

**Hydrock** 

# 1. INTRODUCTION

## 1.1 Terms of reference and objectives

In March 2021, Hydrock Consultants Limited (Hydrock) was commissioned by Cassidy and Ashton (the Client) to undertake a Phase 2 ground investigation at Whyndyke Farm, Preston New Road, FY4 4XQ.

The site investigation comprised the following:

- 5 days trial pitting and soakaway to assess the suitability of the ground for soakaway drainage; and
- Geotechnical testing to characterise the soils in the areas where soakaway testing was undertaken.

## 1.2 Site Works

Hydrock undertook site works between 15/03/21 and 19/03/21 using a tracked excavator. At the time of the works the ground was saturated and trafficking the site was difficult, hence certain areas of the site were not accessible.

The following drawings are enclosed at Appendix A:

- Site Location plan; and
- Ground Investigation plan including access constraints;

Exploratory hole logs are included at Appendix B, with selected photographs at Appendix C.

## 1.3 Geotechnical Testing

The geotechnical tests undertaken by Hydrock are summarised in Table 1.1 and the test certificates are enclosed at Appendix D. Wherever possible, UKAS accredited procedures have been used

Table 1.1: Summary of geotechnical testing undertaken

Test	Till
Natural moisture content	10
Atterberg limits	5
Particle size distribution (sieve)	5





# 2. SUMMARY OF GROUND CONDITIONS

## 2.1 Physical ground conditions

## 2.1.1 Summary of strata encountered

The following presents a summary of the properties of the ground and groundwater conditions encountered, based on field observations, interpretation of the field data and laboratory test results, taking into account drilling, excavation and sampling methods, transport, handling and specimen preparation.

Details are provided in the logs in Appendix B, and the individual strata are described in the sections below.

Stratum	Depth to top (m bgl)	Depth to base (m bgl)	Thickness (m) (range)	Thickness (m) (average)
Topsoil	0.0	0.2-0.5	-	0.3
Till	0.2-0.5	0.5-3.0	0.3-2.6	1.8
Peat	0.5-0.9	1.6-2.3	0.7-0.8	1.2

Table 2.1: Strata encountered

## 2.1.2 Topsoil

Topsoil was encountered up to depths of 0.5m bgl, with an average thickness of 0.3m. The topsoil comprised very soft brown sandy clay.

For the purposes of this report, topsoil is defined as the upper layer of an *in situ* soil profile, usually darker in colour and more fertile than the layer below (subsoil), which is a product of natural chemical, physical, biological and environmental processes, but does not imply compliance with BS 3882:2015. Reuse of topsoil as a growing medium at the site should be determined by the landscape architect or the landscape Contractors.

## 2.1.3 Till

Till was encountered underlying the topsoil across the site. Till is between 0.3m and 2.6m thick, with an average thickness of 1.8m.

This generally consisted of soft orangish brown sandy slightly gravelly clay with bands of sand. Gravel is fine to coarse subangular of mudstone, limestone; orangish brown fine to coarse sand in the south of the site.

These deposits are considered to represent the Till Formation.

## 2.1.4 Peat

Peat was encountered underlying the Till in the centre and south of the site and is between 0.7m and 0.8m thick, with an average thickness of 1.2m.

This generally consisted of very soft black sandy organic clay with organic odour.

These deposits are considered to represent the Peat Formation.



## 2.2 Site-work Constraints

During the ground investigation a number of proposed site locations needed to be relocated due to the soft and waterlogged conditions of the ground. Access to the north west field of the site was not possible due to the location of the main gate, situated to the other site of the centre field, which comprised very soft and thick peat.

Inaccessible areas are shown on the Ground Investigation plan at Appendix A.

### 2.3 Groundwater

### 2.3.1 Groundwater observations and levels

Groundwater encountered during the investigation is listed in Table 2.2. A groundwater observation represents the depth at which groundwater was first observed and is likely to be deeper than the actual water table level at that location.

Table 2.2: Groundwater occurrence

Stratum	Date	Location	Fieldwork	Comments
			Groundwater observation (m bgl)	
Till	2021-03-19	TP02	Slight seepage at 0.30m bgl	Collapse of trial pit in the medium to long-term.
	2021-03-18	TP03	Slight seepage at 0.50m bgl	Collapse of trial pit in the medium to long-term.
	2021-03-17	TP04	Slight seepage at 0.60m bgl	-
	2021-03-19	TP08	Slight seepage at 0.60m bgl	Collapse of trial pit in the medium to long- term.
Till	2021-03-17	TP09	Slight seepage in the land drain at 0.60m bgl	-
	2021-03-18	TP12	Slight seepage at 0.50m bgl	Collapse of trial pit in the medium to long-term.



