

# **One Earth Solar Farm**

Volume 6.0 Environmental Statement [EN010159]

Volume 3

**Appendix 8.4 Preliminary Factual Site Investigation Results** 

February 2025

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Revision 01

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 - Reg 5 (2) (a)





# One Earth Solar Farm

Ground Investigation Factual Report

2372986 INTERIM DRAFT





# **CENTRAL ALLIANCE CONTROL SHEET**

**Project No.:** 2372986

**Title:** One Earth Solar Farm Ground Investigation Factual Report

**Client:** Pershing Consultants

**Issue Date:** October 24

Office: Central Alliance Pre-Construction Services Limited, (Part of RSK Environment

Limited), Alliance House, South Park Way, Wakefield 41 Business Park,

Wakefield, WF2 0XJ

**Version:** 2372986-FAC-01 Int Draft

Russell Witter John Parkinson

Geo-Environmental Engineer Senior Geo-Environmental Engineer

VERSION CONTROL SHEETReferenceDateStatusAmended byApproved byFAC-0125/10/2024Interim DraftRussell WitterJohn Parkinson

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## 1 INTRODUCTION

# 1.1 Commissioning

Central Alliance Pre-Construction Services Limited (Central Alliance) was instructed by Pershing Consultants Ltd (PCL) to undertake intrusive ground investigation at their site in near Fledborough, Lincolnshire. Central Alliance was commissioned to provide the following for the project:

- A factual description of the work undertaken
- Maps and plans
- Exploratory hole logs
- Monitoring Results
- Laboratory testing results

#### 1.2 Objectives

The objective of the ground investigation was to obtain geological data across the site, to establish geotechnical properties, investigate presence of below ground contamination and to install ground monitoring instrumentation, to aid in the design and completion of the Clients proposed works.

# 1.3 Scope of works

The scope of the investigation was designed by AECOM as provided within the received specification document Ground Investigation Specification One Earth Solar First Issue 16 08 2024.

The scope included:

- 13No. Dynamic Sampled boreholes with Rotary Core follow-on to scheduled depth of between 7.00 and 17.00m.
- 12No. Machine-Excavated Trial Pits to scheduled depth of 4.50m bgl.

Final exploratory hole locations were agreed on site between the Client and Central Alliance, following consideration of the existing site conditions and site access restrictions. Details of the works completed, including any deviation from the scope of work, is identified in **Section 3**.

#### 1.4 Limitations

This report presents a description of the site at the time of the fieldwork, results of the fieldwork, in-situ testing undertaken, strata encountered and geotechnical and/or chemical test results, and where applicable, the data obtained during the subsequent monitoring programme.

There may be other conditions prevailing at the site which have not been disclosed by this investigation and which have not been considered by this report. Responsibility cannot be accepted for conditions at the site not revealed by the investigation and



confirmation of intermediate ground conditions between exploratory holes should be considered if deemed necessary.

Unless instructed by the Client, Central Alliance is not obliged to and disclaims any obligation to update the report for events taking place after the date on which this investigation was undertaken.

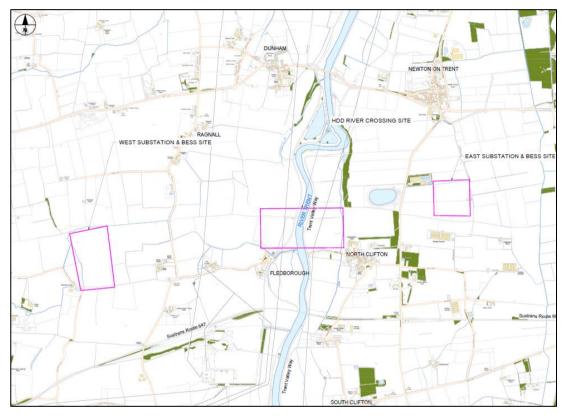


# 2 SITE DETAILS

#### 2.1 Site Location

The site is located near the village of Fledborough, Lincolnshire, adjacent to the River Trent and approximately 16km to the west of Lincoln. The approximate centre of the site is at Grid Reference 481607, 372571, and the nearest postcode is NG23 7AT.

The site is divided across three areas, as shown in the plan below.



Site location details are presented in **Table 1 - Site Location** and satellite imagery of the area is presented in **Figure 1**.

**Table 1 - Site Location** 

Site name	One Earth Solar Farm
Full site compound address and postcode	During the works the compound was located to the east of the site at: Hall Farm, Southmoor Lane, Lincoln, LN1 2LJ.
National Grid reference (compound)	483641, 372938



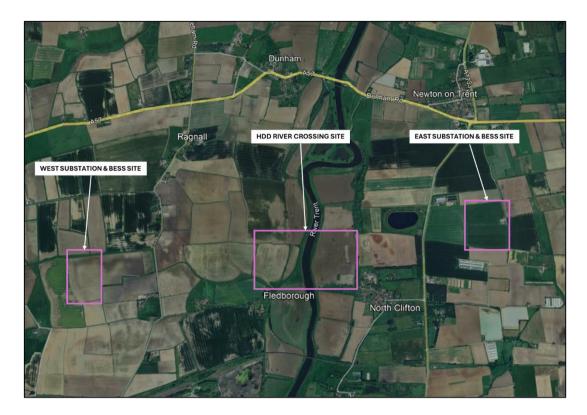


Figure 1: Site Location (Google Earth®, 2024)

# 2.2 Site Description

**West Substation and BESS Site:** Area of agricultural fields directly due west of North Farm, Fledborough with further agricultural fields surrounding it

**East Substation and BESS site:** Area of agricultural fields northeast of North Clifton with further agricultural fields surrounding it

**HDD River Crossing**: an area of agricultural fields either side of the River Trent between the villages of Fledborough to the west and North Clifton to the east. The river flows in a general north to south direction in this area and is bound by levees.

# 2.3 Site Geology

#### 2.3.1 Made Ground

Made Ground is not indicated to be present at the location.

#### 2.3.2 Anticipated Geological Sequence

Published records (British Geological Survey, BGS) for the area indicate the geology of the site to be characterised by the strata recorded in **Tables 2** and **3**, seen below



## Table 2 - Site Geology (Superficial)

Strata	Description	
Holme Pierrepont Member to the east	Generally pinkish poorly sorted SAND and GRAVEL.	
Alluvium shown adjacent to the River Trent.	CLAY, SILT, SAND and GRAVEL	
No superficial deposits shown to underlie the east of the site.		
Relevant information sources: BGS Geology Viewer □ BGS Geoindex ⊠ Previous SI reports □		

## Table 3 - Site Geology (Solid Geology)

Strata	Description		
Mercia Mudstone	Dominantly Brownish Red, less commonly green/grey mudstones and siltstone with thick gypsum bearing units		
Relevant information sources: BGS Geology Viewer ⊠ BGS Geoindex ⊠ Previous SI reports □			



# 3 FIELDWORK

#### 3.1 General Fieldwork Information

The ground investigation works were completed between Monday 23<sup>rd</sup> September and Tuesday 22<sup>nd</sup> October 2024, with works completed during normal weekday shifts

The fieldwork was carried out in general accordance with Eurocode 7, BS5930:2015+A1:2020 - 'Code of Practice for Ground Investigations'; BS10175 'Investigation of potentially contaminated sites – Code of Practice' (2001); Association of Geotechnical and Geo-environmental Specialist Guidelines for Good Practice in Geotechnical Ground Investigation (June 2016) and logged in accordance with BS EN ISO 14688-1:2018 and BS EN ISO 14688-2:2018.

The final locations of exploratory holes were determined by the presence of underground services, practicalities, and any site access restrictions. The locations of exploratory holes are provided on drawing ##-####### with coordinates and levels recorded on the individual exploratory hole logs presented as Appendix A.

## 3.2 Exploratory Holes

The exploratory holes were completed using a combination of dynamic sampling, rotary coring and machine trial pitting techniques. The logging, sampling and subsampling of the exploratory holes were completed by a suitably qualified Geo-Environmental Engineer provided by Central Alliance.

The completed scope of works was as follows:

- 13No. Dynamic Sampled boreholes with Rotary Core follow-on to a maximum depth between 7.00m and 19.50m bgl.
- 12No. Trial Pits to a maximum depth between 1.60m and 4.00m bgl

The trial pits were terminated at slightly shallower depths due to groundwater ingress and instability.

Due to the presence of gravels adjacent to the River Trent, a cable percussive rig was mobilised to site to assist the rotary rig. BH005, BH007, BH008 and BH010 were advanced by cable percussive techniques to either the scheduled depth of the borehole or to rockhead to allow the rotary core follow-on to continue to the scheduled depth.

For full details of the strata encountered, groundwater strikes, samples taken, in-situ testing, logging legend sheet, and calibration certificates please refer to the individual exploratory hole records presented as Appendix A.

Photographs of recovered cores/samples and/or Trial Pit excavations, are provided as Appendix B.



# 3.3 Monitoring Installations

The following monitoring instrumentation was installed to facilitate the specified post-fieldworks monitoring:

- 9No. 50mm diameter groundwater/ground gas monitoring standpipe installation
- 4No. vibrating wire piezometer (VWP) installation

# 3.4 Post-Fieldwork Monitoring

Monitoring is to be completed in accordance with BS10175 and BS5930 with gas concentrations read using a GA2000 gas analyser. Monitoring is ongoing and will be reported in the final report.



# 4 LABORATORY TESTING

# 4.1 Geotechnical Laboratory Testing

Laboratory testing was scheduled by Pershing Consultants/AECOM on selected soil/rock samples recovered during the investigation. The samples were sent to Professional Soils Laboratory (PSL) at their testing facility in Doncaster, South Yorkshire.

All testing has been carried out in accordance with the laboratory's UKAS accreditation following lab standards set out in BS EN INO 17892. At the time of interim draft report issue, geotechnical laboratory testing is still ongoing. A full set of results will be included in the revised draft report.

## 4.2 Chemical Laboratory Testing

Chemical testing was scheduled by Pershing Consultants/AECOM on selected samples recovered during the ground investigation and from groundwater samples recovered during the monitoring. The samples were sent to Envirolab at their laboratory in Hattersley, Greater Manchester.

All testing was carried out in accordance with the laboratory's UKAS accreditation.

At the time of interim draft report issue, laboratory testing is still ongoing. A full set of results will be included in the revised draft report.

Completed chemical laboratory testing results to date are presented as Appendix C.



# **DRAWING(S)**



# Appendix A Exploratory Hole Logs



#### **EXPLORATORY HOLE LEGEND SHEET**

#### STRATA LEGENDS



**TOPSOIL** 



MADE GROUND



CLAY



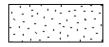
SANDY GRAVELLY CLAY



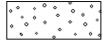
ORGANIC CLAY



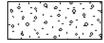
**SILT** 



SAND



**GRAVEL** 



SAND & GRAVEL



**PEAT** 



**COBBLES** 



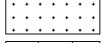
**BOULDERS** 



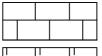
MUDSTONE



SILTSTONE



SANDSTONE

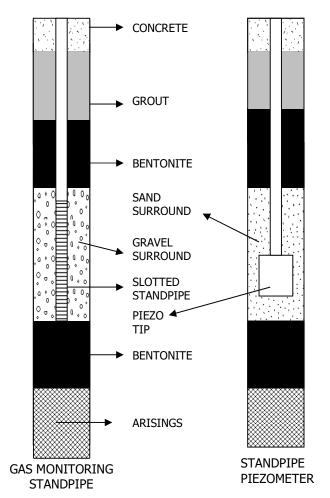


LIMESTONE



CHALK

#### **INSTALLATIONS / BACKFILL**



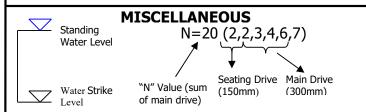
#### **SAMPLE & IN SITU TESTS**

В	Bulk Disturbed Sample
D	Disturbed Sample
W	Water Sample

ES Environmental Soil Sample
EW Environmental Water Sample
U Undisturbed Sample
UT Undisturbed Thin Wall Sample

P Piston Sample
S SPT (Split Spoon)
C CPT / Core Sample
HV Hand Vane

PID Photo Ionisation Detector



# Allied Exploration & Geotechnics Ltd.

**SPT Hammer Energy Test Report** 

in accordance with BSEN ISO 22476-3:2005

**Unit 25 Stella Gill Industrial Estate** 

**Pelton Fell** 

**Chester-le-Street** 

DH2 2RG

SPT Hammer Ref: DS 7.10.1

Test Date:

24/01/2023

Report Date:

24/01/2023

File Name:

DS 7.10.1.spt

Test Operator:

SW

#### **Instrumented Rod Data**

Diameter  $d_r$  (mm):

67

Wall Thickness  $t_r$  (mm):

8.7

Assumed Modulus E<sub>a</sub> (GPa): 208

---

Accelerometer No.1:

65939

Accelerometer No.2:

66286

#### **SPT Hammer Information**

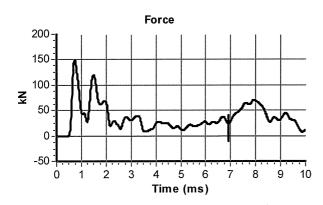
Hammer Mass m (kg): 63.5

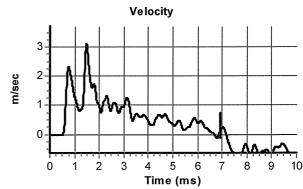
Falling Height h (mm): 760

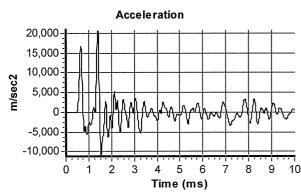
SPT String Length L (m): 14.1

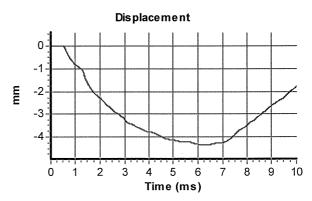
#### Comments / Location

Mass and drop supplied by client









#### **Calculations**

Area of Rod A (mm2):

1593

Theoretical Energy  $E_{theor}$  (J):

473

Measured Energy E<sub>meas</sub>

(J): 292

Energy Ratio E<sub>r</sub> (%):

62

The recommended calibration interval is 12 months



Signed: Steven Wakely

Title:

Laboratory Technichian



# **SPT Hammer Energy Test Report**

in accordance with BSEN ISO 22476-3:2005

Safer Rig Services Portview Road Avonmouth Bristol BS11 9JE SPT Hammer Ref: AR2152
Test Date: 11/04/2024
Report Date: 15/04/2024
File Name: CA AR2152.spt

Test Operator: MS

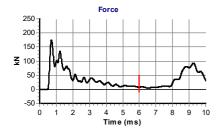
#### **Instrumented Rod Data**

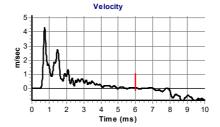
Diameter  $d_r$  (mm): 54 Wall Thickness  $t_r$  (mm): 6.8 Assumed Modulus  $E_a$  (GPa): 200 Accelerometer No.1: 73534 Accelerometer No.2: 73538

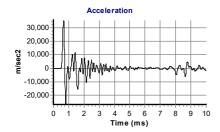
#### **SPT Hammer Information**

Hammer Mass m (kg): 63.5 Falling Height h (mm): 760 SPT String Length L (m): 12.2

#### **Comments / Location**









#### **Calculations**

Area of Rod A (mm2): 1008 Theoretical Energy  $E_{theor}$  (J): 473 Measured Energy  $E_{meas}$  (J): 301

Energy Ratio E<sub>r</sub> (%):

64

Matt Stokes

Signed: M.Stokes

Title: Equipment Inspector



# **SPT Hammer Energy Test Report**

in accordance with BSEN ISO 22476-3:2005

Safer Rig Services Portview Road Avonmouth Bristol BS11 9JE SPT Hammer Ref: AR2154
Test Date: 05/08/2024
Report Date: 06/08/2024
File Name: AR2154.spt

Test Operator: MS

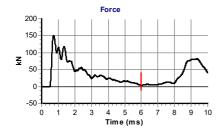
#### **Instrumented Rod Data**

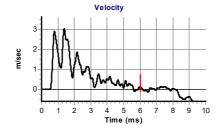
Diameter  $d_r$  (mm): 54
Wall Thickness  $t_r$  (mm): 6.8
Assumed Modulus  $E_a$  (GPa): 208
Accelerometer No.1: 73534
Accelerometer No.2: 73538

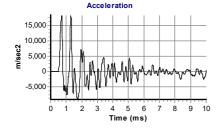
#### **SPT Hammer Information**

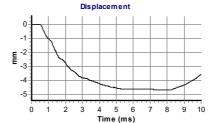
Hammer Mass m (kg): 63.5 Falling Height h (mm): 760 SPT String Length L (m): 12.1

#### **Comments / Location**









#### **Calculations**

Area of Rod A (mm2): 1008 Theoretical Energy  $E_{theor}$  (J): 473 Measured Energy  $E_{meas}$  (J): 334

Energy Ratio E<sub>r</sub> (%):

71

Matt Stokes

Signed: M.Stokes

Title: Equipment Inspector



Alliance House 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44 (0)1924 229889 www.central-alliance.co.uk

Final Depth: 10.00m

372470.64

OSGB

90°

2.50 - 10.00

Start Date:	30/09/2024	Checked:	
End Date:	01/10/2024	Approved:	

Rotary Coring

End Date:		e:	01/10/2024	Approved:			
			Methodolo	ogy & F	lant		
	Depth (m)		Method		P	lant Used	
	0.00 - 1.20	0.00 - 1.20 Inspection Pit Hand Tools		and Tools			
	1.20 - 2.50		Dynamic Sampling		Con	nacchio 205	

Location ID **BH001** 

DRAFT

Log Type

**Header Sheet** 1:25 Scale:

Sheet 1 of 1

ient:	P	ershing Con	sultan	ts
	Hole Di	ameter		
	Depth (m)	Diam (mm)		D
	10.00	121		Ī
				ı

2372986

One Earth Solar Farm

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing D	iameter
Depth (m)	Diam (mm)
2.50	143

	Groundwater Strikes							
Strike	Casing	Sealed	Time	Rose To	Remarks			
(m)	(m)	(m)	(min)	(m)	Kemarks			

Northing:

Grid System:

Inclination:

Location Details

479072.89

9.35mAOD

ΑT

N/A

Easting:

Elevation:

Logger:

Orientation:

	Installation / Instrument Details						
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)			
01/10/2024	Standpipe	4.00	2.50 - 4.00	50			

Comacchio 205

If Methodology includes Dynamic Sampling refer to Runs table for info.

No Groundwater Encountered

Backfill				
Depth (m)	Legend Code			
0.00 - 0.50	Concrete			
0.50 - 2.50	Bentonite			
2.50 - 4.00	Gravel			
4.00 - 10.00	Bentonite			

In-Situ Tests	
PID	0
Hand Vane*	0
Standard Penetration Tests	3

Core Sample (NR) Indicates sample undertaken but with

0

0

Undisturbed Thin Wall Undisturbed Thin Wall (NR)

Disturbed

Piston

Undisturbed

Sample Summary Environmental Samples 8 Geotechnical Samples

Large Bulk

Disturbed (NR)

Piston (NR)

Undisturbed (NR)

0

0

	Standard Penetration Test Summary												
Test Type	Depth (m)	Casing (m)	Water (m)	Seating Blows		Penetration Total (mm)	N	Reported Result	Hammer Ref				
Split Spoon	1.20	-	-	8	21	450	21	N=21 (3,5/4,6,5,6)	AR2152				
Split Spoon	2.00	-	-	3	7	450	7	N=7 (1,2/1,1,2,3)	AR2152				
Split Spoon	2.50	2.50	-	15	33	450	33	N=33 (6,9/6,8,9,10)	AR2152				

SPT Hammer Ref.	Energy Ratio (%)
AR2152	64

#### **Applicable to Cable Percussion Only**

Chise	elling	Water Added								
Depth (m)	Duration (mins)	Depth (m)	Litres							

#### **Applicable to Rotary Only**

Drilling Flush								
Depth (m)	Flush Type	Flush Colour	Return %					
2.50 - 4.00	Water	Reddish Brown	90					
4.00 - 5.50	Water	Reddish Brown	90					
5.50 - 7.00	Water	Reddish Brown	90					
7.00 - 8.50	Water	Reddish Brown	90					
8.50 - 10.00	Water	Reddish Brown	90					
	I	I						

#### **Applicable to Dynamic Sampling Only**

Dynamic Sampling Runs											
Depth (m)	Diam (mm)	Recovery %	Remarks								
1.20 - 2.00	117	100									
2.00 - 2.50	117	100									



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

www.central-alliance.co.uk

Location Details

Start Date:	30/09/2024	Checked:	
End Date	01/10/2024	Approved:	

Methodology & Plant

Method Inspection Pit Dynamic Sampling Rotary Coring Plant Used Hand Tools Comacchio 205 Comacchio 205 Depth (m) 0.00 - 1.20 1.20 - 2.50 2.50 - 10.00

Location ID

**BH001** 

DRAFT Log Type

	2372300	<u> </u>		ocation bet				1										Log Type	
Nam	e: One Earth Solar Farm	Easting:	479072.89		orthing:	37247												<b>Combined Borel</b>	nole
Loca	tion: Hall Farm, Lincoln	Elevation:	9.35mAOI		nal Depth:	10.00r	n												
		Logged By:	AT		id System:													Scale: 1:2	5
Clien	nt: Pershing Consultants	Orientation:	N/A	In	clination:	90°												Sheet 1 of 2	
	Strata Description		Lege	Depth (r end (Stratur			Casing Ø (mm) Depth	Water	Installation							Coring, Sam	ples &	Testing	
	·			Thicknes			(m)	Level (m)	Backfi		Core . Run	TCR	SCR	RQD	lf	Depth (m)	Ref	Test Results	
-	Soft brown slightly sandy silty CLAY with occasional Sand is fine. [TOPSOIL]	al rootlets.		(0.30)												0.00 - 0.30	1 B		-
-	Firm brown slightly sandy silty CLAY. Sand is fine.			0.30	9.05											0.30	1 ES		-
-			X	<u></u>												0.50	2 ES		-
-			×	×. (0.70)												0.50 - 1.00	2 B		-
-			×	×															-
1			X— X—	× 1.00	8.35											1.00	3 ES		1-
1	Firm reddish brown silty CLAY.			×															1
-			×	× (0.60)												1.20 - 1.65	1 D	SPT(S) 1.20m, N=21 (3,5/4,6,5,6)	-
-	From 1.30m to 1.60m, Becomes greenish grey with occasional inclusions.	al mudstone		× (0.60)															-
1			×	× 1.60	7.75														-
-	Firm to stiff reddish brown CLAY.																		-
-																			-
2 -				(0.90)												2.00 2.00 - 2.45	4 ES 2 D	SPT(S) 2.00m, N=7 (1,2/1,1,2,3)	2 -
-			F_	_]															-
-																			-
1				2.50	6.85		143 2.50		10 T S 1							2.50 - 2.95	3 D	SPT(S) 2.50m, N=33	-
-	Assumed zone of core loss. MUDSTONE. (Drillers of	iescription)					2.50											(6,9/6,8,9,10)	-
.				(0.50)											AZCL				-
3 -	Moderately weak greenish grey SILTSTONE. Discor		e ××>	3.00 ( × × ( × ×	6.35										5	3.00	5 ES		3 -
]	horizontal closely spaced planar rough open clean From 3.20m to 3.35m, Moderately strong greenish grey SILTS		××> ××> ××>	(×× (××)							2.50	67	13						]
-	weak reddish brown mercia MUDSTONE. Non-intact core reco angular to subangular fine to coarse GRAVEL. Extremely weak reddish brown partially weathere		***	3.35	6.00						4.00	0,	15		NI				-
-	MUDSTONE recovered as firm to stiff very gravelly is angular to subangular fine to coarse.		el																- - -
-	is angular to subangular fine to coarse.			(0.65)											NA				-
-																			-
4				4.00	5.35														4 -
-	Assumed zone of core loss. MUDSTONE. (Drillers of	description)													470				-
-				(0.40)											AZCL				-
+	Very weak reddish brown partially weathered mer MUDSTONE. Non-intact core recovered as very cla		to	4.40	4.95						4.00 5.50	73	14	9					-
-	subangular fine to coarse GRAVEL.	iyey aliguldi									5.50								-
1				(0.60)											NI				-
-																			-
5	Continued on Next Page			5.00	4.35														5 -
Obse	ervations / Remarks	1	Misc.			Informat						Backf			T'			Installations	
		pa	30	0/09 0	7:00	0.00 7.00	-		ter (m)	6.00 (r	0	0 (m) 0.50	-	lateri oncret	e	Instrume Standa		Resp. Zone Depth (m) 2.50 - 4.00 4.00	Diameter 50
		Encounte	ž 01	/10 0	7:00 7:00 5:00	7.00 7.00 10.00	2.50 2.50 2.50	0 4	1.60	0.50 2.50 4.00	4	2.50 4.00 0.00		entonit Gravel entonit					
		lwater Enco													L	g / d		oundwater Strikes	
		iround	Cas nitoring												Str	rike (m) Rises	10 (m) T	Time (min) Remarks	-
		No G	Mo																
							1												



One Earth Solar Farm

Project No:

Name:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

www.central-alliance.co.uk

372470.64

Location Details

Northing:

479072.89

Easting:

Start Date:	30/09/2024	Checked:	
End Date	01/10/2024	Approved:	

Methodology & Plant

 Location ID

**BH001** 

DRAFT Log Type

**Combined Borehole** 

ivam	e: One Earth Solar Farm	Elevation:	9.35	mAOD	Fina	Depth:	10.00m	1										Combined Borehole
Loca	tion: Hall Farm, Lincoln	Logged By:	AT		Grid	System:	OSGB											Scale: 1:25
Clien	t: Pershing Consultants	Orientation:	N/A		Incli	nation:	90°											Sheet 2 of 2
					Depth (m)	Reduced	Hole Ø (mm)	Casing Ø (mm)	Water	Installation /						Coring, Sam	oles & T	esting
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results
-	Very weak reddish brown mercia MUDSTONE. Disc																	-
7	are horizontal closely spaced undulating smooth o	pen clean.			(0.28)										7			-
					5.28	4.07												-
-	Very weak reddish brown partially weathered mer				(0.22)										NI			-
-	MUDSTONE. Non-intact core recovered as clayey a subangular fine to coarse GRAVEL.	angular to													INI			]
7	Assumed zone of core loss. MUDSTONE. (Drillers d	lescription)			5.50	3.85												-
7																5.60	6 ES	1
-					(0.40)										AZCL			-
-																		]
Ŧ	Very weak reddish brown mercia MUDSTONE with				5.90	3.45												1
6 -	veins infilled by gypsum and gypsum nodules. Disc																	6 -
7	are horizontal planar undulating stepped smooth open clean.	open to par	rtiy															1
7											5.50 7.00	73	59	29				]
1																		
1					(1.04)						ĺ				10			
=											ĺ							-
1											ĺ							
1											ĺ							
1																		
1	Maria de la Pala la companya de la c				6.94	2.41								-				1
7 -	Very weak reddish brown locally green partially we mercia MUDSTONE. Non-intact core recovered as																	7 -
4	subangular fine to coarse GRAVEL.	angular to			(0.29)										NI			
1	Versional and dish having asserts MUDSTONIC Dis-				7.23	2.12								-				1
-	Very weak reddish brown mercia MUDSTONE. Disc are 1) subhorizontal 0-10 Deg very closely to close		,															]
-	planar and undulating smooth open to partly open				(0.35)										17			]
-	Subhorizontal 45 Deg very closely spaced undulati	ng smooth																-
1	partly open to open clean.  Very weak reddish brown locally green mercia MU	IDSTONE.	-1		7.58	1.77								İ				1
-	Discontinuities are subhorizontal 45 deg planar sm		y								7.00	100	51	0	NI			-
-	open to open clean.				(0.42)						8.50		-			7.80	7 ES	_
=															17			_
8	Very weak reddish brown mercia MUDSTONE. Disc	continuities	-		8.00	1.35								-				8 –
-	are 1) Horizontal 0-10 Deg planar smooth open cle														NI			
-	Subhorizontal 40 Deg planar smooth open with gra From 8.00m to 8.14m, Very weak reddish brown partially week				(0.39)										8			<u> </u>
-	mercia MUDSTONE. Non-intact core recovered as angular to														8			_
ł	fine to coarse GRAVEL.  Very weak reddish brown locally green mercia MU	IDSTONE wi	ith		8.39	0.96								-				1
}	frequent veins of white gypsum. Discontinuities ar	e 1)										1	$\vdash$		NI			]
-	Horizontal 0-10 Deg closely to medium spaced pla		_											ŀ				]
]	undulating smooth partly open to open clean. 2) S 50 Deg undulating smooth open clean.	upnorizont	aı								ĺ							]
]	From 8.39m to 8.58m, Very weak reddish brown partially wed										ĺ							]
- }	mercia MUDSTONE. Non-intact core recovered as angular to fine to coarse GRAVEL.	subangular									ĺ					8.90	8 ES	]
9 –																		9 –
]											ĺ							]
7					(1.61)						8.50	100	91	25				]
]											10.00	100	31	35	11			]
-																		]
-}											ĺ							]
7											ĺ							]
7																		]
7																		]
7											ĺ							]
10 -	EOH at 10.00m - Scheduled Depth	<u> </u>			10.00	-0.65	121 10.00						$  \cdot  $					10
0'	·					61.16.1												In the Heat's are
Ubse	ervations / Remarks		Misc.	Date	Tim		formati oth (m)	ion Casing	(m) Wat	er (m) Fro	m (m)	Back To (m		Mater	ial	Instrume	nt Tvne	Installations  Resp. Zone   Depth (m)   Diameter
		base	palls	30/09 30/09	07:0	10	0.00 7.00	2.50		C	1.00	0.50		Concre	te	Standp		2.50 - 4.00 4.00 50
		tinos	ed 's Insta	01/10 01/10	07:0 16:0	10	7.00 7.00 10.00	2.50	) 4	.60 2	.50 .00	4.00 10.00		Grave Benton	el			
		T of the state of	ing Use Point/	,	23.0													undwater Strikes
		apari,	Cas toring												St	rike (m) Rises	To (m) T	ime (min) Remarks
			- *		1			1	1	1	- 1		- 1		- 1		- 1	1



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Final Depth: 10.30m

372242.50

OSGB

90°

Start Date:	02/10/2024	Checked:	
End Date:	03/10/2024	Approved:	

Methodology & Plant							
Depth (m)		Method	Plant Used				
0.00 - 1.20		Inspection Pit	Hand Tools				
1.20 - 3.00		Dynamic Sampling	Comacchio 205				
3.00 - 10.30		Rotary Coring	Comacchio 205				

Location ID

**BH002** 

DRAFT Log Type

**Header Sheet** 

Scale:		1:25
	Sheet 1 of	1

Hole Di	ameter
Depth (m)	Diam (mm)
10.30	121

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

iameter
Diam (mm)
143

	Groundwater Strikes								
Strike	Casing	Sealed	Time	Rose To	Remarks				
(m)	(m)	(m)	(min)	(m)	Remarks				
ł									

Northing:

Grid System:

Inclination:

Location Details

479291.89

6.82mAOD

ED

N/A

Installation / Instrument Details									
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)					
03/10/2024	Standpipe	3.50	1.20 - 3.50	50					

If Methodology includes Dynamic Sampling refer to Runs table for info.

No Groundwater Encountered

Backfill							
Depth (m)	Legend Code						
0.00 - 1.20	Bentonite						
1.20 - 3.50	Gravel						
3.50 - 10.30	Bentonite						

In-Situ Tests	
PID	0
Hand Vane*	3
Standard Penetration Tests	3

\* One count indicates an average reported result of 3 tests carried out at one depth where available.

