

## APPENDIX DOCUMENT

### Groundwater Investigation Report

Site: South Lodge, Hotel and Spa, Brighton Road, Lower Beeding, Horsham RH13 6PS

Wates 

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Appendix E.1– As built borehole schematic

Appendix F.1 – BGS borehole 1

Appendix F.2– BGS borehole 2

Appendix G.1 – BH 1 water quality results

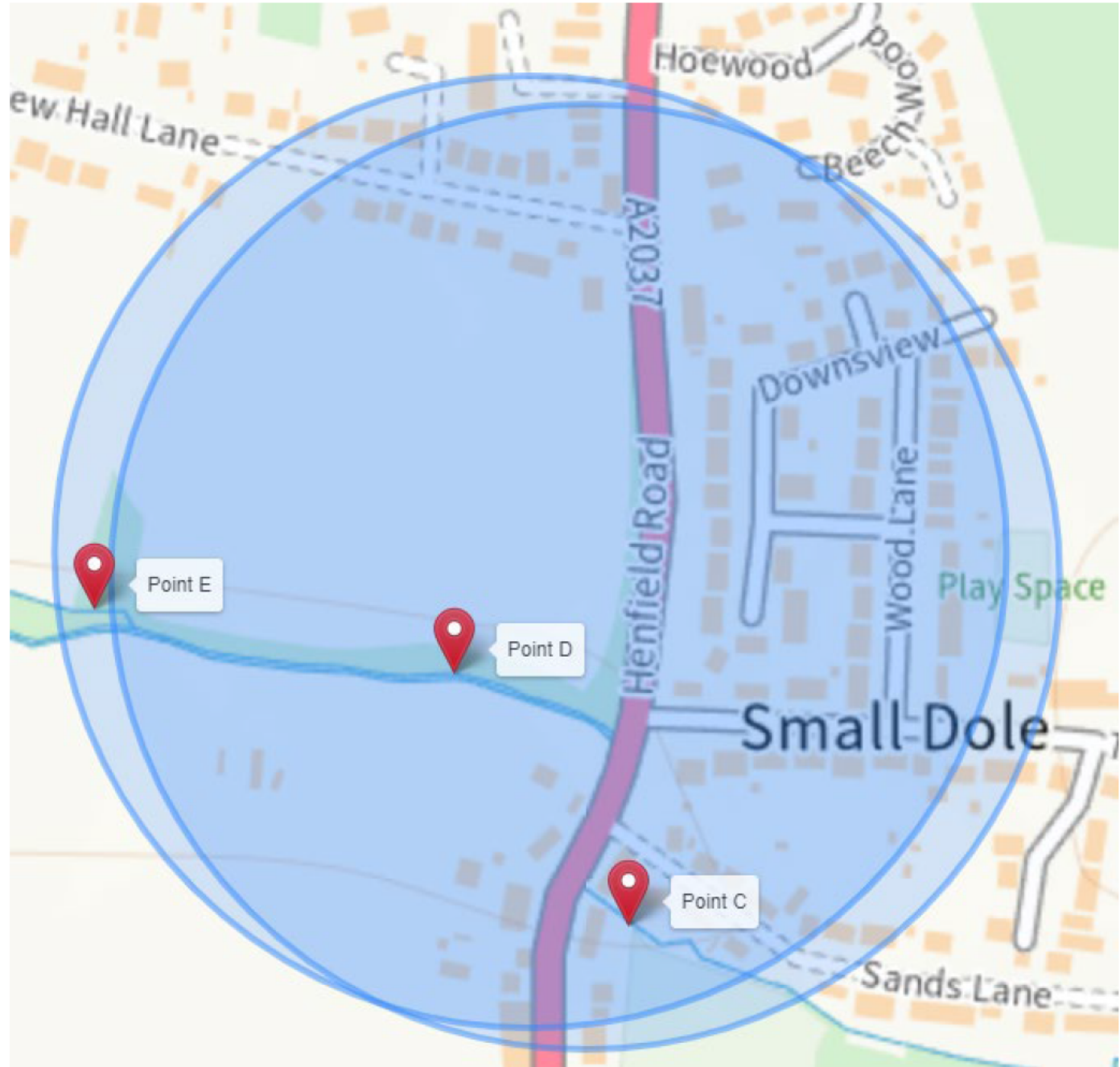
Appendix G.2 – BH 2 water quality results

Appendix H – Concept design




APPENDIX B – Water Features Map

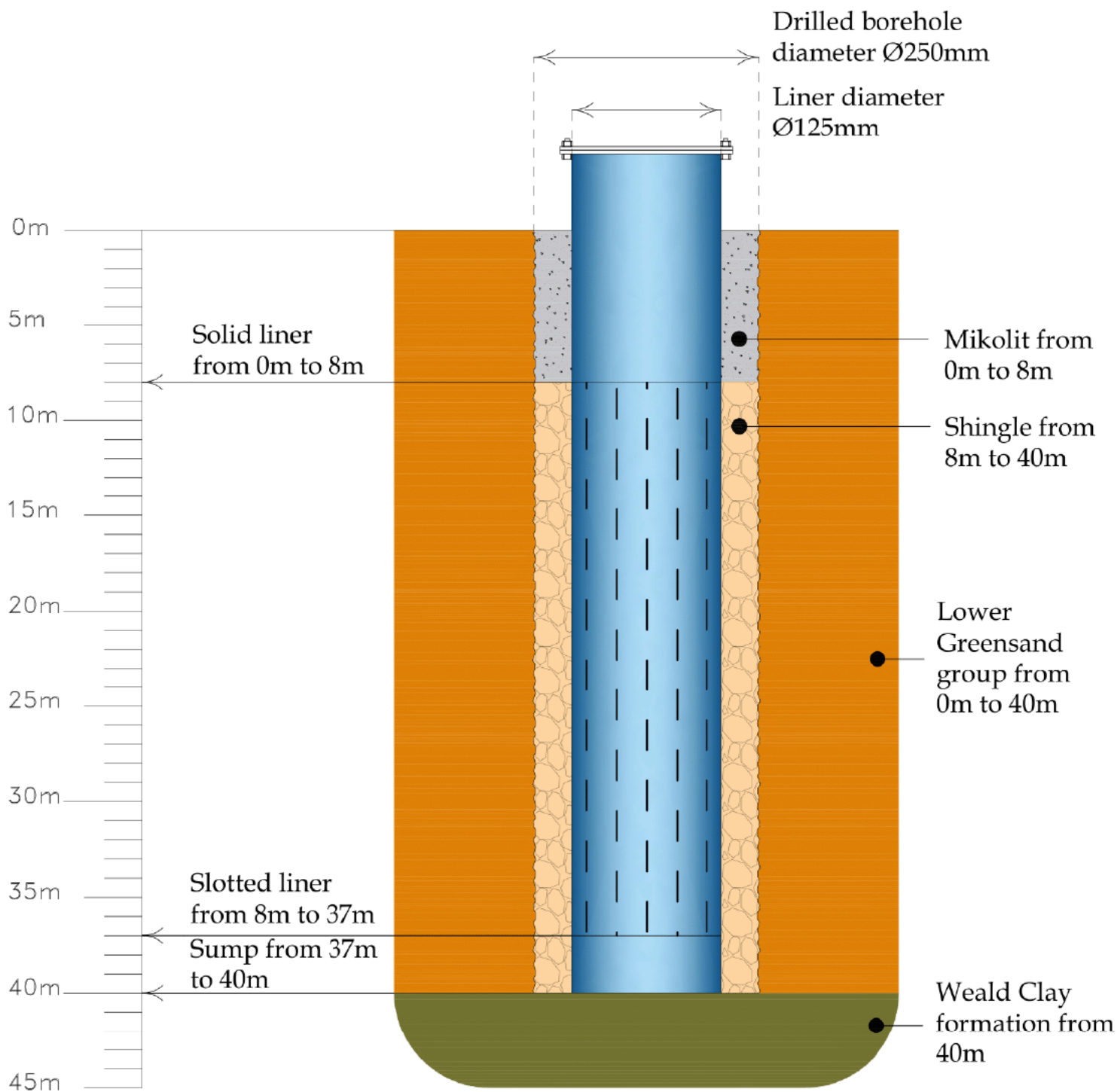
Feature	Location (NGR)
Point C – Ditch/Stream	TQ 21455 12871
Point D – Ditch/Stream	TQ 21363 13004
Point E – Ditch/Stream	TQ 21173 13038
Feature	Notes
Point D – Ditch/Stream	Connects to River Adur






