16 of [11]). The CoCP is secured through Requirement 2 of Schedule 2 of the DCO. The Environmental Risk Assessment within the application SID (Section 6) sets out biosecurity protocols. Paragraph 5.1.4 of the Freshwater Fish and Aquatic Invertebrates Mitigation Strategy [21] identifies that if invasive species are identified, work will not be undertaken prior to their removal and disposal. Further information regarding control and removal of invasive species is provided in the CoCP (discussed above). It is not anticipated that this permit will increase competition from non-native species within the Sizewell Marshes SSSI. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Killing/ injury or removal of fish or other animals	X	X	X	X	X	X	Direct risk to SSSI birds and invertebrates would only exist if they were using vegetation that was being cleared. An extensive programme of vegetation clearance and terrestrial ecological mitigation has already been implemented to prepare the works area and this has already been permitted via FRAP/LDC (MDS/FRA/56). This includes vegetation clearance, water vole displacement, otter translocation, and delivery of habitat compensation. As such, most vegetation within the footprint of the works within Sizewell Marshes SSSI has been cleared with the exception of retained stumps. However, some marginal vegetation exists along the Sizewell Drain and Leiston Drain. In the absence of avoidance measures, residual vegetation clearance could result in killing or injury to birds and invertebrate species, and fish species (upon which some birds feed) that may be present within the area of works. Measures to prevent this are required as part of standard good practice rather than to specifically protect SSSI or SSSI interests. All vegetation clearance will be supervised by an ecologist with checks made in advance of clearance commencing. If nesting birds are found present, including those that qualify as interest features within the SSSI, a buffer is put in place to protect the nest and ensure compliance with the Wildlife and Countryside Act, 1981 (as amended) [14] regarding nesting birds. This buffer is determined by the onsite ornithologist Ecological Clerk of Works (ECoW). This is provided by the CoCP [20], which is secured through Requirement 2 of Schedule 2 of the DCO. The land take which is required as part of these works will lead to the incidental mortality of invertebrates present in areas of vegetation that are cleared. This would include invertebrate species with recognised conservation status that have been recorded in this compartment. Norfolk hawker is found within the Sizewell Drain and Leiston Drain. Table 14.16 of the DCO ES Ecology Chapter [11] identifies that a mitigation plan to recover larvae of Norfolk Hawker, along with other macro-invertebrates in the impacted lengths of the Sizewell Drain, the Leiston Drain and related ditches will be developed. These

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
							measures are reflected in the Environmental Risk Assessment as part of the application SID, where there is a specific row on disturbance of sensitive species, including incidental mortality and fish rescue. Paragraph 5.1.1 of the Freshwater Fish and Aquatic Invertebrates Mitigation Strategy [20] details that an invertebrate and fish (including European eel) rescue will take place (details are provided in Section 7.6.2 of the SID). In addition, it is anticipated that nocturnal species attracted to light (in particular, moths) could also suffer mortality during the construction phase, should habitat clearance reduce the barrier effect of current vegetation or bright lighting be used to illuminate work in close proximity to retained habitats. This could cause a reduction of individuals within the supported invertebrate assemblages. However, any such incidental mortality is anticipated to be localised and not pose a detriment to populations in the wider area such as across Sizewell Marshes SSSI. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Physical damage	X	X	X	X	X	X	Physical damage in this context refers to damage to vegetation or other sensitive features which is temporary and easily restorable. For example, damage caused by the construction of temporary access tracks. The Excavation of the ditch diversion and infill of the existing ditch in the works area for the South Abutment has the potential to physically damage SSSI ditch habitat and associated SSSI invertebrate populations. This is in addition to permanent loss due to the footprint of the SSSI Crossing and installation of the c. 5m length of scour protection identified as potentially being required to attenuate flows from the outlet and prevent erosion of Leiston Drain. The works at Sizewell C, including building the main platform and realigning the Sizewell Drain in addition to the SSSI Crossing will result in permanent land take from the SSSI (paragraph 14.7.125 of [11]). The construction works to create the main platform and the SSSI crossing would result in the loss of reedbed, wet woodland and ditch habitat, which act as supporting habitat for avian SSSI features. Paragraph 14.4.11 of the Ecology ES chapter [8] sets out the primary mitigation measures for permanent loss of Sizewell Marshes SSSI due to the MCA and other works. These include creation of replacement reedbed and ditch habitat implemented at Aldhurst Farm, and a fen meadow plan and wet woodland plan, which would create new, permanent fen meadow to compensate for the loss of fen meadow habitats through construction activities to establish the main platform. As cited in paragraph 14.7.127 of [11] Natural England indicated that they were confident that the [then proposed] wetland habitat creation at Aldhurst Farm provides compensation in quality and quantity for the permanent loss of reedbed habitats at Sizewell Marshes SSSI. Information provided in the ES Ecology Chapter for the DCO [11] demonstrates this habitat is now well developed. As the new reedbed and ditch habitats are located adjacent to the western edge of Sizewell Marshes SSSI, separated from Sizewell Marshes SSSI only by Lover's Lane, the impacts of habitat fragmentation have been minimised as the component flora and fauna from Sizewell Marshes SSSI would be expected to colonise naturally from the areas of retained reedbed and ditch habitats.
Turbidity	X	X	X	X	X	X	The assessment provided above for 'Changes to Water Chemistry' applies to the outcome for 'Turbidity'. There will be no release of sediment into Leiston Drain as a result of the permitted works. Sheet piling is to be extended as an environmental barrier around the main earthworks areas (the abutments and embankments for the crossing structure) and measures to control and prevent silt and sediment loss into watercourses is identified in the Environmental Risk Assessment included within the application SID in sections 6.3 and 7.3.

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

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
Habitat /community simplification	**X**	**X**	**X**	**X**	**X**	**X**	This risk concerns changes to the protected site that could result in a less diverse range of vegetation and/or other sensitive features. Permitted works will not result in the simplification of habitats that support SSSI features. Whilst permitted works will result in habitat loss (that has already been compensated for), it is unlikely that habitat simplification will occur within the retained habitat surrounding the permitted works. Details relating to hydrological changes of Leiston Drain are discussed in the changes in flow or velocity regime, changes in surface water flooding, turbidity, and changes in water chemistry assessments. For the reasons given in those sections there will be no downstream community simplification in Leiston Drain. The permit will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Habitat loss							The works at Sizewell C, including building the main platform and realigning the Sizewell Drain in addition to the SSSI Crossing will result in permanent land take from the SSSI. The construction works covered by this permit (works within 8m of top of bank of Leiston Drain - left bank (northern) abutment and bridge deck(s)) would result in development in what were originally areas of reedbed, wet woodland and ditch habitat, which act as supporting habitat for avian SSSI features[2]. It is noted that the northern abutment is located outside of the SSSI. However, a FRAP (MDS/FRA/56) is in place covering ongoing vegetation clearance works, water vole displacement and UXO recovery within Sizewell Marshes SSSI, while other vegetation clearance in the SSSI is covered by the DCO itself. Moreover, offsetting habitat creation for habitat loss in the Sizewell Marshes SSSI from Sizewell C as a whole has already been undertaken at Aldhurst Farm and in an area of wet woodland to the west of the Grove. Therefore, any significant habitat loss in the SSSI has already happened under this permit and the DCO itself and will not take place under permit MCA/FRA/2. This permit will therefore not affect the plant, invertebrate or bird interest features of the SSSI. As cited in paragraph 14.7.127 of [11] Natural England indicated that they were confident that the [then proposed] wetland habitat creation at Aldhurst Farm would provide satisfactory compensation in quality and quantity for the permanent loss of reedbed habitats at Sizewell Marshes SSSI. As the new reedbed and ditch habitats are located adjacent to the western edge of Sizewell Marshes SSSI, separated from Sizewell Marshes SSSI only by Lover's Lane, the impacts of habitat fragmentation have been minimised as the component flora and fauna from Sizewell Marshes SSSI would be expected to colonise naturally from the areas of retained reedbed and ditch habitats. The reedbed and ditch habitat creation undertaken at Aldhurst Farm has established and developed well and, are already supporting plant and bird species characteristic of reed bed habitat and further colonisation by other species can be expected. It is not anticipated that there will be any residual affects on the SSSI breeding bird assemblages.
Disturbance	**X**	**X**	**X**	**X**	**X**	**X**	Breeding bird assemblages of lowland damp grasslands listed as qualifying interest features of the SSSI may be sensitive to noise/ vibration and visual disturbance. It should be noted that bird species present within the SSSI are likely to be habituated to some level to disturbance from visitors to the area and the ongoing presence of contractors. However, there is potential for breeding bird assemblages present within the SSSI and to be disturbed by the Works, which, in the absence of mitigation may constitute a significant effect. Noise and visual disturbance is discussed in detail in Section 4.1.4 of the main body of this report, by reference to the Environmental Statement for the DCO which modelled disturbance impacts to the SSSI from Phase 1 of the Sizewell C works (along with other phases), including the SSSI crossing. In summary, the conclusion is that no significant adverse