Standard Penetration Tests 3

Sample Summary						
Enviror	nmer	ntal Samples				
Soil	8	Water	0			
Geote	chnic	cal Samples				
Bulk	5	Large Bulk	0			
Disturbed	18	Disturbed (NR)	0			
Piston	0	Piston (NR)	0			
Undisturbed	0	Undisturbed (NR)	0			
Undisturbed Thin Wall						
Undisturbed Thin Wall (NR)						
Core Sample						

Easting:

Elevation:

Logger:

Orientation:

(NR) Indicates sample undertaken but with
0% Recovery

	Standard Penetration Test Summary									
Test Type		Casing		Seating		Penetration	N	Reported Result	Hammer Ref	
	(m)	(m)	(m)	Blows	Blows	Total (mm)		·		
Split Spoon		-	-	2	6	450	6	N=6 (1,1/2,2,1,1)	AR2154	
Split Spoon	2.00	-	1.80	7	8	450	8	N=8 (4,3/2,2,2,2)	AR2154	
Split Spoon	3.00	3.00	-	20	50	225		50 (8,12/50 for 150mm)	AR2154	
ł										

SPT Hammer Ref.	Energy Ratio (%)		
AR2154	64		

#### **Applicable to Cable Percussion Only**

Chise	elling	
Depth (m)	Duration (mins)	De

Water Added								
Depth (m)	Litres							

#### **Applicable to Rotary Only**

	Drilling	Eluch				
	Drilling Flush					
Depth (m)	Flush Type	Flush Colour	Return %			
3.00 - 4.30	Water	Reddish Grey	100			
4.30 - 5.80	Water	Reddish Grey	75			
5.80 - 6.30	Water	-	0			
6.30 - 7.80	Water	-	0			
7.80 - 9.30	Water	-	0			
9.30 - 10.30	Water	-	0			

#### **Applicable to Dynamic Sampling Only**

	Dynamic	Sampling	Runs
Depth (m)	Diam (mm)	Recovery %	Remarks
1.20 - 2.00	117	100	
2.00 - 3.00	117	100	



One Earth Solar Farm

Project No:

Name:

Alliance House. 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XI +44(0)1924 229889

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372242.50

Location Details

Northing:

479291.89

Easting:

Start Date:	02/10/2024	Checked:	
End Date	03/10/2024	Approved:	

Methodology & Plant

Method Plant Used 0.00 - 1.20 1.20 - 3.00 Inspection Pit
Dynamic Sampling Hand Tools Comacchio 205 3.00 - 10.30 Rotary Coring Comacchio 205 Location ID

**BH002** 

**DRAFT** Log Type

**Combined Borehole** 

Elevation: 6.82mAOD Final Depth: 10.30m Hall Farm, Lincoln Location: Logged By: ED Grid System: OSGB Scale: 1:25 Client **Pershing Consultants** Orientation: N/A Inclination: 90° Sheet 1 of 3 Coring, Samples & Testing Depth (m Reduced Strata Description Legend (Stratum Thickness Level (mAOD) Level (m) TCR SCR Depth (m) Test Results 0.00 - 0.30 Soft to firm brown becoming light brown sandy CLAY. Sand is fine. 2 ES 4 D 3 B HV 0.30m, (p)=80 kPa (r)=14 kPa 0.30 - 0.50 0.50 5 FS HV 0.50m, (p)=80 kPa (r)=18 kPa 0.50 0.50 - 1.20 HV 1.00m, (p)=100 kPa (r)=18 kPa 1 SPT(S) 1.20m, N=6 (1,1/2,2,1,1) Reddish brown sandy slightly clayey subangular fine to coarse mudstone GRAVEL. Sand is fine. (0.80) 1.60 10 D 2.00 4.82 2.00 2.00 - 2.45 SPT(S) 2.00m, N=8 (4,3/2,2,2,2) 2 Stiff friable reddish brown slightly gravelly CLAY. Gravel is subangular fine to coarse mudstone. (0.90) 2.60 14 D 3.92 Weak grey mercia MUDSTONE. (0.10) SPT(S) 3.00m, 50 (8,12/50 for 150mm) 3.82 3.00 3.00 - 3.45 Assumed zone of core loss - Weathered MUDSTONE (Drillers description). (0.30) AZCL 3.30 3.52 Weak light grey and brown mercia MUDSTONE. Weak friable light brown slightly clayey mercia MUDSTONE. 3.80 3.02 Weak friable light grey mercia MUDSTONE. Non-intact core recovered as subangular fine to coarse GRAVEL. 4.10 2.72 Weak friable light brown slightly sandy mercia MUDSTONE. Sand is fine to coarse. (0.20) 2.52 4.30 Assumed zone of core loss - Weathered MUDSTONE (Drillers description). (0.70) AZCL 5.00 1.82 Continued on Next Page Observations / Remarks Misc Shift Information Backfill Installations Depth (m) Casing (m) Resp. Zone | Depth (m) | Diameter | 1.20 - 3.50 | 3.50 | 50 Water (m) To (m) Instrument Type Groundwater Strikes Strike (m) Rises To (m) Time (min)



One Earth Solar Farm

Project No:

Name:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

www.central-alliance.co.uk

372242.50

Location Details

Northing:

479291.89

Easting:

 Start Date:
 02/10/2024
 Checked:

 End Date
 03/10/2024
 Approved:

Methodology & Plant

 Location ID

**BH002** 

DRAFT Log Type

**Combined Borehole** 

Name:	One Earth Solar Farm	Elevation:		mAOD		Depth:	10.30m	n									(	Com	bined E	Boreh	ole
Location	: Hall Farm, Lincoln	Logged By:	ED			System:	OSGB											Sc	ale:	1:25	;
Client:	Pershing Consultants	Orientation:	N/A		Incli	nation:	90°												Sheet 2 o	of 3	
	Strata Description	•		Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm)	Casing Ø (mm)	Water	Installation /						Coring, Sam	ples & T	esting			
	·			Legend	Thickness)	(mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR	RQD	If	Depth (m)	Ref		Test Results		$\perp$
	eak friable light brown slightly sandy mercia MU and is fine to coarse.	JDSTONE.																			
- 3a	ind is fille to coarse.				(0.30)										0						
1 1	A HIDSTONE				5.30	1.52															
	eak light brown mercia MUDSTONE recovered a ndy CLAY. Sand is fine to coarse.	is stiff slight	ΙΊΥ								4.50 5.80	100	0	0							
]	,				(0.50)											5.50	22 D				-
					(0.30)																
- As	ssumed zone of core loss - Weathered MUDSTOR	NE (Driller's	;		5.80 (0.10)	1.02									AZCL						
	escription). Pry weak to weak reddish brown mercia MUDSTO	ONE	/		5.90	0.92		143						Ì							
	scontinuities are 1) Horizontal (0-5 degrees) ver				(0.40)			<u>143</u> 6.00			5.80 6.30	80	56	0	22	6.00	23 D				6 -
	aced planar stepped rough and partly open to n				(0.40)										22						
1 7	ide with clay and gypsum infill 2) Sub-vertical (50 anar rough and partly open with clay and gypsu	_	es)		6.30	0.52															
1 1	From 5.90m to 5.98m, Non-intact core recovered as angular GRAVEL.														4701						
/ <u>†</u>	From 6.25m to 6.30m, Non-intact core recovered as angular GRAVEL.	fine to coarse			(0.25)										AZCL						-
1 1/	sumed zone of core loss - Weathered fractured	MUDSTONE	E /		6.55	0.27								İ							,
	riller's description). tremely weak to weak reddish brown mercia M	LIDSTONE																			
	on-intact core recovered as slightly clayey angula																				
su	bangular fine to coarse GRAVEL. From 6.55m to 6.59m, Gypsum vein (42mm).																				
7 -	Trom 6.55m to 6.55m, Gypsum vem (42mm).										6.30 7.80	83	7	0		7.00 - 8.00	24 B				7 -
					(1.25)										NI	7.10	25 D				
]																7.30	26 ES				
]																7.50	20 63				
																7.60	27 D				
As	ssumed zone of core loss - Weathered fractured	MUDSTONE	E		7.80	-0.98															
	riller's description).		=																		
8 -																					8 -
					(0.70)										AZCL	8.10	28 D				
]																					
]																					
1					8.50	-1.68															
	ery weak to weak reddish brown mercia MUDSTO equent gypsum veining (<7.00mm). Discontinuit										7.80 9.30	53	20	7							
- Ho	orizontal (10-20 degrees) closely spaced, planar	and steppe																			
	ugh and partly open to open with gravel and cla ertical (45-50 degrees), planar, rough and partly of		ıb-												14						
	rpsum infill.	open with			(0.80)																
9 —																9.00 - 10.00	29 B				9 -
	From 9.15m to 9.30m, Non-intact core recovered as angular	fine to coarse														9.10	30 D				
	GRAVEL.	Jine to course			9.30	-2.48									NI						
	ssumed zone of core loss - Weathered fractured	MUDSTONE	E		9.30	-2.48															
(D	riller's description).																				
-					(0.50)						9.30				AZCL						
											10.30	50	25	11							
\ \	ery weak to weak reddish brown mercia MUDSTO	ONE with			9.80	-2.98								ŀ							
	equent gypsum veining (<7.00mm). Discontinuit														13	9.90	31 D				
10	Continued on Next Page																				10 -
Observa	tions / Remarks		Misc.		1	Shift In	format	ion	I	<u> </u>		Back	fill			ı	-	Installa	tions		
		2	q e	Date 02/10	Tim 08:0		oth (m)	Casing -	(m) Wa			Го (m 1.20		Mater		Instrume			esp. Zone Do	epth (m) 0	Diameter 50
		i atuno	ounter 1 Installe	02/10 03/10	16:0 07:0	10	6.30 6.30	3.00	0	2.10 1	20	3.50 10.30		Grave Benton	el	5.0.10					
		ter Fno	nawater Encountere Casing Used ing Point/s Installec	03/10	16:0	10   1	.0.30	6.00	0						$\vdash$		Gro	undwat	er Strikes		
		i mampun													St	rike (m) Rises				marks	_
		No Gro	Monitor																		



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

Start Date: 02/10/2024 Checked: End Date 03/10/2024 Approved:

Methodology & Plant

Method Inspection Pit Dynamic Sampling Rotary Coring Depth (m) 0.00 - 1.20 1.20 - 3.00 3.00 - 10.30 Plant Used Hand Tools Comacchio 205 Comacchio 205 Location ID

**BH002** 

DRAFT Log Type

roject No:	2372986			Locat	ion Detai	ls												Log	Туре	
ame:	One Earth Solar Farm	Easting:		91.89		hing:	372242											Combine	d Bor	eho
ocation:	Hall Farm, Lincoln	Elevation: Logged By:	6.82r ED	mAOD		Depth: System:	10.30m OSGB	י										Scale:		1:25
lient:	Pershing Consultants	Orientation:	N/A			nation:	90°												t 3 of 3	1.23
		1		Lancad	Depth (m)	Reduced	Hole Ø (mm)	Casing Ø (mm)	Water	Installation /					(	Coring, Samp	oles & Te			
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	(mm) Depth (m)	(mm) Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR I	RQD	If	Depth (m)	Ref	Test i	tesults	
	ntal (10-20 degrees) closely spaced, planar and partly open to open with gravel and cla				(0.50)															
vertica	al (45-50 degrees), planar, rough and partly													-	NI					
gypsun	om 10.18m to 10.30m, Non-intact core recovered as angul	ar fine to	1		10.30	-3.48	<u>121</u> 10.30					H	$\dashv$	+	NI					
coa	arse GRAVEL. EOH at 10.30m - Scheduled Depth		/																	
-																				
]																				
]																				
-																				
1																				1
]																				
_																				
-																				
-																				
]																				
-																				
																				1
1																				
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_																				
																				1
1																				
																				1
																				1
													T							1
		Т																		
servations	: / Remarks		Misc.	Date	Tim	Shift In			(m) \ \\/.>t^	r (m) From	n (m)	Backt		laterin		Instrumer		Installations Resp. Zor	e Denth	(m) ni
ervations	/ Remarks	100		Date 02/10 02/10	Tim 08:0 16:0	e Dep	formati oth (m) 0.00 6.30	Casing - 3.00	2.:	10 1.	.00	To (m) 1.20 3.50	IV Be	lateria entonite Gravel		Instrumer Standp	nt Type	Resp. Zor	Depth	(m) Dian
ervations	/ Remarks	Encourage	ountered	02/10	08:0	Dep	oth (m) 0.00	Casing -	2.:	0. 10 1.	.00	To (m)	IV Be	entonite	2	Instrumer Standp	nt Type	Resp. Zor	Depth 3.50	(m) Diar
ervations	/ Remarks	Processor Environment		02/10 02/10 03/10	08:0 16:0 07:0	Dep	oth (m) 0.00 6.30 6.30	- 3.00 3.00	2.:	0. 10 1.	.00	To (m) 1.20 3.50	IV Be	entonite Gravel		Instrumer Standp ike (m) Rises	nt Type hipe Grou	Resp. Zor 1.20 - 3.5 undwater Strik	3.50	0 5



Alliance House 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44 (0)1924 229889 www.central-alliance.co.uk

Final Depth: 10.80m

372181.99

OSGB

90°

3.50 - 10.80

Start Date:	02/10/2024	Checked:	
End Date:	03/10/2024	Approved:	

Rotary Coring

End Date	e:	03/10/2024	App	roved:				
		Methodolo	ogy & F	lant				
Depth (m)		Method		P	lant Used			
0.00 - 1.20		Inspection Pit		Н	Hand Tools			
1.20 - 3.50		Dynamic Samplin	g	Comacchio 205				

Location ID

**BH003** 

DRAFT Log Type

**Header Sheet** 

1:25 Scale: Sheet 1 of 1

I	Hole Di	ameter
I	Depth (m)	Diam (mm)
I	10.80	121
ı		
I		
I		

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing D	iameter
Depth (m)	Diam (mm)
3.50	143
I	

	Groundwater Strikes											
Strike	Casing	Sealed	Time	Rose To	Remarks							
(m)	(m)	(m)	(min)	(m)	Remarks							
ł												

Northing:

Grid System:

Inclination:

Location Details

478976.07

9.59mAOD

AG

N/A

Installation / Instrument Details													
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)									
03/10/2024	Standpipe	3.50	1.00 - 3.50	50									

Comacchio 205

If Methodology includes Dynamic Sampling refer to Runs table for info.

No Groundwater Encountered

Backfill								
Depth (m)	Legend Code							
0.00 - 0.30	Concrete							
0.30 - 1.00	Bentonite							
1.00 - 3.50	Gravel							
3.50 - 10.80	Bentonite							

In-Situ Tests	
PID	0
Hand Vane*	3
Standard Penetration Tests	3

<sup>\*</sup> One count indicates an average reported result of 3 tests carried out at one depth where available.

Sample Summary								
Environmental Samples								
Soil 10 Water								
Geotechnical Samples								
Bulk	Bulk <b>6</b> Large Bulk							
Disturbed	Disturbed 12 Disturbed (NR)							
Piston	0	Piston (NR)	0					
Undisturbed	0	Undisturbed (NR)	0					
Undistu	rbed 1	Thin Wall	0					
Undisturbe	ed Thi	n Wall (NR)	0					
Cor	e San	nple	0					

Easting:

Elevation:

Logger:

Orientation:

(NR) Indicates sample undertaken but with

				Sta	ndard	Penetrati	on T	est Summary	
Test Type	Depth			Seating		Penetration	N	Reported Result	Hammer Ref
	(m)	(m)	(m)	Blows	Blows	Total (mm)	12	•	
Split Spoon		-	-	3	12	450	12	N=12 (1,2/2,3,3,4)	AR2152
Split Spoon	2.00	-	-	4	23	450	23	N=23 (2,2/3,5,7,8)	AR2152
Split Spoon	3.00	-	-	6	30	450	30	N=30 (2,4/6,8,8,8)	AR2152
1									
1									

SPT Hammer Ref.	Energy Ratio (%)
AR2152	64

#### **Applicable to Cable Percussion Only**

Chise	elling	Water	Added
Depth (m)	Duration (mins)	Depth (m)	Litres

Applicat	ole	to	Ro	tary	Only
_					

		Drilling	Flush		ı
Г	Depth (m)	Flush Type	Flush Colour	Return %	
	3.50 - 5.00	Water	Reddish Brown	80	
	5.00 - 6.50	Water	Reddish Brown	80	ı
	6.50 - 7.80	Water	Brown	90	ı
	7.80 - 9.30	Water	Brown	90	ı
	9.30 - 10.80	Water	Brown	90	ı
ıl					ı
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#### **Applicable to Dynamic Sampling Only**

	Dynamic	Sampling	Runs	
Depth (m)	Diam (mm)	Recovery %	Remarks	
1.20 - 2.00	117	100		
2.00 - 3.00	102	100		
3.00 - 3.50	102	0		



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889 www.central-alliance.co.uk

Location Details

Start Date:	02/10/2024	Checked:	
End Date	03/10/2024	Approved:	

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 3.50
 Dynamic Sampling
 Comacchio 205

 3.50 - 10.80
 Rotary Coring
 Comacchio 205

Location ID

**BH003** 

DRAFT Log Type

Name:	One Earth Solar Farm	Easting:	478976.07	Nort	hing:	372181	1.99									ı,	Combined Boreh	nole
Locatio	on: <b>Hall Farm, Lincoln</b>	Elevation:	9.59mAOD		l Depth:	10.80n	n									Ľ		
		Logged By: Orientation:	AG N/A		System: nation:	OSGB 90°											Scale: 1:2 Sheet 1 of 3	5
Client:	Pershing Consultants	Orientation:	N/A	Depth (m)	Reduced	Hole Ø	Casing Ø	1							Coring, Sam	nles & T		
	Strata Description		Legend	(Stratum Thickness)	Level (mAOD)	(mm) Depth (m)	(mm) Depth (m)	Water Level (m)	Installation / Backfill	Core	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results	$\top$
	MADE GROUND: Grass over soft light brown slight clayey SILT. Sand is fine. [TOPSOIL]	tly sandy		(0.30)	(	(m)	(m)			Run	Ten	Sen	IIQD	<u></u>	0.00 - 0.30	3 B	ica redict	-
5	soft to firm light brown slightly sandy silty CLAY. So	and is fine.	X—————————————————————————————————————	0.30	9.29										0.30 0.30	1 ES 2 D	HV 0.30m, (p)=20 kPa (r)=5 kPa	-
			X X X X X X X X X X X X X X X X X X X	(0.70)											0.50 0.50 0.50 - 1.00	4 ES 5 D 6 B	HV 0.50m, (p)=50 kPa (r)=8 kPa	- - - -
1 - F	Firm light reddish brown slightly silty CLAY.		X X X X X X X X X X X X X X X X X X X	1.00	8.59										1.00 1.00	7 ES 8 D	HV 1.00m, (p)=60 kPa (r)=2 kPa	1 -
			× × ×	(0.50)											1.00 - 1.50 1.20 - 1.65 1.20 - 2.00	9 B 10 D 11 B	SPT(S) 1.20m, N=12 (1,2/2,3,3,4)	
	Firm to stiff reddish brown clayey SILT with occasion Clusions.	onal mudsto	×_×_	1.50	8.09													- - - - - - - -
2 -				AL. AL. AL. AL. AL.											2.00 2.00 2.00 - 2.45 2.00 - 3.00	13 ES 14 D 15 D 12 B	SPT(S) 2.00m, N=23 (2,2/3,5,7,8)	2 -
3 -			X X X X X X X X X X X X X X X X X X X	(2.00)											3.00 3.00 3.00 - 3.50	17 ES 18 D 16 B	SPT(S) 3.00m, N=30 (2,4/6,8,8,8)	3 -
-	Assumed zone of core loss. MUDSTONE. (Drillers o	description)		1	6.09		<u>143</u> 3.50	- - - - - - - - - - - - - - - - - - -										
		,		(0.80)										AZCL				
4 -				(0.80)						3.50				ALCE	4.00 4.00	19 ES 20 D		4 -
- 1	/ery weak reddish brown partially weathered me MUDSTONE. Non-intact core recovered as very cla subangular fine to coarse GRAVEL.		to	4.30	5.29					5.00	47	0	0					-
-				(0.70)										NI				
5				5.00	4.59										5.00	21 ES		5 <del>-</del>
,	Continued on Next Page			5.00	4.39										5.00	21 ES 22 D		
Observ	vations / Remarks	1	Misc.			nformat		, , 1 .	, .	,	Back						Installations	
		ir Encountered	Casing Deed 02/10 03/10 03/10 03/10	07:0 16:0 07:0	10 10	pth (m) 0.00 6.50 6.50 10.80	3.50 3.50 3.50	1.	70 0.	00 30 00	0.30 1.00 3.50 10.80	E	Concre Benton Grave Benton	ite ite	Instrume	pipe	1.00 - 3.50 3.50	Diameter 50
		idwate												St	rike (m) Rises		oundwater Strikes Time (min) Remarks	
		Groun	Monitor											ľ				
		No	2															



One Earth Solar Farm

Project No:

Name:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

www.central-alliance.co.uk

372181.99

Location Details

Northing:

478976.07

Easting:

 Start Date:
 02/10/2024
 Checked:

 End Date
 03/10/2024
 Approved:

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 3.50
 Dynamic Sampling
 Comacchio 205

 3.50 - 10.80
 Rotary Coring
 Comacchio 205

Location ID

**BH003** 

DRAFT Log Type

**Combined Borehole** 

Strike (m) Rises To (m) Time (min)

		Elevation:	9.59	mAOD	Final	Depth:	10.80m	1									١,	Combined Bore	noie
Locatio	on: Hall Farm, Lincoln	Logged By:	AG		Grid	System:	OSGB											Scale: 1:	:25
Client:	Pershing Consultants	Orientation:	N/A		Inclin	nation:	90°											Sheet 2 of 3	
					Depth (m)	Reduced	Hole Ø	Casing Ø	Water	In stallation /				-		Coring, Sam	ples & Te	esting	
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	(mm) Depth (m)	(mm) Depth (m)	Level (m)	Installation / Backfill	Core	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results	$\top$
	assumed zone of core loss. MUDSTONE. (Drillers d	escription)				, ,	(III)	(111)			Run	-							
7	bounted zone of core loss. Wiobotone. (Driners a	cscription,																	
1					(0.40)										AZCL				
+																			
1																			
$\pm$	ery weak reddish brown partially weathered mer	ria			5.40	4.19								ŀ		1			
	MUDSTONE. Non-intact core recovered as slightly		ular																
	o subangular fine to coarse GRAVEL with low cobb														NI				
	Cobbles are subangular mudstone.																		
7	From E 7Em to E 9Em Vorumak raddish brown marsia MUD	CTONE			(0.70)						5.00 6.50	73	34	0		ļ			
1	From 5.75m to 5.86m, Very weak reddish brown mercia MUD Discontinuities are horizontal undulating smooth.	STONE.									0.50				9				
-	From 5.86m to 6.10m, Non-intact core recovered as angular t	o subangular																	
6	fine to coarse GRAVEL.														NI				6
Ĭ-																			Ū
- \	ery weak reddish brown mercia MUDSTONE. Disc	continuities	5		6.10	3.49								Ī					
j a	re 1) Horizontal 5 deg planar smooth open clean.	2) Subvert	ical																
	5 deg planar smooth open clean. 3) Vertical undu	lating smo	oth		(0.40)										8				
] o	pen clean with occasional gravel infill.																		
1					6.50	3.09						L	LI			6.50	23 ES		
- 4	ssumed zone of core loss. MUDSTONE. (Drillers d	escription)				3.09	1									6.50 6.50	23 ES 24 D		
1	From 6.50m, Colour is reddish brown.				(0.20)										AZCL				
+	ery weak reddish brown partially weathered mer	cia			6.70	2.89										1			
	rery weak reddish brown partially weathered mer AUDSTONE. Non-intact core recovered as angular		ular																
	ine to coarse GRAVEL.	to subangi	uiai		(0.30)										NI				
- 7 "	ine to course dravel.																		
7 1	ery weak reddish brown mercia MUDSTONE. Disc	ontinuities	;		7.00	2.59								ŀ		1			7
	re 1) horizontal 5-10 Deg closely to medium space										6.50								
	mooth open clean. 2) Vertical 85 Deg stepped sm	•									7.80	73	33	31					
c	lean.				(0.55)										9				
-	From 7.18m to 7.22m, non-intact core recovered as angular to	o subangular																	
1	fine to coarse GRAVEL.																		
+					7.55	2.04													
V	ery weak reddish brown partially weathered mer	cia			7.55	2.04													
N	MUDSTONE. Non-intact core recovered as angular	to subangu	ular		(0.25)										NI				
- f	ine to coarse GRAVEL.																		
- A	assumed zone of core loss. MUDSTONE. (Drillers d	escription)			7.80	1.79										1			
1																			
8 -					(0.40)										AZCL	8.00	25 ES		8
1																8.00	26 D		
-																			
- \	ery weak reddish brown mercia MUDSTONE inter	bedded wi	ith		8.20	1.39								Ī	NI				
	noderately weak greenish grey fine grained SAND	STONE												ŀ					
ii	nterbedded with SILTSTONE. Discontinuities are 1	) Horizonta	ıl																
	-10 Deg very closely to closely spaced planar and																		
	mooth open clean. 2) Vertical 85 Deg stepped sm	ooth open									7.80 9.30	73	47	7					
- c	lean. From 8.20m to 8.30m, Very weak reddish brown mercia MUD	STONE Non																	
1	intact core recovered as angular to subangular fine to coarse	GRAVEL.			(1.10)										17				
}	From 8.35m to 8.42m, Very weak reddish brown mercia MUD																		
-	intact core recovered as angular to subangular fine to coarse From 8.49m to 8.51m, Very weak reddish brown mercia MUD																		
9 -	intact core recovered as angular to subangular fine to coarse																		9
Ĩ	From 8.70m, Weak reddish brown.																		3
1	From 0.15m Minorelysisis- is such						1							Ĺ					
1	From 9.15m, Mineral veining is subhorizontal to horizontal. From 9.16m to 9.30m, Very weak reddish brown mercia MUD	STONE. Non-													NI				
$\downarrow$	intact core recovered as angular to subangular fine to coarse	GRAVEL.			9.30	0.29							Н	$\dashv$					
į a	ssumed zone of core loss. MUDSTONE. (Drillers d	escription)																	
+					(0.40)										AZCL	9.50	27 ES		
7					(0.40)										MECL	9.50	27 ES 28 D		
1																			
+	Jary weak reddich brown marcia MUDSTONE Di-	ontinuitio	,		9.70	-0.11								ŀ					
	ery weak reddish brown mercia MUDSTONE. Disc		•												15				
7	re very closely to closely spaced planar undulating pen clean.	g sillooth			(0.35)										_				
1 0	pen clean. From 9.90m to 10.05m, Very weak reddish brown mercia MU	DSTONE.			•									Ī	NI				
10	Continued on Next Page						1						Н						10
						61.16.7							البا		-			1	—
ubserv	rations / Remarks		Misc.	Date	т:		nformati		(m) 14/-+-	er (m) Fron		Back		Mata-	ial	Incterior -		Installations	a) p:
		9	pa	02/10	7im 07:0	10	pth (m) 0.00	Casing -		0.	00	To (m 0.30		Mater Concre	te	Instrume Stand		Resp. Zone Depth (m 1.00 - 3.50 3.50	n) Diamete 50
		dult	nstall	02/10 03/10	16:0 07:0	10	6.50 6.50	3.5 3.5	0 0.	40 1.		1.00 3.50		Benton Grave					
		Pucc	Used nt/s li	03/10	16:0		10.80	3.5				10.80		Benton					Щ
		į	ing Poil										- [				Gro	undwater Strikes	



Project No:

2372986

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

www.central-alliance.co.uk

Location Details

Start Date: 02/10/2024 Checked: End Date 03/10/2024 Approved:

Methodology & Plant

Method Inspection Pit Dynamic Sampling Rotary Coring Depth (m) 0.00 - 1.20 1.20 - 3.50 3.50 - 10.80 Plant Used Hand Tools Comacchio 205 Comacchio 205 Location ID

**BH003** 

DRAFT Log Type

Project No:	2372986			Locati	on Details	S					,								Log Ty	/pe	
Name:	One Earth Solar Farm	Easting:	4789	976.07	North	ning:	372181	1.99									١,	Comb	oined I	Rorel	nole
		Elevation:	9.59	mAOD	Final	Depth:	10.80m	n									L				
Location:	Hall Farm, Lincoln	Logged By:	AG		Grid 9	System:	OSGB											Sca	ıle:	1:2	5
Client:	Pershing Consultants	Orientation:	N/A		Inclin	ation:	90°												Sheet 3	of 3	
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm)	Casing Ø (mm)	Water	Installation						Coring, Sam	ples & T	esting			
				LEGENO	Thickness)	(mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR F	RQD	If	Depth (m)	Ref		Test Result	ts	
	om 9.90m to 10.05m, Very weak reddish brown mercia ML on-intact core recovered as angular to subangular fine to co		/		10.05	-0.46								F							
	weak reddish brown mercia MUDSTONE. Dis																				
	Horizontal 5-10 Deg closely spaced planar s				(0.43)										17						
	with gravel infill. 2) Subhorizontal 45 Deg pla	anar smoot	:h		(=: :=)									-							
	with gravel infill. om 10.34m to 10.48m, Very weak reddish brown mercia M	NIDSTONE									9.30 10.80	73	54	14	NI						
-\ No	on-intact core recovered as angular to subangular fine to co	oarse GRAVEL.	/		10.48	-0.89								F							-
	ith low cobble content. Cobbles are angular to subangular in weak reddish brown mercia MUDSTONE with				(0.00)										9						
	of white gypsum. Discontinuities are horizor				(0.32)										,						
closely	y spaced planar and undulating smooth ope	n clean.	_		10.80	-1.21	121 10.80														
	om 10.58m to 10.61m, Very weak reddish brown mercia M on-intact core recovered as angular to subangular fine to co		/				10.00														
1	EOH at 10.80m - Scheduled Depth	1																			11 -
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bservations	s / Remarks		Misc.	Dot-	7:	Shift In			(m) 114. ·	or (m)	am /m1	Back		nto-:	21	lpetr ····		Installa		Joneh / '	n :
			pa,	Date 02/10	07:00	) (	oth (m) 0.00	Casing			0.00	To (m)	Co	ateria	e	Instrume Standa			esp. Zone D	3.50	Diameter 50
			ounte 1 Install	02/10 03/10	16:00 07:00	) (	6.50 6.50	3.50 3.50	C	0.40	0.30 1.00	1.00 3.50	(	ntonit Gravel							
			r Usea int/s l	03/10	16:00		0.80	3.50			3.50	10.80		entonit			C-	undu:-1	or C+ril		
			Vo Groundwater Encountered Casing Used Monitoring Point/s Installed												C+-	rike (m) Rises			er Strikes R	emarks	
			lo Ground G Monitorii												50	ive (III) KISBS	.u (III) I	e (IIIII)	К	ciiidi KS	
			Mo.																		
				ĺ	1	- 1		1	- 1				- 1		- 1	1					



Alliance House 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44 (0)1924 229889 www.central-alliance.co.uk

Final Depth: 12.00m

371956.12

OSGB

90°

Start Date:	04/10/2024	Checked:	
End Date:	08/10/2024	Approved:	

Methodology & Plant										
Depth (m)	Method	Plant Used								
0.00 - 1.20	Inspection Pit	Hand Tools								
1.20 - 4.00	Dynamic Sampling	Comacchio 205								
4.00 - 12.00	Rotary Coring	Comacchio 205								

Location ID

**BH004** 

DRAFT Log Type

**Header Sheet** 

1:25 Scale: Sheet 1 of 1

ameter
Diam (mm)
121

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

iameter
Diam (mm)
143

Groundwater Strikes												
Strike	Strike Casing Sealed Time Rose To Remarks											
(m)	(m)	(m)	(min)	(m)	Remarks							
ł												

Northing:

Grid System:

Inclination:

Location Details

479178.14

12.44mAOD

AW

N/A

Installation / Instrument Details										
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)						
08/10/2024	Standpipe	4.00	1.00 - 4.00	50						

If Methodology includes Dynamic Sampling refer to Runs table for info.