E	F	G	H	I	J	K	L														
<table border="1"> <tr> <td>Title:</td> <td colspan="2">BH1491 - SPZ map</td> </tr> <tr> <td>Client:</td> <td colspan="2">Wates Developments</td> </tr> <tr> <td>Date:</td> <td colspan="2">23/12/2024</td> </tr> <tr> <td>Revision:</td> <td>Rev000</td> <td>Sheet: 1 of 1</td> </tr> </table>				Title:	BH1491 - SPZ map		Client:	Wates Developments		Date:	23/12/2024		Revision:	Rev000	Sheet: 1 of 1	<table border="1"> <tr> <td>Drawn:</td> <td>Mr Adam Hardiman</td> </tr> </table>		Drawn:	Mr Adam Hardiman		
Title:	BH1491 - SPZ map																				
Client:	Wates Developments																				
Date:	23/12/2024																				
Revision:	Rev000	Sheet: 1 of 1																			
Drawn:	Mr Adam Hardiman																				
<p>Indicative layout for design purposes only. Final position to be confirmed on site. Drawing is not to be scaled.</p>																					

APPENDIX D.1 – Pre-construction Schematic

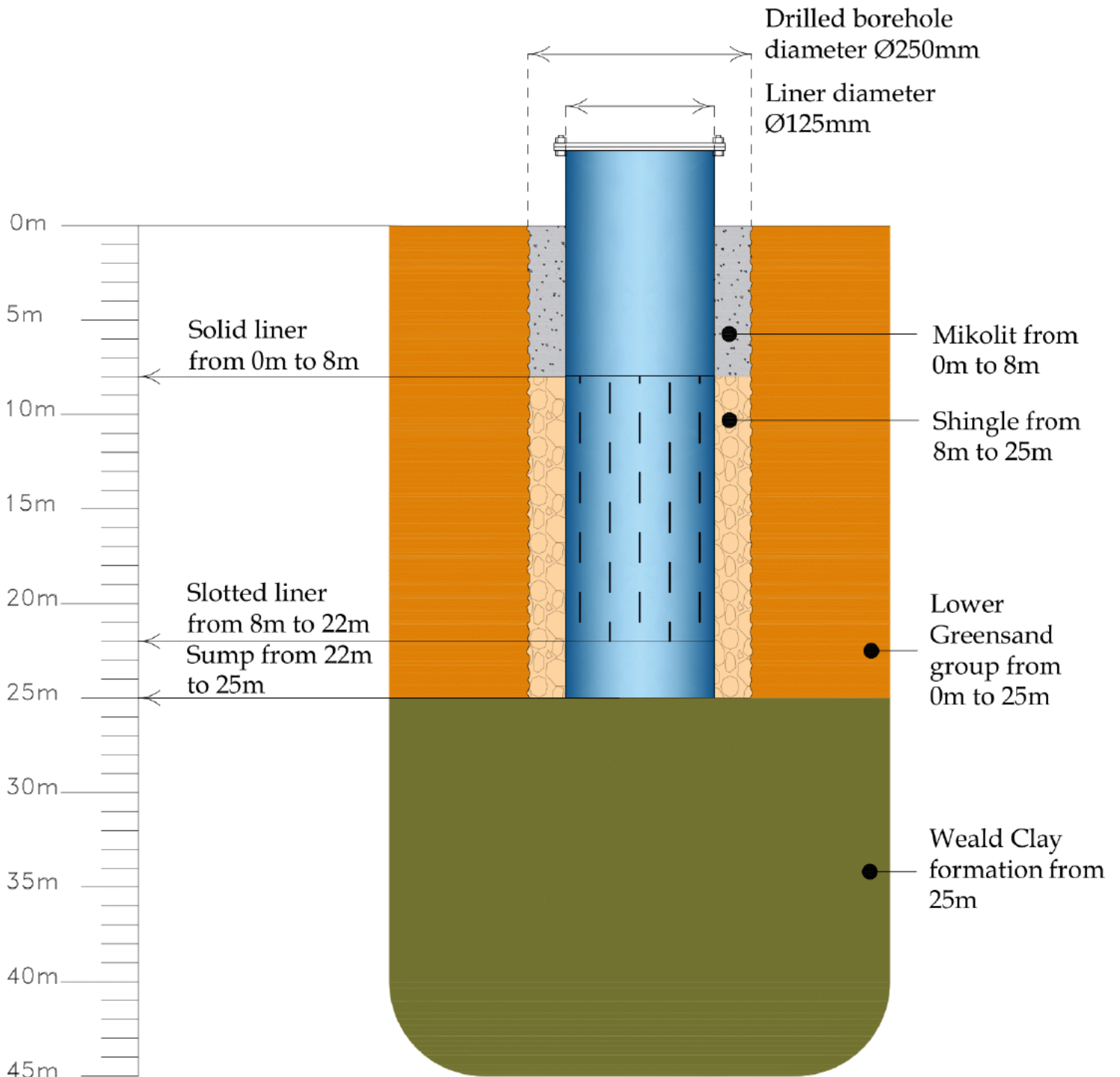


Notes:

Title:	BH1491 - Pre-drill Liner/geology section
Sheet:	1 of 2

Drawn:	Mr Adam Hardiman	
Indicative layout for design purposes only. Final position to be confirmed on site. Drawing is not to be scaled.		