# 3. SOAKAWAY TESTING

Testing was carried out in accordance with Hydrock's 1-day assessment methodology. This is in general accordance with BRE Digest 365 (BRE DG 2016) where infiltration rates allow three test runs during a working day (or where there is no infiltration), but where low infiltration rates were encountered the available time may not have been sufficient to fully comply with the BRE test method (i.e. three runs of the test).

The result sheets included at Appendix E.

## 3.1 Results & interpretation

The main findings of the soakaway testing are:

- Various locations in the centre of the site were not accessible due to very soft and saturated ground conditions, predominantly where peat deposits were previously encountered.
- The trial pits recorded either Till (in the form of clays with variable amounts of sand bands), or a very organic clay interpreted as being peat.
- The majority of locations either recorded no soakage, or water ingress from sand bands causing water levels to rise which eventually caused collapse of the sides of trial pits.
- A single location (TP10) recorded a small amount of soakage over the duration of the test; however, the soakage percentage was too small to permit calculation of soakage rates. Given that all other locations recorded either no soakage, or shallow groundwater levels causing collapse of the trial pits, Hydrock does not consider it likely that this location would be suitable for soakaway drainage.

Given the above, the site is not considered suitable for soakaway drainage due to either low permeability strata being present and/or a relatively shallow groundwater table within any sand bands present in the Till or Peat.



# 4. GEOTECHNICAL TESTING

The volume change potentials in terms of with respect to building near trees have been determined from the results of plasticity index tests on samples of soil. These are summarised in Table 4.1 below.

Table 4.1: Plasticity designations.

Stratum	No. of tests	Plastici	ty Index		Modifie	d Plastici	ty Index	Plasticity	Volume Change
		Min.	Max.	Av.	Min.	Max.	Av.	designation	Potential
Till	5	10	19	13.4	8.6	16.7	11.5	Low	Low

Particle Size Distribution test (PSDs) results are summarised in Table 4.2 below.

Table 4.2: Summary of PSD tests

Stratum	No. of tests	Silt/Clay %	Sand %	Gravel %	General description
Till	5	44-61	34-46	5-11	Sandy slightly gravelly to gravelly clay

Moisture contents are summarised in Table 4.3 below.