[2] Paragraph 14.7.125 EN010012-001844-SZC_Bk6_ES_V2_Ch14_Terrestrial Ecology and Ornithology.pdf (planninginspectorate.gov.uk) [accessed 11/06/2024]

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
							effect will arise due to either distance (such that locations are beyond the extent of predicted noise and visual disturbance), evidence from survey that suggests use of the affected areas is absent or limited, or limited susceptibility of the bird species in question to disturbance. For Sizewell Marshes SSSI, paragraphs 14.12.122 to 14.12.124 of the DCO Ecology ES Chapter [11] conclude that as more than 50% of the Sizewell Marshes SSSI would be directly affected, a large proportion of birds using Sizewell Marshes SSSI for breeding and foraging could potentially be affected by adverse noise impacts. However, they also document how boundary features and bunds are included within the construction masterplan to minimise noise, lighting and visual disturbance to adjacent designated sites or valuable habitats. The DCO and Paragraph 14.4.11 of the Ecology ES chapter [8] sets out the primary mitigation measures for permanent loss of Sizewell Marshes SSSI due to the MCA and other works. These include creation of replacement reedbed and ditch habitat implemented at Aldhurst Farm, and a fen meadow plan (Appendix 14C4 of the ES chapter) and wet woodland plan, which would create new, permanent fen meadow to compensate for the loss of fen meadow habitats through construction activities to establish the main platform. This new habitat already supports a number of the relevant bird species and this would compensate to some extent for the potential disturbance effects on Sizewell Marshes SSSI and any related displacement associated with the construction phase. In relation to visual impacts, measures set out within the Lighting Management Plan for Construction and Operational Sites would ensure minimal light-spill onto the adjacent habitats in vicinity of the works associated with the SSSI crossing. Paragraph 14.13.133 of [11] states that at the proposed SSSI Crossing, the light levels can be controlled to below 1lux. The CoCP [20], (which is secured through Requirement 2 of Schedule 2 of the DCO) identifies that clearance of vegetation will be supervised by an ecologist, working ahead of contractors to ensure that any nesting birds present are identified ahead of any disturbing activities. Should nesting birds be found present, including those that qualify as interest features within the SSSI, a buffer is put in place to protect the nest from disturbance and ensure compliance with the Wildlife and Countryside Act, 1981 (as amended) [14] regarding nesting birds. This buffer is determined by the onsite ornithologist ECoW. The SSSI Crossing works will not therefore affect the plant, invertebrate or bird interest features of the SSSI because disturbance effects where they require mitigation have already been taken into account as part of the overall DCO impact assessment and habitat delivered to ensure no significant loss of foraging or nesting resource.

A.2 EA Risks Relevant to Permit MCA/FRA/2 and MCA/LDC/1 on the Minsmere to Walberswick Heaths and Marshes SSSI

EA Risk	Aggregations of breeding and non-breeding birds[3]	Habitats[4]	Invertebrate assemblages[5]	Botanical interest and vascular plant assemblage[6]	Justification
Change in flow or velocity regime	X	X	X	X	The SSSI is located c. 20m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SSSI. No work will take place within the SSSI. There will be no change in flow or velocity regime within the Leiston Drain as a result of direct obstruction or changes in channel morphology, because the crossing works do not impinge on the watercourse itself. A section of the Sizewell Drain must be infilled to allow construction of the crossing. However, the Sizewell Drain is a low velocity watercourse and a diversion will be introduced before the existing channel is infilled, to provide a new temporary connection such that there will be no material change in flow or velocity regime from Sizewell Drain into Leiston Drain. The temporary ditch will be designed to ensure that the flow and velocity within the ditch system are maintained. The section on surface water flooding below indicates that the works, including stockpiles, will not cause a material increase in flooding. There is a new outlet to be installed into the Leiston Drain (DWO1). However, discharges from this outlet have been assessed as part of another permit (MDS/CWDA/18). Scour protection will be installed at the top of the bank to reduce the velocity of discharged water and protect Leiston Drain from erosion. The Environmental Appraisal of the SSSI crossing options [5] 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. It is not anticipated that this permit will alter the flow or velocity regime within the section of Leiston Drain that flows into Minsmere to Walberswick Heaths and Marshes SSSI. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Change in freshwater flow to estuary	X	X	X	X	The SSSI is located c. 20m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SSSI. No work will take place within the SSSI. As detailed above in the ‘Changes in flow or velocity regime’ assessment, the works covered by this permit will not affect the flows or velocity of the water regime in Leiston Drain downstream of the SSSI Crossing (Paragraph 19.6.6 to 19.6.43. Volume 2, Chapter 19 Groundwater and Surface Water [18]). Moreover, there is no estuary within the SSSI, and there are no habitats associated with an estuary designated.
Change in physi	X	X	X	X	The SSSI is located c. 20m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SSSI.