No Groundwater Encountered

Backfill									
Depth (m)	Legend Code								
0.00 - 1.00	Bentonite								
1.00 - 4.00	Gravel								
4.00 - 12.00	Bentonite								

In-Situ Tests							
PID	0						
Hand Vane*	2						
Standard Penetration Tests	4						

<sup>\*</sup> One count indicates an average reported result of 3 tests carried out at one depth where available.

Sample Summary								
Environmental Samples								
Soil	Soil 6 Water							
Geotechnical Samples								
Bulk	6	Large Bulk	0					
Disturbed	11	Disturbed (NR)	0					
Piston	0	Piston (NR)	0					
Undisturbed	0	Undisturbed (NR)	0					
Undisturbed Thin Wall								
Undisturbed Thin Wall (NR)								
Cor	e San	nple	0					
Undisturbe	rbed Thi	Thin Wall n Wall (NR)	0					

Easting:

Elevation:

Logger:

Orientation:

(NR) Indicates sample undertaken but with

				Sta	ndard	Penetrati	on T	est Summary	
Test Type	Depth	Casing	Water	Seating	Main	Penetration	N	Reported Result	Hammer Ref
iest Type	(m)	(m)	(m)	Blows	Blows	Total (mm)	N	Reported Result	nammer ker
Split Spoon	1.20	-	-	3	10	450	10	N=10 (1,2/4,2,2,2)	AR2154
Split Spoon	2.20	-	-	6	15	450	15	N=15 (3,3/3,4,4,4)	AR2154
Split Spoon	3.20	-	-	14	30	450	30	N=30 (6,8/7,8,7,8)	AR2154
Split Spoon	4.20	-	-	12	50	375		50 (5,7/50 for 225mm)	AR2154
ł									

SF	T Hammer Ref.	Energy Ratio (%)
	AR2154	64

#### **Applicable to Cable Percussion Only**

Chise	elling		Water	Added
Depth (m)	Duration (mins)		Depth (m)	Litres
		ļ		

#### **Applicable to Rotary Only**

	Drilling	Flush	
Depth (m)	Flush Type	Flush Colour	Return %
4.20 - 5.50	Water	Brown	100
5.50 - 6.20	Water	Brown	50
6.20 - 7.50	Water	Brown	80
7.50 - 9.00	Water	Brown	100
9.00 - 10.50	Water	Brown	100
10.50 - 12.00	Water	Brown	100

#### **Applicable to Dynamic Sampling Only**

	Dynamic	Sampling	Runs
Depth (m)	Diam (mm)	Recovery %	Remarks
1.20 - 2.20	117	100	
2.20 - 3.20	117	100	
3.20 - 4.20	102	100	



Project No:

2372986

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889 www.central-alliance.co.uk

Location Details

Start Date:	04/10/2024	Checked:	
End Date	08/10/2024	Approved:	

Methodology & Plant

Depth (m) 0.00 - 1.20 1.20 - 4.00 4.00 - 12.00 Method Inspection Pit Dynamic Sampling Rotary Coring Plant Used Hand Tools Comacchio 205 Comacchio 205 Location ID

**BH004** 

DRAFT Log Type

rioj	ect No: 2372986				ion Detai												Log Type	
Nan	e. One Earth Solai Failii	sting:		178.14		hing:	371956										<b>Combined Bo</b>	rehole
Loc	Alan Call Fame Caralla	evation:		4mAOD			12.00m	1								-		
Clie		gged By: rientation:	AW N/A			System: nation:	OSGB 90°									-	Scale: Sheet 1 of 3	1:25
lie	it: Persning Consultants	ientation.	N/A		Depth (m)	Reduced	Hole Ø	Casing Ø							Coring, Sar	mples &		'
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	(mm) Depth (m)	(mm) Depth (m)	Water Level (m)	Installation / Backfill	Core	TCR	SCR RC	D If	Depth (m)		Test Results	
-	Grass over soft brown CLAY [TOPSOIL].						()	()			Run	П			0.00 - 0.30	2 B		
-					(0.20)										0.10	1 D		
-	Soft light brown mottled light grey CLAY.				0.20	12.24									0.30	3 D		
															0.30 0.30 0.30 - 0.50	4 ES		
-				==											0.50	6 ES		
															0.50 - 1.20 0.60			
-	From 0.70m, Gravelly CLAY. Gravel is angular fine to coarse mud:	rtona			(1.00)													
-	From 0.70m, Graveny CDA. Graver's angular fine to coarse made	storie.		<u> </u>														
-				<u> </u>														
-									9						1.00 1.00	10 ES 9 D		1
-																		
-	Firm to very stiff medium strength red CLAY.				1.20	11.24									1.20 - 1.65 1.20 - 2.20			2,2,2)
-				F_=														
-				F_=_														
-																		
				<u> </u>						$\blacksquare$					1.70	102 E	s	
=				==											1.80	103 0		
-				L														
_																	HV 2.00m, (p)=52 kPa (r)=1	.0 kPa 2
									33030									
-	From 2.20m to 2.40m, is soft and friable.								260	$\equiv$					2.20 - 2.65 2.20 - 3.20	105 D		4,4,4)
-									3000									
-				<u> </u>					63963									
-				<del></del> -														
				F_=_	(2.00)				33030									
				F_=_	(3.00)													
-									43343						2.90	106 0	,	
_	From 2.90m, Mottled grey.														3.00	107 E		.2 kPa 3
-																		
															3.20 - 3.65 3.20 - 4.20		SPT(S) 3.20m, N=30 (6,8/7	8,7,8)
-									3000						3.20 4.20	111		
				<u> </u>														
-				F- <u>-</u> -														
-				<u> </u>														
-				<u> </u>														
-				<u> </u>											3.90	110 E	s	
_				<u> </u>											4.00	111 0		4
-				<u> </u>														
	Very weak reddish brown mercia MUDSTONE. Non-in	ntact con	e		4.20	8.24		143 4.20				++	+	-	4.20 - 4.65	113 0	SPT(S) 4.20m, 50 (5,7/50 fo 225mm)	or
-	recovered as angular to subangular fine to coarse GR		-		(0.30)									NI				
-														"				
-	Weak reddish brown mercia MUDSTONE. Discontinu		1)		4.50	7.94					4.20				1			
-	Subhorizontal closely spaced planar smooth open. 2 Subhorizontal medium spaced undulating smooth pa		n								5.50	100	77 5	'				
-	sasonzontar medium spacea anadiating smooth pe	y opei																
-																		
-	Continued on Need Done											$\sqcup$	_	-				5
	Continued on Next Page	T				61.16								1			1. 1. 11. 22	
os	ervations / Remarks		Misc.	Date	Tim		formati oth (m)	ion Casing	(m) Wate	r (m) Fro	m (m)	Backf To (m)		terial	Instrum	ent Type	Installations  Resp. Zone Depti	n (m) Diamet
		parate	nstalled	04/10 04/10	08:0 16:0	0	0.00 1.20	-		0	0.00 1.00	1.00 4.00	Ben Gı	tonite avel		dpipe	1.00 - 4.00 4.0	
		Facour	Used nt/s Inst	07/10 07/10 08/10	08:0 16:0 08:0	0	1.20 4.20 4.20	3.00 3.00		4	1.00	12.00	Ben	tonite				
		Groundwater Enc	Casing Used ring Point/s In:	08/10 08/10	16:0	0 1	12.00	4.20	5						trike (m) Rise		oundwater Strikes Time (min) Rema	rks
			Monitori											ľ	(/)	- ()	. , nema	
		C	2 2	i	1	- 1		ı	1	1	- 1		1	- 1			1	



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

Start Date:	04/10/2024	Checked:	
End Date	08/10/2024	Approved:	

Methodology & Plant

Depth (m) 0.00 - 1.20 1.20 - 4.00 4.00 - 12.00 Method Inspection Pit Dynamic Sampling Rotary Coring Plant Used Hand Tools Comacchio 205 Comacchio 205 Location ID

**BH004** 

DRAFT Log Type

	0.5.464.5	Easting:	479	178.14	Nort	thing:	371956	5.12										208 1790	
Nar	me: One Earth Solar Farm	Elevation:		I4mAOD		l Depth:	12.00n										(	Combined Boreh	ole
Loc	ation: Hall Farm, Lincoln	Logged By:	AW			System:	OSGB											Scale: 1:25	5
Clie	ent: Pershing Consultants	Orientation:	N/A			nation:	90°											Sheet 2 of 3	
CIIC	Tersing consultants	O'I CITCUITO	,,,		Depth (m)	Reduced	Hole Ø	Casing Ø			1					Coring, Samı	nles & Ti		
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	(mm) Depth (m)	(mm) Depth (m)	Water Level (m)	Installation / Backfill	Core	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results	Т
-						, ,	(111)	(111)			Run					(,			
-																			
:															5				
					(1.70)														
-	From 5.50m to 5.60m, Weak reddish brown mercia MUDSTO	ONF. Non-														-			
	intact core recovered as subangular to subrounded fine to co														NI	-			
											5.50				6				
											6.20	100	79	27					
6 -	From 5.95m to 6.00m, Weak reddish brown mercia MUDSTO														NI	1			6
	intact core recovered as subangular to subrounded fine to co	JUISE GRAVEL.													5				
	A A A A A A A A A A A A A A A A A A A				6.20	6.24													
	Assumed zone of core loss. MUDSTONE. (Drillers of	description)																	
-																			
					(0.90)										AZCL				
											6.20 7.50	31	6	0					
7 -																			7
´ :					7.10	5.34													,
	Weak reddish brown mercia MUDSTONE. Non-int	act core													NI				
	recovered as angular fine to coarse GRAVEL.				(0.40)										0	1			
					(0.1.0)										NI				
					7.50	4.94													
-	Assumed zone of core loss. MUDSTONE. (Drillers of	description)																	
					(0.35)										AZCL				
	Moderately weak reddish brown mercia MUDSTO	NE.			7.85	4.59										1			
8 -	Discontinuities are horizontal medium spaced und	dulating rou	gh												7				8
	open. From 8.00m to 8.10m, Weak reddish brown MUDSTONE. No.	n-intact core													NI				Ü
	recovered as angular fine to coarse GRAVEL. From 8.10m to 8.30m, Very weak.																		
	From 8.10m to 8.50m, very weak.										7.50 9.00	77	67	17					
					(1.15)														
-					(1.13)														
															3				
	1																		
	1																		
9 -	Madissa share as 1931				9.00	3.44						<u> </u>				4			9
	Medium strong reddish brown mercia MUDSTONI Discontinuities are 1) Subhorizontal medium spac														AZCL				-
	smooth tight. 2) Subhorizontal medium spaced pl		h													1			
	tight and open.																		
	From 9.00m to 9.15m, Assumed zone of core loss.																		
-	1										9.00 10.50	90	90	38					
	1										20.30				5				
	1																		
					(1.50)														
10 –	Continued on Newt Person															-			10
	Continued on Next Page	Г		-			<u></u>			- 1		<u> </u>							
Obs	servations / Remarks		Misc.	Date	Tim	Shift In	format		(m) Wate	er (m) Fron		Back To (m		Mate	rial	Instrume		Installations  Resp. Zone   Depth (m)	Diamet
		para	palli	04/10 04/10	08:0	00	0.00		,, wate	0	.00	1.00		Bentor Gravi	nite	Standp		1.00 - 4.00 4.00	50
		tunosa	Used nt/s Insta	07/10 07/10 07/10	08:0	00	1.20 1.20 4.20	3.00	,		.00	12.00		Bentor					
		ater E	ing Us Point/	08/10 08/10	08:0	00	4.20 12.00	3.00	)									undwater Strikes	
		M pund	Cas toring												St	rike (m) Rises	To (m) Ti	ime (min) Remarks	
		ž.	: 'É	I	1			1	1	- 1	- 1				ı	1		1	



Project No:

2372986

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

www.central-alliance.co.uk

Location Details

 Start Date:
 04/10/2024
 Checked:

 End Date
 08/10/2024
 Approved:

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 4.00
 Dynamic Sampling
 Comacchio 205

 4.00 - 12.00
 Rotary Coring
 Comacchio 205

Location ID

**BH004** 

DRAFT

Log Type

Nan	ne: One Earth Solar Farm	Easting:	479	178.14	Nort	thing:	371956	6.12	1									Combined Bore	ehole
Loc	ation: Hall Farm, Lincoln	Elevation:		4mAOD		l Depth:	12.00n	n									-		
		Logged By:	AW			System:	OSGB										-		:25
Clie	nt: Pershing Consultants	Orientation:	N/A		Incli	nation:	90°	1			_							Sheet 3 of 3	
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm) Depth	Casing Ø (mm) Depth	Water Level (m)	Installation Backfill	n/		_			Coring, Sam	_		
					Thickness)	(mAOD)	(m)	(m)	Lever (III)	DBCKIIII	Core Run	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results	
-																			1
-																			-
-																			1
-	At 10.35m, Discontinuity is 30 Deg undulating rough and par	rtly open.																	1
-					10.50	1.94													_
-	Moderately weak reddish brown mercia MUDSTO core recovered as angular fine to coarse GRAVEL.		tact												AZCL				1
-	From 10.50m to 10.70m, Assumed zone of core loss.															]			-
-					(0.50)														1
_															NI				1
11 -					11.00	1.44													11 -
-	Strong reddish brown mercia MUDSTONE.				11.00	2.44													
-																			-
-					(0.50)						10.50 12.00	87	67	40	0				-
-																			}
-					11.50	0.94													}
-	Medium strong reddish brown mercia MUDSTON				11.30	0.54													}
-	Discontinuities are 1) Subhorizontal undulating sn tight. 2) Horizontal stepped rough and open.	nooth and																	]
-	2, 115.125.131 Stepped Tought did Open.				(0.50)										4				]
-																			]
12 -					12.00	0.44	<u>121</u> 12.00												12 -
-	EOH at 12.00m - Scheduled Deptl	h			12.00	0.44	12.00												12
-																			-
-																			-
-																			}
_																			_
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-																			1
-																			7
-																			1
-																			1
-																			1
=																			1
15 -					1								H			1			15 -
Obs	ervations / Remarks		Misc.			Shift Ir	format	ion				Bac	kfill					Installations	
			pa 4	Date 04/10	Tim 08:0	ie De	pth (m) 0.00	Casing	(m) Wat	er (m) Fi	rom (m) 0.00	To (n		Mater		Instrume	nt Type	Resp. Zone Depth (r 1.00 - 4.00 4.00	m) Diameter
			ounter. Stalled	04/10 04/10 07/10	16:0	00	1.20 1.20				1.00 4.00	4.00 12.00		Grave Bentor	el	Stand	hihe	1.00 - 4.00 4.00	30
			ndwater Encountered Casing Used 'ing Point/s Installed	07/10 07/10 08/10	16:0	00	4.20 4.20 4.20	3.0	0		4.50	12.01		J-111U			_		
			ndwate Casing ing Poi.	08/10	16:0		12.00	4.2	0						S+	rike (m) Rises		oundwater Strikes Fime (min) Remarks	
			lo Groun Monitori												ľ	- ()	, -97		
			No M																



Alliance House 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44 (0)1924 229889 www.central-alliance.co.uk

372660.49

OSGB

90°

Start Date:	15/10/2024	Checked:	
End Date:	16/10/2024	Approved:	

End Dat	e:	16/10/2024	App	roved:		
		Methodolo	ogy & F	lant		
Depth (m)		Method		P	lant Used	Τ
0.00 - 1.20		Inspection Pit		Н	and Tools	
1.20 - 9.00	C	able Percussion Bo	ring	Da	ando 2000	

	Methodolo	ogy & P	lant		
	Method		P	lant Used	
	Inspection Pit		Н	and Tools	
c	able Percussion Bo	ring	Da	ando 2000	
	C	Method Inspection Pit	Method	Inspection Pit H	Method Plant Used Inspection Pit Hand Tools

Location ID **BH005** 

DRAFT

Log Type

**Header Sheet** 

1:50 Scale: Sheet 1 of 1

Hole Diameter							
Depth (m)	Diam (mm)						
9.00	150						

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing Diameter								
Depth (m)	Diam (mm)							
9.00	150							
l								
l								
I								

	Groundwater Strikes									
Strike	Casing	Sealed	Time	Rose To	Dl					
(m)	(m)	(m)	(min)	(m)	Remarks					
1.30	-	1.50	20	1.00						
2.10	-	2.50	20	1.50						
6.20	-	6.50	20	3.00						

Northing:

Grid System:

Inclination:

Final Depth: 9.00m

Location Details

481462.72

4.65mAOD

AW

N/A

Installation / Instrument Details									
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)					
16/10/2024	Vibrating Wire Piezometer	3.50		70					

If Methodology includes Dynamic Sampling refer to Runs table for info.

In-Situ Tests				
PID	0			
Hand Vane*	0			
Standard Penetration Tests	5			

<sup>\*</sup> One count indicates an average reported result of 3 tests carried out at one depth where available.

Sample Summary					
Environmental Samples					
Soil	5	Water	0		
Geote	chnic	cal Samples			
Bulk 10 Large Bulk					
Disturbed	16	Disturbed (NR)	0		
Piston	0	Piston (NR)	0		
Undisturbed 0 Undisturbed (NR)					
Undisturbed Thin Wall					
Undisturbed Thin Wall (NR)					
Core Sample					

Easting:

Elevation:

Logger:

Orientation:

(NR) Indicates sample undertaken but with

	Standard Penetration Test Summary									
Test Type	Depth	Casing		Seating		Penetration	N	Reported Result	Hammer Ref	
iest Type	(m)	(m)	(m)	Blows	Blows	Total (mm)		Reported Result	nammer ker	
Split Spoon	2.00	1.50	-	3	7	450	7	N=7 (1,2/2,1,2,2)	7-10-1	
Split Spoon	4.00	3.00	-	4	7	450	7	N=7 (2,2/2,2,2,1)	7-10-1	
Split Spoon	6.00	4.50	-	1	0	75		0 (1 for 75mm/0 for 0mm)	7-10-1	
Cone	7.50	7.50	1	13	23	450	23	N=23 (6,7/6,6,5,6)	7-10-1	
Split Spoon	9.00	9.00	2	25	50	190		50 (25 for 85mm/50 for 105mm)	7-10-1	
ł										
l										

SPT Hammer Ref.	Energy Ratio (%)
7-10-1	62

#### **Applicable to Cable Percussion Only**

Chiselling								
Depth (m)	Duration (mins)							
8.30 - 8.50	30							
8.50 - 9.00	60							

Water Added						
Depth (m)	Litres					

#### **Applicable to Rotary Only**

	Drilling Flush								
Depth (m)	Flush Type	Flush Colour	Return %						

#### **Applicable to Dynamic Sampling Only**

Dynamic Sampling Runs									
Depth (m)	Diam (mm)	Recovery %	Remarks						



Brownish yellow very sandy angular to rounded fine to coarse

mixed lithology GRAVEL. Sand is fine to coarse.

2372986

Project No:

Alliance House 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XI +44(0)1924 229889

www.central-alliance.co.uk

Location Details:

اد<u>اد داد</u> عاد :

ala <u>al</u>a

4.00

(5.00)

0.65

Start Date: 15/10/2024 Checked: End Date: 16/10/2024 Approved:

Methodology & Plant

Depth (m) 0.00 - 1.20 1.20 - 9.00 Equipment Hand Tools Dando 2000 Method Inspection Pit
Cable Percussion Boring

3.50 3.50 - 4.00

4.00 4.00 - 4.45

4.50 4.50 - 5.00

6.50 - 7.00

7.50 7.50 7.50 - 7.95 7.50 - 7.95

8.00 - 8.50

14 B

15 D 16 D

103 ES 17 B

23 B

27 B

SPT(S) 4.00m, N=7 (2,2/2,2,2,1)

SPT(C) 7.50m, N=23 (6,7/6,6,5,6)

10

Location ID

**BH005** 

**DRAFT** Log Type

Easting: 481462.72 Northing: 372660.49 Name: One Earth Solar Farm **Cable Percussion** Elevation: 4.65mAOD Final Depth: 9.00m Hall Farm, Lincoln Location: Logged By: AW Grid System: OSGB Client **Pershing Consultants** Orientation N/A Inclination: Sheet 1 of 1 Depth (m) Reduced Casing Ø Samples & Testing Water Level (m) Strata Description Legend (Stratum Thickness) Level (mAOD) Added (Litres) (mm) Depth (m) (mins) Depth (m) (0.10) 0.10 4 55 MADE GROUND: Firm brown CLAY. [TOPSOIL] 0.10 - 0.50 Firm brown CLAY. 0.60 0.60 - 1.20 2 D 3 B 0.80 101 E 1.00 4 D (2.20) 5 UT SPT(S) 2.00m, N=7 (1,2/2,1,2,2) 2 Plastic blackish grey clayey amorphous PEAT with a slight اد<u>اد داد</u> عاد : 2.50 2.50 - 3.00 102 ES 3.00 11 D 12 UT 8 blows, 100% Recovery (1.70)

18 D 12 blows, 100% Recovery 5.00 - 5.45 19 UT 5.50 - 6.00 20 B SPT(S) 6.00m, 0 (1 for 75mm/0 for 0mm) 6.00 6.00 6.00 - 6.45 104 ES 21 D 22 D 6.20

> 30 60 9.00 -4.35 9.00 SPT(S) 9.00m, 50 (25 for 85mm/50 9 EOH at 9.00m - Refusal 9.00 9.00 9.00 - 9.45 29 D

Observations / Remarks Misc. Shift Information Installations Resp. Zone Depth (m) Diameter 3.50 70 From (m) To (m) Material 0.00 9.00 Grout Instrument Details Vibrating Wire Piezomete Groundwater Bro...
Casha Used
Monitoring Point's Installed
Hammer Ref & Breary Ratio (%)
7-10-1 (62(%) Depth (m) Casing (m) Water (m)

	G	roundwat	er Strikes
Strike (m	Rises To (m)	Time (min)	Remarks
1.30	1.00	20	
2.10	1.50	20	
6.20	3.00	20	



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Final Depth: 19.00m

372663.21

OSGB

90°

End Date: 15/10/2024 Assessed	Start Date:	10/10/2024	Checked:	
End Date: 15/10/2024 Approved:	End Date:	15/10/2024	Approved:	

	Methodology & P	lant
Depth (m)	Method	Plant Used
0.00 - 1.20	Inspection Pit	Hand Tools
1.20 - 8.00	Dynamic Sampling	Comacchio 205
4.00 - 19.00	Rotary Coring	Commachio 205
8.00 - 9.00	Rotary Open Holing	Commachio 205

Location ID

**BH006** 

DRAFT Log Type

**Header Sheet** 

Scale: 1:25 Sheet 1 of 1

Hole Di	ameter
Depth (m)	Diam (mm)
3.00	128
8.00	113
9.00	140
19.00	116
l	

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing D	iameter
Depth (m)	Diam (mm)
9.00	140

Groundwater Strikes									
Strike (m)	Casing (m)	Sealed (m)	Time (min)	Rose To (m)	Remarks				
2.30	2.30	3.00	20	1.65					

Northing:

Grid System:

Inclination:

Location Details

481517.90

4.90mAOD

AW

N/A

	Installation / Instrume	ent Deta	ails	
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)
15/10/2024	Vibrating Wire Piezometer	13.60	0.00 - 13.60	18

If Methodology includes Dynamic Sampling refer to Runs table for info.

Backfill						
Legend Code						
Grout						
Bentonite						

In-Situ Tests	
PID	0
Hand Vane*	5
Standard Penetration Tests	4

<sup>\*</sup> One count indicates an average reported result of 3 tests carried out at one depth where available.

Sample Summary				
Environmental Samples				
Soil <b>7</b> Water				
Geotechnical Samples				
Bulk 8 Large Bulk				
Disturbed 14 Disturbed (NR)				
0	0 Piston (NR)			
0	Undisturbed (NR)	0		
Undisturbed Thin Wall				
Undisturbed Thin Wall (NR)				
re San	nple	0		
	7 echnic 8 14 0 ourbed	7 Water echnical Samples  8 Large Bulk 14 Disturbed (NR) 0 Piston (NR) 0 Undisturbed (NR)		

Easting:

Elevation:

Logger:

Orientation:

(NR) Indicates sample undertaken but with 0% Recovery

				Sta	ndard	Penetrati	on T	est Summary	
Test Type	Depth	Casing	Water	Seating		Penetration	N	Reported Result	Hammer Ref
lest Type	(m)	(m)	(m)	Blows	Blows	Total (mm)	IN	Reported Result	nammer ker
Split Spoon	3.00	3.00	2.30	0	1	450	1	N=1 (0,0/0,0,1,0)	AR2154
Split Spoon	5.00	5.00	-	1	1	150		1 (1 for 75mm/1 for 75mm)	AR2154
Split Spoon	6.50	6.50	-	1	2	225		2 (1 for 75mm/2 for 150mm)	AR2154
Split Spoon	9.00	9.00	-	13	35	450	35	N=35 (5,8/6,6,9,14)	AR2154

SPT Hammer Ref.	Energy Ratio (%)	
AR2154	71	

#### **Applicable to Cable Percussion Only**

Chiselling			
Depth (m)	Duration (mins)		

Water Added				
Depth (m)	Litres			

#### **Applicable to Rotary Only**

	Drilling Flush				
Depth (m) Flush Type			Flush Colour	Return %	
	9.00 - 10.50	Water	Brown	90	
	10.50 - 12.00	Water	Brown	40	
	12.00 - 13.50	Water	Brown	70	
	13.50 - 15.00	Water	Brown	50	
	15.00 - 16.50	Water	Brown	60	
	16.50 - 18.00	Water	Brown	60	
	18.00 - 19.00	Water	Brown	60	

#### **Applicable to Dynamic Sampling Only**

Dynamic Sampling Runs				
Depth (m)	Diam (mm)	Recovery %	Remarks	
1.80 - 3.00	128	100		
3.00 - 4.00	113	100		
4.60 - 5.00	113	100		
5.00 - 6.50	113	100		
6.50 - 8.00	113	67		



One Earth Solar Farm

Project No:

Name:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

www.central-alliance.co.uk

372663.21

Location Details

Northing:

481517.90

Easting:

 Start Date:
 10/10/2024
 Checked:

 End Date
 15/10/2024
 Approved:

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 8.00
 Dynamic Sampling
 Comracthio 205

 8.00 - 9.00
 Rotary Open Holing
 Commachio 205

 4.00 - 19.00
 Rotary Coring
 Commachio 205

Location ID

**BH006** 

DRAFT Log Type

unic.	One Earth Solai Farm	Elevation:	4.90	mAOD	Fina	ll Depth:	19.00n	n									Combined Borel
cation:	Hall Farm, Lincoln	Logged By:	AW		Grid	System:	OSGB										Scale: 1:2
ient:	Pershing Consultants	Orientation:	N/A		Incli	ination:	90°										Sheet 1 of 4
	Strata Description	•		Legend	Depth (m) (Stratum	Reduced Level	(mm)	Casing Ø (mm)	Water	Installatio					Coring, Sam	ples & T	[esting
				Legenu	Thickness)		Depth (m)	Depth (m)	Level (m)	Backfill	Cor Ru	re In TCR	SCR R	QD If	Depth (m)	Ref	Test Results
	to firm low strength brown slightly sandy silty	y CLAY. Sand	is	×													
ппе	to coarse.			<u> </u>											0.20 - 0.50	3 B	
1				$\overline{\times}_{\overline{\times}}$	(0.54)										0.30	1 ES	HV 0.30m, (p)=24 kPa (r)=6 kPa
				×													HV 0.30m, (p)=24 kPa (r)=6 kPa
				×—_											0.40	2 D	
Voru	y soft brown very sandy silty friable CLAY. Sand	d is fine to		X	0.54	4.36											
coar		u is fille to		<u>×_×</u>													HV 0.60m, (p)=Fail kPa (r)=Fail kPa
				$\overline{\mathbf{x}}$ $\overline{\mathbf{x}}$											0.70 0.70 - 1.10	4 D 6 B	
				×											0.80	5 ES	
				×— -													
				×													
				×_×_													
				$\overline{\mathbb{X}}$											1.20 - 1.80	7 UT	100 Ublows, 100% Recovery
				×													
				<u>^</u>													
				×													
				×_×_	(2.16)												
				$\overline{\mathbf{x}}$	(=-=-)				1.65						1.70	8 D	
	Form 4 00m Climber and			×					1.75						1.80 - 2.60	9 B	
	From 1.80m, Slightly sandy.			<u>^</u>											1.90	10 ES	
				×—					1.90								
				×													
				$\overline{\times}_{\overline{\times}}$					2.10								
				$\overline{\mathbf{x}}$													
	From 2.30m, is grey.			^					2.30								
				X													
				×													
				×_×_													
Soft	low strength grey CLAY.				2.70	2.20											
															2.80 2.80 - 3.00	11 D 13 B	HV 2.80m, (p)=26 kPa (r)=8 kPa
				[ <del>-</del>			120								2.90	12 ES	
	From 3.00m to 3.25m, Slightly sandy silty CLAY.						128 3.00								3.00 - 3.45	14 D	SPT(S) 3.00m, N=1 (0,0/0,0,1,0)
				<del> </del>													
					(1.02)										3.20	15 D	
															3.30 - 3.60	16 B	
	From 3.60m, is bluish grey.			<del> -</del>													
					3.72	1.18											
FIRM	n low strength bluish grey CLAY.														3.80	17 D	
															3.90	18 ES	HV 3.90m, (p)=30 kPa (r)=10 kPa
				<u> </u>											4.00 - 4.45	19 UT	
				<u></u>													
				<u> </u>													
				<u> </u>													
	From 4.60m, Is soft.			<u> </u>											4.60	20 D	
	110m <del>1</del> .00m, 13 30Jc.			<u> </u>	(1.98)										4.60 - 5.00 4.70	22 B 21 ES	
				F_=_	-,												HV 4.80m, (p)=30 kPa (r)=8 kPa
	Continued on Next Page														5.00 - 5.45 5.00 - 5.70	23 D 24 B	SPT(S) 5.00m, 1 (1 for 75mm/1 for 75mm)
rvatio	ons / Remarks	1	Misc.			Shift I	nformat	ion				Back	ttl dill		5.00 - 5.70	1 248	Installations
			-	Date 10/10	Tim		pth (m)	Casing	(m) Wa	ter (m) F	rom (m) 0.00			aterial	Instrume		Resp. Zone Depth (m)
		tered	Casing Used onitoring Point/s Installed	10/10 10/10	08:0 16:0	00	4.00	3.00		3.10	13.60	13.60 19.00	Be	Grout ntonite	Vibrating Wire	: riezome	eter 0.00 - 13.60 13.60
		unoou	Used nt/s In:	11/10 11/10	08:0 15:0	00	4.00 15.00	9.00	)	1.20 2.20							
		water Encou	) ging t	14/10 14/10	08:0 15:3		19.00	9.00	'	1.70							oundwater Strikes
		mpun	Ω itorin												Strike (m) Rises 2.30 1	To (m) T	ime (min) Remarks
		e e	Mon	l	1					1		1					



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

Start Date:	10/10/2024	Checked:	
End Date	15/10/2024	Approved:	

Methodology & Plant

Depth (m) 0.00 - 1.20 1.20 - 8.00 8.00 - 9.00 4.00 - 19.00 Method Inspection Pit Dynamic Sampling Rotary Open Holing Rotary Coring Plant Used Hand Tools Comacchio 205 Commachio 205 Commachio 205 Location ID