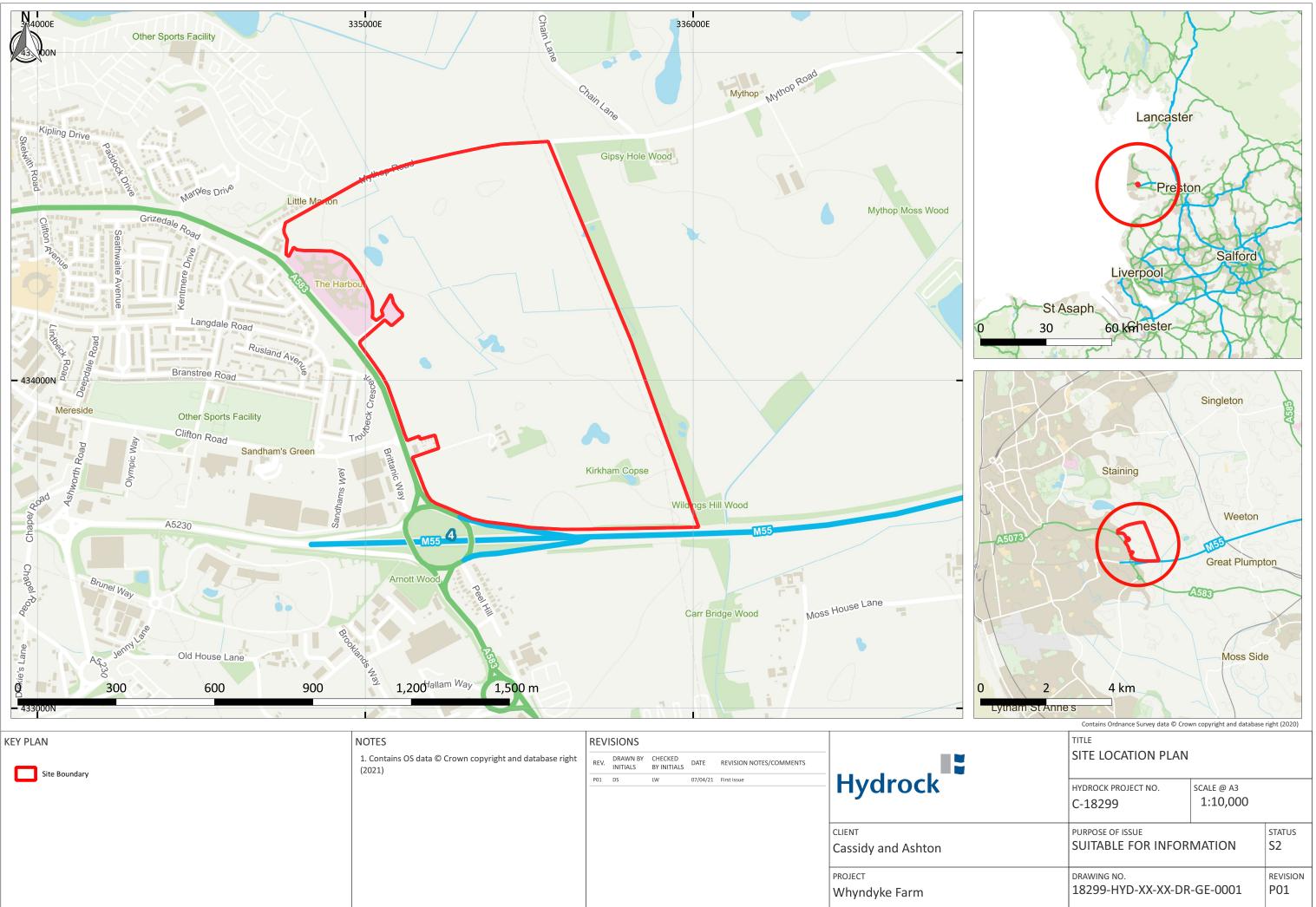
Table 4.3: Summary of moisture contents

Stratum	No. tests	Natural moisture content (%) (range)
Till	10	16 - 33





Appendix A Drawings



KEY PLAN	NOTES	REV	ISIONS				
Site Boundary	1. Contains OS data © Crown copyright and database right (2021)	REV.	DRAWN BY INITIALS	CHECKED BY INITIALS	DATE	REVISION NOTES/COMMENTS	
Site boundary		P01	DS	LW	07/04/21	First issue	Hydrock <sup>–</sup>
							CLIENT Cassidy and Ashton
							PROJECT Whyndyke Farm

- JARON Hensite Par Dis Data Saturations and and a saturation of the saturation of	335300E TPOT TPOT TPOT TPOT TPOT TPOT TPOT TPO	Algebra Based	
Krypras   Locations [12]   Constraints   Trial Pit [12]	80       1,00 m         NOTES       1. Contains OS data © Crown copyright and database right (2011)	TP11         Principal Structure         REVISIONS         REV       REVISION BY BY INITIALS         PD1       D5         AC       22/03/21         First issue	CLIENT Cassidy and Ashton PROJECT Whyndyke Farm

2110				
	TITLE			
	GROUND INVE	STIGATION P	LAN	
	hydrock project no. C-18299	SCALE @ A3 1:7,500		
	PURPOSE OF ISSUE SUITABLE FOR INFORMATION			
	DRAWING NO.	REVISION P01		

ID	Туре	X (Easting)	Y (Northing)	Soakaway
TP02	ТР	335451.32	434654.14	у
TP05	ТР	335231.39	434650.35	у
TP04	ТР	335180.87	434230.99	у
TP03	ТР	335641.72	433892.67	у
TP06	ТР	335278.11	434106.85	у
TP07	TP	335381.71	433648.24	у
TP10	ТР	335585.34	433785.59	у
TP08	ТР	335469.79	433913.01	у
TP09	TP	335769.82	433908.25	у
TP12	ТР	335901.74	433659.78	у
TP11	ТР	335589.66	433587.97	у
TP01	ТР	335151.77	434619.47	у



Appendix B Exploratory Hole Logs

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Groundwater: Seepage

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				Base of Excavation at 2	2.00m		2 2.00					
							-					
							-					
							-					
							3 -					
							-					
							-					
							]					
							-					
							-					
							-					
							4 -					
							-					
							-					
							1					
							-					
							1					
							1					
							5 -					