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

EA Risk	Aggregations of breeding and non-breeding birds[3]	Habitats[4]	Invertebrate assemblages[5]	Botanical interest and vascular plant assemblage[6]	Justification
cal regime					The crossing structure will not directly impinge on Leiston Drain as the abutments will be 2-3m from the bank top on the north side and 18m from the bank top on the south side. The Leiston Drain is a low gradient, low flow velocity watercourse and there is therefore no expectation of significant planform movement or profile deepening over time which could impinge on the SSSI crossing structure or compromise the stability/ connectivity of the confluence between the realigned Sizewell Drain. The water will be discharged in accordance with permit (MDS/CWDA/18). The outfalls will be attenuated to remove sediment and contaminants prior to outfall into the Leiston drain. Scour protection will be installed to prevent erosion from the dewatering discharge at the SSSI crossing. This is set out in section 4.4.9 of the application SID for the permit. It is not anticipated that this permit will alter the physical regime within the Minsmere to Walberswick Heaths & Marshes SSSI. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Change in surface water flooding	**X**	**X**	**X**	**X**	The SSSI is located c. 20m east of the permit. Leiston Drain flows from west to east, through the permit location and then through the SSSI western boundary. No work will take place within the SSSI but Leiston Drain is directly connected to wetland and reedbed habitats within the SSSI which support some qualifying birds. The works will not cause any increase in flooding within the SSSI downstream. The northern abutments for the permanent and temporary structures over the Leiston Drain will be set back 2-3m from the Leiston Drain itself such that they will not impede flow in the drain and will be located outside the floodplain (see Figure 2.2 of the application SID). The southern abutment of the permanent and temporary bridge is located within the floodplain but will be c. 18m from the bank top of Leiston Drain. The construction of the MCA 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 ES when this was considered alongside floodplain loss due to the MCA 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 [18]). The Temporary Crossing was not modelled during the DCO. However, it will sit on the permanent foundations for the north and south wingwalls of the SSSI crossing which were modelled as part of the DCO work. On 16th May 2024, the EA confirmed that *'whilst the deck height is notably lower than the soffit height of the permanent crossing it's still a long way above the fluvial 1 in 100 flood level and therefore of no concern given this is a temporary arrangement'.* Given there will be no material impact on flooding at Sizewell Marshes SSSI, this permit will also not alter surface water flooding within the Minsmere to Walberswick Heaths & Marshes SSSI downstream. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Change in water chemistry	**X**	**X**	**X**	**X**	The SSSI is located c. 20m east of the permit. Leiston drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SSSI. During installation, the permitted works (located within Sizewell Marshes SSSI, upstream of the Minsmere to Walberswick Heaths & Marshes SSSI) have the potential to change the water chemistry within the Leiston Drain. However, an environmental sheet pile barrier will be installed either side of each abutment (set back from the drain) (paragraph 3.1.1.5 of the application SID) to protect the surrounding SSSI, including the Leiston Drain from the lateral movement of any potential contamination (typically pH resulting from the construction of concrete piles/pile caps), and capping [19]. Moreover, there are a series of standard pollution control measures set out in Section 7.4 of the Application SID. While there will be discharges from new outlet DWO1, the discharge is being consented through a separate permit (MDS/CWDA/18). Scour protection will be installed at the top of the bank to reduce the velocity of discharged water and protect Leiston Drain from erosion. It is not anticipated that this permit will alter water chemistry within the Minsmere to Walberswick Heaths & Marshes SSSI. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.

EA Risk	Aggregations of breeding and non-breeding birds[3]	Habitats[4]	Invertebrate assemblages[5]	Botanical interest and vascular plant assemblage[6]	Justification
Competition from non-native species	X	X	X	X	The SSSI is located c. 20m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SSSI. No work will take place within the SSSI. Nuttall's waterweed is an invasive species that has been recorded within the works area and there is a pathway for impact on the SSSI if Nuttall's waterweed was introduced into Leiston Drain from Sizewell Drain. As part of standard good site practice and management, the Code of Construction Practice (CoCP) [20] requires a biosecurity risk assessment to be undertaken and a management plan to be implemented to avoid potentially facilitating the spread of invasive non-native species (INNS) (paragraph 14.4.16 Volume 2 Chapter 14 Terrestrial Ecology and Ornithology [11]. The CoCP is secured through Requirement 2 of Schedule 2 of the DCO. Table 4 of Section 3 (Risk Assessment) of the Environmental Risk Assessment accompanying the permit application sets out biosecurity protocols. It is not anticipated that this permit will increase competition from non-native species within the Minsmere to Walberswick Heaths & Marshes SSSI. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Killing/ injury or removal of fish or other animals	X	X	X	X	The SSSI is located c. 20m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SSSI. No work will take place within the SSSI. There is thus no potential risk of killing or injury of designated avian features within the Minsmere to Walberswick Heaths & Marshes SSSI. However, the risk exists when designated features are present within the supporting habitat within the permit area. Direct risk to birds would only exist if they were using vegetation that was being cleared. An extensive programme of vegetation clearance and terrestrial ecological mitigation has already been implemented to prepare the works area and this has already been permitted via FRAP/LDC (MDS/FRA/56). This includes vegetation clearance, water vole displacement, otter translocation, and delivery of habitat compensation. As such, most vegetation within the footprint of the works within Sizewell Marshes SSSI has been cleared with the exception of retained stumps. However, some marginal vegetation exists along the Sizewell Drain and Leiston Drain. In the absence of avoidance measures, residual vegetation clearance could result in killing or injury to birds and invertebrate species, and fish species (upon which some birds feed) that may be present within the area of works. Measures to prevent this are required as part of standard good practice rather than to specifically protect SSSI or SSSI interests. All vegetation clearance will be supervised by an ecologist with checks made in advance of clearance commencing. If nesting birds are found present, including those that qualify as interest features within the SSSI, a buffer is put in place to protect the nest and ensure compliance with the Wildlife and Countryside Act, 1981 (as amended) [14] regarding nesting birds. This buffer is determined by the onsite ornithologist ECoW. This is provided by the Code of Construction Practice (CoCP) [20], which is secured through Requirement 2 of Schedule 2 of the DCO. The land take which is required as part of these works will lead to the incidental mortality of invertebrates present in areas of vegetation that are cleared. This would include invertebrate species with recognised conservation status that have been recorded in this compartment. These measures are reflected in the Environmental Risk Assessment within the application SID accompanying the permit application, where there is a specific row on disturbance of sensitive species, including incidental mortality and fish rescue. Paragraph 5.1.1 of the Freshwater Fish and Aquatic Invertebrates Mitigation Strategy [21] details that an invertebrate and fish (including European eel) rescue will take place (details are provided in Section 7.6.2 of the SID). In addition, it is anticipated that nocturnal species attracted to light (in particular, moths) could also suffer mortality during the construction phase, should habitat clearance reduce the barrier effect of current vegetation or bright lighting be used to illuminate work in close proximity to retained habitats. This could cause a reduction of individuals within the supported invertebrate assemblages. However, any such incidental mortality is anticipated to be localised and not pose a detriment to populations in the wider area such as Minsmere to Walberswick Heaths & Marshes SSSI. It will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Physical damage	X	X	X	X	The SSSI is located c. 20m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SSSI. No work will take place within the SSSI and there will therefore not be any physical damage within this SSSI. Physical loss to designated features located within supporting habitats located outside of the Minsmere to Walberswick Heaths & Marshes SSSI and located within the permit area are discussed in the 'habitat loss' assessment. This identifies that a FRAP (FRA56) is in place covering ongoing vegetation clearance works, water vole displacement and UXO recovery. Moreover, offsetting habitat creation for habitat loss in the Sizewell Marshes SSSI from Sizewell C as a whole has already been undertaken at Aldhurst Farm and in an area of wet woodland to the west of the Grove, Therefore, significant habitat loss has already happened under this permit and the DCO itself and will not take place under permit MCA/FRA/2. The SSSI Crossing works will therefore not affect the plant, invertebrate or bird interest features of the SSSI.