**BH006** 

Project No:	2372986			Locat	tion Detai	IS			4.00 - 19.0	00	Rotar	y Corin	g		Con	nmachio 205		Log Type	
Name:	One Earth Solar Farm	Easting:		517.90		hing:	372663											Combined Bore	hole
Location:	Hall Farm Lincoln	Elevation:		mAOD		l Depth:	19.00n	n											
	Hall Farm, Lincoln	Logged By:	AW			System:	OSGB												25
Client:	Pershing Consultants	Orientation:	N/A	·		nation:	90°	1										Sheet 2 of 4	
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm) Depth	Casing Ø (mm) Depth	Water Level (m)	Installati Backfi		ore T	_	_		Coring, Sam	_		
Firm I	ow strength bluish grey CLAY.			_	Thickness)	(mAOD)	(m)	(m)				un TC	CR SCF	RQD	If	Depth (m)	Ref	Test Results	
] '"""	ow strength bluish grey clai.																		-
-																			-
1				<u> </u>	-														-
]				<u> </u>															-
7				F_=															-
1																			-
Soft b	rownish grey sandy silty CLAY. Sand is fine to	coarse		X	5.70	-0.80													
1				^ 												5.80	25 D		-
1				X—	(0.40)											5.90	26 ES		-
6 –				×															6 -
Grey	slightly clayey slightly gravelly fine to coarse	SAND. Grav	el		6.10	-1.20													-
is sub	rounded fine to coarse mixed lithologies (Riv	ver Terrace)																	-
1				7												6.30	27 D		-
1																			-
-				***	1											6.50 - 6.95 6.50 - 7.30	28 D 29 B	SPT(S) 6.50m, 2 (1 for 75mm/2 for 150mm)	-
1					1														
1					(1.30)														-
1																			-
1																			
7 🚽																			7 -
_					1														-
1																			-
1																			-
Brown	nish grey sandy subangular to subrounded fi	ne to coarse	e		7.40	-2.50													-
muds	tone and mixed lithologies GRAVEL (River Te																		-
fine to	coarse.															7.60	30 D		-
1					(0.60)														
1																			
1																			-
8 - No re	covery - Rotary open holed to pass gravel ba	nd.		2 4,34,25	8.00	-3.10	113 8.00												8 -
1																			-
1																			-
1																			-
1																			-
1					(1.00)														-
1																			
1																			
1																			-
1							140	140											
	weak red mercia MUDSTONE. Non-intact cor				9.00	-4.10	9.00	<u>140</u> 9.00					T			9.00 - 9.45	31 D	SPT(S) 9.00m, N=35 (5,8/6,6,9,14)	9 -
	gular top rounded fine to coarse GRAVEL (Ri	iver terrace																	-
depos	sit).																		-
1																			-
1											9.0	00							-
1											10.	.50	00 13	9	NI				-
1					(1.20)														-
1																			
1																			
1																			-
	Continued on Next Page				1								1			1			10 -
bservation	s / Remarks		Misc.			Shift In	nformat	ion				Ва	ckfill				1	Installations	
			- 76	Date 10/10	Tim 08:0		pth (m)	Casing			From (m)	) To (		Mater		Instrume Vibrating Wire			Diameter 18
		Toron	stallec	10/10 10/10 11/10	16:0 08:0	10	4.00 4.00	3.0 3.0	0 3	.10	13.60	19.		Bentor		vibrating Wife	. r rezome	0.00 - 13.00   13.00	10
		2	Used "nt/s In	11/10 11/10 14/10	15:0 08:0	10 :	4.00 15.00 19.00	9.0 9.0	0 2	20					-				
		a turn	water Encountered Casing Used ing Point/s Installed	14/10	15:3		· ·	-		- '					St	trike (m) Rises		undwater Strikes ime (min) Remarks	
		, and a second	Monitori												٢		.65	20	
		•	× §																



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

 Start Date:
 10/10/2024
 Checked:

 End Date
 15/10/2024
 Approved:

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 8.00
 Dynamic Sampling
 Comacchio 205

 8.00 - 9.00
 Rotary Open Holing
 Commachio 205

 4.00 - 19.00
 Rotary Coring
 Commachio 205

Location ID

**BH006** 

Name	e: One Earth Solar Farm	Easting:	4815	517.90	Nort	hing:	372663	3.21										Combined Pers	holo
		Elevation:	4.90	mAOD	Fina	Depth:	19.00n	n										Combined Bore	noie
Locat	ion: Hall Farm, Lincoln	Logged By:	AW		Grid	System:	OSGB											Scale: 1:	25
Clien	Pershing Consultants	Orientation:	N/A		Incli	nation:	90°											Sheet 3 of 4	
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm)	Casing Ø (mm)	Water	Installation						Coring, Sam	ples &	Testing	
	Strata Description			Legend	Thickness)	(mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Cor Ru		R SCI	R RQD	If	Depth (m)	Ref	Test Results	
	Very weak red mercia MUDSTONE. Non-intact con																		1
1 -	subangular top rounded fine to coarse GRAVEL (Ri deposit).	iver terrace	!																-
1 F	Extremely weak red speckled grey mercia MUDSTO	ONE.			10.20	-5.30													
1 7					(0.30)										0				-
1 -	From 10.40m to 10.50m, non-intact core recovered as slightly CLAY. Sand is fine to coarse.	y sandy silty													NA				-
17	Extremely weak to very weak red speckled grey m	ercia			10.50	-5.60													-
	MUDSTONE. Discontinuities are sub-horizontal, clo	osely space	d,																1
1 7	undulating, smooth and tight to partly open.																		1
1 1															12				1
1 1																			1
11 -	At 11.05m, 1 No discontinuity, 45 degrees, undulating, smoot	th and tight																	11 -
1 1	At 11.05m, 1 No discontinuity, 45 degrees, undulating, smoot	in una tignt.																	1
1 1	5 44.05 . 44.50	. "			(1.50)						10.5	50 100	77	31					1
	From 11.25m to 11.60m, Non-intact core recovered as slightl sandy silty CLAY. Gravel is angular fine to coarse mudstone. S										12.0								-
	coarse.														NA				-
																			-
																1			1
																			-
															7.5				]
12	At 11.95m, 1 No discontinuity, horizontal, planar, smooth, ver clay infill.	ry open with	/		12.00	-7.10					Н	+	+		NI	-			12 -
	Very weak reddish brown mercia MUDSTONE with															-			
	gypsum veins (1.00mm - 6.00mm). Discontinuities																		-
_	horizontal, closely spaced, undulating, rough and open 2) 30 degrees, closely spaced, rough, planar																		-
	open with gravel infill.																		-
1 -	At 12.50m, Band of weak gypsum (30.00mm).																		-
1 -	At 12.60m, Band of weak gypsum 30 degrees (10.00mm).																		-
1 -	,				(4.50)						12.0	00							-
1 -					(1.50)						13.5	50 100	93	48	9				-
1 -																			-
13 -																			13
1 1	At 13.10m, Band of weak gypsum (25.00mm).																		1
1 1	,, 3/, (																		1
1 1																			1
1 1	Below 13.35m, is grey speckled red and moderately weak.																		1
1 1	Add to the control of				13.50	-8.60					_	_	-	-					1
	Moderately weak to medium strong grey stained r MUDSTONE with frequent gypsum veins (1.00-7.0														AZCL				1
	Discontinuities are 1) Horizontal, medium spaced,														NI	1			1
	planar and tight 2) Horizontal, medium spaced, ste	epped, smo	oth																-
	and partly open.  From 13.50m to 13.65m, Assumed zone of core loss.																		-
14 -	From 13.65m to 13.70m, Non-intact core recovered as angula coarse mudstone GRAVEL.	ar fine to																	14 -
	COURSE MUDICINE CHAVEL.																		-
											43.	-							-
											13.5 15.0		87	51					-
															7				1
	AT 14.41m, Band of weak gypsum (40.00mm).																		
																			1
-																			-
																			_
15																			15 —
13	Continued on Next Page																		15
Obse	rvations / Remarks		Misc.			Shift In							kfill					Installations	
		Ţ	, q	Date 10/10	Tim 08:0	10	oth (m)	Casing -		-	om (m) 0.00	To (r	0	Mate	ut	Instrume Vibrating Wire	nt Type Piezom	e Resp. Zone Depth (m	Diameter 18
			untere 1 Installe	10/10 11/10	16:0 08:0	10	4.00 4.00	3.00	) 1	.20	13.60	19.0	0	Bento					
		Š	g Used oint/s	11/10 14/10	15:0 08:0	10 :	.5.00 .9.00	9.00		.20 .70							Gr	oundwater Strikes	1
			awater I Casing ring Poi	14/10	15:3	10				-					S	trike (m) Rises	To (m)	Time (min) Remarks	
		i di	Groun fonito													2.30 1.	.65	20	



One Earth Solar Farm

Project No:

Name:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

www.central-alliance.co.uk

372663.21

Location Details

Northing:

481517.90

Easting:

 Start Date:
 10/10/2024
 Checked:

 End Date
 15/10/2024
 Approved:

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 8.00
 Dynamic Sampling
 Comracthio 205

 8.00 - 9.00
 Rotary Open Holing
 Commachio 205

 4.00 - 19.00
 Rotary Coring
 Commachio 205

Location ID

**BH006** 

DRAFT Log Type

Name:	One Earth Solar Farm	Elevation:	48151 4.90m			hing: I Depth:	372663 19.00m											<b>Combined Bor</b>	ehole
Location:	Hall Farm, Lincoln	Logged By:	AW			System:	OSGB										ŀ	Scale:	1:25
Client:	Pershing Consultants	Orientation:	N/A		Incli	nation:	90°											Sheet 4 of 4	
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm) Depth	Casing Ø (mm) Depth	Water Level (m)	Installation / Backfill	Core	1				Coring, San		1	
			+		Thickness)	(mAOD)	(m)	(m)			Run	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results	
1																			
-	At 15.20m, Band of moderately weak gypsum (<30.00mm).																		
1	From 15.50m to 15.90m, Discontinuities are horizontal, very	closelv	E																
-	spaced, undulating, smooth and very open with gravel infill.	,																	
1																			
]											15.00 16.50	100	100	28					
1																			
16																			16 -
=																			
]					(5.50)														
=	At 16.40m, Band of moderately weak gypsum (<30.00mm).																		
-	, , , , , , , , , , , , , , , , , , ,																		
1			É																
]			F																
	At 16.86m, Band of moderately weak gypsum (<30.00mm).																		
17 -	At 17.00m, Band of moderately weak gypsum (<30.00mm).														7				17 -
=			E																
-											16.50 18.00	100	100	73					
3	At 17.32m, Band of moderately weak gypsum (<30.00mm).																		
-																			
=			E																
]																			
-																			
18 -																			18 -
1			E																
]																			
1																			
-											18.00 19.00	100	100	64					
1																			
]	From 18.73m to 18.81m, Moderately weak gypsum.																		
=																			
.9 —	EOH at 19.00m - Scheduled Depth	1			19.00	-14.10	<u>116</u> 19.00							+					19 -
1																			
1																			
1																			
-																			
1																			
-																			
1																			
0														+	$\dashv$				20 -
Observati	ons / Remarks	N	Misc.			Shift In						Back			ľ	_		Installations	
		pa	alled	Date 10/10	7im 08:0	10	oth (m)	Casing		. 0	m (m) .00 3.60	To (m		ateria Grout	١	Instrum ibrating Wir			
		counter	b Inst	10/10 11/10 11/10	16:0 08:0 15:0	10 1	4.00 4.00 15.00	3.00 3.00 9.00	1.0	20 20	DØ.c	19.00	B	entonite	L				
		rater En	Casing Use ring Point/!	14/10 14/10	08:0 15:3	0 :	19.00	9.00	1.						C+"	ke (m) Rise		oundwater Strikes Time (min) Remark	<b></b>
		sroundw	Conitori														1.65	20 Remark	w



Alliance House 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44 (0)1924 229889 www.central-alliance.co.uk

Final Depth: 19.40m

372521.54

OSGB

90°

9.20 - 19.40

Start Date:	14/10/2024	Checked:	
End Date:	16/10/2024	Approved:	

Rotary Coring

Methodology & Plant Depth (m) 0.00 - 1.20 1.20 - 9.50 Method Inspection Pit Cable Percussion Boring Plant Used

Location ID **BH007** 

DRAFT

Log Type

**Header Sheet** 

1:50 Scale: Sheet 1 of 1

Hole Diameter										
Depth (m)	Diam (mm)									
7.50 19.40	150 116									

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing D	iameter
Depth (m)	Diam (mm)
7.50	150
9.20	140

	Groundwater Strikes									
Strike	Casing	Sealed	Time	Rose To	Remarks					
(m)	(m)	(m)	(min)	(m)	Keiliaiks					
2.30	-	3.00	20	2.00						
4.20	-	4.50	20	1.00						
5.60	-	6.00	20	1.00						

Northing:

Grid System:

Inclination:

Location Details

481486.70

4.68mAOD

AW

N/A

	Installation / Instrument Details									
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)						
16/10/2024	Standpipe	6.00	4.00 - 6.00	50						

Hand Tools Dando 2000

Commachio 205

If Methodology includes Dynamic Sampling refer to Runs table for info.

B	ackfill
Depth (m)	Legend Code
0.00 - 4.00	Bentonite
4.00 - 6.00	Gravel
6.00 - 19.40	Bentonite

In-Situ Tests	
PID	0
Hand Vane*	0
Standard Penetration Tests	7

<sup>\*</sup> One count indicates an average reported result of 3 tests carried out at one depth where available.

Sample Summary								
Enviror	Environmental Samples							
Soil	Soil <b>7</b> Water							
Geotechnical Samples								
Bulk 10 Large Bulk								
Disturbed	17	Disturbed (NR)	0					
Piston	0	Piston (NR)	0					
Undisturbed	0	Undisturbed (NR)	0					
Undistu	rbed 1	Thin Wall	2					
Undisturbed Thin Wall (NR)								
Cor	e San	nple	0					

Easting:

Elevation:

Logger:

Orientation:

(NR) Indicates sample undertaken but with

Standard Penetration Test Summary										
Test Type	Depth	Casing	Water	Seating	Main	Penetration	N	Reported Result	Hammer Ref	
iest Type	(m)	(m)	(m)	Blows	Blows	Total (mm)	IN	Reported Result	панние ке	
Split Spoon	1.20	-	-	2	5	450	5	N=5 (1,1/1,1,2,1)	7-10-1	
Split Spoon	3.00	-	-	0	3	450	3	N=3 (0,0/0,1,1,1)	7-10-1	
Split Spoon	4.00	-	-	2	4	450	4	N=4 (1,1/1,1,1,1)	7-10-1	
Split Spoon	6.00	-	-	10	21	450	21	N=21 (5,5/5,5,6,5)	7-10-1	
Split Spoon	7.50	7.50	1	13	27	450	27	N=27 (6,7/7,6,7,7)	7-10-1	
Split Spoon	9.00	9.00	3	25	0	317		50 (25 for 135mm/50 for 182mm)	7-10-1	
Split Spoon	9.50	9.50	3	25	50	175		50 (25 for 81mm/50 for 94mm)	7-10-1	

SPT Hammer Ref.	Energy Ratio (%)
7-10-1	62

#### **Applicable to Cable Percussion Only**

Chiselling									
Depth (m)	Duration (mins)								
5.50 - 6.00	90								
7.00 - 7.50	60								
8.50 - 9.00	60								
9.30 - 9.50	30								

Water Added								
Depth (m) Litres								

## **Applicable to Rotary Only**

Drilling Flush							
Depth (m)	Flush Type	Flush Colour	Return %				
9.20 - 10.50	Water	Brown	80				
.0.50 - 12.00	Water	Brown	80				
2.00 - 13.50	Water	Brown	80				
.3.50 - 15.00	Water	Brown	90				
5.00 - 16.50	Water	Brown	90				
	Water	Brown	90				
8.00 - 19.40	Water	Brown	90				
	9.20 - 10.50 0.50 - 12.00 2.00 - 13.50 3.50 - 15.00	Depth (m) Flush Type  9.20 - 10.50 Water  0.50 - 12.00 Water  2.00 - 13.50 Water  3.50 - 15.00 Water  5.00 - 16.50 Water  6.50 - 18.00 Water	Depth (m)         Flush Type         Flush Colour           3.20 - 10.50         Water         Brown           0.50 - 12.00         Water         Brown           2.00 - 13.50         Water         Brown           3.50 - 15.00         Water         Brown           6.50 - 18.00         Water         Brown           6.50 - 18.00         Water         Brown				

#### **Applicable to Dynamic Sampling Only**

	Dynamic Sampling Runs										
Ш	Depth (m)	Diam (mm)	Recovery %	Remarks	]						
					П						
					П						
					П						
					П						
					П						
					П						
					П						
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					П						
					П						
					П						
					П						
					П						
					П						



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

 Start Date:
 14/10/2024
 Checked:

 End Date
 16/10/2024
 Approved:

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 9.50
 Cable Percussion Boring
 Dando 2000

 9.20 - 19.40
 Rotary Coring
 Commachio 205

Location ID

**BH007** 

Nam	e: One Earth Solar Farm	Easting:	481486	6.70	Nort	hing:	372521	.54										Cambinad Barah	
		Elevation:	4.68m/	AOD	Final	Depth:	19.40m	1									Ľ	Combined Boreh	oie
Loca	tion: Hall Farm, Lincoln	Logged By:	AW		Grid	System:	OSGB											Scale: 1:50	)
Clier	t: Pershing Consultants	Orientation:	N/A	1		nation:	90°											Sheet 1 of 2	
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm) Depth	Casing Ø (mm) Depth	Water Level (m)	Installation / Backfill	Core					Coring, Samı	1	1	
_	Soft to firm brown CLAY [TOPSOIL].		×		Thickness)	(mAOD)	(m)	(m)			Run	TCR	SCR	RQD	If	Depth (m) 0.10 - 0.50	Ref 1 B	Test Results	Щ.
-																0.30	101 ES		-
	From 0.70m, is firm.															0.60 - 1.20	3 B		-
1 -					(2.30)				1.00 1.00							1.00 1.20 - 1.65	4 D 5 D	SPT(S) 1.20m, N=5 (1,1/1,1,2,1)	1 -
-																1.65 - 2.00	6 B		-
2 -					2.30	2.38			2.00							2.00 2.00 - 2.45	7 D 8 UT	20 Ublows, 80% Recovery	2 -
-	Firm brown slightly sandy silty CLAY. Sand is fine to	medium.	×	<u>×</u> <u>×</u> <u>×</u>					2.30							2.50 - 3.00 2.60	9 B 103 ES		-
3 -			×	<u>×</u> × ×												3.00 3.00 - 3.45	10 D 11 D	SPT(S) 3.00m, N=3 (0,0/0,1,1,1)	3 -
-	From 3.50m, is soft brown mottled black sandy silty CLAY.		X	<u>x</u> <u>x</u>	(3.20)											3.50 - 4.00 3.70	12 B 104 ES		]
4 -			×	<u>×</u> ×					4.20							4.00 4.00 - 4.45	13 D 14 D	SPT(S) 4.00m, N=4 (1,1/1,1,1,1)	4 -
-			X	<u>×</u> ×												4.50 - 5.00	15 B		-
5			X	<u>                                    </u>	5.50	-0.82										5.00 5.00 - 5.45 5.50	16 D 17 UT	10 Ublows, 90% Recovery	5
6	Grey speckled white and black sandy slightly claye to rounded fine to coarse mixed lithology GRAVEL to coarse (River Terrace).		e ,		(0.70)				5.60							5.50 - 6.00 5.60 6.00 6.00 - 6.45	19 B 105 ES 20 D 21 D	SPT(S) 6.00m, N=21 (5,5/5,5,6,5)	6
-	Yellowish brown sandy subrounded to rounded firmixed lithology GRAVEL. Sand is fine to coarse (Riv				6.20	-1.52										6.50 - 7.00	22 B		-
7 -																6.70	106 ES		7 -
-					(3.00)		<u>150</u> 7.50	<u>150</u> 7.50								7.50 7.50 - 7.95 7.50 - 7.95	23 D 24 D 25 B	SPT(S) 7.50m, N=27 (6,7/7,6,7,7)	-
8 -																8.00 - 8.50	26 B		8 -
-																8.30	107 ES		-
9 -	Assumed zone of core loss. MUDSTONE. (Drillers of	lescription)			9.20	-4.52		140 9.20								9.00 9.00 - 9.45	27 D 28 D	SPT(S) 9.00m, 50 (25 for 135mm/50 for 182mm)	9 -
-					(0.70)						9.20 10.50	46	46	21	AZCL	9.50 - 9.95	29 D	SPT(S) 9.50m, 50 (25 for 81mm/50 for 94mm)	- - - -
10	Continued on Next Page		F		9.90	-5.22							$\vdash$	-					10
Obs	ervations / Remarks	1	Misc.			Shift In	formati	ion			Ь	Back	fill	[	Т	<u> </u>		Installations	
	•	intered	nstalled	Date 14/10 14/10 15/10	7im 05:0 16:0 08:0	e Dep 0 0	oth (m) 0.00 7.50 7.50	Casing - 7.50 9.50	1.0	0. 00 4. 00 6.	n (m) .00 .00	To (m 4.00 6.00 19.40	) N	Aateri enton Grave	ite I	Instrume Standp	nt Type		Diameter 50
		er Encou	Casing Used ring Point/s I	15/10 16/10 16/10	15:30 08:00 16:00	0 1 0 1	3.50 3.50 9.40	9.20 9.20 9.20	1.5	50					$\vdash$		Gro	undwater Strikes	
		undwat	Casi Monitoring	.,			-									2.30 2.	.00	ime (min) Remarks	
		Gro	Mor														.00	20 20	



One Earth Solar Farm

Project No:

Name:

Alliance House. 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XI +44(0)1924 229889

www.central-alliance.co.uk

372521.54

Location Details

Northing:

481486.70

Easting

Start Date: 14/10/2024 Checked: End Date 16/10/2024 Approved:

Methodology & Plant

Method Plant Used 0.00 - 1.20 1.20 - 9.50 Inspection Pit
Cable Percussion Boring Hand Tools Dando 2000 9.20 - 19.40 Rotary Coring Commachio 205 Location ID

**BH007** 

DRAFT Log Type

**Combined Borehole** 

1.00

Elevation: 4.68mAOD Final Depth: 19.40m Location: Hall Farm, Lincoln Logged By: AW Grid System: OSGB Scale: 1:50 Client **Pershing Consultants** Orientation N/A Inclination: 90 Sheet 2 of 2 Coring, Samples & Testing Depth (m Reduced Installation / Backfill Strata Description Level (mAOD) (Stratum Thickness Level (m) TCR SCR If Test Results Moderately weak to medium strong brown mottled grey mercia MUDSTONE with occasional gypsum veins. Discontinuities are subhorizontal closely spaced planar smooth open to moderately wide. From 10.80m to 12.40m, 60 Deg medium spaced undulating smooth and tight discontinuity 11 At 11.10m, Horizontal planar smooth very wide with clay infill 100 55 discontinuity. 12 From 12.40m to 12.50m, Non-intact core recovered as angular to (5.10) subangular fine to coarse mudstone GRAVEL 100 93 51 From 12.80m to 12.87m, Weak gypsum. 13 From 13.20m to 13.34m, Weak 14 13.50 15.00 From 14.18m to 14.22m, Band of weak gypsum. 100 100 79 15.00 -10.32 15 Medium strong to strong brown mottled grey mercia NI MUDSTONE with frequent gypsum veins. Discontinuities are horizontal medium spaced undulating rough tight to partly open. From 15.00m to 15.20m, Non-intact core recovered as angular fine to 15.00 16.50 100 87 75 coarse mudstone and gypsum GRAVEL. 16 (2.60) From 16.50m to 16.60m, Assumed zone of core loss. From 16.95m to 17.00m, Band of weak gypsum. 17 From 17.48m to 17.60m, Non-intact core recovered as angular medium to 17.60 -12.92 coarse gypsum GRAVEL. Medium strong to strong brown and grey mercia MUDSTONE 15 (0.40) with occasional gypsum veins. Discontinuities are horizontal -13.32 18.00 18 very closely spaced planar rough partly open. Strong grey mottled brown mercia MUDSTONE with occasional gypsum veins. Discontinuities are horizontal medium spaced planar rough open. 18.00 19.40 100 74 (1.40)100 From 18.70m to 18.87m, Band of moderately weak gypsum. 19 From 19.27m to 19.35m, Band of weak gypsum. 19.40 -14.72 EOH at 19.40m - Scheduled Depth 20 Observations / Remarks Misc Shift Information Backfill Installations Resp. Zone | Depth (m) | Diameter | 4.00 - 6.00 | 6.00 | 50 Depth (m) Casing (m) Water (m) To (m) Instrument Type 05:00 16:00 08:00 15:30 08:00 16:00 0.00 7.50 7.50 13.50 13.50 19.40 7.50 9.50 9.20 9.20 9.20 Groundwater Strikes Strike (m) (m) Time (min) 20 20 20



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Final Depth: 18.30m

372551.49

OSGB

90°

Start Date:	07/10/2024	Checked:	
End Date:	10/10/2024	Approved:	

 Depth (m)
 Methodology & Plant

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 3.70
 Dynamic Sampling
 Comacchio 205

 3.70 - 7.90
 Rotary Open Holing
 Comacchio 205

 7.90 - 18.30
 Rotary Coring
 Comacchio 205

Location ID

**BH008** 

DRAFT Log Type

Header Sheet

Scale: 1:25 Sheet 1 of 1

Hole Diameter										
Depth (m)	Diam (mm)									
18.30	121									

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing Diameter										
Depth (m)	Diam (mm)									
9.30	143									

	Groundwater Strikes									
Strike	Casing	Sealed	Time	Rose To	Domorks					
(m)	(m)	(m)	(min)	(m)	Remarks					
1.30	-	-	20	1.30						

Northing:

Grid System:

Inclination:

Location Details

481691.06

4.61mAOD

AR

N/A

Easting:

Elevation:

Logger:

Orientation:

Installation / Instrument Details											
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)							
10/10/2024	Standpipe	8.00	4.00 - 8.00	50							

If Methodology includes Dynamic Sampling refer to Runs table for info.

Backfill							
Depth (m)	Legend Code						
0.00 - 0.30	Concrete						
0.30 - 4.00	Bentonite						
4.00 - 8.00	Gravel						
8.00 - 18.30	Bentonite						
ı							
1							

In-Situ Tests	
PID	0
Hand Vane*	2
Standard Penetration Tests	6

<sup>\*</sup> One count indicates an average reported result of 3 tests carried out at one depth where available.

Sample Summary							
Enviror	nmer	ntal Samples					
Soil	3	Water	0				
Geotechnical Samples							
Bulk	5	Large Bulk	0				
Disturbed	10	Disturbed (NR)	0				
Piston <b>0</b>		Piston (NR)	0				
Undisturbed	0	Undisturbed (NR)	0				
Undisturbed Thin Wall							
Undisturbed Thin Wall (NR)							
Cor	e San	nple	0				

(NR) Indicates sample undertaken but with 0% Recovery

				Sta	ndard	Penetrati	on T	est Summary	
Test Type	Depth	Casing	Water	Seating		Penetration	tration (mm) N 50 5 5 50 0 550 33 10 05	Reported Result	Hammer Ref
iest Type	(m)	(m)	(m)	Blows	Blows	Total (mm)	N	Reported Result	nammer ker
Split Spoon	1.20	-	-	2	5	450	5	N=5 (1,1/1,1,1,2)	AR2152
Split Spoon	2.00	-	-	0	0	450	0	N=0 (0,0/0,0,0,0)	AR2152
Split Spoon	2.70	-	-	21	33	450	33	N=33 (9,12/10,10,7,6)	AR2152
Split Spoon	3.70	3.70	-	4	50	410		50 (2,2/50 for 260mm)	AR2152
Split Spoon	7.90	7.90	-	18	50	405		50 (7,11/50 for 255mm)	AR2152
Split Spoon	9.30	9.30	-	6	29	450	29	N=29 (2,4/6,7,6,10)	AR2152

SPT Hammer Ref.	Energy Ratio (%)
AR2152	64

#### **Applicable to Cable Percussion Only**

Chise	elling
Depth (m)	Duration (mins)

Water Added									
Depth (m)	Litres								

## **Applicable to Rotary Only**

	Drilling	Flush	
Depth (m)	Flush Type	Flush Colour	Return %
7.90 - 9.30	Water	Brown	80
9.30 - 10.80	Water	Brown	80
10.80 - 12.30	Water	Brown	80
12.30 - 13.80	Water	Brown	70
13.80 - 15.30	Water	Brown	70
15.30 - 16.80	Water	Brown	70
16.80 - 18.30	Water	Brown	70

#### **Applicable to Dynamic Sampling Only**

	Dynamic	Sampling	Runs	
Depth (m)	Diam (mm)	Recovery %	Remarks	
1.20 - 2.00	117	100		
2.00 - 2.70	117	70		
2.70 - 3.70	102	100		



One Earth Solar Farm

Project No:

Name:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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372551.49

Location Details

Northing:

481691.06

Easting:

Start Date:	07/10/2024	Checked:	
End Date	10/10/2024	Approved:	

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 3.70
 Dynamic Sampling
 Comacchio 205

 3.70 - 7.90
 Rotary Open Holing
 Comacchio 205

 7.90 - 18.30
 Rotary Coring
 Comacchio 205

Location ID

**BH008** 

DRAFT Log Type

ne:	One Earth Solar Farm	Elevation:	4.61	mAOD	Final	Depth:	18.30m									-	Combined Borel	hol
ation:	Hall Farm, Lincoln	Logged By:	AR		Grid	System:	OSGB										Scale: 1:2	25
ent:	Pershing Consultants	Orientation:	N/A		Incli	nation:	90°										Sheet 1 of 4	
					Depth (m)	Reduced	Hole Ø (mm)	Casing Ø (mm)	Water	Installation /	,				Coring, Sam	ples & T	esting	
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR RQ	) If	Depth (m)	Ref	Test Results	
brow	DE GROUND: Vegetation over soft brown mot In slightly sandy silty CLAY [TOPSOIL]. From 0.00m to 0.40m, Occasional rootlets.	tled greyish													0.20 0.20 - 0.70	2 D 1 B		
															0.50	3 ES		
															0.75	4 D		
					(2.00)										1.00	5 ES		
									1.30 1.30						1.20 - 1.65	6 D	SPT(S) 1.20m, N=5 (1,1/1,1,1,2)	
															1.50 - 2.00	7 B		
															1.75	8 D	HV 1.70m, (p)=64 kPa (r)=20 kPa	•
	soft to soft dark brownish black organic sligh ey SILT.	tly sandy			(0.40)	2.61									2.00 2.00 - 2.70 2.00 - 2.75	9 ES 11 B 10 D	SPT(S) 2.00m, N=0 (0,0/0,0,0,0)  HV 2.20m, (p)=20 kPa (r)=5 kPa	
	c slightly gravelly slightly organic silty fine to c		).		2.40	2.21									2.30	12 D		
	el is subrounded to rounded fine to coarse m tz and various igneous lithologies.	udstone,			(0.90)										2.70 2.70 - 3.15 2.70 - 3.30	13 D 14 D 15 B	SPT(S) 2.70m, N=33 (9,12/10,10,7,6)	
	dense greyish brown gravelly fine to coarse S ounded to rounded fine to coarse quartz, mu			× × × × × × × × × × × × × × × × × × ×	3.30	1.31									3.30 - 3.70	16 B		
vario Very	ous igneous lithologies.  dense fine to coarse SAND and subrounded to				(0.40)	0.91									3.70 - 4.15	17 D	SPT(S) 3.70m, 50 (2,2/50 for 260mm)	
fine	to coarse various mixed lithologies GRAVEL.																	
	Continued on Next Page																	
servatio	ns / Remarks		Misc.				formati					Backf					Installations	
			pa	Date 07/10	Tim 07:0	0	oth (m)	Casing (	m) Wat	(	0.00	To (m)	Con	erial crete onite	Instrume Stand		Resp. Zone   Depth (m) 4.00 - 8.00   8.00	) Di
		n nonuntere	Used nt/s Install	07/10 08/10 08/10	16:0 07:0 16:0	0 1	3.70 3.70 12.30	3.70 3.70 9.30 9.30	0	0.40 4	0.30 4.00 8.00	4.00 8.00 18.30	Gra					
		vater Encountere	casing Used ring Point/s Install	07/10 08/10	16:0 07:0	0 0 0 1 0 1	3.70 3.70	3.70	(	0.40	4.00	8.00	Gra	onite	trike (m) Rises		undwater Strikes	