	. , Hi			Project: Whyndyke Gard	en village		Trialpit TP1				
Hydro	OCK					Do			:1		
/lethod: Trial				Date(s): 16/03/2021	Logged By: D	Page No. 1 of ed By: DS Checked By				N	
Client: Cassic		hton		Co-ords: 335585.34, 433785.59	Stability: Stab					Scal	
				Plant: 14tn			3.20m 0.60m 1:2				
lydrock Proje	amples / Tes				Plant: 14th			ş		Г	
Depth (m)	Type	Results	Water- Strikes	Stratum Desc	cription		Jepth Jbgl	Thickness (m)	Level m OD		
				Very soft dark brown sandy CLAY. (TOPSOIL)				<u> </u>			
							-	(0.40)			
							0.40				
				Soft orangish brown sandy gravelly CLAY with b subangular of mudstone, limestone.	oands of sand. Gravel	is fine to coarse					
				(TILL)			-				
							]				
4 00 4 50											
1.00 - 1.50	В						-				
							-				
							1	(1.90)			
1.50	D						-				
							-				
							2 -				
							-				
							2.30				
				Base of Excavation	at 2.30m		-				
							-				
							-				
							-				
							3 -				
							-				
							-				
							-				
							]				
							4 -				
							-				
							1				
							-				
							1				
							-				
							5 -				

Hydrock				Project: Whyndyke Garden Village			Trialpit No TP11					
нуdra	OCK					Pa			1			
Method: Tria	l Pit						Page No. 1 of 1 Checked By: LW					
Client: Cassi		nton		Co-ords: 335589.66, 433587.97	Stability: Stab				ons: Scale			
Hydrock Proj					Plant: 14tn		0.60m	2.80m	1	1:2:		
	amples / Tes		Water-				L	sss				
Depth (m)	Туре	Results	Strikes	Stratum Desc	cription		Depth	Thickness (m)	Level m OD	puepe		
				Very soft dark brown sandy CLAY. (TOPSOIL)			0.50	(0.50)				
				Orangish brown sandy gravelly CLAY with low b subangular of mudstone, limestone. (TILL)	oulder content. Grave	el is fine to coars	e - - 0.90	(0.40)				
				Very soft to soft black sandy organic CLAY. (PEAT)			1-	(0.70)		اد م مالد اد ما مالد مالد اد ما		
				Base of Excavation	at 1.60m		- - 1.60			مالد اد م مالد اد م مالد		
							2 -					
							-					
							-					
							3 -					
							-					
							4 -					
							-					
General Remark							5 -					

lydrock				Pad	e No.	. 1 of	1			
ethod: Trial Pit		Date(s): 15/03/2021				necked By: LW				
ient: Cassidy and Ashton		Co-ords: 335901.74, 433659.78	Stability: Unsta below 0.40m b	able [	Dimer		s: S	Scal		
drock Project No: C-18299			Plant: 14tn	-	).60m	2.80m	וך	1:2		
Samples / Tests	Water-	Church um Data				ness		Γ.		
Depth (m) Type Results	Strikes	Stratum Des	cription		Depth mbal	Thickness (m)	Level m OD			
Depth (m) Type Results		Very soft dark brown sandy CLAY. (TOPSOIL) Pale brown clayey SAND. (TILL) Collapsing below 0.40m bgl Orangish brown fine to coarse SAND. (TILL) Base of Excavatio	n at 1.60m			Ē. Ê.                 (0.40)                 (0.30)                 (0.90)				





Appendix C Photographs



Site Investigation	the second state of the second
Photograph 1	and the second
	The day is a serie with the series
Date: 19/04/21	
Direction Photograph	
Taken: n/a.	
	A REAL PROPERTY OF THE REAL
	A A A REAL AND A
Description: TP02	
showing water in pit	
and progressive	
collapse of sides.	and the second sec
	and the second
	the second se

Site Investigation	
Photograph 2	
Date: 18/04/21	
Direction Photograph	
Taken: n/a.	
Description: TP03	The second s
showing full depth of	
pit prior to addition of water.	



Site Investigation	
Photograph 3	
	The second se
Date: 16/04/21	
Direction Photograph	
Taken: n/a.	State and the second second second second
	appropriate and a second se
Description: Soft	
ground accessing	
TP09	
	A CARLEN AND A CARLENDER AND A

Site Investigation Photograph 4	
Date: 16/04/21	
Direction Photograph Taken: n/a.	Section Section
Description: TP09 prior to addition of water.	