EA Risk	Aggregations of breeding and non-breeding birds[3]	Habitats[4]	Invertebrate assemblages[5]	Botanical interest and vascular plant assemblage[6]	Justification
Turbidity	**X**	**X**	**X**	**X**	The assessment provided above for 'Changes to Water Chemistry' applies to the outcome for 'Turbidity'. There will be no release of sediment into Leiston Drain as a result of the permitted works. Sheet piling is to be extended as an environmental barrier around the main earthworks areas (the abutments and embankments for the crossing structure) and any temporary spoil stockpiles will be bunded and measures to control and prevent silt and sediment loss into watercourses is identified in the Environmental Risk Assessment included within the application SID in sections 6.3 and 7.3.
Habitat /community simplification	**X**	**X**	**X**	**X**	This risk concerns changes to the protected site that could result in a less diverse range of vegetation and/or other sensitive features. The SSSI is located c. 20m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SSSI. No work will take place within the SSSI. Permitted works will not result in the simplification of vegetation in Leiston Drain downstream of the SSSI crossing, or of habitats in Sizewell Marshes SSSI that support SSSI features. Whilst permitted works will result in habitat loss in Sizewell Marshes SSSI, that has already been addressed under the DCO. It is unlikely that habitat simplification will occur within the retained habitat surrounding the permitted works. Details relating to hydrological changes of Leiston Drain are discussed in the changes in flow or velocity regime, changes in surface water flooding, turbidity, and changes in water chemistry assessments. For the reasons given in those sections there will be no downstream community simplification in Leiston Drain. The permit will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Habitat loss	**X**	**X**	**X**	**X**	The SSSI is located c. 20m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SSSI. No work will take place within the SSSI. There will thus be no habitat loss within the SSSI as part of this permit. A FRAP (MDS/FRA/56) is in place covering ongoing vegetation clearance works, water vole displacement and UXO recovery within Sizewell Marshes SSSI, while other vegetation clearance in the SSSI is covered by the DCO itself. Moreover, offsetting habitat creation for habitat loss in the Sizewell Marshes SSSI from Sizewell C as a whole has already been undertaken at Aldhurst Farm and in an area of wet woodland to the west of the Grove. Therefore, any significant habitat loss in the SSSI has already happened under this permit and the DCO itself and will not take place under permit MCA/FRA/2. This permit will therefore not affect the plant, invertebrate or bird interest features of the SSSI.
Disturbance	**X**	**X**	**X**	**X**	The SSSI is located c. 20m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SSSI. No work will take place within the SSSI. The designated bird features listed as qualifying interest features of the SSSI may be sensitive to noise/ vibration and visual disturbance. It should be noted that bird species present within the SSSI are likely to be habituated to some level to disturbance from visitors to the area and the ongoing presence of contractors. Noise and visual disturbance is discussed in detail in paragraphs Section 4.1.4 of the main body of this report, by reference to the Environmental Statement for the DCO which modelled disturbance impacts to the SSSI from Phase 1 of the Sizewell C works (along with other phases), including the SSSI crossing, and to the Shadow HRA accompanying the DCO application. In summary, the conclusion is that no significant adverse effect will arise due to either distance (such that locations are beyond the extent of predicted noise and visual disturbance), evidence from survey that suggests use of the affected areas is absent or limited, or limited susceptibility of the bird species in question to disturbance. For Minsmere to Walberswick Heaths & Marshes SSSI, the exception is breeding marsh harrier where the ES [11] concludes that given the temporary but long-term duration (approximately 9-12 years) of the construction period, the potential loss of approximately 15% of foraging resource within 4km of Minsmere could conceivably affect the overall breeding productivity. However, measures to improve foraging habitat for marsh harriers have already been established on an area of 48.7 ha to the north of the temporary construction area to offset the temporary loss of foraging habitat on the Sizewell Marshes due to construction disturbance from the delivery of the DCO. The SSSI Crossing works will not therefore affect the plant, invertebrate or bird interest features of the SSSI because disturbance effects where they require mitigation have already been taken into account as part of the overall DCO impact assessment and habitat delivered to ensure no significant loss of foraging resource.

A.3 EA Risks Relevant to Permit MCA/FRA/2 and MCA/LDC/1 on the Minsmere to Walberswick Heaths and Marshes SAC

EA Risk	Annual vegetation of drift lines	European dry heaths	Perennial vegetation on stony banks	Justification
Change in flow or velocity regime	X	X	X	The SAC is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SAC. No work will take place within the SAC. 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.
Change in freshwater flow to estuary	X	X	X	
Change in physical regime	X	X	X	
Change in surface water flooding	X	X	X	The SAC is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SAC. No work will take place within the SAC. The works will not cause any increase in flooding within the SAC downstream. The northern abutments for the permanent and temporary structures over the Leiston Drain will be set back 2-3m from the Leiston Drain itself such that they will not impede flow in the drain and will be located outside the floodplain (see Figure 2.2 of the application SID). The southern abutment of the permanent and temporary bridge is located within the floodplain but will be c. 18m from the bank top of Leiston Drain. The construction of the MCA 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, advice from the EA in the DCO ES when this was considered alongside floodplain loss due to the MCA 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 [18]). Given there will be no material impact on flooding at Sizewell Marshes SSSI, this permit will also not alter surface water flooding within the Minsmere to Walberswick Heaths and Marshes SAC downstream.
Change in water	X	X	X	The SAC is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SAC. No work will take place within the SAC. Moreover, 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 and are thus not susceptible to changes in water chemistry.

EA Risk	Annual vegetation of drift lines	European dry heaths	Perennial vegetation on stony banks	Justification
chemistry				
Competition from non-native species	**X**	**X**	**X**	The SAC is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SAC. No work or vehicle movements will take place within the SAC. As part of standard good site practice and management, the Code of Construction Practice (CoCP) [20] requires a biosecurity risk assessment to be undertaken and a management plan to be implemented to avoid potentially facilitating the spread of invasive non-native species (INNS) (paragraph 14.4.16 Volume 2 Chapter 14 Terrestrial Ecology and Ornithology [11]. The CoCP is secured through Requirement 2 of Schedule 2 of the DCO. The Environmental Risk Assessment within the application SID accompanying the permit application sets out biosecurity protocols. Only aquatic non-native species have been recorded within the works area (Nuttall's waterweed) and these will not be relevant to the dry freely draining habitats for which the SAC is designated. It is not anticipated that this permit will increase competition from non-native species within the Minsmere to Walberswick Heaths and Marshes SAC.
Killing/ injury or removal of fish or other animals	**X**	**X**	**X**	The SAC is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through into the SAC. No work or vehicle movements will take place within the SAC. The SAC is not designed for animals, only habitats; as such, there are no linking impact pathways present.
Physical damage	**X**	**X**	**X**	The SAC is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through into the SAC. No work or vehicle movements will take place within the SAC. There are no linking impact pathways present.
Turbidity	**X**	**X**	**X**	The SAC is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SAC. No work will take place within the SAC. 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. Therefore turbidity is not relevant to SAC features.
Habitat /community simplification	**X**	**X**	**X**	The SAC is located c.40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through into the SAC. No work will take place within the SAC. 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. The only potential mechanism for community simplification of SAC features would therefore be dust deposition. However, the Environmental Risk Assessment located within the application SID accompanying the permit application identifies measures that will be included in the works as standard practice to control dust generation. No impact on SAC qualifying features is therefore expected.
Habitat loss	**X**	**X**	**X**	The SAC is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through into the SAC. No work will take place within the SAC. There will be no habitat loss within the SAC as part of this permit.

EA Risk	Annual vegetation of drift lines	European dry heaths	Perennial vegetation on stony banks	Justification
Disturbance	**X**	**X**	**X**	The SAC is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through into the SAC. No work will take place within the SAC. The designated habitats are not susceptible to noise or visual disturbance. There are no realistic linking impact pathways present.

EA Risks Relevant to Minsmere-Walberswick SPA

A.4 EA Risks Relevant to Permit MCA/FRA/2 and MCA/LDC/1 on the Minsmere-Walberswick SPA

EA Risk	Aggregations of breeding and non-breeding birds[7]	Justification
Change in flow or velocity regime	**X**	The SPA is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA. There will be no change in flow or velocity regime within the Leiston Drain as a result of direct obstruction or changes in channel morphology, because the crossing works do not impinge on the watercourse itself. A section of the Sizewell Drain must be infilled to allow construction of the crossing. However, the Sizewell Drain is a low velocity watercourse and a diversion will be introduced before the existing channel is infilled, to provide a new temporary connection such that there will be no material change in flow or velocity regime from Sizewell Drain into Leiston Drain. The temporary ditch will be designed to ensure that the flow and velocity within the ditch system are maintained. The section on surface water flooding below indicates that the works, including stockpiles, will not cause a material increase in flooding. There is a new outlet to be installed into the Leiston Drain (DWO1). However, discharges from this outlet have been assessed as part of another permit (MDS/CWDA/18). Scour protection will be installed at the top of the bank to reduce the velocity of discharged water and protect Leiston Drain from erosion. The Environmental Appraisal of the SSSI crossing options [5] 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. It is not anticipated that this permit will alter the flow or velocity regime within the section of Leiston Drain that flows into Minsmere-Walberswick SPA.
Change in freshw	**X**	The SPA is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA.