APPENDIX E.1 – As built borehole schematic



Notes:

Title:	BH1491 - Liner/geology section - as-built
Sheet:	2 of 2

Drawn: Mr Adam Hardiman

Indicative layout for design purposes only. Final position to be confirmed on site. Drawing is not to be scaled.

APPENDIX F.1 – BGS Borehole 1

WR38: Borehole record form

**Borehole record form**



British Geological Survey  
NATURAL ENVIRONMENT RESEARCH COUNCIL



Environment Agency

Water Resources Act 1991 (as amended by the Water Act 2003)

**A Site details**

Borehole drilled for WATES  
 Location NEW HALL LANE, SMALL DOLE, BN5 9YH  
 NGR (ten digits) TQ 21433 13055 Please attach site plan  
 Ground level (if known) \_\_\_\_\_ metres Above Ordnance Datum  
 Drilling company NICHOLLS BOREHOLES  
 Date drilling commenced 09/01/2024 (DD/MM/YYYY) Completed 09/01/2024 (DD/MM/YYYY)

**B Construction details**

Borehole datum (if not ground level) \_\_\_\_\_ metres (m). Please tick if this is above  or below  ground level. (point from which all measurements of depth are taken, for example, flange, edge of chamber)

Borehole drilled diameter 250 mm from 0 to 26 m/depth  
 \_\_\_\_\_ mm from \_\_\_\_\_ to \_\_\_\_\_ m/depth  
 \_\_\_\_\_ mm from \_\_\_\_\_ to \_\_\_\_\_ m/depth  
 \_\_\_\_\_ mm from \_\_\_\_\_ to \_\_\_\_\_ m/depth

Casing material Solid uPVC diameter 125 mm from 0 to 7.9 m/depth and type (for example, if plain steel, plastic slotted). Please record permanent casing details, not temporary casing.

Casing material Slotted uPVC diameter 125 mm from 7.9 to 22 m/depth

Casing material Solid uPVC diameter 125 mm from 22 to 25 m/depth

Casing material \_\_\_\_\_ diameter \_\_\_\_\_ mm from \_\_\_\_\_ to \_\_\_\_\_ m/depth

Grouting details 45 bags of shingle, 14 bags of mikoliti. Drilled with mud

Water struck at 1. N/A m (depth below datum – mbd) 2. \_\_\_\_\_ m (mbd)  
 3. \_\_\_\_\_ m (mbd) 4. \_\_\_\_\_ m (mbd)

**C Test pumping summary (Please supply full details on form WR39)**

Test pumping datum \_\_\_\_\_ m. Please tick if this is above  or below  ground level. (if different from borehole datum)

Pump suction depth \_\_\_\_\_ mbd

Water level (start of test) \_\_\_\_\_ mbd

Water level (end of test) \_\_\_\_\_ mbd

Type of test (for example, bailer, step, constant rate)  
 \_\_\_\_\_

Pumping rate \_\_\_\_\_ m<sup>3</sup>/hour  or litres/second . Please tick as appropriate. for \_\_\_\_\_ days, \_\_\_\_\_ hours, \_\_\_\_\_ mins

Recovery to \_\_\_\_\_ mbd in \_\_\_\_\_ days, \_\_\_\_\_ hours, \_\_\_\_\_ mins (from end of pumping)

Date(s) of measurements Pump started \_\_\_\_\_ (DD/MM/YYYY)

Pump stopped \_\_\_\_\_ (DD/MM/YYYY)

Please supply chemical analysis if available. If you have included this please tick this box

**APPENDIX F.1 cont'd – BGS Borehole 1**

WR38: Borehole record form

**D Strata log**

Geological classification (BGS only)	Description of strata	Thickness m	Depth (to base of strata) m
	Dark Brown Top Soil	0.5	0.5
	Light brown, soft, very fine sand / siltstone with dark gray laminae of medium to firm siltstone	9	9.5
	Brown / grey, med - firm, fine grained sandstone with dark grey firm siltstone laminae	8.5	18
	Light brown, very fine, firm sand with dark grey siltstone laminae	6	24
	Gray, clay - Wealden Clay Formation	2	26
	(continue on separate page if necessary)		
	Other comments (for example, gas encountered, saline water intercepted)		

**E Completing this form**

How long did it take you to fill in this form? \_\_\_\_\_

For Official use only			
Date received (DD/MM/YYYY)	File	Consent number	BGS reference number
_____	_____	_____	_____
Accession number	Wellmaster number	SOBI number	NGR
_____	_____	_____	_____
LIC NO	Purpose		EA reference number
_____	_____		_____
Copy number	Entered by		
_____	_____		

**APPENDIX F.2 – BGS Borehole 2**  
**WR38: Borehole record form**

**Borehole record form**



**British Geological Survey**  
 NATURAL ENVIRONMENT RESEARCH COUNCIL



**Environment Agency**

Water Resources Act 1991 (as amended by the Water Act 2003)

**A Site details**

Borehole drilled for WATES DEVELOPMENTS  
 Location NEW HALL LANE, SMALL DOLE, BN5 9YH  
 NGR (ten digits) TQ 21404 13068 Please attach site plan  
 Ground level (if known) \_\_\_\_\_ metres Above Ordnance Datum  
 Drilling company NICHOLLS BOREHOLES  
 Date drilling commenced 10/01/2024 (DD/MM/YYYY) Completed 10/01/2024 (DD/MM/YYYY)

**B Construction details**

Borehole datum (if not ground level) \_\_\_\_\_ metres (m). Please tick if this is above  or below  ground level.  
 (point from which all measurements of depth are taken, for example, flange, edge of chamber)

Borehole drilled diameter \_\_\_\_\_ mm from 0 to 26 m/depth  
 \_\_\_\_\_ mm from \_\_\_\_\_ to \_\_\_\_\_ m/depth  
 \_\_\_\_\_ mm from \_\_\_\_\_ to \_\_\_\_\_ m/depth  
 \_\_\_\_\_ mm from \_\_\_\_\_ to \_\_\_\_\_ m/depth

Casing material Solid uPVC diameter 125 mm from 0 to 7.9 m/depth  
 and type (for example, if plain steel, plastic slotted). Please record permanent casing details, not temporary casing.