Appendix D Geotechnical Laboratory Certificates

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

Client:	Cassidy and		004	Data af ata		10/02	0/0004	D-4		10/02	/2024	
Test Locatio	on Test I		<u>201</u>	Date of star		19/03 Run 2	3/2021	Date at end			/2021	
						nsions (m)		Test Run 3 Pit Dimensions (m)				
Pit Dimensions (m)           Trial Pit Length (L)         3.700m				Trial Pit Len			1	Trial Pit Length (L)				
	adth / Width (	B)	3.700m 0.600m		adth / Width (	(B)		Trial Pit Brea				
Effective De		6)		Effective De		ы		Effective De				
Time at Star	,		2.600m 9.23	Time at Star				Time at Star				
Time at Star			9.23	Time at Stat				Time at End				
	Surface to Wa	ptor (D)	9.25 1.600m		V Surface to V	Mator (D)			Surface to V	(ator (D))		
Water Depth				Water Depth		valer (D <sub>TW</sub> )		Water Depth				
	I Volume (V <sub>M</sub>	)	1.000m		ill Volume (V <sub>v</sub>	)	-		I Volume (V <sub>v</sub>	<u>,</u>	-	
	to backfill Te	••	2.220m <sup>3</sup> No		to backfill Te	,	-		to backfill Te		-	
	Gravel Backfill		NU		Gravel Backfil				Gravel Backfil			
	ater Volume		2.220m <sup>3</sup>		ater Volume				ater Volume			
Conceled W		soakaway	2.22011	Conceled V		soakaway	-			oakaway	-	
		Depth to	Duration			Depth to	Duration			Depth to	Duration	
	me	water			me	water			me	water		
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	
1	9.250	1.600	0									
1	9.255	1.600	30									
1	9.260	1.600	60									
1	9.270	1.600	120									
1	9.280	1.600	180									
1	9.290	1.600	240									
1	9.300	1.600	300									
1	9.350	1.600	600									
1	9.400	1.600	900									
1	9.450	1.590	1200									
1	9.500	1.580	1500									
1	9.550	1.570	1800									
1	10.500	1.560	5100									
1	10.150	1.550	3000									
1	10.250	1.550	3600									
1	10.550	1.550	5400									
1	11.250	1.200	7200									
1	12.250	1.100	10800					-				
			10800									
			10800									
			10800									
			10800									
0.50/ / 1	(750) ( )		10800	05%				0.5%	(750) ( )	n.		
	oss (75% ful	-	1.850m		loss (75% fu		-		oss (75% ful	-	-	
	oss (50% ful		2.100m		loss (50% fu		-		oss (50% ful		-	
	oss (25% ful	1)	2.350m		loss (25% fu	11)	-		oss (25% ful	1)	-	
25% time (s			-	25% time (s			-	25% time (s			-	
75% time (s	econas)		-	75% time (s	econas)		-	75% time (s	econas)		-	
Vp 75-25	ual area from		1.110m <sup>3</sup>	Vp 75-25	ual area from	n toot)	-	Vp 75-25	ual area from	toot)	-	
	ual area from	i test)	6.520m <sup>3</sup>		ual area fron	n test)	-	tp 75 - 25	ual area from	i test)	-	
tp 75 - 25 Soil Infiltr	ation Rate	[	_	tp 75 - 25 Soil Infiltre	lion Data	1		Soil Infiltrat	ion Doto			
30111111			-	Soil Infiltrat	tion Rate		-	Son mintrat			-	
			Duratia						Form con	pleted by		
		500 7		n (Seconds)	11100	18000	21600		PRINT	Daniel S	Sanchez	
0	30		200 1	0800	14400	18000	21600 <u>+</u> 0	Tested By	SIGN		S	
							1 - C	rootou Dy				
% 25 5							£ 25		DATE	19/03	/2021	
50 50 50 50 50 50 50 50 50 50 50 50 50 5							50		PRINT	Daniel S	Sanchez	
57 filtra							75	Calculated	SIGN	<b>_</b>	S	
<u>100</u>	+ • • • • • • • • • • •	+ · · · · · · · · · · · · · · · · · · ·	• <del>  • • • • • • • • •</del>	190	240	202	‡ 100	Ву				
Degree of Infiltration (%) 001 22 001 001	J 6	50 ·	120 Duratic	180 on (Minutes)	240	300	360		DATE	22/03	/2021	
gre			Duratic	n (minutes)					PRINT	IT Leon Warring		
Ğ		<b>T</b> / <b>C</b>	· -		<b>-</b>			Checked by	SIGN	LW		
		- Test Run	ı — le	est Run 2 -	Test Ru	JII 3						
									DATE	07/04	/2021	