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

Start Date:	07/10/2024	Checked:	
End Date	10/10/2024	Approved:	

Methodology & Plant

Depth (m) 0.00 - 1.20 1.20 - 3.70 3.70 - 7.90 7.90 - 18.30 Method Inspection Pit Dynamic Sampling Rotary Open Holing Rotary Coring Plant Used Hand Tools Comacchio 205 Comacchio 205 Comacchio 205 Location ID

**BH008** 

DRAFT Log Type

Nan	ne: One Earth Solar Farm	Easting:		91.06		hing:	372551		7.50 10.5		.0, 0.							Combined Borehole
Loca	ation: Hall Farm, Lincoln	Elevation:		nAOD		Depth:	18.30m	1										
Clie		Logged By: Orientation:	AR N/A			System: nation:	OSGB 90°											Scale: 1:25 Sheet 2 of 4
CIIC	reising consultants	OTICITATION.	11/2		Depth (m)	Reduced	Hole Ø	Casing Ø								Coring, Sam	ples & T	
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	(mm) Depth (m)	(mm) Depth (m)	Water Level (m)	Installation / Backfill	Core Run	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results
	Very dense fine to coarse SAND and subrounded t fine to coarse various mixed lithologies GRAVEL.	o rounded			(4.20)													6 -
7	Very stiff reddish brown occasionally grey silty CL/	W with			7.90	-3.29										7.90 - 8.35	18 D	7 —
8	occasional lithorelicts of mudstone (<20.00mm) [I  Assumed zone of core loss - Weathered MUDSTOI description).	MM Grade 4	4a].		(0.30)	-3.59					7.90 9.30	21	0	0	AZCL			255mm) 8 -
9	Stiff reddish brown an grey silty CLAY with occasion of mudstone (<20.00mm) [MM Grade 4a].  Assumed zone of core loss - Weathered MUDSTOI description).		icts	× × × × × × × × × × ×	9.00 (0.30) 9.30 (0.40)	-4.39 -4.69		<u>143</u> 9.30						-	NA AZCL			SPT(S) 9.30m, N=29 (2,4/6,7,6,10)
10 —	Stiff grey silty CLAY with occasional lithorelicts of r (<20.00mm) [MM Grade 4a].  Continued on Next Page				9.70	-5.09 Shift In	formati	ion				Back	fill		NA			10 -
		Groundwater En countered	Casing Used Monitoring Point/s Installed	Date 07/10 07/10 08/10 08/10 09/10 09/10	Tim 07:0 16:0 07:0 16:0 07:0 16:0	e Dep	oth (m) 0.00 3.70 3.70 12.30 12.30 12.30 18.30	Casing - 3.70 3.70 9.30 9.30	0.	40 4	m (m) .00 .30 .00 .00	To (m 0.30 4.00 8.00 18.30	)	Mater Concre Benton Grave Benton	te te l te	Instrume Standi	nt Type pipe Gro	Resp. Zone   Depth (m)   Diameter   4.00 - 8.00   8.00   50



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

Start Date: 07/10/2024 Checked: End Date 10/10/2024 Approved:

Methodology & Plant

Method Inspection Pit Dynamic Sampling Rotary Open Holing Rotary Coring Depth (m) 0.00 - 1.20 1.20 - 3.70 3.70 - 7.90 7.90 - 18.30 Plant Used Hand Tools Comacchio 205 Comacchio 205 Comacchio 205 Location ID

**BH008** 

DRAFT Log Type

Nar	ne: One Earth Solar Farm	Easting:		91.06		hing:	372551				,	8						Combined Boreh	ole
Loc	ation: Hall Farm, Lincoln	Elevation:		mAOD		Depth:	18.30m	n									L		
	,	Logged By:	AR			System:	OSGB											Scale: 1:25	5
Clie	nt: Pershing Consultants	Orientation:	N/A		Incli	nation:	90°				_							Sheet 3 of 4	
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm) Depth	Casing Ø (mm) Depth	Water	Installation Backfill						Coring, Sam	ples & 1	esting	
					Thickness)	(mAOD)	(m)	(m)	Level (m)	DdCKIIII	Core Run	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results	
-	Stiff grey silty CLAY with occasional lithorelicts of r (<20.00mm) [MM Grade 4a].	nudstone		$\times \times \times \times$	10.12	-5.51													
-	Extremely weak to very weak reddish brown and g	grev mercia			10.12	-5.51										]			-
-	MUDSTONE with frequent gypsum veins (1.00-2.0																		-
	occasional very thin to thin beds of gypsum. Disco										9.30	73	20	0					-
-	horizontal, very close to closely spaced, undulating tight to partly open with clay smear or gravel infill		ana		(0.68)						10.80			-	13				
-	agnic to partly open with that smear or graver initial	•																	-
																			}
-					10.80	-6.19													
-	Assumed zone of core loss - Weathered MUDSTOR	NE (Driller's	5		10.00	0.13													-
-	description).				(0.35)										AZCL				11
11 -																			11 -
-	Extremely weak to very weak reddish brown and l	ight grev			11.15	-6.54										-			-
-	mercia MUDSTONE with frequent gypsum veins (1		m)																-
-	and occasional very thin to thin beds of gypsum. [																		1
-	are horizontal, close to medium spaced, planar, ur																		1
-	smooth and tight to partly open with clay smear of Grade 1/11].	or intili fivily	1								10.80 12.30	77	61	35					7
:	0.000 1, 11].																		1
-															9				1
-																			1
:																			1
12 -																			12 -
-																			-
-																			1
-	From 12.30m to 12.53m, Assumed zone of core loss.															1			1
-															AZCL				1
-																			-
-																			-
-																			
-																			
13 -											12.30		53	28					13 -
-											13.80								-
-																			
-																			
-																			-
-																			-
-																			
-	From 13.68m to 13.73m, Non-intact core recovered as reddis																		
:	clayey angular to subangular fine to coarse gypsum and mud GRAVEL.	stone										+			9				-
																			1
14 -	From 14.02m to 14.09m, Non-intact core recovered as reddis	h brown																	14 -
-	clayey angular to subangular fine to coarse gypsum and mud																		1
:	GRAVEL.																		-
																			1
-											13.80 15.30	100	88	45					1
-																			-
-																			1
					(7.15)														}
-																			}
-																			]
15 -	Continued on Next Page				1											-			15
Obs	ervations / Remarks		Misc.		L	Shift Ir	nformat	ion				Bac	L kfill					Installations	-
003	,			Date	Tim	e De	pth (m)	Casing	(m) Wat			To (m	n)	Mate		Instrume		Resp. Zone Depth (m)	Diameter
		100	untered 1 Installed	07/10 07/10	07:0 16:0	0	0.00 3.70	3.70			0.00	0.30 4.00		Concre	nite	Stand	pipe	4.00 - 8.00 8.00	50
			Encount Used int/s Ins	08/10 08/10	07:0 16:0	0 :	3.70 12.30	9.30	) (	.70	4.00 8.00	8.00 18.30		Gravi Bentor	ei nite				
		1	water Enco Casing User ing Point/s	09/10 09/10	07:0 16:0		12.30 18.30	9.30 9.30		1.70					-	riko /\la-		oundwater Strikes	
			sroundw G Aonitorir												St	rike (m) Rises 1.30 1	To (m) T	ime (min) Remarks	
		ě	5 Ø																



Project No:

Alliance House. 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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372551.49

Location Details

Northing:

481691.06

Easting:

Start Date: 07/10/2024 Checked: End Date 10/10/2024 Approved:

Methodology & Plant

Depth (m) 0.00 - 1.20 1.20 - 3.70 3.70 - 7.90 Method Plant Used Hand Tools Comacchio 205 Comacchio 205 Inspection Pit
Dynamic Sampling Rotary Open Holing Rotary Coring 7.90 - 18.30 Comacchio 205

Location ID

**BH008** 

**DRAFT** 

Log Type

One Earth Solar Farm Name: **Combined Borehole** Elevation: 4.61mAOD Final Depth: 18.30m Hall Farm, Lincoln Location: Logged By: AR Grid System: OSGB Scale: 1:25 Client **Pershing Consultants** Orientation: N/A Inclination: 90° Sheet 4 of 4 Coring, Samples & Testing Depth (m) Reduced Water Level (m) Installation / Backfill Strata Description Legend (Stratum Thickness Level (mAOD) SCR RQD TCR If Depth (m) Test Results From 15.24m to 15.30m, Non-intact core recovered as reddish brown  ${\it clayey\ angular\ to\ subangular\ fine\ to\ coarse\ mudstone\ GRAVEL}.$ 16 From 16.80m to 16.88m, Assumed zone of core loss. AZCL From 16.91m to 16.99m, Non-intact core recovered as angular to subangular fine to coarse mudstone GRAVEL. 17 From 17.50m to 17.71m, Very thin beds of weak to moderately weak light 16.80 18.30 95 79 77 grey siltstone. 18 121 18.30 EOH at 18.30m - Scheduled Depth 19 20 Observations / Remarks Misc Shift Information Backfill Installations Resp. Zone | Depth (m) | Diameter | 4.00 - 8.00 | 8.00 | 50 Depth (m) Casing (m) Water (m) Instrument Type 0.00 3.70 3.70 12.30 12.30 18.30 3.70 3.70 9.30 9.30 9.30 Groundwater Strikes Strike (m) Rises To (m) Time (min)
1.30 1.30 20



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Final Depth: 19.50m

372421.45

OSGB

90°

9.50 - 16.70

Start Date:	10/10/2024	Checked:	
End Date:	15/10/2024	Approved:	

Rotary Coring

End Date	e:	15/10/2024	rovea:					
		Methodolo	ogy & F	Plant				
Depth (m)		Method		Plant Used				
0.00 - 1.20		Inspection Pit		Hand Tools				
1.20 - 9.50		Dynamic Samplin	Comacchio 205					

Location ID

**BH009** 

DRAFT Log Type

**Header Sheet** 

1:25 Scale: Sheet 1 of 1

Hole Di	ameter
Depth (m)	Diam (mm
3.00	117
9.50	102
16.70	116
	l

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing D	iameter
Depth (m)	Diam (mm)
8.00	121
l	

	Groundwater Strikes											
Strike Casing Sealed Time Rose To Remarks												
(m)	(m)	(m)	(min)	(m)	kemarks							

Northing:

Grid System:

Inclination:

Location Details

481688.53

4.78mAOD

AR

N/A

Easting:

Elevation:

Logger:

Orientation:

Sample Summary Environmental Samples 7 Geotechnical Samples

17

0

0

Undisturbed Thin Wall Undisturbed Thin Wall (NR)

Core Sample (NR) Indicates sample undertaken but with

Disturbed

Piston

Undisturbed

Large Bulk

Disturbed (NR)

Piston (NR)

Undisturbed (NR)

0

0

Installation / Instrument Details											
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)							
15/10/2024	Vibrating Wire Piezometer	11.00	0.30 - 11.00	18							

Commachio 205

If Methodology includes Dynamic Sampling refer to Runs table for info.

No Groundwater Encountered

Backfill								
Depth (m)	Legend Code							
0.00 - 0.30	Concrete							
0.30 - 11.00	Grout							
11.00 - 19.50	Bentonite							

In-Situ Tests	
PID	0
Hand Vane*	8
Standard Penetration Tests	8

				Sta	ndard	Penetrati	on T	est Summary	
Test Type	Depth	Casing	Water	Seating	Main	Penetration	N	Donarted Decult	Hammer Ref
iest Type	(m)	(m)	(m)	Blows	Blows	Total (mm)	IN	Reported Result	панние ке
Split Spoon	2.00	-	-	2	4	450	4	N=4 (1,1/1,1,1,1)	AR2152
Split Spoon	3.00	-	-	8	21	450	21	N=21 (4,4/4,4,6,7)	AR2152
Split Spoon	4.00	4.00	-	4	11	450	11	N=11 (2,2/2,2,3,4)	AR2152
Split Spoon	5.00	5.00	-	24	44	450	44	N=44 (10,14/12,12,10,10)	AR2152
Split Spoon	6.00	5.00	-	10	18	450	18	N=18 (5,5/5,7,3,3)	AR2152
Split Spoon	7.00	5.00	-	7	17	450	17	N=17 (2,5/4,3,5,5)	AR2152
Split Spoon	8.00	8.00	-	12	41	450	41	N=41 (5,7/9,10,10,12)	AR2152
Split Spoon	9.00	8.00	-	6	44	450	44	N=44 (3,3/5,11,14,14)	AR2152
l									

SPT Hammer Ref.	Energy Ratio (%)
AR2152	64

# \* One count indicates an average reported result of 3 tests carried out at one depth where available.

# **Applicable to Cable Percussion Only**

Chise	elling	v
Depth (m)	Duration (mins)	Depth

Water Added								
Depth (m)	Litres							

## **Applicable to Rotary Only**

	Drilling	g Flush						
Depth (m)	Flush Type	Flush Colour	Return %					
9.50 - 10.70	Water	Brown	70					
10.70 - 12.20	Water	Brown	70					
12.20 - 13.70	Water	Brown	70					
13.70 - 15.20	Water	Brown	70					
15.20 - 16.70	Water	Brown	70					
16.70 - 18.20	Water	Brown	80					
18.20 - 19.50	Water	Brown	80					

#### **Applicable to Dynamic Sampling Only**

Dynamic Sampling Runs									
Depth (m)	Diam (mm)	Recovery %	Remarks						
1.20 - 2.00	117	100							
2.00 - 3.00	117	100							
3.00 - 4.00	102	100							
4.00 - 5.00	102	100							
5.00 - 6.00	102	70							
6.00 - 7.00	102	100							
7.00 - 8.00	102	100							
8.00 - 9.00	102	100							
9.00 - 9.50	102	100							



Project No:

2372986

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

Start Date:	10/10/2024	Checked:	
End Date	15/10/2024	Approved:	

Methodology & Plant

Method Inspection Pit Dynamic Sampling Rotary Coring Depth (m) 0.00 - 1.20 1.20 - 9.50 9.50 - 16.70 Plant Used Hand Tools Comacchio 205 Commachio 205 Location ID

**BH009** 

DRAFT Log Type

Nam	e: One Earth Solar Farm	Easting:	481688.53	Nort	hing:	372421	.45									Combined Boreho	le
Loca	tion: Hall Farm, Lincoln	Elevation:	4.78mAOD		Depth: System:	19.50m	י								L		_
Clier		Logged By: Orientation:	AR N/A		nation:	OSGB 90°									-	Scale: 1:25 Sheet 1 of 4	$\dashv$
				Depth (m)	Reduced	Hole Ø (mm)	Casing Ø (mm)	Water	Installation /					Coring, Sam	ples & 1		-
	Strata Description		Legend	(Stratum Thickness)	Level (mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR F	QD If	Depth (m)	Ref	Test Results	
- - - -	MADE GROUND: Vegetation over soft dark brown s slightly organic silty CLAY with occasional rootlets. coarse [TOPSOIL].			(0.30)										0.10 0.10 - 0.30 0.25	2 D 1 B	HV 0.25m, (p)=60 kPa (r)=20 kPa	-
-	Soft to firm orangish brown sandy silty CLAY. Sand i coarse.	is fine to	X. X. X.	0.30	4.48											HV 0.50m, (p)=140 kPa (r)=25 kPa	
-			X X X X X X X X X X X X X X X X X X X	(0.90)										0.70 - 1.00 0.75	4 B 5 D		-
1 -			X_X   X_X   X_X											1.00	6 ES	HV 1.00m, (p)=110 kPa (r)=20 kPa	1
-	Soft to firm brown mottled grey slightly sandy silty fine to coarse.	CLAY. Sand	is   X	1.20	3.58									1.20 - 1.65	7 UT	75 Ublows, 100% Recovery	
-			X X X X X X X X X X X X X X X X X X X	(1.25)										1.75	9 D		-
2 -			X											2.00 2.00 - 2.40 2.00 - 2.45	8 ES 11 B 10 D	SPT(S) 2.00m, N=4 (1,1/1,1,1,1) HV 2.00m, (p)=70 kPa (r)=15 kPa	2 -
-	Orangish brown fine to coarse SAND and subround rounded fine to coarse quartz and various mixed lit GRAVEL.		X X	2.45	2.33									2.50	12 D		-
-	From 2.45m to 2.65m, Very soft dark grey slightly gravelly, sar organic, clayey SILT. Sand is fine to coarse. Gravel is subrounde rounded fine to coarse quartz and various mixed lithologies.													2.75	13 D		-
3				V . V . V . V . V . V . V . V . V . V .		<u>117</u> 3.00								3.00 3.00 - 3.45	14 ES 15 D	SPT(S) 3.00m, N=21 (4,4/4,4,6,7)	3 -
-				(2.05)										3.50 - 4.00	16 B		
- - - -														3.75	17 D		-
4 -														4.00 4.00 - 4.45	18 ES 19 D	SPT(S) 4.00m, N=11 (2,2/2,2,3,4)	4
-	Multicoloured very sandy subrounded to well roun coarse mixed lithologies GRAVEL with low cobble c			4.50	0.28									4.50 - 5.00	20 B		-
	Cobbles are subrounded to well rounded mixed lith is fine to coarse.																
5	Continued on Next Page		1.000					ľ			H	+		5.00 - 5.45	21 D	SPT(S) 5.00m, N=44 (10,14/12,12,10,10)	5 -
Obse	ervations / Remarks	untered	Misc.  Date 10/10 10/10 11/10	Tim 13:0 16:3 07:0	10	formati oth (m) 0.00 4.00 4.00	Casing - 4.00	, :	0.0 0.3	(m)	Back To (m) 0.30 11.00 19.50	Co	aterial increte Grout intonite	Instrume Vibrating Wire	nt Type	Installations   Resp. Zone   Depth (m)   Diar   Depth (m)   Diar   Depth (m)   Diar   neter	
		No Groundwater Encol	Monitoring Point's m 17/10 12/10 12/10 12/10 12/10 12/10	16:3	0 0 0 1	4.00 8.00 8.00 16.70	8.00 8.00 8.00 8.00	1.3	30		13.30	. 86		Strike (m) Rises		oundwater Strikes Time (min) Remarks	



Project No:

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Location Details

 Start Date:
 10/10/2024
 Checked:

 End Date
 15/10/2024
 Approved:

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 9.50
 Dynamic Sampling
 Comacchio 205

 9.50 - 16.70
 Rotary Coring
 Commachio 205

Location ID

**BH009** 

Proj	ect No: 2372986				ion Detail												Log Type	
Nan	ne: One Earth Solar Farm	Easting:	48168			hing:	372421										Combined Boreh	ıole
Loca	ation: Hall Farm, Lincoln	Elevation:		nAOD		Depth:	19.50m	1								-		
		Logged By:	AR N/A			System: nation:	OSGB 90°										Scale: 1:29 Sheet 2 of 4	)
Clie	nt: Pershing Consultants	Orientation:	N/A			Reduced	Hole Ø	Casing Ø			1				Coring, Sam	nlos & T		
	Strata Description			Legend	Depth (m) (Stratum Thickness)	Level (mAOD)	(mm) Depth (m)	(mm) Depth (m)	Water Level (m)	Installation / Backfill	Core	TCR S	CR RQD	If	Depth (m)	Ref	Test Results	$\forall$
-	Multicoloured very sandy subrounded to well rour coarse mixed lithologies GRAVEL with low cobble Cobbles are subrounded to well rounded mixed lit is fine to coarse.	content.			(1.90)	(13.13.7)	(m)	(11)			Run				5.50 - 6.00	22 B	(Col. (Coldis)	-
6	Firm friable brown mottled grey slightly sandy silty fine to coarse.	y CLAY. Sanc	d is	× - × - × - × - × - × - × - × - × - × -	6.40	-1.62									6.00 - 6.45	23 D 24 D	SPT(S) 6.00m, N=18 (5,5/5,7,3,3)	6 -
7					(1.60)										6.75 7.50 - 8.00	25 D	HV 6.75m, (p)=FAIL kPa (r)=FAIL kPa kPa SPT(S) 7.00m, N=17 (2,5/4.3,5,5)	7-
8 -	From 7.93m, discontinuities have clay infill.  Stiff dark grey mottled reddish brown slightly grav Gravel is angular to subangular fine to medium mo		7	× × × × × × × × × × × × × × × × × × ×	8.00	-3.22		121 8.00							7.75 8.00 - 8.45 8.00 - 8.70	29 D 27 D 28 B	HV 7.75m, (p)=60 kPa (r)=10 kPa SPT(5) 8.00m, N=41 (5,7/9,10,10,12)	8 —
- - - - - - - - - - - - - - - - - - -	Firm to stiff light grey mottled reddish brown silty At 8.75m, Lense of angular to subangular fine to medium gra		•	× × × × × × × × × × × × × × × × × × ×	(0.70) 8.70	-3.92									8.60 8.70 - 9.50 8.80	29 ES 30 B 31 D	HV 8.80m, (p)=48 kPa (r)=12 kPa SPT(S) 9.00m, N=44	9-
- - - - - -	Assumed zone of core loss - (Driller's description).			× × × × × × × × × × × × × × × × × × ×	9.50	-4.72	102 9.50								- 9.50	33 ES	(3,3/5,11,14,14)  HV 9.50m, (p)=Fall kPa (r)=Fall kPa	
10	Continued on Next Page				(0.55)									AZCL	_		nrd	10 -
0.						61.16						D 16		L			I	
Obs	ervations / Remarks	ter Encountered	Casing Doint/s Installed	Date 10/10 10/10 11/10 11/10 14/10	Tim 13:0 16:3 07:0 16:3 07:0	e De 0 0 0 0 0 0 0	pth (m) 0.00 4.00 4.00 8.00 8.00	4.00 4.00 8.00 8.00	0 0 0 0 0 1	- 0 - 0	m (m) 0.00 0.30 1.00	Backfil To (m) 0.30 11.00 19.50	Mate Concri Grou Bentor	ete ıt	Instrume Vibrating Wire	nt Type Piezome		Diameter 18
		No Graundwa	No Groundwa Casin Monitoring P	14/10 15/10 15/10	16:4 07:0 16:4	0	16.70 16.70	8.00 8.00 -		50				Si	trike (m) Rises			



Project No:

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372421.45

Location Details

Northing:

481688.53

Easting:

Start Date: 10/10/2024 Checked: End Date 15/10/2024 Approved:

Methodology & Plant

Method Plant Used 0.00 - 1.20 1.20 - 9.50 Inspection Pit
Dynamic Sampling Hand Tools Comacchio 205 9.50 - 16.70 Rotary Coring Commachio 205 Location ID

**BH009** 

**DRAFT** Log Type

**Combined Borehole** 

Name: One Earth Solar Farm Elevation: 4.78mAOD Final Depth: 19.50m Hall Farm, Lincoln Location: Logged By: AR Grid System: OSGB Client **Pershing Consultants** Orientation N/A Inclination: 90 Sheet 3 of 4 Coring, Samples & Testing Depth (m Reduced Water Level (m) Strata Description Legend (Stratum Thickness Level (mAOD) TCR SCR Test Results Assumed zone of core loss - (Driller's description). 10.05 -5.27 Extremely weak light grey SILTSTONE. Discontinuities are sub-(0.15) horizontal (20-30 degrees), planar, rough and tight with clay 10.20 -5.42 \infill. Extremely weak reddish brown mercia MUDSTONE with 9.50 10.70 42 infrequent gypsum veining (<5.00mm). Discontinuities are, 16 Horizontal (0-10 degrees), very close to closely spaced, planar, rough and tight to partly open with clay and gravel infill. (1.12) 11 11 11.32 -6.54 Very weak to weak greenish grey mercia MUDSTONE with frequent gypsum veining (<28.00mm). Discontinuities are 33 83 horizontal (0-10 degrees), very close to medium spaced, planar, rough to smooth and partly open to open with gravel infill. 11 12 From 12.20m, becoming reddish brown. 100 93 75 13 (3.88) From 13.45m to 14.15m, Greenish grey and reddish brown. AZCL 14 92 88 79 15 Continued on Next Page Observations / Remarks Misc Shift Information Backfill Installations Depth (m) Casing (m) Water (m) To (m) Resp. Zone | Depth (m) | Diameter | 0.30 - 11.00 | 11.00 | 18 Time 13:00 16:30 07:00 16:30 07:00 16:40 07:00 Instrument Type 0.00 4.00 4.00 8.00 8.00 16.70 16.70 4.00 4.00 8.00 8.00 8.00 8.00 1.30 Groundwater Strikes 1.50 Strike (m) Rises To (m) Time (min)



Project No:

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Location Details

 Start Date:
 10/10/2024
 Checked:

 End Date
 15/10/2024
 Approved:

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 9.50
 Dynamic Sampling
 Comacchio 205

 9.50 - 16.70
 Rotary Coring
 Commachio 205

Location ID

**BH009** 

Nam	e: One Earth Solar Farm	Easting:	4816	88.53	Nort	hing:	37242	1.45										208.760	
INGIII		Elevation:	4.781	mAOD	Final	l Depth:	19.50n	n										Combined Boreh	ole
Loca	tion: Hall Farm, Lincoln	Logged By:	AR		Grid	System:	OSGB											Scale: 1:2!	5
Clier	nt: Pershing Consultants	Orientation:	N/A		Inclin	nation:	90°											Sheet 4 of 4	
					Depth (m)	Reduced	Hole Ø (mm)	Casing Ø (mm)	Water	Installation /				•		Coring, Sam	ples &	Testing	
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results	
-	Very weak to weak greenish grey mercia MUDSTON																		
	frequent gypsum veining (<28.00mm). Discontinuit																		- 1
	horizontal (0-10 degrees), very close to medium sp rough to smooth and partly open to open with grav		iar,		15.20	-10.42													1
1	Assumed zone of core loss - (Driller's description).				(0.30)										AZCL				1
																			1
7	Extremely weak to very weak reddish brown mercia				15.50	-10.72								İ					7
	MUDSTONE. Non-intact core recovered as clayey a	ngular to																	1
1	subangular fine to coarse GRAVEL.																		1
-					(0.60)										NI				1
											15.20 16.70	80	37	29					1
16 -																			16 -
1	Very weak reddish brown and greenish grey mercia		NE		16.10	-11.32								İ					1
1	with infrequent gypsum veining. Discontinuities are																		1
	Horizontal (0-20 degrees), close to medium spaced rough and open with clay infill.	i, undulatir	ıg,																1
															5				1
												1							4
=							110												1
							<u>116</u> 16.70					t			AZCL				1
																			1
																			1
17 -																			17 -
	From 17.10m to 17.20m, Zone of very frequent gypsum veining	g																	1
	(<6.00mm).																		1
-																			1
_											16.70 18.20	93	93	82					1
	From 17.45m to 17.65m, Becomes greenish grey.										18.20				5				1
	From 47 CFm. December and disk house																		1
-	From 17.65m, Becomes reddish brown.																		1
-					(3.40)														1
																			1
18 -																			18
																			1
															AZCL				1
															AZCL				1
																			-
	From 18.50m to 18.55m, Gypsum vein (55.00mm).																		-
	From 18.55m, gypsum veining becomes infrequent.																		1
																			1
											18.20 19.50	86	86	58					1
											19.30				7				1
19 –																			19 -
	From 19.10m, Becomes reddish brown and greenish grey.																		1
																			1
																			1
																			1
	EOH at 19.50m - Scheduled Depth				19.50	-14.72													‡
																			1
																			1
																			1
																			1
20 —																			20 -
Obse	ervations / Remarks		Misc.		L	Shift In	format	ion				Back	fill			ı		Installations	
		•	0 .	Date 10/10	Tim 13:0		oth (m) 0.00	Casing	(m) Wate		m (m)	To (m		Mater		Instrume Vibrating Wire			Diameter 18
		a de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	stalle.	10/10 10/10 11/10	16:3 07:0	10	4.00 4.00	4.00		- C	1.00	11.00 19.50		Grou Bentor	t	AIDIOUILE MILE	r iezum	0.50 - 11.00	10
		r Face	r Enco I Used int/s In	11/10 11/10 14/10	16:3 07:0	0	8.00 8.00	8.00	)	30			'	2.7101	-  -			oundwater Staller	$\longrightarrow$
		p	nawater Casing t 'ing Poir	14/10 15/10	16:4 07:0	0 :	16.70 16.70	8.00	)	-					Ç+	rike (m) Rises		oundwater Strikes Time (min) Remarks	$\longrightarrow$
			onitor	15/10	16:4					-						- ,,	,,	nemana	
		S	NO W																



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372419.52

5.00m

OSGB

90°

Start Date:	16/10/2024	Checked:						
End Date:	17/10/2024	Approved:						

End Dat	e:	17/10/2024	App	roved:						
Methodology & Plant										
Depth (m)		Method		P	lant Used					
0.00 - 1.20		Inspection Pit		Hand Tools						
1.20 - 5.00		Dynamic Samplin	g	Commachio 2						

Location ID

**BH010** 

DRAFT Log Type

**Header Sheet** 

Sc

cale:		1:50
	Sheet 1 of	1

Hole Di	Hole Diameter						
Depth (m)	Diam (mm)						
4.00	117						
5.00	102						

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing Diameter								
Diam (mm)								
121								

	Groundwater Strikes						
Strike	Casing	Sealed	Time	Rose To	Remarks		
(m)	(m)	(m)	(min)	(m)	Remarks		
ł							

Northing:

Final Depth:

Grid System:

Inclination:

Location Details

481743.25

4.80mAOD

AW

N/A

Easting:

Elevation:

Logger:

Orientation:

Installation / Instrument Details							
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)			
17/10/2024	Vibrating Wire Piezometer	4.00		70			

If Methodology includes Dynamic Sampling refer to Runs table for info.

No Groundwater Encountered

Backfill					
Depth (m)	Legend Code				
0.00 - 5.00	Grout				

In-Situ Tests	
PID	0
Hand Vane*	1
Standard Penetration Tests	2

\* One count indicates an average reported result of 3 tests carried out at one depth where available.