Casing material Slotted uPVC diameter 125 mm from 7.9 to 22 m/depth  
 Casing material Solid uPVC diameter 125 mm from 22 to 25 m/depth  
 Casing material \_\_\_\_\_ diameter \_\_\_\_\_ mm from \_\_\_\_\_ to \_\_\_\_\_ m/depth

Grouting details 43 bags of shingle, 12 bags of mikolit. Drilled with mud

Water struck at 1. N/A m (depth below datum – mbd) 2. \_\_\_\_\_ m (mbd)  
 3. \_\_\_\_\_ m (mbd) 4. \_\_\_\_\_ m (mbd)

**C Test pumping summary (Please supply full details on form WR39)**

Test pumping datum \_\_\_\_\_ m. Please tick if this is above  or below  ground level.  
 (if different from borehole datum)

Pump suction depth \_\_\_\_\_ mbd  
 Water level (start of test) \_\_\_\_\_ mbd  
 Water level (end of test) \_\_\_\_\_ mbd

Type of test (for example, bailer, step, constant rate)  
 \_\_\_\_\_

Pumping rate \_\_\_\_\_ m<sup>3</sup>/hour  or litres/second . Please tick as appropriate.  
 for \_\_\_\_\_ days, \_\_\_\_\_ hours, \_\_\_\_\_ mins

Recovery to \_\_\_\_\_ mbd in \_\_\_\_\_ days, \_\_\_\_\_ hours, \_\_\_\_\_ mins  
 (from end of pumping)

Date(s) of measurements Pump started \_\_\_\_\_ (DD/MM/YYYY)  
 Pump stopped \_\_\_\_\_ (DD/MM/YYYY)

Please supply chemical analysis if available. If you have included this please tick this box

APPENDIX F.2 cont'd – BGS Borehole 2

WR38: Borehole record form

**D Strata log**

Geological classification (BGS only)	Description of strata	Thickness m	Depth (to base of strata) m
	Dark Brown Top Soil	0.5	0.5
	Light brown / yellowish, soft, very fine sand / siltstone with dark gray laminae of medium to firm siltstone	9.5	10
	Brown / grey, med - firm, fine grained sandstone with dark grey firm siltstone laminae	7.5	17.5
	Light brown, very fine, firm sand with dark grey med siltstone laminae	6.5	24
	Gray, clay - Wealden Clay Formation	2	26
	(continue on separate page if necessary)		
Other comments (for example, gas encountered, saline water intercepted)			

**E Completing this form**

How long did it take you to fill in this form? \_\_\_\_\_

**For Official use only**

Date received (DD/MM/YYYY)	File	Consent number	BGS reference number
_____	_____	_____	_____
Accession number	Wellmaster number	SOBI number	NGR
_____	_____	_____	_____
LIC NO	Purpose		EA reference number
_____	_____		_____
Copy number	Entered by		
_____	_____		

## APPENDIX G.1– BH1 water quality results

South East Water Scientific Services  
 3 Columbus Drive, Farnborough  
 Hampshire, GU14 0NZ  
 E-Mail: sales@southeastwater.co.uk  
 Website: www.sewscientificservices.co.uk



## ANALYTICAL REPORT

Page 1 of 3

### NICHOLLS BOREHOLES

**Brownings Barn**

**Glasshouse Lane**

**Kirdford**

**West Sussex**

**RH14 0LW**

**Collected From:** NEW HALL LANE, SMALL DOLE

**Date Received:** 30/08/2024

**Certificate Number:**

1300384-1 Final

**Order Number:**

BH 1491 BH1

**Date Reported:**

20/09/2024

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4844586	Desc: RAW BOREHOLE BH1 Collect From: NEW HALL LANE, SMALL DOLE	255	Ammonium (Ammonia and Ammonium Ions)	<0.020	mg/l	<0.500	
	Order No: BH 1491 BH1	245	Nitrate	19.6	mg/l	<50.0	
	Received Date: 30/08/2024	225	Nitrite	<0.004	mg/l	<0.500	
	Tested Date: 30/08/2024	calc	Nitrite/Nitrate	0.392	mg/l	<1.000	*
	Sampling Date: 30/08/2024 11:00	230	Odour - Qualitative	None			*
	Sample Type: GW : Ground Water	230	Odour - Quantitative	0			
	Product: SS-DWREGS	430	Colony Count 3 Days at 22°C	>300	cfu/ml		
		400	E coli	0	mpn/100ml	0	
		400	<b>Total Coliforms</b>	<b>2</b>	<b>mpn/100ml</b>	<b>0</b>	F
		660	Colour	<2	mg/l Pt/Co	<20	
		660	Conductivity	679	uS/cm		
		660	Hydrogen Ion (pH)	7.1	pH_unit	6.5 to 9.5	
		660	Turbidity	0.140	NTU	<4.000	
	ext		Acrylamide	<0.006	µg / l	<0.100	
	ext		Epichlorhydrin	<0.1	µg / l	<0.10	*
	ext		Vinyl Chloride	<0.113	µg / l	<0.500	
		3401	Bromate	<0.8	µg / l	<10.0	
		390	<b>Enterococci</b>	<b>3</b>	<b>cfu/100ml</b>	<b>0</b>	F
		5413	Total Cyanide	<4.1	µg / l	<50.0	
		765	Mercury	<0.04	µg / l	<1.00	
		745	Antimony	<0.2	µg / l	<5.0	
		745	Arsenic	<1.0	µg / l	<10.0	
		745	Selenium	0.9	µg / l	<10.0	
		740	Boron	0.071	mg/l	<1.000	
		740	Calcium	138.3	mg/l		
		740	Magnesium	5.6	mg/l		
		740	Sodium	14.6	mg/l	<200.0	
		3371	Fluoride	0.067	mg/l	<1.500	
		3545	2,4,5-T	<0.007	µg / l	<0.100	
		3545	2,4-D	<0.007	µg / l	<0.100	
		3545	Bentazone	<0.007	µg / l	<0.100	

### Disclaimers:

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\* - denotes non UKAS accredited test

A result of 0 cfu denotes none found in volume analysed

F - Result Exceeds The Maximum Pcv As Defined In The Water Supply (Water Quality) (Amendment) Regulations 2018