[7] See section 3.3 for the full list of avian features

EA Risk	Aggregations of breeding and non-breeding birds[7]	Justification
ater flow to estuary		As detailed above in the ‘Changes in flow or velocity regime’ assessment, the works covered by this permit will not affect the flows or velocity of the water regime in Leiston Drain downstream of the SSSI Crossing (Paragraph 19.6.6 to 19.6.43. Volume 2, Chapter 19 Groundwater and Surface Water [18]). Moreover, there is no estuary within the SPA, and there are no habitats associated with an estuary designated.
Change in physical regime	**X**	The SPA is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA. The crossing structure will not directly impinge on Leiston Drain as the abutments will be 2-3m from the bank top on the north side and 18m from the bank top on the south side. The Leiston Drain is a low gradient, low flow velocity watercourse and there is therefore no expectation of significant planform movement or profile deepening over time which could impinge on the SSSI crossing structure or compromise the stability/ connectivity of the confluence between the realigned Sizewell Drain. The water will be discharged in accordance with permit (MDS/CWDA/18). The outfalls will be attenuated to remove sediment and contaminants prior to outfall into the Leiston drain. Scour protection will be installed to prevent erosion from the dewatering discharge at the SSSI crossing. This is set out in section 4.4.9 of the application SID for the permit. It is not anticipated that this permit will alter the physical regime within the Minsmere-Walberswick SPA.
Change in surface water flooding	**X**	The SPA is located c. 40m east of the permit. Leiston Drain flows from west to east, through the permit location and then through the SPA western boundary. No work will take place within the SPA but Leiston Drain is directly connected to wetland and reedbed habitats within the SPA which support some qualifying birds. The works will not cause any increase in flooding within the SPA downstream. The northern abutments for the permanent and temporary structures over the Leiston Drain will be set back 2-3m from the Leiston Drain itself such that they will not impede flow in the drain and will be located outside the floodplain (see Figure 2.2 of the application SID). The southern abutment of the permanent and temporary bridge is located within the floodplain but will be c. 18m from the bank top of Leiston Drain. The construction of the MCA 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 ES when this was considered alongside floodplain loss due to the MCA 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 [18]). The temporary bailey bridge was not modelled during the DCO. However, it will sit on the permanent foundations for the north and south wingwalls of the SSSI crossing which were modelled as part of the DCO work. On 16th May 2024, the EA confirmed that ‘*whilst the deck height is notably lower than the soffit height of the permanent crossing it’s still a long way above the fluvial 1 in 100 flood level and therefore of no concern given this is a temporary arrangement’.* Given there will be no material impact on flooding at Sizewell Marshes SSSI, this permit will also not alter surface water flooding within the Minsmere-Walberswick SPA downstream.
Change in water chemistry	**X**	The SPA is located c. 40m east of the permit. Leiston drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA. During installation, the permitted works (located within Sizewell Marshes SSSI, upstream of the Walberswick SPA) have the potential to change the water chemistry within the Leiston Drain. However, an environmental sheet pile barrier will be installed either side of each abutment (set back from the drain) (paragraph 3.2.1.3 of the application SID) to protect the surrounding SSSI, including the Leiston Drain from the lateral movement of any potential contamination (typically pH resulting from the construction of concrete piles/pile caps), and capping [19]. Moreover, there are a series of standard pollution control measures set out in the Environmental Risk Assessment located within the application SID accompanying the permit, and Section 7.4 of the application SID. While there will be discharges from new outlet DWO1, the discharge is being consented through a separate permit (MDS/CWDA/18). Scour protection will be installed at the top of the bank to reduce the velocity of discharged water and protect Leiston Drain from erosion. It is not anticipated that this permit will alter water chemistry within the Minsmere-Walberswick SPA.

EA Risk	Aggregations of breeding and non-breeding birds[7]	Justification
Competition from non-native species	**X**	The SPA is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA. Nuttall's waterweed is an invasive species that has been recorded within the works area and there is a pathway for impact on the SPA if Nuttall's waterweed was introduced into Leiston Drain from Sizewell Drain. As part of standard good site practice and management, the CoCP [20] requires a biosecurity risk assessment to be undertaken and a management plan to be implemented to avoid potentially facilitating the spread of invasive non-native species (INNS) (paragraph 14.4.16 Volume 2 Chapter 14 Terrestrial Ecology and Ornithology [11]. The CoCP is secured through Requirement 2 of Schedule 2 of the DCO. The Environmental Risk Assessment located within the application SID accompanying the permit application sets out biosecurity protocols. It is not anticipated that this permit will increase competition from non-native species within the Minsmere-Walberswick SPA.
Killing/injury or removal of fish or other animals	**X**	The SPA is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA. There is thus no potential risk of killing or injury of designated avian features within the Minsmere-Walberswick SPA. However, the risk exists when designated features are present within the supporting habitat within the permit area. Direct risk to birds would only exist if they were using vegetation that was being cleared. An extensive programme of vegetation clearance and terrestrial ecological mitigation has already been implemented to prepare the works area and this has already been permitted via FRAP/LDC (FRA56). This includes vegetation clearance, water vole displacement, otter translocation, and delivery of habitat compensation. As such, most vegetation within the footprint of the works within Sizewell Marshes SSSI has been cleared with the exception of retained stumps. However, some marginal vegetation exists along the Sizewell Drain and Leiston Drain. In the absence of avoidance measures, residual vegetation clearance could result in killing or injury to birds and invertebrate species, and fish species (upon which some birds feed) that may be present within the area of works. Measures to prevent this are required as part of standard good practice rather than to specifically protect SSSI or SPA interests. All vegetation clearance will be supervised by an ecologist with checks made in advance of clearance commencing. If nesting birds are found present, including those that qualify as interest features within the SSSI, a buffer is put in place to protect the nest and ensure compliance with the Wildlife and Countryside Act, 1981 (as amended) [14] regarding nesting birds. This buffer is determined by the onsite ornithologist ECoW. This is provided by the (CoCP) [20], which is secured through Requirement 2 of Schedule 2 of the DCO. The land take which is required as part of these works will lead to the incidental mortality of invertebrates present in areas of vegetation that are cleared. This would include invertebrate species with recognised conservation status that have been recorded in this compartment. These measures are reflected in the Environmental Risk Assessment located within the application SID accompanying the permit application, where there is a specific row on disturbance of sensitive species, including incidental mortality and fish rescue. Paragraph 5.1.1 of the Freshwater Fish and Aquatic Invertebrates Mitigation Strategy [21] details that an invertebrate and fish (including European eel) rescue will take place (details are provided in Section 7.6.2 of the SID). In addition, it is anticipated that nocturnal species attracted to light (in particular, moths) could also suffer mortality during the construction phase, should habitat clearance reduce the barrier effect of current vegetation or bright lighting be used to illuminate work in close proximity to retained habitats. This could cause a reduction of individuals within the supported invertebrate assemblages. However, any such incidental mortality is anticipated to be localised and not pose a detriment to populations in the wider area such as Minsmere-Walberswick SPA.
Physical damage	**X**	The SPA is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA and there will therefore not be any physical damage within this SPA. Physical loss to designated features located within supporting habitats located outside of the Minsmere-Walberswick SPA and located within the permit area are discussed in the 'habitat loss' assessment. This identifies that a FRAP (MDS/FRA/56) is in place covering ongoing vegetation clearance works, water vole displacement and UXO recovery. Moreover, offsetting habitat creation for habitat loss in the Sizewell Marshes SSSI from Sizewell C as a whole has already been undertaken at Aldhurst Farm and in an area of wet woodland to the west of the Grove, Therefore, significant habitat loss has already happened under this permit and the DCO itself and will not take place under permit MCA/FRA/2.
Turbidity	**X**	The assessment provided above for 'Changes to Water Chemistry' applies to the outcome for 'Turbidity'. There will be no release of sediment into Leiston Drain as a result of the permitted works. Sheet piling is to be extended as an environmental barrier around the main earthworks areas (the abutments and embankments for the crossing structure) and measures to control and prevent silt and sediment loss into watercourses is identified in the Environmental Risk Assessment included within the application SID in sections 6.3 and 7.3.