Sample Summary					
Enviror	Environmental Samples				
Soil	7	Water	0		
Geote	chnic	cal Samples			
Bulk	6	Large Bulk	0		
Disturbed	9	Disturbed (NR)	0		
Piston	0	Piston (NR)	0		
Undisturbed	0	Undisturbed (NR)	0		
Undisturbed Thin Wall					
Undisturbed Thin Wall (NR)					
Core Sample					

(NR) Indicates sample undertaken but with

	Standard Penetration Test Summary									
Test Type	Depth (m)	Casing (m)	Water (m)	Seating Blows		Penetration Total (mm)	N	Reported Result	Hammer Ref	
Split Spoon		-	-	2	0	450	0	N=0 (1,1/0,0,0,0)	AR2152	
Split Spoon		4.00	-	21	50	450 450	50	N=0 (1,170,000) N=50 (7,14/12,14,14,10)	AR2152 AR2152	

SPT Hammer Ref.	Energy Ratio (%)
AR2152	64

#### **Applicable to Cable Percussion Only**

Chise	Chiselling							
Depth (m)	Duration (mins)							
1	1							

Water Added						
Litres						

#### **Applicable to Rotary Only**

Drilling Flush							
Depth (m)	Flush Type	Flush Colour	Return %				

#### **Applicable to Dynamic Sampling Only**

Dynamic Sampling Runs							
Depth (m)	Diam (mm)	Recovery %	Remarks				
1.20 - 2.00	117	0					
2.00 - 3.00	117	100					
3.00 - 4.00	117	100					
4.00 - 5.00	102	100					



One Earth Solar Farm

Hall Farm, Lincoln

Project No:

Name:

Location:

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372419.52

5.00m

OSGB

Location Details

Northing:

Final Depth:

Grid System:

481743.25

4.80mAOD

AW

Easting:

Elevation:

Logged By:

Start Date:	16/10/2024	Checked:	
End Date:	17/10/2024	Approved:	

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 5.00
 Dynamic Sampling
 Commachio 205

Location ID

**BH010** 

DRAFT Log Type

# **Dynamic Sampling**

Scale: 1:50

Client **Pershing Consultants** Orientation N/A Inclination: 90° Sheet 1 of 1 Depth (m) Casing Ø Samples & Testing educed Le Water Level (m) Strata Description Legend (Stratum Thickness (mm) Depth (m (mAOD) Depth (m) Ref MADE GROUND: Firm dark brown slightly gravelly slightly sandy silty CLAY with (0.30) 0.10 0.20 2 ES 3 D roots and rootlets. Sand is fine. Gravel is angular to subangular fine to medium 0.30 4.50 mudstone [TOPSOIL]. 0.40 - 0.70 4 R ×. Soft to firm brown sandy silty CLAY. Sand is fine to medium. 0.50 × From 0.80m, Becomes slightly sandy. 0.90 - 1.20 1.00 (1.35) Х. 100 blow Х. 3.15 1.70 11 D Soft bluish grey mottled orangish brown slightly sandy silty CLAY. Sand is fine. Х. (0.70) SPT(S) 2.00m, N=0 (1,1/0,0,0,0) 2 2.45 Soft dark grey locally mottled dark brown slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is rounded fine mudstone and quartz. <u>></u>¢ 2.70 2.80 <u>১</u>৫ HV 2.80m, (p)=24 kPa (r)=5 kPa 16 D (1.00) At 2.90m, Becomes very sandy. 3.00 - 3.75 24 UT 0% Recovery <u>></u> 17 B 3.35 1.45 3.35 - 4.00 Brown gravelly slightly clayey fine to coarse SAND. Gravel is subangular to rounded fine to medium quartz. From 3.50m, No clay. 3.70 3.80 18 ES 19 D 4.00 - 4.45 20 D SPT(S) 4.00m, N=50 (7,14/12,14,14,10) (1.65) 21 B 4.45 - 5.00 4.70 4.80 22 ES 23 D 5.00 -0.20 EOH at 5.00m - Terminated due to drilling issues in sand & gravel 10 Misc Backfill Dynamic Sampling Runs Installations Resp. Zone Depth (m) Diameter From (m) 1.20 2.00 3.00 4.00 Instrument Details To (m) Diam (mm) Re covery (%) 1) 1 No. SPTY recorded with self-weighting; SPT @ 2.00m - 300mm SW Groundwater Strikes Strike (m) Casing (m) Sealed (m) Rises To (m) Time (min) AR2152 (64%)



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Final Depth: 13.10m

373101.00

OSGB

90°

Start Date:	27/09/2024	Checked:				
End Date:	01/10/2024	Approved:				

Methodology & Plant							
Depth (m)	Method	Plant Used					
0.00 - 1.20	Inspection Pit	Hand Tools					
1.20 - 3.00	Dynamic Sampling	Comacchio 205					
3.00 - 13.10	Rotary Coring	Comacchio 205					

Location ID

**BH011** 

DRAFT Log Type

Header Sheet

Scale: 1:25 Sheet 1 of 1

Hole Di	ameter
Depth (m)	Diam (mm)
13.10	121
I	l

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing D	iameter
	Diam (mm)
9.00	143
I	

	Groundwater Strikes							
Strike	Casing	Sealed	Time	Rose To	Remarks			
(m)	(m)	(m)	(min)	(m)	Keiliaiks			
ł								

Northing:

Grid System:

Inclination:

Location Details

483440.71

8.74mAOD

JD

N/A

	Installation / Instrument Details									
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)						
01/10/2024	Standpipe	4.50	1.20 - 4.50	50						

If Methodology includes Dynamic Sampling refer to Runs table for info.

No Groundwater Encountered

Backfill								
Depth (m)	Legend Code							
0.00 - 1.20	Bentonite							
1.20 - 4.50	Gravel							
4.50 - 13.10	Bentonite							

In-Situ Tests	
PID	0
Hand Vane*	3
Standard Penetration Tests	3

Undisturbed Thin Wall (NR) 0
Core Sample 0

(NR) Indicates sample undertaken but with

0

Undisturbed Thin Wall

Disturbed

Piston

Undisturbed

Environmental Samples

4 Water

Geotechnical Samples

Large Bulk

Disturbed (NR)
Piston (NR)

Undisturbed (NR)

0

Easting:

Elevation:

Logger:

Orientation:

	Standard Penetration Test Summary								
Test Type	Depth (m)	Casing (m)	Water (m)	Seating Blows		Penetration Total (mm)	N	Reported Result	Hammer Ref
Split Spoon	1.20	-	-	2	8	450	8	N=8 (1,1/3,2,2,1)	AR2154
Split Spoon	2.00	-	-	3	15	450	15	N=15 (2,1/1,2,4,8)	AR2154
Split Spoon	3.00	3.00	-	25	50	300		50 (25 for 125mm/50 for 175mm)	AR2154
i									

SPT Hammer Ref.	Energy Ratio (%)		
AR2154	71		

* One count indicates an average
reported result of 3 tests carried out at
one depth where available.

# **Applicable to Cable Percussion Only**

Chise	elling	Water	Added
Depth (m)	Duration (mins)	Depth (m)	Litr

#### **Applicable to Rotary Only**

Drilling Flush							
Depth (m)	Flush Type	Flush Colour	Return %				
3.00 - 4.50	Water	Brown	100				
4.50 - 6.00	Water	Brown	50				
6.00 - 7.50	Water	Brown	100				
7.50 - 9.00	Water	Brown	100				
9.00 - 10.50	Water	Brown	100				
10.50 - 12.00	Water	Brown	100				
12.00 - 13.10	Water	Brown	100				

#### **Applicable to Dynamic Sampling Only**

Runs	Dynamic Sampling						
Remarks	Recovery %	Diam (mm)	Depth (m)				
	100	128	1.20 - 2.00				
	100	128	2.00 - 3.00				



Project No:

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373101.00

Location Details

Northing:

483440.71

Easting:

Start Date: 27/09/2024 Checked: End Date 01/10/2024 Approved:

Methodology & Plant

Method Plant Used 0.00 - 1.20 1.20 - 3.00 Inspection Pit
Dynamic Sampling Hand Tools Comacchio 205 3.00 - 13.10 Rotary Coring Comacchio 205 Location ID

**BH011** 

**DRAFT** Log Type

**Combined Borehole** 

Name: One Earth Solar Farm Elevation: 8.74mAOD Final Depth: 13.10m Hall Farm, Lincoln Location: Logged By: JD Grid System: OSGB Scale: 1:25 Client **Pershing Consultants** Orientation N/A Inclination: 90° Sheet 1 of 3 Coring, Samples & Testing Depth (m) Reduced Installation / Backfill Strata Description Legend (Stratum Thickness Level (mAOD) Level (m) TCR SCR If Depth (m) Test Results 0.00 - 0.30 Grass over soft brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is subrounded fine to coarse mudstone. [TOPSOIL] 0.30 0.30 - 0.50 HV 0.30m, (p)=40 kPa (r)=24 kPa HV 0.50m, (p)=42 kPa (r)=24 kPa 0.50 0.50 - 1.20 HV 1.00m, (p)=40 kPa (r)=18 kPa 1 ... SPT(S) 1.20m, N=8 (1,1/3,2,2,1) Soft friable reddish brown gravelly CLAY. Gravel is subrounded fine to coarse mudstone. 1.50 5 D 2.00 2.00 - 2.45 2.00 - 3.00 SPT(S) 2.00m, N=15 (2,1/1,2,4,8) 2 (1.80) 2.50 6 D 3.00 5.74 3.00 - 3.45 SPT(S) 3.00m, 50 (25 for 125mm/50 for 175mm) Assumed zone of core loss - weak MUDSTONE (Drillers description). (1.20) 4.54 4.20 Very weak reddish brown mercia MUDSTONE. Non-intact core recovered as slightly sandy clayey angular to subangular fine to (0.30)coarse GRAVEL. Sand is fine to coarse. (Mercia Mudstone). 4.50 4.24 Assumed zone of core loss - Firm MUDSTONE and white calcite (Drillers description). 4.60 8 D Continued on Next Page Observations / Remarks Misc Shift Information Backfill Installations Depth (m) Casing (m) Water (m) To (m) Resp. Zone | Depth (m) | Diameter | 1.20 - 4.50 | 4.50 | 50 Instrument Type 4.50 13.10 casing Used ring Poice 9.00 1.50 Groundwater Strikes Strike (m) Rises To (m) Time (min)



Project No:

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Location Details

Start Date:	27/09/2024	Checked:	
End Date	01/10/2024	Approved:	

Methodology & Plant

Method Inspection Pit Dynamic Sampling Rotary Coring Depth (m) 0.00 - 1.20 1.20 - 3.00 3.00 - 13.10 Plant Used Hand Tools Comacchio 205 Comacchio 205 Location ID

**BH011** 

DRAFT Log Type

Nan	ne: One Earth Solar Farm	Easting:	4834	140.71	Nort	hing:	373101	1.00										Combined Borehole
Loc	ntion: Hall Farm, Lincoln	Elevation:		mAOD		l Depth:	13.10n	n									-	
		Logged By:	JD			System:	OSGB										-	Scale: 1:25
Clie	nt: Pershing Consultants	Orientation:	N/A		1	nation:	90°											Sheet 2 of 3
	Strata Description			Legend	Depth (m) (Stratum Thickness)	Reduced Level (mAOD)	Hole Ø (mm) Depth	Casing Ø (mm) Depth	Water Level (m)	Installation Backfill	n / Core	TCR	SCR	RQD	If	Coring, Sam Depth (m)	ples & T	Test Results
-	Assumed zone of core loss - Firm MUDSTONE and (Drillers description).	white calcit	te		(1.35)		(m)	(m)			Run				AZCL			
- - - - - - -	Very weak reddish brown mercia MUDSTONE. Nor recovered as slightly sandy clayey angular to suba	ngular fine	to		5.85 (0.15)	2.89					4.50 6.00	10	0	0	NI	6.00	9 D	6-
-	medium GRAVEL. Sand is fine to medium. (Mercia Assumed zone of core loss - Firm MUDSTONE and (Drillers description).  Extremely weak reddish brown to greenish grey medium of the statement of th	white calcit			(0.35)	2.39									AZCL			
-	MUDSTONE recovered as slightly sandy gravelly Cl fine to coarse. Gravel is angular to subangular fine (Mercia Mudstone).	AY. Sand is			(4.45)						6.00 7.50	77	0	0				
7					7.50	1.24									NI			7-
8 -	Assumed zone of core loss - MUDSTONE (Drillers of	escription)	).		(1.15)						7.50 9.00	23	0	0	AZCL			8-
- - - - - - - - - -	Very weak greenish grey locally reddish brown me MUDSTONE. Non-intact core recovered as slightly to subangular fine to coarse GRAVEL. Sand is fine to (Mercia Mudstone).  Assumed zone of core loss - MUDSTONE (Drillers of	sandy angu to coarse.			8.65 (0.35)	0.09		143 9.00							NI			9-
-	, source concessor most for the concessor	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,		(0.44)										AZCL			
-	Weak greenish grey mercia MUDSTONE with infreveining and nodules (Veins <5.00mm, Nodules <60 Discontinuities are 1) Horizontal (0-10 degrees), veclosely spaced, planar and undulating, rough and moderately wide with gravel infill 2) Vertical (70-8 undulating and smooth, tight and clean. (Mercia N	Omm). ery close to open to 5 degrees),	,		9.44	-0.70					9.00 10.50	71	43	0	12			
10 -	Continued on Next Page				(1.06)													10
Oh-	ervations / Remarks	Т	Misc.		L	Shift in	format	ion				Bacl	/fill					Installations
ODS	COUCHS / INCHISTS	No Graundwater Ercantered	Casing Used  Monitoring Point/s Installed	Date 27/08 27/08 30/09 30/09	Tim 08:0 16:0 08:0	De De	pth (m) 0.00 2.00 2.00 10.50	Casing		er (m) Fr	0.00 1.20 4.50	To (m 1.20 4.50 13.10	1) [	Mater Bentor Grave Bentor	nite el nite	Instrume Stand	pipe Gro	e Resp. Zone   Depth (m)   Diameter   1.20 - 4.50   4.50   50   Dundwater Strikes



Project No:

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Location Details

 Start Date:
 27/09/2024
 Checked:

 End Date
 01/10/2024
 Approved:

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 3.00
 Dynamic Sampling
 Comacchio 205

 3.00 - 13.10
 Rotary Coring
 Comacchio 205

Location ID

**BH011** 

FIU	Ject No. <b>2372360</b>			LUCAL	ion Detai	15												LC	ng Type	
Nan	me: One Earth Solar Farm	Easting:	4834	140.71	Nort	hing:	37310	1.00									١,	Combin	ed Bore	hole
		Elevation:	8.74	mAOD	Final	Depth:	13.10n	n									Ľ	COIIIDIII	su boile	JIOIC
Loc	cation: Hall Farm, Lincoln	Logged By:	JD		Grid	System:	OSGB											Scale:	1	:25
Clie	ent: Pershing Consultants	Orientation:	N/A		Inclin	nation:	90°											Sh	eet 3 of 3	
	T .	-			Depth (m)	Reduced	Hole Ø	Casing Ø								Coring, Samı	oles & To	esting		
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	(mm) Depth	(mm) Depth	Water Level (m)	Installation / Backfill	Core	TCR	SCR	RQD	If	Depth (m)	Ref	1	st Results	
-	Weak greenish gray marcia MUDSTONE with inf	request ave	cum		скиезэ)	(IIIAOD)	(m)	(m)			Run	ICK	JCK	ייינט	11	pepui (m)	nel	les	. results	
-	<ul> <li>Weak greenish grey mercia MUDSTONE with inf</li> <li>veining and nodules (Veins &lt;5.00mm, Nodules </li> </ul>		ouiii																	-
-	<ul> <li>Discontinuities are 1) Horizontal (0-10 degrees),</li> </ul>		0																	-
-	closely spaced, planar and undulating, rough an																			-
_	moderately wide with gravel infill 2) Vertical (70		),																	
-	undulating and smooth, tight and clean. (Mercia																			
-	- Assumed zone of core loss - MUDSTONE (Driller	s description	.1		10.50	-1.76								_						-
-	- Assumed zone of core loss - Mods folke (briller	s description	١).																	-
_	1				(0.30)										AZCL					
-	1				10.00	2.00														-
_	Weak reddish brown mercia MUDSTONE with g	ypsum veinin	ng		10.80	-2.06								Ī						
-	and infrequent nodules (Veins <45.00mm; Nodu	ules <30.00m	ım).																	-
11 -	Discontinuities are 1) Horizontal (0-10 degrees),																			11 -
_	rough and open to moderately wide with gravel																			
	- vertical (50-65 degrees), very close, planar and																			
-	rough, partly open to open and clean 3) Vertical				(1.00)						10.50 12.00	80	35	15	12					-
-	<ul> <li>degrees), planar, rough, partly open and clean. (</li> <li>Mudstone).</li> </ul>	(IVIEI CId			(1.00)										13					-
-	From 11.40m, Becomes light grey.																			-
-																				-
-	-																			
_	1																			
-	1				11 00	.2.00														-
-	<ul> <li>Very weak reddish brown mercia MUDSTONE. N</li> </ul>				11.80	-3.06								Ī						
-	recovered as slightly sandy angular to subangular	ar fine to coa	ırse		(0.20)										NI					
12 -	GRAVEL (Mercia Mudstone).		/		12.00	-3.26								_						12 -
-	Assumed zone of core loss - MUDSTONE (Driller	s description	۱).																	-
_					(0.35)										AZCL					-
-	1																			-
-	AUDITONIA				12.35	-3.61								-						
	- Very weak reddish brown mercia MUDSTONE re		arca																	
-	slightly sandy slightly clayey angular to subangu GRAVEL. (Mercia Mudstone).	iar iirie to co	arse								12.00		_	,						-
-	- GRAVEL. (Wercia Widustoffe).				(0.50)						13.10	68	7	0	NI					-
-	<u> </u>																			-
-	-																			-
	1				12.85	-4.11								ŀ						
-	- Weak greenish grey mercia MUDSTONE with co				(0.08) 12.93	-4.19								L	12					-
13 -	nodules (up to 15.00mm). Discontinuities are 1) degrees), planar, rough, open and clean. (Mercia		- //		(0.17)										NI					13 -
-	Very weak reddish brown mercia MUDSTONE. N				13.10	-4.36	121 13.10						$\sqcup$	_						
-	recovered as angular to subangular fine to coars						13.10													
-	(Mercia Mudstone).	oc Oluver.	/																	
_	EOH at 13.10m - Scheduled Dep	oth																		
-	<u> </u>																			-
-	-																			-
_	1																			
-	<u> </u>																			
-	-																			
_	1																			
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15 -	1																			15 -
1						L	L	L	L					_		<u></u>		L		13
Obs	servations / Remarks		Misc.			Shift Ir	nformat	ion				Back	fill					Installations		
	-			Date	Tim	e De	pth (m)	Casing	(m) Wa			To (m)	) N	/later		Instrume	nt Type	Resp. Z	one Depth (r	
			ntereu alled	27/08 27/08	08:0 16:0	0	0.00 2.00				0.00 1.20	1.20 4.50		enton Grave		Standp	oipe	1.20 - 4	.50 4.50	50
			ater Encounte ng Used Point/s Instal	30/09 30/09	08:0 16:0	0	2.00 10.50	9.00	,		1.50	13.10		enton						
			rter Er ng Use Point/!	30/03	10.0	-	_5.55	3.00	-								Gro	undwater St	rikes	
			ndwa Casin ring P												St	rike (m) Rises			Remarks	
			Grou																	
			No M																	
			1		1	- 1		1	- 1	1	1		1		- 1	1	1			



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Final Depth: 14.00m

372784.38

OSGB

90°

3.00 - 14.00

Start Date:	24/09/2024	Checked:	
End Date:	26/09/2024	Approved:	

Rotary Coring

End Dat	e:	26/09/2024	App	roved:		
Methodology & Plant						
Depth (m)		Method		P	lant Used	
0.00 - 1.20		Inspection Pit		Н	and Tools	
1.20 - 3.00		Dynamic Samplin	g	Con	nacchio 205	

Location ID

**BH012** 

DRAFT Log Type

**Header Sheet** 

cale:	1:25	

cale:	1:25	
	Sheet 1 of 1	

Hole Di	ameter
Depth (m)	Diam (mm)
14.00	121

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing D	iameter
Depth (m)	Diam (mm)
9.00	143
l	

Groundwater Strikes					
Strike	Casing	Sealed	Time	Rose To	Remarks
(m)	(m)	(m)	(min)	(m)	Keiliaiks
ł					

Northing:

Grid System:

Inclination:

Location Details

483291.84

11.14mAOD

ED

N/A

Easting:

Elevation:

Logger:

Orientation:

	Installation / Instrument Details						
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)			
27/09/2024	Standpipe	4.00	1.00 - 4.00	50			

Comacchio 205

If Methodology includes Dynamic Sampling refer to Runs table for info.

No Groundwater Encountered

Backfill			
Depth (m)	Legend Code		
0.00 - 1.00	Bentonite		
1.00 - 4.00	Gravel		
4.00 - 14.00	Bentonite		

In-Situ Tests			
PID	0		
Hand Vane*	3		
Standard Penetration Tests	4		

<sup>(</sup>NR) Indicates sample undertaken but with

Sample Summary Environmental Samples 11 Geotechnical Samples

11

0

0

Undisturbed Thin Wall Undisturbed Thin Wall (NR) Core Sample

Disturbed

Piston

Undisturbed

Large Bulk

Disturbed (NR)

Piston (NR)

Undisturbed (NR)

0

	Standard Penetration Test Summary								
Test Type	Depth (m)	Casing (m)	Water (m)	Seating Blows		Penetration Total (mm)	N	Reported Result	Hammer Ref
Split Spoon	1.20	-	-	4	16	450	16	N=16 (2,2/3,4,4,5)	DS-21-1-3
Split Spoon	2.00	-	-	9	18	450	18	N=18 (5,4/6,5,3,4)	DS-21-1-3
Split Spoon	3.00	3.00	0.00	25	50	295		50 (25 for 110mm/50 for 185mm)	DS-21-1-3
Split Spoon	8.00	8.00	6.60	5	0	445		50 (3,2/50 for 295mm)	DS-21-1-3

SP	T Hammer Ref.	Energy Ratio (%)
	DS-21-1-3	56

* One count indicates an average
reported result of 3 tests carried out at
one depth where available.

## **Applicable to Cable Percussion Only**

Chise	Chiselling				
Depth (m)	Duration (mins)		Depth		

	•			
Water Added				
Depth (m)	Litres			
l				

#### **Applicable to Rotary Only**

Drilling Flush						
Depth (m)	Flush Type	Flush Colour	Return %			
3.00 - 4.50	Water	Brown	100			
4.50 - 6.00	Water	Brown	100			
6.00 - 7.50	Water	Brown	5			
7.50 - 8.00	Water	Brown	100			
8.00 - 9.50	Water	Brown	100			
9.50 - 11.00	Water	Brown	5			
11.00 - 12.50	Water	Brown	80			
12.50 - 14.00	Water	Brown	80			

#### **Applicable to Dynamic Sampling Only**

Dynamic Sampling Runs				
Depth (m)	Diam (mm)	Recovery %	Remarks	
1.20 - 2.00	128	100		
2.00 - 3.00	128	100		



One Earth Solar Farm

Project No:

Name:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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372784.38

Location Details

Northing:

483291.84

Easting

Start Date:	24/09/2024	Checked:	
End Date	26/09/2024	Approved:	

Methodology & Plant

 Depth (m)
 Method
 Plant Used

 0.00 - 1.20
 Inspection Pit
 Hand Tools

 1.20 - 3.00
 Dynamic Sampling
 Comacchio 205

 3.00 - 14.00
 Rotary Coring
 Comacchio 205

Location ID

**BH012** 

DRAFT Log Type

**Combined Borehole** 

Elevation: 11.14mAOD Final Depth: 14.00m Location: Hall Farm, Lincoln Logged By: ED Grid System: OSGB 1:25 Sheet 1 of 3 Client **Pershing Consultants** Orientation N/A Inclination: 90 Coring, Samples & Testing Depth (m Reduced Strata Description (Stratum Thickness Level (mAOD) Level (m TCR SCR Test Results Soft light brown slightly gravelly SILT. Gravel is subangular fine to coarse mudstone. (0.45) HV 0.25m, (p)=NA kPa (r)=NA kPa 0.30 101 ES 0.45 10.69 <u>></u>e Soft friable reddish brown slightly gravelly sandy silty CLAY. Sand 102 F is fine to coarse. Gravel is subangular fine to coarse mudstone. <u>>¢</u> <u>>¢</u> <u>১</u>ং <u>></u>e 1 <u>></u> SPT(S) 1.20m, N=16 (2,2/3,4,4,5) Soft to firm light grey gravelly CLAY. Gravel is angular fine to coarse mudstone. 1.40 9.74 Soft to firm reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is angular fine to coarse <u>></u>e mudstone. 1.60 5 D <u>১</u>৬ <u>></u>¢ <u>></u> 1.90 104 ES <u>>¢</u> SPT(S) 2.00m, N=18 (5,4/6,5,3,4) 2 ১৬ (1.40) <u>></u>e <u>>¢</u> 2.50 7 D <u>></u> 26 2.80 8.34 Light grev gravelly fine to coarse SAND. Gravel is angular fine to (0.20) 2.90 105 ES coarse mudstone. 3.00 Assumed zone of core loss. MUDSTONE. (Drillers description) (0.67) AZCL 7.47 Very weak reddish brown and greenish grey partially weathered mercia MUDSTONE. Non-intact core recovered as angular to (0.26)subangular fine to coarse GRAVEL. 106 ES 9 D 3.93 7.21 Very weak reddish brown mercia MUDSTONE. Discontinuities are horizontal 0-5 Deg closely spaced planar smooth open clean. (0.42) 11 4.35 6.79 Very weak greenish grey mercia MUDSTONE. Discontinuities are 10 D 4.40 (0.15) horizontal very closely spaced planar smooth open clean. 4.50 6.64 Assumed zone of core loss. MUDSTONE. (Drillers description) 4.90 107 ES (1.00) 5.00 11 D Continued on Next Page Observations / Remarks Misc Shift Information Backfill Installations Resp. Zone | Depth (m) | Diameter | 1.00 - 4.00 | 4.00 | 50 Depth (m) Casing (m) Water (m) To (m) Instrument Type 08:00 16:00 08:00 16:00 08:00 16:00 Groundwater Strikes Strike (m) Rises To (m) Time (min)



Project No:

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Location Details

Start Date:	24/09/2024	Checked:	
End Date	26/09/2024	Approved:	

Methodology & Plant

Depth (m) 0.00 - 1.20 1.20 - 3.00 3.00 - 14.00 Method Inspection Pit Dynamic Sampling Rotary Coring Plant Used Hand Tools Comacchio 205 Comacchio 205 Location ID

**BH012** 

	0.5.4.5.4.5	Easting:	4837	91.84	Nort	thing:	37278	4.38	-									208 1990	
Nam	ee: One Earth Solar Farm	Elevation:		4mAOD		l Depth:	14.00n										(	Combined Borel	nole
Loca	tion: Hall Farm, Lincoln	Logged By:	ED	-		System:	OSGB											Scale: 1:2	25
Clier	nt: Pershing Consultants	Orientation:	N/A			nation:	90°											Sheet 2 of 3	
		1			Depth (m)	Reduced	Hole Ø (mm)	Casing Ø (mm)	Water	Installation	,					Coring, Sam	ples & T	esting	
	Strata Description			Legend	(Stratum Thickness)	Level (mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results	
	Assumed zone of core loss. MUDSTONE. (Drillers of	description)																	
																			1
															AZCL				- 1
1																			1
					5.50	5.64					4.50	33	17	0					-
]	Very weak greenish grey mercia MUDSTONE. Disco		are			3.04					6.00	33	1/	0		5.60	108 ES		]
-	horizontal very closely spaced planar smooth oper	n ciean.			(0.25)										20	5.60	12 D		-
	Extremely weak reddish brown partially weathere	d mercia			5.75	5.39								-		1			-
-	MUDSTONE. Non-intact core recovered as angular		ular		(0.25)										NI				1
6 -	fine to coarse GRAVEL.				6.00	5.14										6.00 - 7.50	13 B		6 -
	No recovery. Weak MUDSTONE. (Drillers description	on)																	1
																			1
																			1
																			1
																			1
																			1
=																			‡
																			1
=																			1
7 -					(2.00)										AZCL				7 -
1																			-
																			-
																			]
]																			-
$\ \cdot\ $																			-
																			-
																			}
																			-
																			-
8 -	Assumed zone of core loss. MUDSTONE. (Drillers of	description)			8.00	3.14												SPT(S) 8.00m, 50 (3,2/50 for 295mm)	8 -
	,	, ,																,	1
-																			1
																			-
																			1
					(1.00)										AZCL				-
																			1
											8.00 9.50	40	21	0		8.70	109 ES		_
											9.50								-
=								142											1
9 -	Very weak reddish brown mercia MUDSTONE. Dis				9.00	2.14		9.00											9 –
=	are horizontal 0-5 Deg very closely to closely space	ed planar ar	nd		(0.31)										6				‡
=	undulating smooth open clean.																		1
	Very weak reddish brown partially weathered men	rcia			9.31	1.83										1			1
	MUDSTONE. Non-intact core recovered as angular	r to subangı	ular		(0.19)										NI				1
	fine to coarse GRAVEL. Assumed zone of core loss. MUDSTONE. (Drillers of	description)	/		9.50	1.64													7
		, , , , , , , , , , , , , , , , , , ,																	7
																			7
]																			]
10																			10
10	Continued on Next Page																		10
Obs	ervations / Remarks		Misc.		-		nformat		. ()			Bac				6. 2		Installations	la:
		Day	pəl	24/09	7im 08:0	00	0.00	-			om (m)	To (m		Mater	ite	Instrume Standa		Resp. Zone   Depth (m) 1.00 - 4.00   4.00	Diameter 50
		atunos	od : Instal.	24/09 25/09	16:0 08:0	00	3.00 3.00 9.50	3.0 3.0 8.0	0 (		1.00 4.00	4.00 14.00		Grave Benton					
		ter En	ng Usea Point/s	25/09 26/09 26/09	16:0 08:0 16:0	00	9.50 9.50 14.00	8.0 8.0 9.0	0 (	5.60 5.40 5.00					F		Gro	undwater Strikes	-
		mpun	Casing toring Poi	20/03	10:0	-	50	9.0	·   '						St	rike (m) Rises			
		9	Monit																
1		^	•					1										1	



Project No:

2372986

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889 www.central-alliance.co.uk

Location Details

Start Date:	24/09/2024	Checked:	
End Date	26/09/2024	Approved:	

Methodology & Plant

 Location ID

**BH012** 

Nar	ne: One Earth Solar Farm	Easting:	4832	291.84	Nort	hing:	37278	1.38										Combined Borel	hala
		Elevation:	11.1	4mAOD	Final	l Depth:	14.00n	n										Combined Borel	noie
Loc	ation: Hall Farm, Lincoln	Logged By:	ED		Grid	System:	OSGB											Scale: 1:2	25
Clie	nt: Pershing Consultants	Orientation:	N/A		Incli	nation:	90°											Sheet 3 of 3	
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm)	Casing Ø (mm)	Water	Installation						Coring, Sam	ples &	Testing	
	·			cegena	Thickness)	(mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results	
	Assumed zone of core loss. MUDSTONE. (Drillers of	description)			(1.20)														_
																			-
																			-
															AZCL				1
-											9.50 11.00	20	0	0					_
											11.00								1
	Maria de la la la la la la la la la la la la la				10.70	0.44										10.70	110 ES	;	1
	Very weak reddish brown partially weathered mei MUDSTONE. Non-intact core recovered as angular		ular																1
	fine to coarse GRAVEL.				(0.30)										NI				1
11 -	Assumed zone of core loss. MUDSTONE. (Drillers of	lescription)			11.00	0.14										-			11
	Assumed 20the of core loss. Modes folke. (Driners of	acscription	'		(0.25)										AZCL				-
																			-
-	Very weak reddish brown partially weathered men				11.25	-0.11													1
	MUDSTONE. Non-intact core recovered as angular fine to coarse GRAVEL.	r to subangi	uıar		(0.27)										NI				]
-	Very weak reddish brown mercia MUDSTONE with	occasion-	1		11.52	-0.38										-			-
	green dots, common nodules and veins of white g		'																-
	Discontinuities are horizontal 5-10 Deg very closel										11.00		65	9					1
	spaced undulating smooth open clean with occasi infill.	onal gravel									12.50								1
:	From 11.65m to 11.71m, Non-intact core recovered as angul	ar to																	-
12 -	subangular fine to coarse GRAVEL. From 11.88m to 11.96m, Non-intact core recovered as angul	ar to			(0.98)										12				12 -
	subangular fine to coarse GRAVEL.																		-
-	From 12 25m to 12 22m Non-intent care recovered as angular	ar to														12.20	111 ES		1
	From 12.26m to 12.33m, Non-intact core recovered as angule subangular fine to coarse GRAVEL.	ur to																	1
:					12.50	1.20													1
-	Very weak reddish brown locally green mercia ML				12.50	-1.36									AZCL				
	white gypsum nodules. Discontinuities are horizor planar smooth open clean.	ntal 0-5 Deg	3		(0.25)										10	1			}
	Very weak reddish brown locally green partially w	eathered			12.75	-1.61									10	1			]
	mercia MUDSTONE. Non-intact core recovered as																		_
13 -	subangular fine to coarse GRAVEL with low cobble	content.			(0.51)										NI				13 -
	Cobbles are angular to subangular mudstone.				(=:==)														13
											12.50								1
	Very weak reddish brown mercia MUDSTONE with	n frequent			13.26	-2.12					12.50 14.00		45	23		1			1
	white gypsum nodules and veins. Discontinuities a																		1
-	Horizontal 5-10 Deg closely to medium spaced pla undulating smooth open clean. 2) Subhorizontal u				(0.52)										6				-
	smooth open clean.																		1
																			]
	Very weak reddish brown mercia MUDSTONE. Dis	continuities	5		13.78	-2.64									***	1			]
	are planar smooth open clean. From 13.78m to 13.95m, Non-intact core recovered as clayey	angular to			(0.22)										NI				-
14 -	subangular fine to coarse GRAVEL.		/		14.00	-2.86	121 14.00					T	$\vdash$		20	1			14 -
	EOH at 14.00m - Scheduled Depth	I																	‡
:																			1
																			1
																			1
-																			-
-																			1
																			]
																			]
15 -																			15
٠,																			13
Obs	ervations / Remarks		Misc.	Det-	Ti.		nformat		(m) 1 144 -	or (m)	rom (=-1	Bac		Mar-	rial	last	nt Ti	Installations	) pia
		para	lled	24/09 24/09	7im 08:0 16:0	10	o.00 3.00	Casing - 3.00		er (m) Fi	0.00 1.00	To (m 1.00 4.00		Mate Bentor Grav	nite	Instrume		Resp. Zone Depth (m)	) Diameter 50
		tunos	ed 's Insta	25/09 25/09 25/09	08:0 16:0	10	3.00 3.00 9.50	3.00	0 (	0.00	4.00	14.00		Bentor					
		der	sing Used Point/s	26/09 26/09	08:0 16:0	10	9.50 14.00	8.00 9.00	0 6	5.40 5.00								oundwater Strikes	
		mpuno.	Casi itoring												St	trike (m) Rises	To (m) T	Time (min) Remarks	=
		N	Mon																



Alliance House 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44 (0)1924 229889 www.central-alliance.co.uk

Final Depth: 11.00m

372807.21

OSGB

90°

Start Date:	24/09/2024	Checked:					
End Date:	26/09/2024	Approved:					

2.110 200	٠.	20,03,202.	,,,,,,			
		Methodolo	ogy & P	lant		
Depth (m)		Method		P	lant Used	
0.00 - 1.20		Inspection Pit		Hand Tools		
1.20 - 3.00		Dynamic Samplin	g	Con	nacchio 205	
3.00 - 6.20		Rotary Coring		Con	nacchio 205	
6.20 - 6.80		Dynamic Samplin	g	Con	nacchio 205	
6.80 - 11.00		Rotary Coring		Con	nacchio 205	

Location ID

**BH013** 

DRAFT Log Type

**Header Sheet** 

Scale: 1:25 Sheet 1 of 1

Hole Di	ameter
Depth (m)	Diam (mm)
11.00	121
I	l

2372986

One Earth Solar Farm

**Pershing Consultants** 

Hall Farm, Lincoln

Project No:

Name:

Location:

Client:

Casing D	iameter
Depth (m)	Diam (mm)
7.40	143
l	

	Groundwater Strikes						
Strike	Casing	Sealed	Time	Rose To	Remarks		
(m)	(m)	(m)	(min)	(m)	Remarks		

Location Details

Northing:

Grid System:

Inclination:

483568.58

7.06mAOD

ED

N/A

Easting:

Elevation:

Logger:

Orientation:

Installation / Instrument Details							
Date	Instrument Details	To (m)	Resp. Zone (m)	Diam (mm)			
27/09/2024	Standpipe	4.00	1.00 - 4.00	50			

If Methodology includes Dynamic Sampling refer to Runs table for info.