ext - Analysis subcontracted to an external laboratory



1579

APPENDIX G.1 cont'd- BH1 water quality results

Certificate Number: 1300384-1 Final

Order Number: BH 1491 BH1

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4844586	Continued from Page 1	3545	Bromoxynil	<0.007	µg / l	<0.100	
		3545	Dicamba	<0.020	µg / l	<0.100	
		3545	Dichlorprop	<0.003	µg / l	<0.100	
		3545	Fluroxypyr	<0.008	µg / l	<0.100	
		3545	MCPA	<0.008	µg / l	<0.100	
		3545	MCPB	<0.008	µg / l	<0.100	
		3545	Mecoprop (MCP)	<0.005	µg / l	<0.100	
		3545	Triclopyr	<0.015	µg / l	<0.100	
		2587	Atrazine	<0.002	µg / l	<0.100	
		2587	Carbendazim	<0.001	µg / l	<0.100	
		2587	Carbetamide	<0.002	µg / l	<0.100	
		2587	Chlortoluron	<0.003	µg / l	<0.100	
		2587	Diuron	<0.004	µg / l	<0.100	
		2587	Epoxiconazole	<0.003	µg / l	<0.100	
		2587	Flutriafol	<0.003	µg / l	<0.100	
		2587	Isoproturon	<0.003	µg / l	<0.100	
		2587	Linuron	<0.003	µg / l	<0.100	
		2587	Oxadixyl	<0.003	µg / l	<0.100	
		2587	Pendimethalin	<0.007	µg / l	<0.100	
		2587	Prometryn	<0.002	µg / l	<0.100	
		2587	Propazine	<0.002	µg / l	<0.100	
		2587	Simazine	<0.003	µg / l	<0.100	
		2587	Terbutryn	<0.002	µg / l	<0.100	
		2587	Trietazine	<0.004	µg / l	<0.100	
		480	Benzo (a) pyrene	<0.003	µg / l	<0.010	
		480	Benzo(1,12)perylene	<0.003	µg / l		
		480	Benzo(1,1,12)fluoranthene	<0.003	µg / l		
		480	Benzo(3,4)fluoranthene	<0.003	µg / l		
		480	Indeno(1,2,3-cd)pyrene	<0.003	µg / l		
		calc	PAH Total	0.000	ug/l	<0.100	*
		775	1,1,1 Trichloroethane	<0.60	µg / l		
		775	1,2-Dichloroethane	<0.12	µg / l	<3.00	
		775	Benzene	<0.02	µg / l	<1.00	
		775	Dibromochloromethane	<0.50	µg / l		
		775	Dichlorobromomethane	<0.43	µg / l		
		775	Tetrachloroethene	<0.15	µg / l	<10.00	
		calc	Tetrachloroethene/Trichloroethene- Sum	0.00	µg / l		*
		775	Tetrachloromethane	<0.11	µg / l	<3.00	
		calc	Total Trihalomethanes	0.00	µg / l	<100.00	*
		775	Tribromomethane	<0.60	µg / l		
		775	Trichloroethene	<0.10	µg / l	<10.00	
		775	Trichloromethane	<0.50	µg / l		
		730	Aluminium	<6.1	µg / l	<200.0	
		730	Iron	<7.3	µg / l	<200.0	
		730	Manganese	2.3	µg / l	<50.0	

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ext - Analysis subcontracted to an external laboratory



APPENDIX G.1 cont'd- BH1 water quality  
results

Certificate Number: 1300384-1 Final

Order Number: BH 1491 BH1

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4844586	Continued from Page 2	735	Cadmium	<0.12	µg / l	<5.00	
		735	Chromium	<0.5	µg / l	<50.0	
		730	First Draw Copper	0.011	mg/l	<2.000	
		730	First Draw Lead	<0.9	µg / l	<10.0	
		730	First Draw Nickel	1.0	µg / l	<20.0	
		360	Clostridium perfringens (including spore	0	cfu/100ml	0	
		calc	Pesticides - Total Substances	0.000	ug/l		*
		5823	Aldrin	<0.007	µg / l	<0.030	
		5823	Dichlobenil	<0.004	µg / l	<0.100	
		5823	Dieldrin	<0.006	µg / l	<0.030	
		5823	Gamma-HCH (Lindane)	<0.010	µg / l	<0.100	
		5823	Heptachlor	<0.009	µg / l	<0.030	
		5823	Heptachlor Epoxide	<0.005	µg / l	<0.030	
		5823	Propyzamide	<0.005	µg / l	<0.100	
		5823	Tri-allate	<0.005	µg / l	<0.100	
		730	Iron (Free)	<7.3	µg / l		
		295	Gross Alpha	0.02	Bq/l	<0.10	
		295	Gross Beta	<0.28	Bq/l	<1.00	
		calc	Hardness (CaCO3)	371.4	mg CaCO3/l		*



Richard Brown  
Laboratory Manager

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ext - Analysis subcontracted to an external laboratory



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APPENDIX G.1 cont'd– BH1 water quality

**B. A. Hydro Solutions Ltd.**  
**3 & 4 The Sidings**  
**Shepreth**  
**Herts**  
**SG8 6PZ**  
**Telephone: +44 1763 26 27 26**  
**Email: info@bahsltd.com**  
**Web: www.bahsltd.com**



**LABORATORY REPORT - Page 1 of 2**

<b>Client:</b>	Nicholls Boreholes Brownings Barn Glass House Lane Kirdford RH14 0LW	<b>Certificate No:</b>	23240908-1
		<b>Order No:</b>	BH1491 BH1
		<b>Date Reported:</b>	23/01/2024
		<b>Site Name:</b>	BH1491
		<b>Sample Desc:</b>	BH1491

Test	Results	Limit	Units	Comment	Sample Details
Alkalinity	332	-	mg/l		
Aluminium	<20.00	200	µg/l		
Ammonium	<0.020	0.5	mg/l		<b>Sampling Date:</b> 15/01/2024
Boron	72	1000	µg/l		<b>Sampling Time:</b> 14:09
Calcium	152.4	-	mg/l		<b>Date Received:</b> 16/01/2024
Chloride	29.2	250	mg/l		<b>Date Tested:</b> 16/01/2024
Copper	<100.00	2000	µg/l		
Fluoride	<100.00	1500	ug/l		
Dissolved Iron (Fe II)	<10.00	-	µg/l		
Total Iron (FeII+FeIII)	51	200	µg/l		
Lead	<2.00	10	µg/l		
Magnesium	0.24	-	mg/l		
Manganese	6	50	µg/l		
Nitrate	<22.00	50	mg/l		
Nitrite	105	500	µg/l		
Nitrite/Nitrate	0.4	≤1	-		
Phosphate	<0.15	-	mg/l		
Potassium	6.79	-	mg/l		
Sodium	43	200	mg/l		
Sulphate	58.8	250	mg/l		
Electrical Conductivity	754	2500	µS/cm		
Calcium Hardness	381	-	mg/l		
Total Hardness as CaCO3	382	-	mg/l	V Hard	
Magnesium Hardness	1	-	mg/l		
pH	6.91	6.5-9.5	pH units		
Total Dissolved Solids	369	-	mg/l		
Turbidity	0.54	4	NTU		

**Disclaimers:**

The results provided are not UKAS accredited and can only be used for non-regulatory purposes

\* Denotes concentrations above UK drinking water standards

# Denotes results which must be treated with caution due to sampling, transit or storage issues prior to delivery to laboratory

</> Denotes concentration found within sample below/above the equipment's detection level

∞ Indicates test has been repeated due to uncertainty or testing issues

\$ Indicates sample was tested outside of the stability period, validity of results may be affected

All analytical quality control associated with these results was satisfactory, details are available on request