EA Risk	Aggregations of breeding and non-breeding birds[7]	Justification
Habitat /community simplification	**X**	This risk concerns changes to the protected site that could result in a less diverse range of vegetation and/or other sensitive features. The SPA is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA. Permitted works will not result in the simplification of vegetation in Leiston Drain downstream of the SSSI crossing, or of habitats in Sizewell Marshes SSSI that support SPA features. Whilst permitted works will result in habitat loss in Sizewell Marshes SSSI, which is likely to be functionally linked habitat for the SPA, that has already been addressed under the DCO. It is unlikely that habitat simplification will occur within the retained habitat surrounding the permitted works. Details relating to hydrological changes of Leiston Drain are discussed in the changes in flow or velocity regime, changes in surface water flooding, turbidity, and changes in water chemistry assessments. For the reasons given in those sections there will be no downstream community simplification in Leiston Drain.
Habitat loss	**X**	The SPA is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA. There will thus be no habitat loss within the SPA as part of this permit. A FRAP (MDS/FRA/56) is in place covering ongoing vegetation clearance works, water vole displacement and UXO recovery within Sizewell Marshes SSSI, while other vegetation clearance in the SSSI is covered by the DCO itself. Moreover, offsetting habitat creation for habitat loss in the Sizewell Marshes SSSI from Sizewell C as a whole has already been undertaken at Aldhurst Farm and in an area of wet woodland to the west of the Grove. Therefore, any significant habitat loss in the SSSI has already happened under this permit and the DCO itself and will not take place under permit MCA/FRA/2.
Disturbance	**X**	The SPA is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA. The designated bird features listed as qualifying interest features of the SPA may be sensitive to noise/ vibration and visual disturbance. It should be noted that bird species present within the SPA are likely to be habituated to some level to disturbance from visitors to the area and the ongoing presence of contractors. Noise and visual disturbance is discussed in detail in Section 4.1.4 of the main body of this report, by reference to the ES and shadow HRA [9] for the DCO which modelled disturbance impacts to the SPA from Phase 1 of the Sizewell C works (along with other phases), including the SSSI crossing. In summary, the conclusion is that (with the exception of breeding marsh harrier) no adverse effect on integrity will arise due to either distance (such that locations are beyond the extent of predicted noise and visual disturbance), evidence from survey that suggests use of the affected areas is absent or limited, or limited susceptibility of the bird species in question to disturbance. As per the shadow HRA noise and visual disturbance associated with construction of the main development site and other Phase 1 works could result in the displacement of Minsmere-Walberswick SPA marsh harriers from functionally linked foraging habitat in the Sizewell Marshes and, to a lesser extent, the Minsmere South Levels. However, this has been addressed strategically across the project through the creation of compensatory foraging habitat on former arable land within the EDF Sizewell estate to the north of the main development site, adjacent to the SPA. The SSSI Crossing works will not therefore affect the bird interest features of the SPA because disturbance effects where they require mitigation or (for foraging hen harrier) compensation have already been taken into account as part of the overall DCO impact assessment and habitat delivered to ensure no significant loss of foraging resource.

A.5 EA Risks Relevant to Permit MCA/FRA/2 and MCA/LDC/1 on the Minsmere-Walberswick Ramsar site

EA Risk	Criterion 1 (habitats[8])	Criterion 2 (plants, breeding birds and invertebrates[9])	Justification
Change in flow or velocity regime	**X**	**X**	The Ramsar site is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the Ramsar site. No work will take place within the Ramsar site. There will be no change in flow or velocity regime within the Leiston Drain as a result of direct obstruction or changes in channel morphology, because the crossing works do not impinge on the watercourse itself. A section of the Sizewell Drain must be infilled to allow construction of the crossing. However, the Sizewell Drain is a low velocity watercourse and a diversion will be introduced before the existing channel is infilled, to provide a new temporary connection such that there will be no material change in flow or velocity regime from Sizewell Drain into Leiston Drain. The temporary ditch will be designed to ensure that the flow and velocity within the ditch system are maintained. The section on surface water flooding below indicates that the works, including stockpiles, will not cause a material increase in flooding. There is a new outlet to be installed into the Leiston Drain (DWO1). However, discharges from this outlet have been assessed as part of another permit (MDS/CWDA/18). Scour protection will be installed at the top of the bank to reduce the velocity of discharged water and protect Leiston Drain from erosion. The Environmental Appraisal of the SSSI crossing options [5] 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. It is not anticipated that this permit will alter the flow or velocity regime within the section of Leiston Drain that flows into Minsmere-Walberswick Ramsar site. It will therefore not affect the plant, invertebrate or bird interest features of the Ramsar site.
Change in freshwater flow to estuary	**X**	**X**	The Ramsar site is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the Ramsar site. No work will take place within the Ramsar site. As detailed above in the ‘Changes in flow or velocity regime’ assessment, the works covered by this permit will not affect the flows or velocity of the water regime in Leiston Drain downstream of the SSSI Crossing (Paragraph 19.6.6 to 19.6.43. Volume 2, Chapter 19 Groundwater and Surface Water [18]). Moreover, there is no estuary within the Ramsar site, and there are no habitats associated with an estuary designated.
Change in physical regime	**X**	**X**	The Ramsar site is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the SPA. No work will take place within the Ramsar site. The crossing structure will not directly impinge on Leiston Drain as the abutments will be 2-3m from the bank top on the north side and 18m from the bank top on the south side. The Leiston Drain is a low gradient, low flow velocity watercourse and there is therefore no expectation of significant planform movement or profile deepening over time which could impinge on the SSSI crossing structure or compromise the stability/ connectivity of the confluence between the realigned Sizewell Drain.