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

Client:	Cassidy and		002	Data of sta	-4	10/03	2/2021	Data at and		10/02	/2021		
Test Locati	on Test I		<u>202</u>	Date of star		19/03 Run 2	8/2021	Date at end			/2021		
	Pit Dimen							Test Run 3 Pit Dimensions (m)					
Trial Pit Len			3.000m	Pit Dimensions (m) Trial Pit Length (L)				Trial Pit Length (L)					
	adth / Width (I	B)	0.600m		adth / Width (	(B)		Trial Pit Brea					
Effective De		5)	2.600m	Effective De									
Time at Star				Time at Star					Effective Depth (D)				
Time at Star			10.00	Time at Stat					ime at Start of Filling ime at End of Filling				
	<u> </u>	tor (D)	10.03		0	Notor (D)			<u> </u>				
Water Depth	Surface to Wa	ater ( $D_{TW}$ )	1.580m		V Surface to V	valer (D <sub>TW</sub> )			Surface to W	ater (D <sub>TW</sub> )			
	ill Volume (V <sub>M</sub>	\	1.020m	Water Depth	ill Volume (V <sub>v</sub>	\	-	Water Depth	I Volume (V <sub>M</sub>	\	-		
	to backfill Te	,	1.836m <sup>3</sup>		to backfill Te	• /	-		to backfill Te	.,	-		
	Gravel Backfill		No		Gravel Backfill				Gravel Backfill				
	ater Volume		1.0003			,							
Conected W			1.836m <sup>3</sup>	Conected w	/ater Volume	(	-	Conected W	/ater Volume	· ··· •·	-		
	Time to s	-	Duration		Time to :	soakaway	Duration		Time to s	oakaway	Duration		
Ti	me	Depth to water	Duration		me	Depth to water	Duration	Ti	me	Depth to water	Duration		
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds		
1	10.030	1.580	0										
1	10.035	1.580	30										
1	10.040	1.580	60										
1	10.050	1.580	120										
1	10.060	1.580	180										
1	10.070	1.580	240										
1	10.080	1.580	300										
1	10.130	1.570	600										
1	10.180	1.450	900										
1	10.230	1.430	1200										
1	10.280	1.400	1500										
1	10.330	1.050	1800										
1	10.430	1.040	2400										
1	10.530	1.030	3000										
1	11.030	1.020	3600										
1	11.330	0.920	5400										
1	12.030	0.860	7200										
1	13.030	0.860	10800										
			10800										
			10800										
			10800										
			10800										
			10800										
	loss (75% ful		1.835m		loss (75% fu		-		oss (75% ful		-		
50% water I	loss (50% ful	l)	2.090m	50% water	loss (50% fu	ll)	-	50% water I	-				
	oss (25% ful	l)	2.345m		loss (25% fu	ll)	-	75% water I	oss (25% ful	l)	-		
25% time (s	,		-	25% time (s	,		-	25% time (s			-		
75% time (s	econds)		-	75% time (s	econds)		-	75% time (s	econds)		-		
Vp 75-25			0.918m <sup>3</sup>	Vp 75-25			-	Vp 75-25			-		
	ual area from	n test)	5.472m <sup>3</sup>		ual area fror	n test)	-		ual area from	n test)	-		
tp 75 - 25	1			tp 75 - 25		•		tp 75 - 25					
Soil Infiltr	ation Rate		-	Soil Infiltrat	tion Rate		-	Soil Infiltrat	ion Rate		-		
									Form com	pleted by			
			Duratio	n (Seconds)					PRINT	Daniel S	Sanchez		
(	0 36	600 7	200 1	0800	14400	18000	21600						
$\hat{}^{0}$		•••••					•••• <u></u> •	Tested By	SIGN		S		
<u>گ</u> 25							25		DATE	19/03	/2021		
<u>.</u> 50	©         25           50						50		PRINT	Danial	Sanchez		
75 trat							- 75	Calculated					
100							<b>‡</b> 100	By	SIGN	D	S		
of (	с С 6	50 ·	120	180	240	300	360	Dy	DATE	22/03/2021			
ee			Duratio	on (Minutes)									
egr				. /					PRINT	Leon Warrington			
		- Test Run	1 — Ta	est Run 2		ın 3		Checked by	SIGN	Ľ	N		
		1 Joc Turl			1001111				DATE	07/04	/2021		
									DATE	07/04	12021		