B. A. Hydro Solutions Limited - 3 & 4 The Sidings - Station Road - Shepreth - Herts - SG8 6PZ - Tel: +44 1763 26 27 26 - Web: bahsltd.com

APPENDIX G.1 cont'd– BH1 water quality

**B. A. Hydro Solutions Ltd.**  
 3 & 4 The Sidings  
 Shepreth  
 Herts  
 SG8 6PZ  
**Telephone:** +44 1763 26 27 26  
**Email:** info@bahsltd.com  
**Web:** www.bahsltd.com

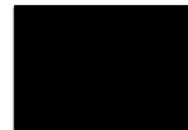
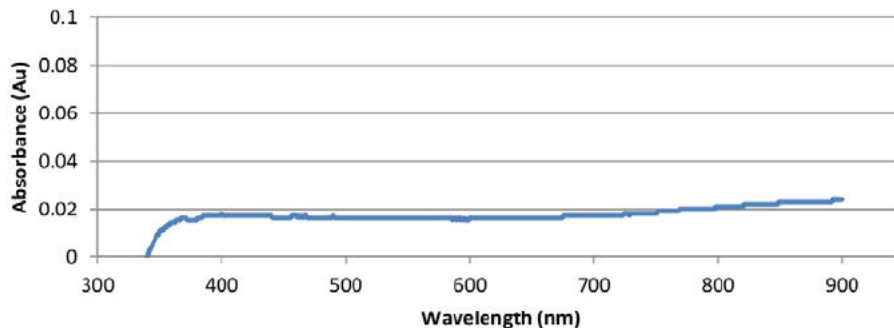


**LABORATORY REPORT - Page 2 of 2**

<b>Client:</b>	Nicholls Boreholes Brownings Barn Glass House Lane Kirdford RH14 0LW	<b>Certificate No:</b> 23240908-1 <b>Order No:</b> BH1491 BH1 <b>Date Reported:</b> 23/01/2024 <b>Site Name:</b> BH1491 <b>Sample Desc:</b> BH1491
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Test	Results	Limit	Units	Comment	Sample Details
E.coli	0	0	cfu/100ml		Sampling Date: 15/01/2024
Total Coliforms	55	0	cfu/100ml	*	Sampling Time: 14:09
Enterococci	0	0	cfu/100ml		Date Received: 16/01/2024
TVC 3 at 22°C	>300	no abnormal change	cfu/ml		Date Tested: 16/01/2024
TVC 2 at 37°C	>300		cfu/ml		

**Absorbance vs. Wavelength**



Patrycja Malinowska  
 Laboratory Manager

**Disclaimers:**

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\* Denotes concentrations above UK drinking water standards

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</> Denotes concentration found within sample below/above the equipment's detection level

∞ Indicates test has been repeated due to uncertainty or testing issues

\$ Indicates sample was tested outside of the stability period, validity of results may be affected

All analytical quality control associated with these results was satisfactory, details are available on request

B. A. Hydro Solutions Limited - 3 & 4 The Sidings - Station Road - Shepreth - Herts - SG8 6PZ - Tel: +44 1763 26 27 26 - Web: bahsltd.com

## APPENDIX G.2– BH2 water quality results

South East Water Scientific Services  
 3 Columbus Drive, Farnborough  
 Hampshire, GU14 0NZ  
 E-Mail: sales@southeastwater.co.uk  
 Website: www.sewsscientificservices.co.uk



## ANALYTICAL REPORT

Page 1 of 3

### NICHOLLS BOREHOLES

**Brownings Barn  
 Glasshouse Lane  
 Kirdford  
 West Sussex  
 RH14 0LW**

**Collected From:** NEW HALL LANE, SMALL DOLE

**Date Received:** 21/08/2024

**Certificate Number:** 1296326-1 Final

**Order Number:** BH1491 BH2

**Date Reported:** 16/09/2024

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4838353	Desc: RAW BOREHOLE	255	Ammonium (Ammonia and Ammonium Ions)	<0.020	mg/l	<0.500	
	Collect From: NEW HALL LANE, SMALL DOLE	245	Nitrate	16.0	mg/l	<50.0	
	Order No: BH1491 BH2	225	Nitrite	<0.004	mg/l	<0.500	
	Received Date: 21/08/2024	calc	Nitrite/Nitrate	0.320	mg/l	<1.000	*
	Tested Date: 21/08/2024	230	Odour - Qualitative	None			*
	Sampling Date: 20/08/2024 08:00	230	Odour - Quantitative	0			
	Sample Type: GW : Ground Water	430	Colony Count 3 Days at 22°C	>300	cfu/ml		
	Product: SS-DWREGS	400	E coli	0	mpn/100ml	0	
		400	<b>Total Coliforms</b>	<b>3</b>	<b>mpn/100ml</b>	<b>0</b>	F
		660	Colour	<2	mg/l Pt/Co	<20	
		660	Conductivity	701	uS/cm		
		660	Hydrogen Ion (pH)	7.1	pH_unit	6.5 to 9.5	
		660	Turbidity	0.205	NTU	<4.000	
	ext		Acrylamide	<0.006	µg / l	<0.100	
	ext		Epichloroydrin	<0.1	µg / l	<0.10	*
	ext		Vinyl Chloride	<0.113	µg / l	<0.500	
		3401	Bromate	<0.8	µg / l	<10.0	
		390	<b>Enterococci</b>	<b>4</b>	<b>cfu/100ml</b>	<b>0</b>	F
		5413	Total Cyanide	<4.1	µg / l	<50.0	
		765	Mercury	<0.04	µg / l	<1.00	
		745	Antimony	<0.2	µg / l	<5.0	
		745	Arsenic	<1.0	µg / l	<10.0	
		745	Selenium	<0.8	µg / l	<10.0	
		740	Boron	0.063	mg/l	<1.000	
		740	Calcium	134.9	mg/l		
		740	Magnesium	5.0	mg/l		
		740	Sodium	14.5	mg/l	<200.0	
		3371	Fluoride	0.130	mg/l	<1.500	
		3545	2,4,5-T	<0.007	µg / l	<0.100	
		3545	2,4-D	<0.007	µg / l	<0.100	
		3545	Bentazone	<0.007	µg / l	<0.100	

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\* - denotes non UKAS accredited test

A result of 0 cfu denotes none found in volume analysed

F - Result Exceeds The Maximum Pcv As Defined In The Water Supply (Water Quality) (Amendment) Regulations 2018

ext - Analysis subcontracted to an external laboratory



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APPENDIX G.2 cont'd– BH2 water quality results