[8] 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.
[9] 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[8])	Criterion 2 (plants, breeding birds and invertebrates[9])	Justification
			The water will be discharged in accordance with permit (MDS/CWDA/18). The outfalls will be attenuated to remove sediment and contaminants prior to outfall into the Leiston drain. This is covered by a separate permit (MDS/CWDA/18). Scour protection will be installed to prevent erosion from the dewatering discharge at the SSSI crossing. This is set out in Section 4.4.9 of the application SID for the permit. It is not anticipated that this permit will alter the physical regime within the Minsmere-Walberswick Ramsar site. It will therefore not affect the plant, invertebrate or bird interest features of the Ramsar site.
Change in surface water flooding	**X**	**X**	The Ramsar site is located c. 40m east of the permit. Leiston Drain flows from west to east, through the permit location and then through the Ramsar site western boundary. No work will take place within the Ramsar site but Leiston Drain is directly connected to wetland and reedbed habitats within the Ramsar site which support some qualifying birds. The works will not cause any increase in flooding within the Ramsar site downstream. The northern abutments for the permanent and temporary structures over the Leiston Drain will be set back 2-3m from the Leiston Drain itself such that they will not impede flow in the drain and will be located outside the floodplain (see Figure 2.2 of the application SID). The southern abutment of the permanent and temporary bridge is located within the floodplain but will be c. 18m from the bank top of Leiston Drain. The construction of the MCA 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 ES when this was considered alongside floodplain loss due to the MCA 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 [18]). The temporary bailey bridge was not modelled during the DCO. However, it will sit on the permanent foundations for the north and south wingwalls of the SSSI crossing which were modelled as part of the DCO work. On 16th May 2024, the EA confirmed that *'whilst the deck height is notably lower than the soffit height of the permanent crossing it's still a long way above the fluvial 1 in 100 flood level and therefore of no concern given this is a temporary arrangement'.* Given there will be no material impact on flooding at Sizewell Marshes SSSI, this permit will also not alter surface water flooding within the Minsmere-Walberswick Ramsar site downstream. It will therefore not affect the plant, invertebrate or bird interest features of the Ramsar site.
Change in water chemistry	**X**	**X**	The Ramsar site is located c. 40m east of the permit. Leiston drain flows from west to east, through the permit location and then through the SPA. No work will take place within the SPA. During installation, the permitted works (located within Sizewell Marshes SSSI, upstream of the Minsmere-Walberswick Ramsar site) have the potential to change the water chemistry within the Leiston Drain. However, an environmental sheet pile barrier will be installed either side of each abutment (set back from the drain) (paragraph 4.4.4 and 4.4.6 of the application SID) to protect the surrounding SSSI, including the Leiston Drain from the lateral movement of any potential contamination (typically pH resulting from the construction of concrete piles/pile caps), and capping [19]. Moreover, there are a series of standard pollution control measures set out in the Environmental Risk Assessment located within the application SID accompanying the permit, and Section 7.4 of the application SID. While there will be discharges from new outlet DWO1, the discharge is being consented through a separate permit (MDS/CWDA/18). Scour protection will be installed at the top of the bank to reduce the velocity of discharged water and protect Leiston Drain from erosion. It is not anticipated that this permit will alter water chemistry within the Minsmere-Walberswick Ramsar site.
Competition from non-native species	**X**	**X**	The Ramsar site is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the Ramsar site. No work will take place within the Ramsar site. Nuttall's waterweed is an invasive species that has been recorded within the works area and there is a pathway for impact on the Ramsar site if Nuttall's waterweed was introduced into Leiston Drain from Sizewell Drain. As part of standard good site practice and management, the CoCP [20] requires a biosecurity risk assessment to be undertaken and a management plan to be implemented to avoid potentially facilitating the spread of invasive non-native species (INNS) (paragraph 14.4.16 Volume 2 Chapter 14 Terrestrial Ecology and Ornithology [11]. The CoCP is secured through Requirement 2 of Schedule 2 of the DCO. The Environmental Risk Assessment located within the application SID accompanying the permit application sets out biosecurity protocols. It is not anticipated that this

EA Risk	Criterion 1 (habitats[8])	Criterion 2 (plants, breeding birds and invertebrates[9])	Justification
			permit will increase competition from non-native species within the Minsmere-Walberswick Ramsar site. It will therefore not affect the plant, invertebrate or bird interest features of the Ramsar site.
Killing/ injury or removal of fish or other animals	**X**	**X**	The Ramsar site is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the Ramsar site. No work will take place within the Ramsar site. There is thus no potential risk of killing or injury of designated avian features within the Minsmere-Walberswick Ramsar site. However, the risk exists when designated features are present within the supporting habitat within the permit area. Direct risk to birds would only exist if they were using vegetation that was being cleared. An extensive programme of vegetation clearance and terrestrial ecological mitigation has already been implemented to prepare the works area and this has already been permitted via FRAP/LDC (MDS/FRA/56). This includes vegetation clearance, water vole displacement, otter translocation, and delivery of habitat compensation. As such, most vegetation within the footprint of the works within Sizewell Marshes SSSI has been cleared with the exception of retained stumps. However, some marginal vegetation exists along the Sizewell Drain and Leiston Drain. In the absence of avoidance measures, residual vegetation clearance could result in killing or injury to birds and invertebrate species, and fish species (upon which some birds feed) that may be present within the area of works. Measures to prevent this are required as part of standard good practice rather than to specifically protect SSSI or Ramsar site interests. All vegetation clearance will be supervised by an ecologist with checks made in advance of clearance commencing. If nesting birds are found present, including those that qualify as interest features within the SSSI, a buffer is put in place to protect the nest and ensure compliance with the Wildlife and Countryside Act, 1981 (as amended) [14] regarding nesting birds. This buffer is determined by the onsite ornithologist ECoW. This is provided by the CoCP [20], which is secured through Requirement 2 of Schedule 2 of the DCO. The land take which is required as part of these works will lead to the incidental mortality of invertebrates present in areas of vegetation that are cleared. This would include invertebrate species with recognised conservation status that have been recorded in this compartment. These measures are reflected in the Environmental Risk Assessment located within the application SID accompanying the permit application, where there is a specific row on disturbance of sensitive species, including incidental mortality and fish rescue. Paragraph 5.1.1 of the Freshwater Fish and Aquatic Invertebrates Mitigation Strategy [21] details that an invertebrate and fish (including European eel) rescue will take place (details are provided in Section 7.6.2 of the SID). In addition, it is anticipated that nocturnal species attracted to light (in particular, moths) could also suffer mortality during the construction phase, should habitat clearance reduce the barrier effect of current vegetation or bright lighting be used to illuminate work in close proximity to retained habitats. This could cause a reduction of individuals within the supported invertebrate assemblages. However, any such incidental mortality is anticipated to be localised and not pose a detriment to populations in the wider area such as Minsmere-Walberswick Ramsar site. It will therefore not affect the plant, invertebrate or bird interest features of the Ramsar site.
Physical damage	**X**	**X**	The Ramsar site is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the Ramsar site. No work will take place within the Ramsar site and there will therefore not be any physical damage within this Ramsar site. Physical loss to designated features located within supporting habitats located outside of the Minsmere-Walberswick Ramsar site and located within the permit area are discussed in the ‘habitat loss’ assessment. This identifies that a FRAP (MDS/FRA/56) is in place covering ongoing vegetation clearance works, water vole displacement and UXO recovery. Moreover, offsetting habitat creation for habitat loss in the Sizewell Marshes SSSI from Sizewell C as a whole has already been undertaken at Aldhurst Farm and in an area of wet woodland to the west of the Grove, Therefore, significant habitat loss has already happened under this permit and the DCO itself and will not take place under permit MCA/FRA/2. It will therefore not affect the plant, invertebrate or bird interest features of the Ramsar site.
Turbidity	**X**	**X**	The assessment provided above for ‘Changes to Water Chemistry’ applies to the outcome for ‘Turbidity’. There will be no release of sediment into Leiston Drain as a result of the permitted works. Sheet piling is to be extended as an environmental barrier around the main earthworks areas (the abutments and embankments for the crossing structure) and measures to control and prevent silt and sediment loss into watercourses is identified in the Environmental Risk Assessment included within the application SID in sections 6.3 and 7.3.The permit will therefore not affect the plant, invertebrate or bird interest features of the Ramsar site.
Habitat/community simplification	**X**	**X**	This risk concerns changes to the protected site that could result in a less diverse range of vegetation and/or other sensitive features. The Ramsar site is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the Ramsar site. No work will take place within the Ramsar site. Permitted works will not result in the simplification of vegetation in Leiston Drain downstream of the SSSI crossing, or of habitats in Sizewell Marshes SSSI that support Ramsar site features. Whilst permitted works will result in habitat loss in Sizewell Marshes SSSI, which is likely to be functionally linked habitat for the SPA, that has already been addressed under the DCO. It is unlikely that habitat simplification will occur within the retained habitat surrounding the permitted works. Details relating to hydrological changes of Leiston Drain are discussed in the changes