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

Client:	Cassidy and		000	Data at at a		10/02	0/2024	D-1		10/00	/2024	
Test Locatio	on Test I		<u>203</u>	Date of star		18/03 Run 2	8/2021	Date at end			/2021	
						nsions (m)		Test Run 3 Pit Dimensions (m)				
Pit Dimensions (m)           Trial Pit Length (L)         3.200m				Trial Pit Len			1	Trial Pit Length (L)				
	adth / Width (	B)	3.200m 0.600m		adth / Width (	(B)		Trial Pit Brea				
Effective De		5)		Effective De		(D)		Effective De				
Time at Star			3.000m	Time at Star				Time at Star				
Time at Star			9.17	Time at Star				Time at Star				
	Surface to Wa	tor (D)	9.19		V Surface to V	Notor (D)			Surface to W	latar (D)		
Water Depth		ater ( $D_{TW}$ )	2.000m	Water Depth		valer (D <sub>TW</sub> )		Water Depth		ater (D <sub>TW</sub> )		
	II Volume (V <sub>v</sub>	\	1.000m		ill Volume (V <sub>v</sub>	<u>,                                     </u>	-		I Volume (V <sub>M</sub>	<u>,                                     </u>	-	
	to backfill Te		1.920m <sup>3</sup>		to backfill Te	.,	-		to backfill Te		-	
	Gravel Backfill		No		Gravel Backfill				Gravel Backfill			
	ater Volume		4.0003		ater Volume				ater Volume			
Conected w			1.920m <sup>3</sup>	Conected w			-	Conected W			-	
	Time to s	oakaway	Duration		Time to :	soakaway	Duration		Time to s	oakaway	Duration	
	me	Depth to water	Duration		me	Depth to water	Duration		me	Depth to water	Duration	
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	
1	9.190	2.000	0									
1	9.195	2.000	30									
1	9.200	2.000	60									
1	9.210	1.990	120									
1	9.220	1.990	180									
1	9.230	1.980	240									
1	9.240	1.980	300									
1	9.290	1.960	600									
1	9.340	1.950	900									
1	9.390	1.940	1200									
1	9.440	1.920	1500									
1	9.490	1.580	1800									
1	9.590	1.500	2400									
1	10.090	1.490	3000									
1	10.190	1.280	3600									
1	10.490	1.170	5400									
1	11.190	0.950	7200									
1	12.190	0.920	10800									
			10800									
			10800									
			10800									
			10800									
			10800									
	oss (75% ful	-	2.250m		loss (75% fu	•	-		oss (75% ful	-	-	
	oss (50% ful		2.500m		loss (50% fu		-		oss (50% ful		-	
	oss (25% ful	)	2.750m		loss (25% fu	ll)	-		oss (25% ful	l)	-	
25% time (s			-	25% time (s			-	25% time (s			-	
75% time (s	econds)		-	75% time (s	econds)		-	75% time (s	econds)		-	
Vp 75-25			0.960m <sup>3</sup>	Vp 75-25			-	Vp 75-25			-	
	ual area from	i test)	5.720m <sup>3</sup>		ual area fron	n test)	-	• •	ual area from	n test)	-	
tp 75 - 25		[		tp 75 - 25		r		tp 75 - 25		[		
Soil Infiltr	ation Rate		-	Soil Infiltrat	tion Rate		-	Soil Infiltrat				
				( <b>a</b> )					Form com	pleted by		
				n (Seconds)		40000	04000		PRINT	Daniel S	Sanchez	
(	) 36	500	200 1	0800	14400	18000	21600	Tested By	SIGN		S	
() ()				31011								
°) 25							25		DATE	18/03	/2021	
50 50							50		PRINT	Daniel S	Sanchez	
er 15	27 Ita						75	Calculated				
<u>ت</u> 100		+	· <del>  · · · · · · · · · ·</del>	<del>.  </del>			+++ <b>F</b> 100	Ву	SIGN	D	S	
Degree of Infiltration (%) 001 22 001 001	) 6	· 0	120 Duratic	180 (Minutos)	240	300	360		DATE	22/03	/2021	
gre			Duratio	on (Minutes)					PRINT	NT Leon Wa		
De		Tario	· -		<b>T</b> / <b>C</b>			Checked by	SIGN	LW		
		- Test Run	т — Ге	est Run 2 -	Test Ru	in 3		Shookou by				
									DATE	07/04	/2021	