Certificate Number: 1296326-1 Final

Order Number: BH1491 BH2

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4838353	Continued from Page 1	3545	Bromoxynil	<0.007	µg / l	<0.100	
		3545	Dicamba	<0.020	µg / l	<0.100	
		3545	Dichlorprop	<0.003	µg / l	<0.100	
		3545	Fluroxypyr	<0.008	µg / l	<0.100	
		3545	MCPA	<0.008	µg / l	<0.100	
		3545	MCPB	<0.008	µg / l	<0.100	
		3545	Mecoprop (MCP)	<0.005	µg / l	<0.100	
		3545	Triclopyr	<0.015	µg / l	<0.100	
		2587	Atrazine	<0.002	µg / l	<0.100	
		2587	Carbendazim	<0.001	µg / l	<0.100	
		2587	Carbetamide	<0.002	µg / l	<0.100	
		2587	Chlortoluron	<0.003	µg / l	<0.100	
		2587	Diuron	<0.004	µg / l	<0.100	
		2587	Epoxiconazole	<0.003	µg / l	<0.100	
		2587	Flutriafol	<0.003	µg / l	<0.100	
		2587	Isoproturon	<0.003	µg / l	<0.100	
		2587	Linuron	<0.003	µg / l	<0.100	
		2587	Oxadixyl	<0.003	µg / l	<0.100	
		2587	Pendimethalin	<0.007	µg / l	<0.100	
		2587	Prometryn	<0.002	µg / l	<0.100	
		2587	Propazine	<0.002	µg / l	<0.100	
		2587	Simazine	<0.003	µg / l	<0.100	
		2587	Terbutryn	<0.002	µg / l	<0.100	
		2587	Trietazine	<0.004	µg / l	<0.100	
		480	Benzo (a) pyrene	<0.003	µg / l	<0.010	
		480	Benzo(1,12)perylene	<0.003	µg / l		
		480	Benzo(1,1,12)fluoranthene	<0.003	µg / l		
		480	Benzo(3,4)fluoranthene	<0.003	µg / l		
		480	Indeno(1,2,3-cd)pyrene	<0.003	µg / l		
		calc	PAH Total	0.000	ug/l	<0.100	*
		775	1,1,1 Trichloroethane	<0.60	µg / l		
		775	1,2-Dichloroethane	<0.12	µg / l	<3.00	
		775	Benzene	<0.02	µg / l	<1.00	
		775	Dibromochloromethane	<0.50	µg / l		
		775	Dichlorobromomethane	<0.43	µg / l		
		775	Tetrachloroethene	<0.15	µg / l	<10.00	
		calc	Tetrachloroethene/Trichloroethene- Sum	0.00	µg / l		*
		775	Tetrachloromethane	<0.11	µg / l	<3.00	
		calc	Total Trihalomethanes	0.00	µg / l	<100.00	*
		775	Tribromomethane	<0.60	µg / l		
		775	Trichloroethene	<0.10	µg / l	<10.00	
		775	Trichloromethane	<0.50	µg / l		
		730	Aluminium	<6.1	µg / l	<200.0	
		730	Iron	<7.3	µg / l	<200.0	
		730	Manganese	<1.7	µg / l	<50.0	

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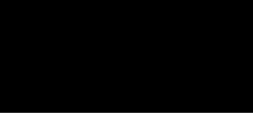


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Certificate Number: 1296326-1 Final

Order Number: BH1491 BH2

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4838353	Continued from Page 2	735	Cadmium	<0.12	µg / l	<5.00	
		735	Chromium	<0.5	µg / l	<50.0	
		730	First Draw Copper	<0.009	mg/l	<2.000	
		730	First Draw Lead	<0.9	µg / l	<10.0	
		730	First Draw Nickel	2.0	µg / l	<20.0	
		360	Clostridium perfringens (including spore	0	cfu/100ml	0	
		calc	Pesticides - Total Substances	0.000	ug/l		*
		5823	Aldrin	<0.007	µg / l	<0.030	
		5823	Dichlobenil	<0.004	µg / l	<0.100	
		5823	Dieldrin	<0.006	µg / l	<0.030	
		5823	Gamma-HCH (Lindane)	<0.010	µg / l	<0.100	
		5823	Heptachlor	<0.009	µg / l	<0.030	
		5823	Heptachlor Epoxide	<0.005	µg / l	<0.030	
		5823	Propyzamide	<0.005	µg / l	<0.100	
		5823	Tri-allate	<0.005	µg / l	<0.100	
		730	Iron (Free)	<7.3	µg / l		
		calc	Hardness (CaCO3)	388.5	mg CaCO3/l		*
		295	Gross Alpha	0.02	Bq/l	<0.10	
		295	Gross Beta	<0.28	Bq/l	<1.00	



Richard Brown  
Laboratory Manager

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APPENDIX G.2 cont'd– BH2 water quality  
results

**B. A. Hydro Solutions Ltd.**  
3 & 4 The Sidings  
Shepreth  
Herts  
SG8 6PZ  
Telephone: +44 1763 26 27 26  
Email: info@bahsltd.com  
Web: www.bahsltd.com



**LABORATORY REPORT - Page 1 of 2**

<b>Client:</b>	Nicholls Boreholes Brownings Barn Glass House Lane Kirdford RH14 0LW	<b>Certificate No:</b>	23240908-2
		<b>Order No:</b>	BH1491 BH2
		<b>Date Reported:</b>	23/01/2024
		<b>Site Name:</b>	BH1491
		<b>Sample Desc:</b>	BH2

Test	Results	Limit	Units	Comment	Sample Details
Alkalinity	333	-	mg/l		
Aluminium	<20.00	200	µg/l		
Ammonium	<0.020	0.5	mg/l		<b>Sampling Date:</b> 15/01/2024
Boron	69	1000	µg/l		<b>Sampling Time:</b> 14:10
Calcium	156.8	-	mg/l		<b>Date Received:</b> 16/01/2024
Chloride	27.1	250	mg/l		<b>Date Tested:</b> 16/01/2024
Copper	<100.00	2000	µg/l		
Fluoride	<100.00	1500	ug/l		
Dissolved Iron (Fe II)	<10.00	-	µg/l		
Total Iron (FeII+FeIII)	50	200	µg/l		
Lead	<2.00	10	µg/l		
Magnesium	0.24	-	mg/l		
Manganese	<5.00	50	µg/l		
Nitrate	<22.00	50	mg/l		
Nitrite	<50.00	500	µg/l		
Nitrite/Nitrate	<0.46	≤1	-		
Phosphate	<0.15	-	mg/l		
Potassium	7.16	-	mg/l		
Sodium	39	200	mg/l		
Sulphate	40.7	250	mg/l		
Electrical Conductivity	751	2500	µS/cm		
Calcium Hardness	392	-	mg/l		
Total Hardness as CaCO3	393	-	mg/l	V Hard	
Magnesium Hardness	1	-	mg/l		
pH	6.95	6.5-9.5	pH units		
Total Dissolved Solids	367	-	mg/l		
Turbidity	0.38	4	NTU		