No Groundwater Encountered

Backfill								
Depth (m)	Legend Code							
0.00 - 0.50	Concrete							
0.50 - 1.00	Bentonite							
1.00 - 4.00	Gravel							
4.00 - 11.00	Bentonite							

In-Situ Tests	
PID	0
Hand Vane*	3
Standard Penetration Tests	4

<sup>\*</sup> One count indicates an average reported result of 3 tests carried out at one depth where available.

Sample Summary												
Environmental Samples												
Soil <b>10</b> Water												
Geote	Geotechnical Samples											
Bulk	6	Large Bulk	0									
Disturbed	12	Disturbed (NR)	0									
Piston	0	Piston (NR)	0									
Undisturbed	0	Undisturbed (NR)	0									
Undistu	rbed 1	Thin Wall	0									
Undisturbe	Undisturbed Thin Wall (NR)											
Cor	e San	nple	0									
		. ,	0									

(NR) Indicates sample undertaken but with 0% Recovery

Added Litres

				Sta	ndard	Penetrati	on T	est Summary	
Test Type	Depth	Casing	Water	Seating	Main	Penetration	N	Reported Result	Hammer Ref
iest Type	(m)	(m)	(m)	Blows	Blows	Total (mm)	N	Reported Result	nammer ker
Split Spoon	1.20	-	-	3	10	450	10	N=10 (1,2/2,2,3,3)	AR2152
Split Spoon	2.00	-	-	9	26	450	26	N=26 (3,6/6,6,6,8)	AR2152
Split Spoon	3.00	-	-	14	50	270		50 (2,12/50 for 120mm)	AR2152
Split Spoon	6.20	6.20	-	14	25	450	25	N=25 (6,8/7,5,6,7)	AR2152

SPT Hammer Ref.	Energy Ratio (%)
AR2152	64

#### **Applicable to Cable Percussion Only**

Chise	elling	Water
Depth (m)	Duration (mins)	Depth (m)

# **Applicable to Rotary Only**

Drilling Flush  Depth (m) Flush Type Flush Colour Return %													
Depth (m)	Flush Type	Flush Colour	Return %										
3.00 - 4.20	Water	Brown	40										
4.20 - 5.70	Water	Brown	40										
5.70 - 6.20	Water	Brown	40										
6.80 - 8.30	Water	Brown	30										
8.30 - 9.80	Water	Brown	20										
9.80 - 11.00	Water	Brown	80										

#### **Applicable to Dynamic Sampling Only**

Dynamic Sampling Runs														
Depth (m)														
1.20 - 2.00	117	100												
2.00 - 3.00	117	100												
6.20 - 6.80	102	100												



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

Start Date: 24/09/2024 Checked: End Date 26/09/2024 Approved:

Methodology & Plant

Method Inspection Pit Dynamic Sampling Rotary Coring Dynamic Sampling Rotary Coring Plant Used Hand Tools Comacchio 205 Comacchio 205 Comacchio 205 Comacchio 205 Depth (m) 0.00 - 1.20 1.20 - 3.00 3.00 - 6.20 6.20 - 6.80 6.80 - 11.00

Location ID

**BH013** 

Proje	ect No: 2372986			Locati	ion Detail	IS			6.20 - 6.8 6.80 - 11.0			amic Sa otary Co		3			acchio 205 acchio 205		Log Type	
Nam	ne: One Earth Solar Farm	Easting:	483568			hing:	372807		0.00 11.0		110	otal y Cc	// III B			Com	ideeiiio 205		Combined Boreho	ole
oca	ntion: Hall Farm, Lincoln	Elevation:	7.06mA	AOD		l Depth:	11.00m	1										_		
	·	Logged By:	ED			System:	OSGB												Scale: 1:25	
lien	nt: Pershing Consultants	Orientation:	N/A			nation:	90°												Sheet 1 of 3	
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm) Depth	Casing Ø (mm) Depth	Water Level (m)		llation / ckfill	Core		_	_		Coring, Sam	1	I	_
-	Loose brown slightly gravelly silty fine SAND with o	accasional	×	//255//	Thickness)	(mAOD)	(m)	(m)		1.57	55, 25	Run	TCR	SCR R	QD	If	Depth (m)	Ref	Test Results	
7	rootlets. Gravel is subangular to rounded fine to m		ert 🐰		(0.20)												0.10	1 D		
7	[TOPSOIL]		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		0.20	6.86														
7	Loose brown and grey clayey slightly gravelly coars Gravel is subrounded fine to medium chert.	se SAND.	: :-														0.30	101 ES	HV 0.25m, (p)=62 kPa (r)=48 kPa	
7	Graver is subrounded fine to medium thert.			-	(0.40)															
7			3														0.50 0.50	102 ES	HV 0.50m, (p)=NA kPa (r)=NA kPa Fail	-
7	Loose grey very gravelly fine to coarse SAND. Grave	al is rounde	ed :		0.60	6.46											0.50	2 D	raii	
7	fine chert.	ci is rounat																	10/075 (-) NA 10- (-) NA 10-	
}																			HV 0.75m, (p)=NA kPa (r)=NA kPa Fail	
}					(0.60)															
-											=::::::::::::::::::::::::::::::::::::::						1.00 1.00	103 ES 3 D		1 -
7										Ė	∄						1.00	30		
7	Soft grey and light brown slightly gravelly slightly s	andy CLAV	1.	· · · · · ·	1.20	5.86				Ē	∄						1.20 - 1.50 1.20 - 1.65	8 B 5 D	SPT(S) 1.20m, N=10 (1,2/2,2,3,3)	
7	Sand is fine. Gravel is rounded fine mudstone.	andy CLAT.			(0.30)					į	$\exists$						1.20 - 1.65 1.30	5 D 104 ES		
7			. *	-	(0.30)						∄∥									
7	Soft reddish brown slightly sandy gravelly CLAY. Sai	nd is fine	1		1.50	5.56				į į	$\exists$						1.50 1.50 - 2.00	4 D 9 B		
}	Gravel is subrounded fine to medium mudstone.	13 11110.								E	$\exists$						1.50 - 2.00	90		
-					(0.50)						$\exists$									
-					(U.5U)												1.80	105 ES		
7											$\equiv$									
7	Soft reddish brown very sandy CLAY. Sand is fine to	medium	1.7		2.00	5.06				Ē	∄						2.00 - 2.45 2.00 - 2.50	6 D 10 B	SPT(S) 2.00m, N=26 (3,6/6,6,6,8)	2 -
7	Soft reduish brown very sandy CEAL Sand is time to	, inculain.								E	$\equiv$						2.10	106 ES		
7			1.		(0.50)					Ė	$\equiv$									
7			1.7		(0.50)					Ī	$\equiv$									
-										Ē	$\equiv$									
7	Loose reddish brown and grey slightly clayey very	candy angu	ılar 📆	• • •	2.50	4.56					$\equiv$						2.50 - 3.00	11 B		-
1	to subangular coarse mudstone GRAVEL. Sand is m		ılai							Ė	≝									
1	coarse.									Ī	$\equiv$									
7			1		(0.50)					E	$\exists$									
1			100	-						Ė							2.90	107 ES		
4	Assumed zone of core loss - Fractured weak grey b	rown			3.00	4.06				Ē							3.00 - 3.45	7 D	SPT(S) 3.00m, 50 (2,12/50 for	3 -
-	MUDSTONE (Driller's description).	DIOWII								ŧ	$\equiv$								120mm)	
3	From 3.20m to 3.30m, Soft brown and grey slightly sandy very	y gravelly								Ē										
}	CLAY. Sand is fine. Gravel is subrounded fine mudstone.									Ė	$\equiv$									
}											$\exists$									
-					(1.00)						$\equiv$					AZCL				-
1										Ī	$\equiv$	3.00 4.20	17	7	0					
1										Ē										
-										I										
-																				
+	Very weak reddish brown mercia MUDSTONE. Non	n-intact cor	e E		4.00 (0.12)	3.06				r. Cal	_				$\vdash$	NI				4 -
7	recovered as angular to subangular medium to coa		- 1		4.12	2.94									-	NI 25				
1	\(Mercia Mudstone). \ Very weak reddish brown mercia MUDSTONE. Disc	continuition	_/F		(0.08) 4.20	2.86							$\vdash$	-	+		4.20 - 5.70	14 B		
1	are horizontal (10-15 degrees), medium spaced, pl		//														4.30	108 ES		
-	open and clean. (Mercia Mudstone).		/																	
1	Assumed zone of core loss - Weak brown MUDSTO	ONE. Clay fi	ne									4.0-					4.50	12 D		
1	Gravel (Driller's description).											4.20 5.20	20	0	0	AZCL				
1																				
-																				
1																				
+	Continued on Next Page												-	+					5 -	
ose	ervations / Remarks	Misc.			Shift Ir	nformat	ion	I		$\top$		Back	<u> </u>		$\top$			Installations		
1VII.2				Date	Tim	e De	pth (m)	Casing	(m) Wat	er (m)		(m)	To (m)	М	ateria		Instrume	nt Type	Resp. Zone Depth (m)	liamete
. Juntere				24/09 24/09 25/09	07:0 17:0 07:0	10	0.00 3.00 3.00				0.0 0.5 1.0	50	0.50 1.00 4.00	Be	ncrete ntonit iravel	e	Stand	hihq	1.00 - 4.00 4.00	50
eer Errence				25/09 25/09 26/09	17:0	10	8.30	7.20 7.20		0.30 2.80	4.0	00	11.00		ntonit			_		
midwati Casing			Casing ing Pol				7.40				undwater Strikes me (min) Remarks									
Groun				I tonitori							ļ	, , ,								
		ž ž																		



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

Start Date:	24/09/2024	Checked:	
End Date	26/09/2024	Approved:	

Methodology & Plant

Depth (m) 0.00 - 1.20 1.20 - 3.00 3.00 - 6.20 6.20 - 6.80 6.80 - 11.00 Method
Inspection Pit
Dynamic Sampling
Rotary Coring
Dynamic Sampling
Rotary Coring Plant Used Hand Tools Comacchio 205 Comacchio 205 Comacchio 205 Comacchio 205 Location ID

**BH013** 

Project No:				6.8						- 6.80 Dynamic Sampling - 11.00 Rotary Coring						macchio 205 macchio 205		Log Type				
Name:	One Earth Solar Farm	Easting:				-	372807				, 0	6			2011			Combined Bore	ehole			
Location:	Hall Farm, Lincoln	Elevation:		mAOD		Depth:	11.00m	1														
		Logged By:	ED			System:	OSGB										-		1:25			
Client:	Pershing Consultants	Orientation:	N/A			nation:	90°	Carles d			1							Sheet 2 of 3				
	Strata Description			Legend	Depth (m) (Stratum Thickness)	Reduced Level (mAOD)	(mm) Depth	Casing Ø (mm) Depth	Water Level (m)	Installation , Backfill	Core	TCR	SCR	DOC.	If	Coring, Sam	1					
_ in	om 5.00m to 5.20m, Extremely weak reddish brown MUDS tact core recovered as gravelly coarse SAND. Gravel is angu ubangular fine to coarse. (Mercia Mudstone).				(2.00)	(MAOD)	(m)	(m)			Run	TCR	SCR	RQD	NI NI	Depth (m)	Ref	Test Results				
6 -											5.20 6.20	0	0	0	AZCL	5.60	13 D		6 —			
subro	reddish brown slightly sandy slightly clayey unded fine to coarse mudstone GRAVEL. San		to		(0.60)	0.86										6.20 - 6.65 6.20 - 6.70 6.50 6.60 6.70	15 D 17 B 110 ES 16 D 18 D	SPT(S) 6.20m, N=25 (6,8/7,5,6	,7)			
- Assur	om 6.70m to 6.80m, Reddish brown MUDSTONE. ned zone of core loss - Weak MUDSTONE - G rr's description).	ravel and Cl	lay		6.80	0.26													7-			
					(1.33)			143 7.40			6.80 8.30	11	11	11	AZCL							
8 -																			8 –			
with f	weak reddish brown and greenish grey merci frequent gypsum nodules (<110mm). Discont ontal (0-5 degrees), planar, rough and clean. tone).	tinuities are			8.13 (0.17) 8.30	-1.08 -1.25								-	6	-						
Assur	ned zone of core loss - Brown weak MUDSTC (Driller's description).		-		(0.40)	-1.64									AZCL				-			
frequ degre clean	rom 8.84m to 8.98m, Non-intact core recovered as angular j	izontal (0-10 en to open a			(0.41)						8.30 9.80	73	24	15	10				9 —			
Very v	RAVEL (Mercia Mudstone). weak reddish brown mercia MUDSTONE. Nor ered as angular to subangular fine to coarse ia Mudstone).		e		9.11	-2.06					3.50			•	NI				-			
MUD:	weak to weak reddish brown and greenish gr STONE with common gypsum nodules. Disco rizontal (0-10 degrees), very close to close cl	ntinuities ar osely space	d		9.52 (0.28)	-2.46									18	-			-			
\(Merc	r and undulating, rough, partly open to open ia Mudstone). weak to weak reddish brown and greenish gr Continued on Next Page				9.80	-2.74										_			10			
Observation	servations / Remarks Mis						nformat		, , I.		, .1	Back						Installations	J-			
are Ecountered			casing Used ing Point/s Installed	24/09 24/09 25/09 25/09 26/09 26/09	7ime 07:00 17:00 07:00 17:00 07:00	0 0 0 0 0	pth (m) 0.00 3.00 3.00 8.30 8.30 11.00	7.20 7.20 7.40	0 0.3 0 2.8	30 30	om (m) 0.00 0.50 1.00 4.00	0.50 1.00 4.00 11.00	E	Mater Concre Benton Grave Benton	ete iite el iite	Instrume Stand	pipe Gro	1.00 - 4.00 4.00 pundwater Strikes	50			
		wpuno.	Ca: itoring												St	trike (m) Rises	To (m) Ti	ime (min) Remarks				
		No Gr	Mon																			
		l		1			I	1						ı			I					



Project No:

Alliance House, 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

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Location Details

Start Date: 24/09/2024 Checked: End Date 26/09/2024 Approved:

Methodology & Plant

Method Inspection Pit Dynamic Sampling Rotary Coring Dynamic Sampling Rotary Coring Depth (m) 0.00 - 1.20 1.20 - 3.00 3.00 - 6.20 6.20 - 6.80 6.80 - 11.00 Plant Used Hand Tools Comacchio 205 Comacchio 205 Comacchio 205 Comacchio 205 Location ID

**BH013** 

,		Facting	4025	CO FO	Nort	hing.	372807	, 21	6.80 - 11.00			tary Coring				nacchio 205		206 1760		
Name:	One Earth Solar Farm														<b>Combined Borehole</b>					
Location:	: Hall Farm, Lincoln	Elevation:		MAOD			11.00n	י										61 1.25		
		Logged By:	ED .			System:	OSGB											Scale: 1:25		
Client:	Pershing Consultants	Orientation:	N/A		Inclir	nation:	90°											Sheet 3 of 3		
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level	Hole Ø (mm)	Casing Ø (mm)	Water	Installation /						Coring, Sam	ples & T	esting		
	Strata Description			Legend	Thickness)	(mAOD)	Depth (m)	Depth (m)	Level (m)	Backfill	Core Run	TCR	SCR	RQD	If	Depth (m)	Ref	Test Results		
	JDSTONE with frequent gypsum veining (<5.00r											Т								
Dis	scontinuities are horizontal (0-10 degrees), close	e to mediur			(0.60)															
- spa	aced, planar and stepped, rough and partly open														12					
] occ	casional gravel infill. (Mercia Mudstone).																			
1					10.40	-3.34														
	ry weak reddish brown to greenish grey mercia		E.			-					9.80	100	50	28						
	n-intact core recovered as angular fine to coars	e GRAVEL.			(0.35)						11.00	1 100	50	20	NI					
(۱۷)	lercia Mudstone).				,															
1					10.75	-3.70								L						
	ry weak to weak reddish brown mercia MUDSTO psum veining (<8.00mm) and nodules (<65.00m														_					
	scontinuities are horizontal (0-10 degrees), very				(0.25)										12					
	sely spaced, rough to smooth, planar to undula		, ,		11.00	-3.94	121 11.00					+		$\vdash$					11	
	en to open and clean (Mercia Mudstone).		/																	
1	EOH at 11.00m - Scheduled Depth	1																		
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-																				
Observat	tions / Remarks		Misc.			Shift In	format	ion				Back	dill					Installations		
		,	p p	Date 24/09	Time 07:0		oth (m)	Casing	(m) Wate		m (m)	To (m		Materi		Instrume				
	ntered			24/09 24/09	17:0	0	0.00 3.00	:			0.00	1.00		Concret	te	Stand	whe	1.00 - 4.00 4.00	50	
	Fincour			25/09 25/09	07:00 17:00	0	3.00 8.30	7.20		30	1.00 4.00	4.00 11.00		Gravel Bentoni						
	ing ing			26/09 26/09	07:00 17:00		8.30 L1.00	7.20 7.40		80 10					L			undwater Strikes		
	wpuno		o Grounaw Cas Monitoring												Stı	rike (m) Rises	To (m) Ti	me (min) Remarks		
		•	-	l	1			I		1					1	- 1		I		



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# Exploratory Hole Number TP001

Log Type

**Trial Pit** 

DRAFT www.central-alliance.co.uk Sheet 1 of 1 2372986 Project No: Location Details Methodology & Plant Scale: 1:30 478881.16 Northing: 372487.84 Easting: Checked By: One Earth Solar Farm Name: Trial Pit Elevation: 8.78mAOD Final Depth: 4.00m Approved By: Hall Farm, Lincoln Location: Logger: HG Grid System: OSGB Start Date: 26/09/2024 Wheeled Backhoe Excavator Client **Pershing Consultants** Orientation: N/A Inclination: 90° Finish Date: 26/09/2024 Depth (m) (Stratum Thickness) Samples & Testing Reduced Lev Installation , Strata Description Legend (mAOD) Backfill Depth (m) Test Results MADE GROUND: Soft brown slightly sandy CLAY with occasional roots and rootlets. Sand is fine to coarse. [TOPSOIL] (0.50) 0.30 3 ES 2 D 0.50 8.28 Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is ----0.60 - 1.00 4 LB angular fine gypsum. 1.00 6 ES 7 B 2.00 8 D (3.50)2.50 - 3.00 9 B 3.00 10 D 3.50 - 4.00 11 B 4.00 4.78 4.00 12 D EOH at 4.00m - Refusal on hard strata Observations / Remarks Breaking Out / Hard Strata Stability & Backfill Pit Dimensions Depth Top (m) Depth Base (m) Duration (hh:mm) 1.50m Shoring: None 0.70m Backfill: Arisings



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# TP002

Exploratory Hole Number

Backfill: Arisings

Trial Pit

Log Type

DRAFT www.central-alliance.co.uk Sheet 1 of 1 Methodology & Plant 2372986 Scale: Project No: Location Details 1:30 479204.33 Easting: Northing: 372542.34 Checked By: Name: One Earth Solar Farm Trial Pit Flevation: 7.27mAOD Final Depth: 3.00m Approved By: Hall Farm, Lincoln Location: Logger HG Grid System: OSGB Start Date: 26/09/2024 Wheeled Backhoe Excavator Client **Pershing Consultants** Orientation: N/A Inclination: 90° Finish Date: 26/09/2024 Samples & Testing Reduced Lev Installation Strata Description Legend Thickness) Depth (m) Test Results MADE GROUND: Soft brown slightly gravelly slightly sandy CLAY with occasional roots and rootlets. Sand is fine to coarse. Gravel is angular fine gypsum. [TOPSOIL] (0.50) 0.30 3 ES 0.50 6.77 0.50 2 D Stiff yellowish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is angular fine gypsum and mudstone. (1.00) 4 D 1.00 1.50 1.50 - 2.00 1.50 5.77 HV 1.50m, (p)=80 kPa (r)=20 kPa Very soft low strength reddish brown slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is very angular to angular fine to coarse mudstone. Cobbles are very angular mudstone. 1.75 9 D Yellowish brown and light grey fine to coarse SAND. (1.50) 2 50 10 D HV 2.50m, (p)=40 kPa (r)=5 kPa From 2.80m, Gravelly. 3.00 4.27 3.00 11 D EOH at 3.00m - Abandoned due to water ingress Observations / Remarks Breaking Out / Hard Strata Stability & Backfill Pit Dimensions Depth Top (m) Depth Base (m) Duration (hh:mm) 1.50m Shoring: None 0.70m Stability: Stable



Alliance House 3A South Park Way Wakefield 41 Business Park Wakefield WF2 OXJ

# Exploratory Hole Number **TP003**

Log Type

**Trial Pit** 

•	GRO	DUND ENGINEERING TECHNICAL SERVICES			+44(0)1924 entral-alliar			DRA	AFT	Sheet 1 of 1				
Proj	oject No: <b>2372986</b>			Locati	on Details			N	1ethodolo	gy & Plant		Scale:	1:30	)
Nan	me: One Earth So	olar Farm	Easting:	479128.06	Northing:	372209.	20		Trial	Pit		Checked By:		
Loc	cation: Hall Farm, Li	incoln	Elevation:	9.62mAOD HG	Final Depth Grid System							Approved By: Start Date:	26/09/2	0024
	ent: Pershing Cor		Logger: Orientation:		Inclination:			Wh	eeled Backl	noe Excavat	or	Finish Date:	26/09/2	
			1	-		Depth (m)	Badusad Lava	Mater	Installation /			Samples & Testing		
		Strata Description			Legend	(Stratum Thickness)	Reduced Level (mAOD)	Water Level (m)	Backfill	Depth (m)	Ref	Test Results	s	
		ft brown slightly gravelly sandy CLAY with occ	asional roots	and rootlets.						0.10 - 0.50	1 B			
	Sand is fine to coars	se. [TOPSOIL]				(0.50)								-
	1					(0.50)				0.30	3 ES			-
-	- Stiff reddish brown I	locally light grey slightly gravelly slightly sand	v CLAY Sand	is fine to		0.50	9.12			0.50 0.50 - 1.00	2 D 4 LB			-
	coarse. Gravel is ang		, 02 044	.5						0.50 - 1.00	4.6			-
	1													-
	1									0.90 1.00	5 D 6 ES			
1 -	]									1.00	0 23			1 -
					****									-
														-
-	-									1.50 - 2.00	7 B			-
	1													-
	1											-		
2 -	1									1.90	8 D			2 -
	]												-	
	]				(3.50)								-	
	1									2.50 - 3.00	9 B			-
	1									2.50 - 5.00	"			-
	1													-
	1									2.90	10 D			-
3 -	From 3.00m, Become Cobbles are angular	es very gravelly with high cobble content. Gravel is angular fi	ne to coarse muc	dstone.										3 -
	- Cobbies are angular i	muddone.												
	1													-
-	-									3.50 - 4.00	11 B			-
														-
	1													-
4 -		EOH at 4.00m - Refusal on hard Strat				4.00	5.62			3.90	12 D			4
	]	EOIT at 4.00III - Neiusai 011 IIaiu 3tiat	a											-
	1													-
	]													-
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	]											=		
6 -														6 -
Observations / Remarks						aking Out ,	/ Hard Strat	a n (hh:mm)		lity & Backfi	ill	Pit Dimer	nsions	
						, Deptii Base	unj Duratio	. (iii:mm)	Shoring: N	one		1.50m	$\neg$	
									Stability: St	table			0.	.70m
											Orientatio	n:		



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# TP004 DRAFT

Stability: Stable

Backfill: Arisings

Orientation:

Exploratory Hole Number

Trial Pit

Log Type

Sheet 1 of 1

2372986 Project No: Location Details Methodology & Plant Scale: 1:30 479044.59 371896.53 Easting: Checked By: Northing: Name: One Earth Solar Farm Trial Pit Elevation: 11.31mAOD Final Depth: 4.00m Approved By: Location: Hall Farm, Lincoln 26/09/2024 Logger: HG Grid System: **OSGB** Start Date: Wheeled Backhoe Excavator

Cli	ent: Pershing Consultants	Pershing Consultants Orientation: N/A		90°		Wh	eeled Backh	hoe Excavator		Finish Date: 26/0	09/2024
		<u> </u>		Depth (m)						Samples & Testing	
	Strata Description		Legend	(Stratum Thickness)	Reduced Level (mAOD)	Water Level (m)	Installation / Backfill	Donah (m)	Ref	Test Results	
	- MADE GROUND: Stiff brown slightly gravelly sandy CLAY. Sand is fi	ne to coarse Gravel is	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				X//XX//X	Depth (m)	кет	lest Results	
	angular fine flint and gypsum. [TOPSOIL]	ne to coarse. Graver is		(0.30)				0.10 - 0.30	1 B		1
					11.01			0.20	2 D		=
	Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine	e to coarse. Gravel is		0.30	11.01			0.30	3 ES		3
	angular fine gypsum and mudstone.							0.50 - 1.00	4 LB		_
	-										1
	]			(0.90)							3
	1			(0.50)							1
	-							0.90 1.00	5 D		. 1
1 .	]							1.00	6 ES		1 -
	1			1.20	10.11						1
	Reddish brown sandy clayey angular fine to coarse mudstone GRAVEL. Sand is fine to coarse.										1
	- Course.										]
	1							1.50 - 2.00	7 B		-
	1										1
	]										3
	4 -							1.90	8 D		=
2 -	-										2 -
	]										
											1
	]										3
								2.50 - 3.00	9 B		_
	1			(2.80)							1
	]										3
											1
	1							2.90	10 D		
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											1
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	]										3
	-										-
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	]		• • •								3
	- -										1
4	- EOH at 4.00m - Refusal on hard Strata	9	**************************************	4.00	7.31		(//)X(//)				4 =
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Ob	Observations / Remarks		+	Breaking Out / Hard Strat			Stability & Backfill		Pit Dimensions		
			Depth Top (m	ı) Depth Base	(m) Duration	(hh:mm)	Shoring: N	one		1.50m	ا ر
							6. 1.77. 6.				0.70m



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# TP005

Trial Pit

DRAFT

Exploratory Hole Number

Sheet 1 of 1

Log Type

Methodology & Plant 2372986 Scale: Project No: Location Details 1:30 479313.36 Easting: Northing: 371922.34 Checked By: Name: One Earth Solar Farm Trial Pit Flevation: 9.66mAOD Final Depth: 3.50m Approved By: Hall Farm, Lincoln Location: Logger HG Grid System: OSGB Start Date: 26/09/2024 Wheeled Backhoe Excavator Client **Pershing Consultants** Orientation: N/A Inclination: 90° Finish Date: 26/09/2024 Samples & Testing Installation Strata Description Legend (mAOD) Backfill Thickness) Depth (m) Ref Test Results 0.00 - 0.20 MADE GROUND: Grass over slightly gravelly slightly clayey fine to coarse SAND. Gravel is 2 D 3 ES (0.25) subrounded fine to coarse flint. [TOPSOIL] 0.25 9.41 Stiff yellowish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine flint and gypsum. 4 LB 0.50 - 1.00 (1.15)1.00 6 ES 1.40 8.26 Stiff reddish brown locally light grey slightly gravelly slightly sandy CLAY. Sand is fine to 7 B coarse. Gravel is angular fine gypsum and flint. 1.90 8 D (1.10)2.50 7.16 2.50 - 3.00 9 B Extremely weak reddish brown mercia MUDSTONE recovered as sandy clayey angular to subrounded fine to coarse mudstone GRAVEL. Sand is fine to coarse. 2.90 10 D (1.00)3.50 3.50 11 D 6.16 EOH at 3.50m - Refusal on hard Strata Observations / Remarks Breaking Out / Hard Strata Stability & Backfill Pit Dimensions Depth Top (m) Depth Base (m) 1.50m Shoring: None 0.70m Stability: Stable Backfill: Arisings