EA Risk	Criterion 1 (habitats[8])	Criterion 2 (plants, breeding birds and invertebrates[9])	Justification
			in flow or velocity regime, changes in surface water flooding, turbidity, and changes in water chemistry assessments. For the reasons given in those sections there will be no downstream community simplification in Leiston Drain. It will therefore not affect the plant, invertebrate or bird interest features of the Ramsar site.
Habitat loss	**X**	**X**	The Ramsar site is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the Ramsar site. No work will take place within the Ramsar site. There will thus be no habitat loss within the Ramsar site as part of this permit. A FRAP (MDS/FRA/56) is in place covering ongoing vegetation clearance works, water vole displacement and UXO recovery within Sizewell Marshes SSSI, while other vegetation clearance in the SSSI is covered by the DCO itself. Moreover, offsetting habitat creation for habitat loss in the Sizewell Marshes SSSI from Sizewell C as a whole has already been undertaken at Aldhurst Farm and in an area of wet woodland to the west of the Grove. Therefore, any significant habitat loss in the SSSI has already happened under this permit and the DCO itself and will not take place under permit MCA/FRA/2. The permit will therefore not affect the plant, invertebrate or bird interest features of the Ramsar site through habitat loss.
Disturbance	**X**	**X**	The Ramsar site is located c. 40m east of the permit location. Leiston Drain flows from west to east, through the permit location and then through the Ramsar site. No work will take place within the Ramsar site. The designated bird features listed as qualifying interest features of the Ramsar site may be sensitive to noise/ vibration and visual disturbance. It should be noted that bird species present within the Ramsar site are likely to be habituated to some level to disturbance from visitors to the area and the ongoing presence of contractors. Noise and visual disturbance is discussed in detail in Section 4.1.4of the main body of this report, by reference to the ES and shadow HRA [9] for the DCO which modelled disturbance impacts to the Ramsar site from Phase 1 of the Sizewell C works (along with other phases), including the SSSI crossing. In summary, the conclusion is that for all features except breeding marsh harrier no adverse effect on integrity will arise due to either distance (such that locations are beyond the extent of predicted noise and visual disturbance), evidence from survey that suggests use of the affected areas is absent or limited, or limited susceptibility of the bird species in question to disturbance. For Minsmere-Walberswick Ramsar site, the exception is breeding marsh harrier where the ES concludes that given the long-term duration (approximately 9-12 years) of the construction period, the potential loss of approximately 15% of foraging resource within 4km of Minsmere could conceivably affect the overall breeding productivity. As per the shadow HRA [9] noise and visual disturbance associated with construction of the main development site and other Phase 1 works could result in the displacement of Minsmere-Walberswick Ramsar marsh harriers from functionally linked foraging habitat in the Sizewell Marshes and, to a lesser extent, the Minsmere South Levels. However, this has been addressed strategically across the project through the creation of compensatory foraging habitat on former arable land within the EDF Sizewell estate to the north of the main development site, adjacent to the Ramsar.

EA Risks Relevant to Sizewell Marshes SSSI

A.6 EA Risks Relevant to Permit MCA/WRA/7 and Sizewell Marshes SSSI

EA Risk	Assemblage of breeding and wintering birds	Ditches	Floodplain fen and lowland mire	Invertebrate assemblages [10]	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. 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 cofferdam will be in place to limit hydraulic connection to the wider groundwater body. This has been modelled and the results indicate that the drawdowns outside the cofferdam 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, retained sections of Sizewell 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 has already been cleared under the DCO. Drawdown has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdam and will result in negligible change in water levels or flows beyond the cofferdam, 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, the retained sections of Sizewell Drain, or SSSI fen or mire habitats due to the small drawdown in water levels outside the cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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.
Change in flow or	X	X	X	X	X	X	Abstraction will not cause any change in the flow or velocity regime in Leiston Drain, Sizewell Drain or other SSSI watercourse, due to the small drawdown in water levels outside the cofferdam, 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

[10] 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 [10]	Lowland mire grassland and rush pasture	Vascular plants	Justification
velocity regime							(noting that discharge of abstracted water is covered by a separate permit application MDS/CWDA/18). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdams 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 modelled drawdown beyond the cofferdam 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	**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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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.7 EA Risks Relevant to Permit MCA/WRA/7 and Minsmere to Walberswick Heaths and Marshes SSSI

EA Risk	Aggregations of breeding and non-breeding birds [11]	Habitats [12]	Invertebrate assemblages [13]	Botanical interest and vascular plant assemblage[14]	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. 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 cofferdam will be in place to limit hydraulic connection to the wider groundwater body. This has been modelled and the results indicate that the drawdowns outside the cofferdam during dewatering would be less than one millimetre (mm). There will be no direct effects on the SSSI itself and no direct or indirect effects on SSSI habitats, plants or invertebrates.
Habita Loss	**X**	**X**	**X**	**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 cofferdam 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 cofferdam and will result in negligible change in water levels or flows beyond the cofferdam, 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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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.
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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam during dewatering would be less than one millimetre (mm). As a result there will be no change in flow or velocity

[11] See Section 3for the full list of avian features
[12] See Section 3for the full list of designated habitats
[13] See Section 3for the full list of invertebrate assemblage features
[14] See Section 3for the full list of designated botanical interest features, including vascular plant assemblage.

EA Risk	Aggregations of breeding and non-breeding birds [11]	Habitats [12]	Invertebrate assemblages [13]	Botanical interest and vascular plant assemblage [14]	Justification
					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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdams 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 modelled drawdown beyond the cofferdam 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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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.8 EA Risks Relevant to Permit MCA/WRA/7 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	

A.9 EA Risks Relevant to Permit MCA/WRA/7 and Minsmere-Walberswick SPA

EA Risk	Aggregations of breeding and non-breeding birds[15]	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 cofferdam will be in place to limit hydraulic connection to the wider groundwater body. This has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdam 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 cofferdam and will result in negligible change in water levels or flows beyond the cofferdam, 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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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.

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

EA Risk	Aggregations of breeding and non-breeding birds[15]	Justification
Change in water chemistry	**X**	Abstraction will not affect water chemistry in the surrounding area or Leiston Drain, as the cofferdams 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 modelled drawdown beyond the cofferdam 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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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 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.10 EA Risks Relevant to Permit MCA/WRA/7 and Minsmere-Walberswick Ramsar

EA Risk	Criterion 1 (habitats[16])	Criterion 2 (plants, breeding birds and invertebrates[17])	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

[16] 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.
[17] 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[16])	Criterion 2 (plants, breeding birds and invertebrates[17])	Justification
			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 cofferdam will be in place to limit hydraulic connection to the wider groundwater body. This has been modelled and the results indicate that the drawdowns outside the cofferdam 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. This has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdam and will result in negligible change in water levels or flows beyond the cofferdam, 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.
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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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 cofferdams 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 modelled drawdown beyond the cofferdam 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.

EA Risk	Criterion 1 (habitats[16])	Criterion 2 (plants, breeding birds and invertebrates[17])	Justification
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 cofferdam, 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). The effect of the dewatering has been modelled and the results indicate that the drawdowns outside the cofferdam 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.