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§ Indicates sample was tested outside of the stability period, validity of results may be affected

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B. A. Hydro Solutions Limited - 3 & 4 The Sidings - Station Road - Shepreth - Herts - SG8 6PZ - Tel: +44 1763 26 27 26 - Web: bahsltd.com

APPENDIX G.2 cont'd– BH2 water quality

results

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 3 & 4 The Sidings  
 Shepreth  
 Herts  
 SG8 6PZ  
 Telephone: +44 1763 26 27 26  
 Email: info@bahsltd.com  
 Web: www.bahsltd.com

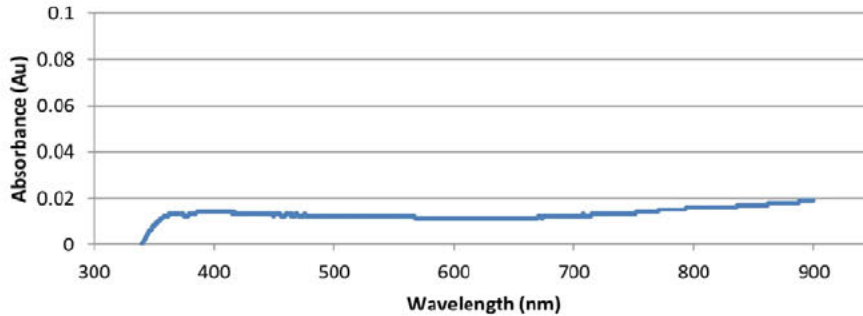


LABORATORY REPORT - Page 2 of 2

<b>Client:</b>	Nicholls Boreholes Brownings Barn Glass House Lane Kirdford RH14 0LW	<b>Certificate No:</b> 23240908-2 <b>Order No:</b> BH1491 BH2 <b>Date Reported:</b> 23/01/2024 <b>Site Name:</b> BH1491 <b>Sample Desc:</b> BH2
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Test	Results	Limit	Units	Comment	Sample Details
E.coli	9	0	cfu/100ml	*	Sampling Date: 15/01/2024
Total Coliforms	9	0	cfu/100ml	*	Sampling Time: 14:10
Enterococci	0	0	cfu/100ml		Date Received: 16/01/2024
TVC 3 at 22°C	>300	no abnormal change	cfu/ml		Date Tested: 16/01/2024
TVC 2 at 37°C	35		cfu/ml		

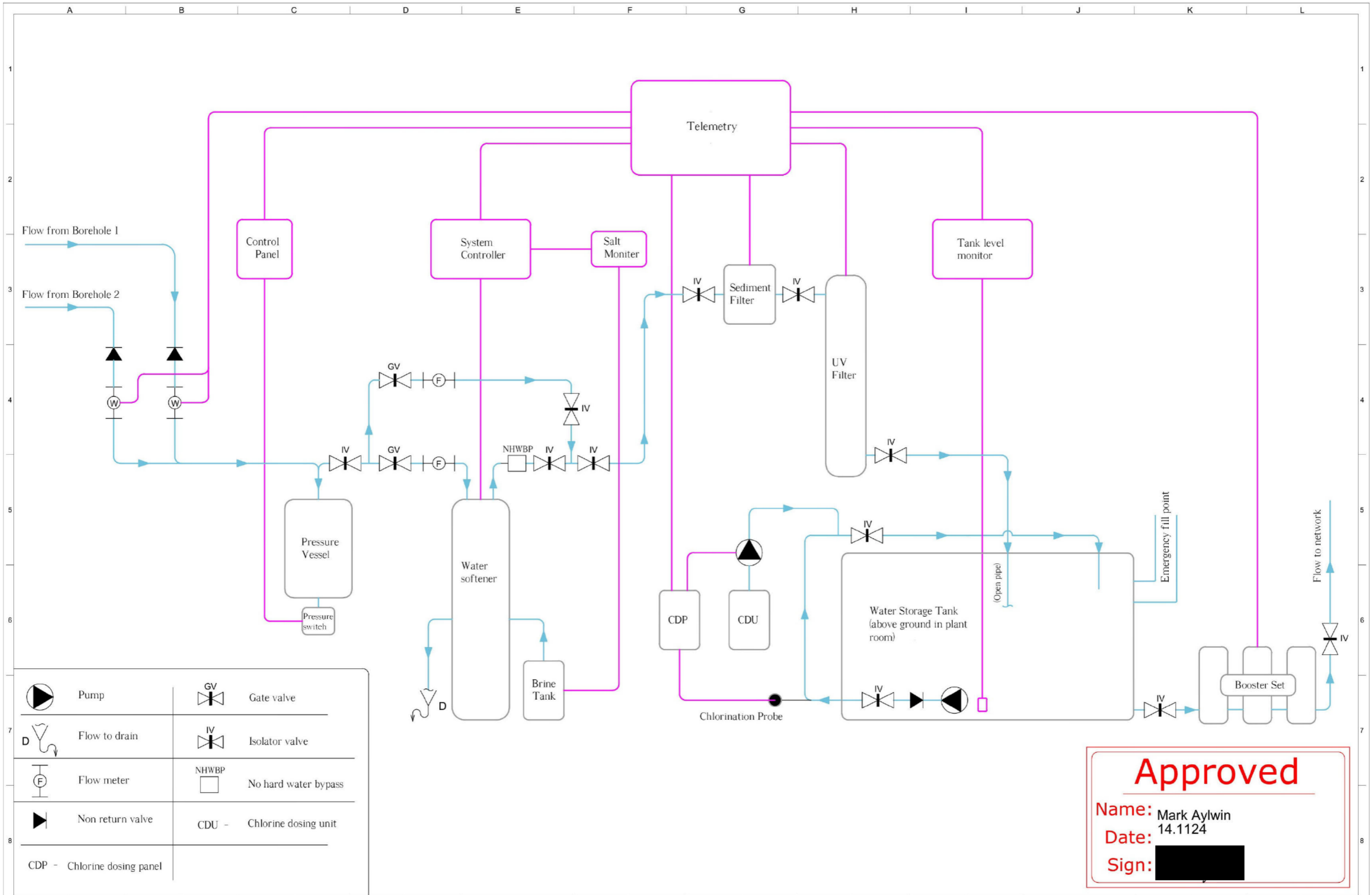
Absorbance vs. Wavelength



Patrycja Malinowska  
 Laboratory Manager

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**Approved**

Name: Mark Aylwin  
 Date: 14.1124  
 Sign: [Redacted Signature]

Notes:

Title:	BH1491 - High level design
Client:	Wates Developments
Date:	13/11/2024
Revision:	Rev000 Sheet: 1 of 1

Drawn: Mr Adam Hardiman

Indicative layout for design purposes only. Final position to be confirmed on site. Drawing is not to be scaled.