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#### TP006

Exploratory Hole Number

RΔFT

Log Type

**Trial Pit** 

		GROUND ENGINEERING TECHNICAE SERVICES				+44(0)192 entral-allia			DRA	(FT		Sheet 1	Lof 1
Pro	ject No:	2372986		Locati	on Details			N	1ethodolog	gy & Plant		Scale:	1:30
Nar	ne:	One Earth Solar Farm	Easting:	481433.94	Northing:	372524.	54		Trial			Checked By:	
Loc	ation:	Hall Farm, Lincoln	Elevation:	4.70mAOD	Final Depth							Approved By:	
Clie		Pershing Consultants	Logger: Orientation:	HG N/A	Grid System Inclination:			Wh	eeled Backh	noe Excavato	or	Start Date: Finish Date:	01/10/2024 01/10/2024
Circ		, coming constitution	onemation.			Depth (m)						Samples & Testing	01/10/2021
		Strata Description			Legend	(Stratum Thickness)	Reduced Level (mAOD)	Water Level (m)	Installation / Backfill	Depth (m)	Ref	Test Result	es es
		ROUND: Grass over soft to firm brown slightly sandy CLAY	with freque	ent roots and						0.10 - 0.30	1 B		
	rootlets.	. Sand is fine to coarse. [TOPSOIL]				(0.30)				0.20	2 D		-
		t to soft light grey and yellowish brown silty CLAY with free	quent lense	s of fine to	×x	0.30	4.40			0.30	3 ES	PID 0.30m = 0.0ppm	-
-	coarse sa	and.			×					0.50 - 1.00	4 LB		_
					<u>×</u> ×								-
					×x								-
1 -					××					0.90 1.00	5 D 6 ES	PID 1.00m = 0.0ppm	1
					× × ×								-
					× × ×	(1.90)							-
	-				× ×					1.50 - 2.00	7 B		_
					× ×					1.30 - 2.00	, ,		-
					××								-
					<u>×</u> ×								-
2 -					× × ^								2 -
		EOH at 2.20m - Abandoned due to water in	gress		<u>×</u> ^	2.20	2.50			2.20	8 D		-
													-
-													=
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6 -													6 —
Obs	ervations / I	Remarks			Bre	aking Out	/ Hard Strat	a	Stabil	ity & Backfi	l II	Pit Dime	nsions
					Depth Top (m	1		n (hh:mm)	Shoring: No			1.50m	
									Stability: St	ahla			0.70m
									ocapility: St	anic		Orientatio	on:
l					1	1			Backfill· Δr	risings		- OHERITALII	



Alliance House 3A South Park Way

# Exploratory Hole Number

Log Type

C	CENTRAL ALLIANCE GROUND ENGINEERING TECHNICAL SERVICES				eld 41 Busi Wakefield +44(0)192 entral-allia	d WF2 0XJ 4 229889		DRA			Trial Sheet 1	
roject No:	2372986		Loca	tion Details			N	1ethodolo	gy & Plant		Scale:	1:30
	One Forth Solar Form	Easting:	481429.90	Northing:	372441	.84					Checked By:	
ame:	One Earth Solar Farm	Elevation:	4.68mAOD	Final Depth	: <b>2.50m</b>			Trial	Pit		Approved By:	
ocation:	Hall Farm, Lincoln	Logger:	HG	Grid Syster							Start Date:	01/10/202
l:	Banking Consultants						Wh	eeled Backh	noe Excavat	or		
lient:	Pershing Consultants	Orientation:	N/A	Inclination:	90	1		ı			Finish Date:	01/10/202
	Strata Description			Legend	Depth (m) (Stratum	Reduced Level (mAOD)	Water Level (m)	Installation / Backfill			Samples & Testing	
				V///XV///X	Thickness)	(111100)	ECVET (III)	V//AV//A	Depth (m)	Ref	Test Result:	s
	GROUND: Grass over stiff brown slightly sandy CLAY with f fine to coarse. [TOPSOIL]	requent roo	ts and rootlets.		(0.30)				0.10 - 0.30 0.20	1 B 2 D		
. Coft to	firm light grey and reddish brown silty CLAY with frequent	lancas of fir	- to coors		0.30	4.38			0.30	3 ES	PID 0.30m = 0.0ppm	
sand.	firm light grey and reddish brown silty CLAY with frequent	. ierises or iii	ie to coarse	× ×								
1				××					0.50 - 1.00	4 LB		
1				××								
1				×— —×								
3				××					0.90	5 D		
-				× × =					1.00	6 ES	PID 1.00m = 0.0ppm	
1												
]				××								
]				×	(2.20)							
				×_×_×	(2.20)				1.50 - 2.00	7 B		
				_ × ^					1.00	-		
				×——×								
				×_×_×								
				<u>×</u> ^								
				x								
1				×— —×								
1				××								
Froi	m 2.40m, Becomes bluish grey.			× × -	2.50	2.18			2.50	8 D		
1	EOH at 2.50m - Abandoned due to water in	ngress			2.50	2.10						
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						-		
Observations / Remarks	Bre	aking Out / Har	rd Strata	Stabil	ity & Backfill		Pit Dimensions	
	Depth Top (m	) Depth Base (m)	Duration (hh:mm)	Shoring: No	one		1.50m	
				Stability: St				0.70m
				Backfill: Ar	isings		Orientation:	



## TP008 DRAFT

Stability: Stable

Backfill: Arisings

Orientation:

Exploratory Hole Number

Trial Pit

Log Type

Sheet 1 of 1 2372986 Project No: Location Details Methodology & Plant Scale: 1:30 Checked By: 481755.79 Northing: 372615.04 Easting: Name: One Earth Solar Farm Trial Pit Elevation: 4.03mAOD Final Depth: 1.60m Approved By: Location: Hall Farm, Lincoln Start Date: Logger: HG Grid System: OSGB 27/09/2024 Wheeled Backhoe Excavator Client: Finish Date: Pershing Consultants Orientation: N/A Inclination: 90° 27/09/2024

			Depth (m)						Samples & Testing	
	Strata Description	Legend	(Stratum	Reduced Le (mAOD)		Installation / Backfill				
			Thickness)	(IIIAOD)	Lever (III)	Dackilli	Depth (m)	Ref	Test Results	
$\vdash$	MADE CROUND, Cross over stiff frieble brown and CLAV with for event and the state of the state o	X//XX///X		<del>                                     </del>	_	V//XV//X			<del></del>	
	MADE GROUND: Grass over stiff friable brown sandy CLAY with frequent roots and rootlets.	DX(I)X(I		l		DXIIIXI)	0.10 - 0.40	1 B		-
-	Sand is fine to coarse. [TOPSOIL]					X///X////				-
-	1	(X())X()				DX(I)X(I				-
						X///X////	0.30	2 D		J
-	1					\ <u>\</u>				-
							0.40	3 ES		
_							0.50 - 1.00	4 LB		_
-	1					Y//\\Y//\\				-
-	1					X/XXX				-
-	_									-
-	1		(1.60)			\\/\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				-
		Y/>>Y/>>	(1.60)							J
-	-					X//X\//X	0.90	5 D		-
							1.00	6 ES		
1 -	_	XXXXXX				K//X(//X	1.00	0.5		1 -
-	1									-
		K//XX//				<i>\(//)\(\)</i>				1
-	_					DXIIXI				-
-	1	K//XX//X				X///X////				-
						NX())X()				
-	-	K//X4//X								-
_	1									_
-		(///)	1.60	2.43		\(\alpha\)\(\alp				-
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Obs	servations / Remarks	Bre	aking Out ,	/ Hard Str	rata	Stabil	ity & Backfi	II	Pit Dimensions	
		Depth Top (m	1) Depth Base	(m) Dura	tion (hh:mm)	Shoring: N	one		1.70m	_
		1				1				
1			1			1			1 1	0.70m



Alliance House 3A South Park Way Wakefield 41 Business Park Wakefield WF2 0XJ +44(0)1924 229889

#### **TP009**

Log Type

Exploratory Hole Number

Backfill: Arisings

**Trial Pit** DRAFT www.central-alliance.co.uk Sheet 1 of 1 2372986 Project No: Location Details Methodology & Plant Scale: 1:30 481754.95 Northing: 372545.66 Easting: Checked By: One Earth Solar Farm Name: Trial Pit Elevation: 4.28mAOD Final Depth: 2.90m Approved By: Hall Farm, Lincoln Location: Logger: HG Grid System: OSGB Start Date: 27/09/2024 Wheeled Backhoe Excavator Client: **Pershing Consultants** Orientation: N/A Inclination: 90° Finish Date: 27/09/2024 Samples & Testing Installation / Backfill Strata Description Legend Thickness) Depth (m) Test Results MADE GROUND: Grass over stiff friable brown sandy CLAY with frequent roots and rootlets. Sand is fine to coarse. [TOPSOIL] (0.40)0.30 2 D 3.88 0.40 3 ES Stiff reddish brown and grey slightly sandy CLAY. Sand is fine to coarse. 0.50 - 1.00 4 LB 1.00 6 ES (2.10) 7 B 1.90 8 D HV 2.00m, (p)=58 kPa (r)=24 kPa From 2.00m, Medium strength. 2.50 1.78 2.50 - 2.90 9 B Very soft bluish grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse gypsum. (0.40)2.80 10 D 2.90 1.38 EOH at 2.90m - Abandoned due to water ingress Observations / Remarks Breaking Out / Hard Strata Stability & Backfill Pit Dimensions Depth Top (m) Depth Base (m) Duration (hh:mm) 1.70m Shoring: None 0.70m Stability: Stable



#### **TP010**

Exploratory Hole Number

Stability: Stable

Backfill: Arisings

Orientation:

**Trial Pit** DRAFT

Log Type

Sheet 1 of 1

2372986 Project No: Location Details Methodology & Plant Scale: 1:30 Checked By: 483303.86 Northing: 372998.48 Easting: Name: One Earth Solar Farm Trial Pit Elevation: 9.97mAOD Final Depth: 2.50m Approved By: Location: Hall Farm, Lincoln Start Date: 30/09/2024 Logger: HG Grid System: **OSGB** Wheeled Backhoe Excavator

Clie	nt: Pershing Consultants	Orientation: N/A	Inclination:			Wh	eeled Backl	noe Excavato	or		30/09/2024
				Depth (m)						Samples & Testing	
	Strata Description		Legend	(Stratum Thickness)	Reduced Leve (mAOD)	Water Level (m)	Installation / Backfill	Depth (m)	Ref	Test Results	
	MADE GROUND: Grass over soft friable brown sandy CLAY with fre	quent roots and rootlets.	X//XX//				X//X///			rest results	
	Sand is fine to coarse. [TOPSOIL]	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(0.40)				0.10 - 0.40	1 B		=
				(0.40)				0.30	2 D	PID 0.30m = 6.1ppm	]
	Reddish brown slightly sandy slightly clayey very angular to angula	r fine to medium		0.40	9.57			0.40	3 ES		1
-	mudstone GRAVEL with occasional pockets of stiff light grey clay. S	and is fine to coarse.						0.50 - 1.00	4 LB		
											-
											]
								0.90	5 D		=
1 -								1.00	6 ES	PID 1.00m = 2.5ppm	1 -
											-
											]
											-
-				(2.10)				1.50 - 2.00	7 B		-
											}
											1
								1.90	8 D		
2 -	Source 200m. Convert in first to source							1.50	0.5		2 -
	From 2.00m, Gravel is fine to coarse.										-
											=
											-
	FOLL at 0 50m. Defection hand state			2.50	7.47			2.50	9 D		
	EOH at 2.50m - Refusal on hard strata										1
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											1
3 -											3 -
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Obs	L ervations / Remarks		Bre	eaking Out ,	/ Hard Strat	ta	Stabi	lity & Backfi	II	Pit Dimens	ions
			Depth Top (m			on (hh:mm)	Shoring: N			1.50m	
											0.70m
1			1	1	1		Las ties as			1 1	2.7.5



## Exploratory Hole Number **TP011**

Trial Pit

DRAFT

Sheet 1 of 1

Log Type

Project No: <b>2372986</b>			l aac#	ation Details			Methodology & Plant				Scale: 1:30		
Footbe		- ··					Methodology & Plant				Scale: 1:30		
Nan	ne:	One Earth Solar Farm	Easting:	483551.04	Northing:	373015.	64		Trial	Pit		Checked By:	
			Elevation:	7.48mAOD	Final Depth:	3.70m						Approved By:	
Loc	ation:	Hall Farm, Lincoln	Logger:	HG	Grid System	: OSGB						Start Date:	30/09/2024
Clie	nt:	Pershing Consultants	Orientation:	N/A	Inclination:	90°		Wh	eeled Backh	noe Excavato	or	Finish Date:	30/09/2024
		• • • • • • • • • • • • • • • • • • • •		•								1	
		Strata Description			Legend	Depth (m) (Stratum	Reduced Leve		Installation / Backfill			Samples & Testing	
						Thickness)	(mAOD)	Level (m)	Backiiii	Depth (m)	Ref	Test Result:	s
	MADE G	ROUND: Grass over soft friable brown sandy CLAY. Sand is	fine to coar	se. [TOPSOIL	XXXXX								
-										0.10 - 0.50	1 B		-
-						(0.50)							1
-										0.40	2 D		-
-						0.50	6.98			0.50	3 ES	PID 0.50m = 6.0ppm	_
	Stiff grey	y sandy silty friable CLAY. Sand is fine to coarse.			$\equiv \times \hat{\Box}$	0.50	0.50			0.50 - 1.00	4 LB		1
	_	070 + 075 0 + 6 + 1 + 1			^- <u>-</u> -x								1
-	From	0.70m to 0.75m, Band of weak aranacious mudstone.			X—X								1
-					×_ ×					0.90	5 D		=
1 -						(1.00)				1.00	6 ES	PID 1.00m = 4.3ppm	1 -
-					××								1
-					XX								3
-					×_ ×.								-
													-
-	Light gre	ey slightly clayey sandy very angular to angular fine to med	dium mudsto	one GRAVEL.	X	1.50	5.98			1.50 - 2.00	7 B		=
-		ine to coarse.											1
-													1
-										1.00	0.0		1
										1.90	8 D		
2 -													2 -
													-
	From	2.20m, Becomes reddish brown and gravel is fine to coarse.											1
-													-
-										2.50	10 D		_
-						(2.20)				2.50 - 3.00	9 B		1
-													-
-													3
-													-
3 -													3 -
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-													3
-						3.70	3.78			3.70	11 D		_
-		EOH at 3.70m - Refusal on hard strata	I										-
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Obs	ervations /	Remarks			Bre	aking Out	/ Hard Strat	а	Stabil	ity & Backfi	II	Pit Dime	nsions
					Depth Top (m	Depth Base	(m) Duratio	n (hh:mm)	Shoring: N	one		1.50m	
									Stability: St	able			0.70m
									D I-6II. A.			Orientatio	JH:



### TP012 DRAFT

Exploratory Hole Number

Trial Pit

0.70m

Orientation:

Stability: Stable

Backfill: Arisings

Log Type

Sheet 1 of 1 2372986 Location Details Project No: Methodology & Plant Scale: 1:30 483428.68 372848.45 Checked By: Easting: Northing: Name: One Earth Solar Farm Trial Pit Elevation: 9.18mAOD Final Depth: 3.30m Approved By: Location: Hall Farm, Lincoln Start Date: Logger: HG Grid System: **OSGB** 30/09/2024 Wheeled Backhoe Excavator Client: Finish Date: Pershing Consultants Inclination: 90° 30/09/2024 Orientation: N/A

Semi Control of the C	Septimental Services of the control	Cli	ent	Pershing Consultants Orientation: N,	/A	Inclination:	90°		***	celea backi	IOC EXCUVUI	,,	Finish Date: 30/	/09/202	.4
MADIC GROUNDs: Gases over soft fitable brown sandy CLAY with frequent roots and rootlets.  Sand is fine to coarse. [IOPSOIL]  Self light grey locally yellowish brown sandy wilty friable CLAY. Sand is fine to coarse.  The same same same same same same same sam	ADE GROUND. Girss over 50ft finable abrown sandy CLW with frequent roots and nooles.  Olivo or 20 a. 278.  Olivo o						Depth (m)	Paducad Lave	l Water	Installation /			Samples & Testing		
Stiff light grey locally vellowish brown sandy silty fisable CLAX. Sand is fine to coarse.    Coarse   Coarse   Coarse   Coarse   Coarse   Clay	ADE GROUND Crians over roft final brown sandy CIAV with frequent roots and nonlets find is fine to coarse. [TO-SOII]  If light grey locally yellowish brown sandy silty friable CLAV. Sand is fine to coarse.  The coarse is supported to an activate the coarse is supported brown sandy silty friable CLAV. Sand is fine to coarse.  The coarse is supported to support the coarse is supported brown sandy silty read and supported brown sandy silty friable CLAV. Sand is fine to coarse in coars			Strata Description		Legend		(mAOD)	Level (m)	Backfill	Donah (m)	0-4	Total Describer		-
Same is fine to coarse. (TOPSOL)    Same is fine to coarse. (TOPSOL)	If light grey locally yellowish brown sandy sithy frisble CLAX Sand is fine to coarse.  The LOOM Recomes redox access.  The LO		+	MADE CROUND, Cross guar coft frieble brown condu CLAV with frequent roots or	d rootlots	X//XX///X				X// <i>X</i> X/// <i>X</i>	Depth (m)	Ref	Test Results		_
Self light grey locally yellowish brown sandy sity friable CLAY. Sand is fine to coarse.    C	Filiph grey locally yellowish brown sandy sity finable CLAY. Sand is fine to coarse.  2. 2. 3. 782 (3.4.4)  2. 2. 3. 782 (3.4.4)  2. 2. 3. 782 (3.4.4)  2. 2. 3. 782 (3.4.4)  2. 2. 3. 782 (3.4.4)  2. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.		]	MADE GROUND: Grass over soft friable brown sandy CLAY with frequent roots ar Sand is fine to coarse. [TOPSOII]	ia rootiets.						0.10 - 0.40	1 B			3
Stiff light grey locally yellowish brown sandy sity friable CLAX Sand is front to course.    1	### Injust grey locally yellowish brown sandy silty friable CLAK Sand is fine to coarse.    1		]	Sand is line to course. [101 3012]			(0.40)								- }
3 of the property of the period of the perio	The property of the control of the c		-								0.30	2 D	PID 0.30m = 4.8ppm		
Promit ZAON, Accorded readily brown.  The distribution of the control of the cont	from Julion, decreases undated brosses.  The second of the		+	Stiff light grey locally yellowish brown sandy silty friable CLAY Sand is fine to coal	rse	X X	0.40	8.78			0.40				1
Reddish brown slightly sandy sitty very angular to angular fine to coarse mudstone GRAVEL with high cobble coment. Sand is fine to medium. Cobbles are angular mudstone.  1.00 7.58 7.58 7.58 7.58 7.58 7.58 7.58 7.58	FORM 1 2 3 30m - Refusal on hard strata  EOH at 3 30m - Refusal on hard strata		╡.	our igne grey rousing years in survey only made of in our a since to cour		××					0.50 - 1.00	4 LB			_
The state of the s	Fram 2.20m, documer ordation brown.  The state of the sta		1			×_^_×									1
The second state of the se	From J. 200s, Requires redshift brown.  (1.20) 100 415 70 JOHN - Libert 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1			$\overline{\times}$ $\overline{\times}$ $\overline{\cdot}$									1
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Reddish brown slightly sandy sithy very angular to angular fine to coarse mudstone GRAVEL  Reddish brown slightly sandy sithy very angular to angular fine to coarse mudstone.  1.50  7.58  1.50  7.58  1.50  7.58  1.50  7.58  1.50	addish brown Alightly sandy ality very angular to angular fine to coarse mudstone GRAVEL th high cobble content. Sand is fine to medium. Cobbles are angular mudstone.  1.60 - 2.50   72   1.60   7.58   1.60 - 2.50   72   1.		]			××	(1.20)						PID 1 00m - 9 0nnm		. ]
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Joing, note	0.70m													٦	



# Appendix B Exploratory Hole Photographs



PHOTOGRAPH 1 – BH001 – 0.00m to 1.20m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH001





PHOTOGRAPH 2 – BH001 – 1.20m to 2.50m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH001





PHOTOGRAPH 3 – BH001 – 2.50m to 7.00m bgl



PHOTOGRAPH 4 – BH001 – 7.00m to 10.00m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH001





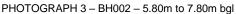


PHOTOGRAPH 2 – BH002 – 3.00m to 5.80m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH002









PHOTOGRAPH 4 – BH002 – 7.80m to 10.3 0m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH002





PHOTOGRAPH 1 – BH003 – 1.20m to 2.00m bgl



PHOTOGRAPH 2 – BH003 – 2.00m to 3.00m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH003





PHOTOGRAPH 3 – BH003 – 3.00m to 3.50m bgl



PHOTOGRAPH 4 - BH003 - 3.50m to 5.00m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH003





PHOTOGRAPH 5 – BH003 – 5.00m to 6.50m bgl



PHOTOGRAPH 6 – BH003 – 6.50m to 7.80m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH003





PHOTOGRAPH 7 – BH003 – 7.80m to 9.30m bgl



PHOTOGRAPH 8 – BH003 – 9.30m to 10.80m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH003









PHOTOGRAPH 2 - BH004 - 2.20m to 3.20m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH004







PHOTOGRAPH 4 – BH004 – 4.20m to 6.20m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH004





PHOTOGRAPH 5 – BH004 – 6.20m to 9.00m bgl



PHOTOGRAPH 6 - BH004 - 9.00m to 12.00m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH004







PHOTOGRAPH 2 – BH006 – 1.80m to 3.00m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH006





PHOTOGRAPH 3 - BH006 - 3.00m to 4.00m bgl



PHOTOGRAPH 4 - BH006 - 4.60m to 5.00m bgl



PHOTOGRAPH 5 - BH006 - 5.00m to 6.50m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH006





PHOTOGRAPH 6 - BH006 - 6.50m to 8.00m bgl



PHOTOGRAPH 7 – BH006 – 9.00m to 12.00m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH006





PHOTOGRAPH 8 – BH006 – 15.00m to 18.00m bgl



PHOTOGRAPH 9 – BH006 – 18.00m to 19.00m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH006







PHOTOGRAPH 2 – BH007 – 12.00m to 15.00m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH007





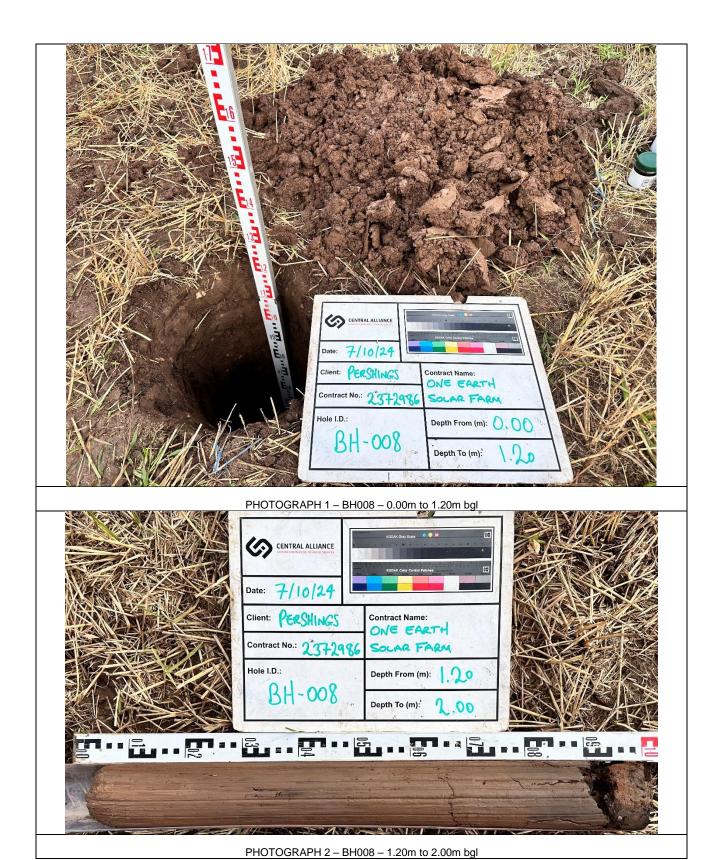
PHOTOGRAPH 3 – BH007 – 15.00m to 18.00m bgl



PHOTOGRAPH 4 – BH007 – 18.00m to 19.40m bgl

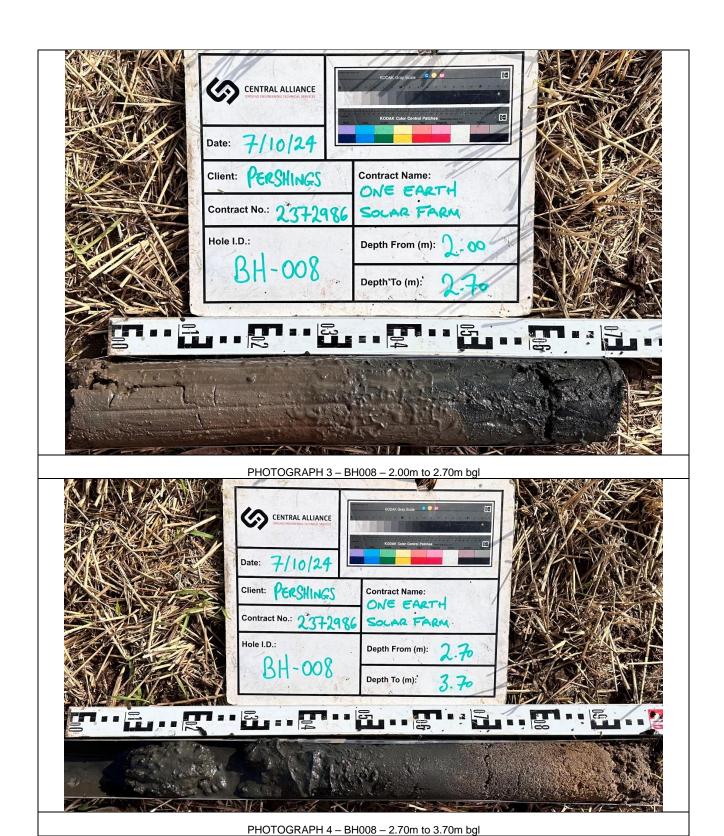
Client	AECOM
Project	One Earth Solar Farm
Title	BH007





Client	AECOM	
Project	One Earth Solar Farm	
Title	BH008	





Client	AECOM
Project	One Earth Solar Farm
Title	BH008





PHOTOGRAPH 6 - BH008 - 10.80m to 13.80m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH008

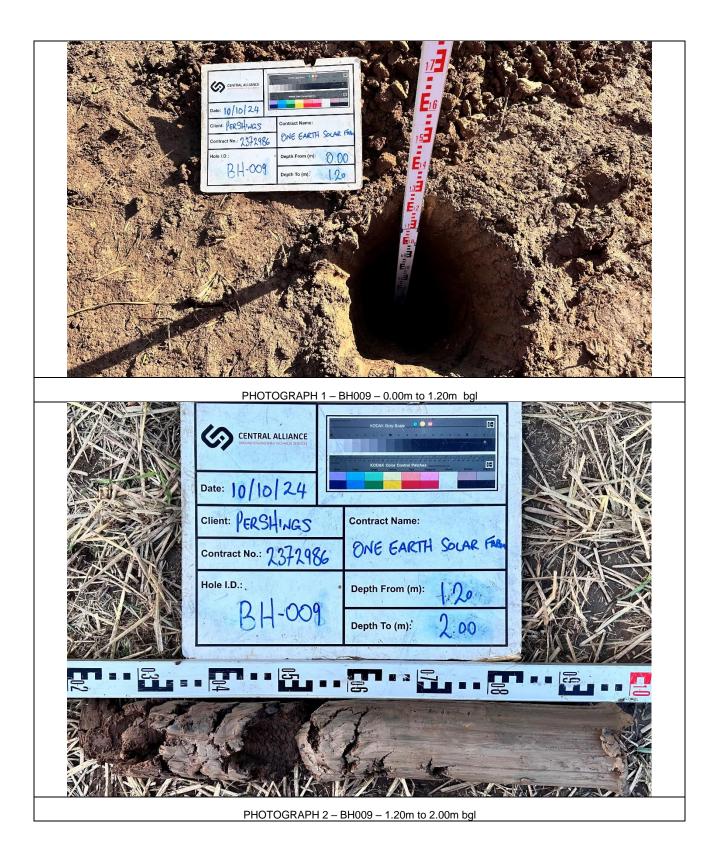






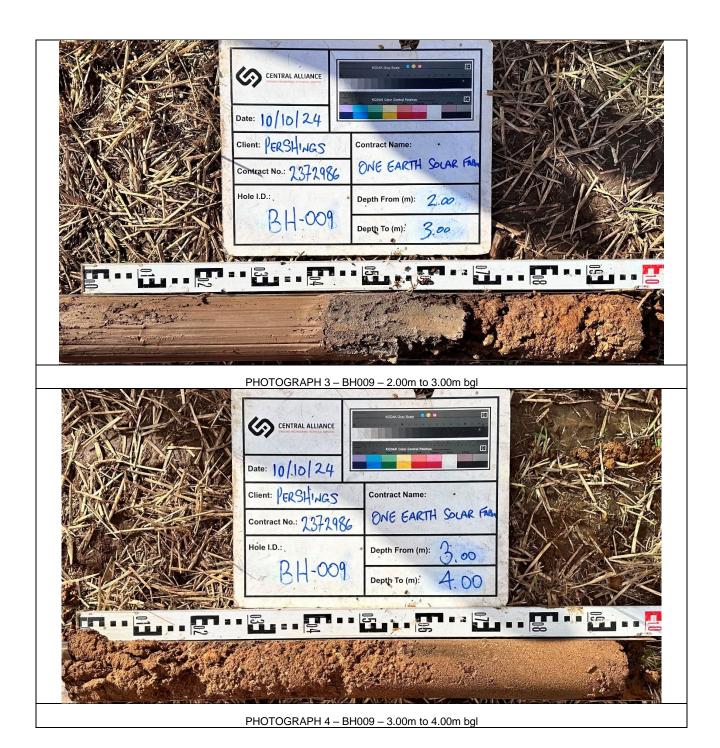
Client	AECOM
Project	One Earth Solar Farm
Title	BH008





Client	AECOM
Project	One Earth Solar Farm
Title	BH009





Client	AECOM
Project	One Earth Solar Farm
Title	BH009





Client	AECOM
Project	One Earth Solar Farm
Title	BH009





PHOTOGRAPH 7 - BH009 - 6.00m to 7.00m bgl



PHOTOGRAPH 8 – BH009 – 7.00m to 8.00m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH009





PHOTOGRAPH 9 – BH009 – 8.00m to 9.00m bgl



PHOTOGRAPH 10 – BH009 – 9.00m to 9.50m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH009





PHOTOGRAPH 11 - BH009 - 9.50m to 12.20m bgl



PHOTOGRAPH 12 – BH009 – 12.20m to 15.20m bgl

Client	AECOM
Project	One Earth Solar Farm
Title	BH009