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

	Cassidy and		04	Data at star		17/02	0/2024	<b>D</b> _1, _1, _1, _1		17/00	/2024	
Test Locatio	on Test I		<u>904</u>	Date of star			8/2021	Date at end			/2021	
				Test Run 2 Pit Dimensions (m)				Test Run 3				
Trial Dit Land	Pit Dimen	isions (m)	0.000m	Trial Dit Lan		isions (m)	1	Pit Dimensions (m) Trial Pit Length (L)				
Trial Pit Leng	adth / Width (I	D)	2.800m	Trial Pit Len	adth / Width (	<b>'</b> D\		Trial Pit Len				
		Б)	0.600m			D)						
Effective Dep Time at Start			2.600m	Effective De Time at Star				Effective De Time at Star				
Time at Start			10.08	Time at Star				Time at Star				
Depth from S		otor (D)	10.10 1.600m		V Surface to V	Notor (D)			/ Surface to W	(otor (D))		
Water Depth			1.000m	Water Depth		valer (D <sub>TW</sub> )		Water Depth				
Maximum Fil		.)	1.680m <sup>3</sup>		ill Volume (V <sub>V</sub>	)	-		ill Volume (V <sub>M</sub>	.)	-	
	to backfill Te	·/	No		to backfill Te	.,	-		to backfill Te		-	
	Gravel Backfill		NO		Gravel Backfil				Gravel Backfill			
	ater Volume		1.680m <sup>3</sup>		ater Volume		_		ater Volume		_	
	Time to s		1.000111			soakaway				oakaway		
		Depth to	Duration			Depth to	Duration			Depth to	Duration	
	me	water			me	water			me	water		
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	
1	10.100	1.600	0									
1	10.105	1.590	30									
1	10.110	1.590	60									
1	10.120 10.130	1.590	120									
1		1.590	180									
1	10.140 10.150	1.590 1.590	240 300									
1	10.150	1.590	600									
1	10.250	1.590	900									
1	10.200	1.570	1200									
1	10.350	1.570	1500									
1	10.300	1.570	1800									
1	10.500	1.570	2400									
1	11.000	1.570	3000									
1	11.100	1.570	3600									
1	11.100	1.570	3600									
1	11.400	1.560	5400									
1	12.100	1.560	7200			-						
1	13.100	1.550	10800			-						
			10800									
			10800									
			10800									
			10800									
25% water lo	oss (75% ful	l)	1.850m	25% water	oss (75% fu	li)	-	25% water I	oss (75% ful	l)	-	
50% water lo	oss (50% ful	I)	2.100m	50% water	oss (50% fu	ll)	-	50% water I	-			
	oss (25% ful	I)	2.350m		oss (25% fu	II)	-		oss (25% ful	1)	-	
25% time (se			-	25% time (s			-	25% time (s			-	
75% time (se	econds)		-	75% time (s	econds)		-	75% time (s	econds)		-	
Vp 75-25		(	0.840m <sup>3</sup>	Vp 75-25			-	Vp 75-25			-	
ap 50 (Actu	ual area from	n test)	5.080m <sup>3</sup>		ual area fron	n test)	-	• •	ual area from	i test)	-	
tp 75 - 25	ation Data			tp 75 - 25	ion Data	1		tp 75 - 25	ion Data			
Soil Infiltra	ation Rate			Soil Infiltrat	ion kate		•	Soil Infiltrat			•	
			Duratio	n (Seconds)					Form com	. ,		
0	) 36	300 7			14400	18000	21600		PRINT	Daniel S	Sanchez	
_ 0 <del>1</del>		•••••	· · · · · · · · · · · · · · · · · · ·	<u> </u>	•••		<del></del>	Tested By	SIGN	D	S	
ల్లి 25							25		DATE	17/03	/2021	
.0 50 E							50		PRINT	Daniel S	Sanchez	
75 filt	25 June 175						75	Calculated	SIGN		S	
Degree of Infiltration (%) 0 001 42 05 0 0 001 001 000	) 6	\$0	120	180	240	300	++++ 100 360	Ву	DATE	22/03/2021		
jree			Duratio	on (Minutes)					PRINT		arrington	
Deć		Test	. –	at Dura C	<b>T</b> . ( P			Checked by			W	
		- Test Run	1 — Te	est Run 2 -	Test Ru	in 3		Shooked by				
								DATE 07/04			12021	

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

Client:	Cassidy and		005	Data at at a		10/02	0/2024	<b>D</b> _1, _1, _1, _1		10/02	/2024	
Test Locatio	on Test I		<u>205</u>	Date of star			8/2021	Date at end			/2021	
						Run 2		Test Run 3				
Pit Dimensions (m)           Trial Pit Length (L)         3.600m				Trial Dit Lan		nsions (m)	1	Pit Dimensions (m) Trial Pit Length (L)				
	adth / Width (I	D)	3.600m	Trial Pit Len	adth / Width (	<b>'</b> D\		Trial Pit Len				
		Б)	0.600m			D)						
Effective De Time at Star	,		2.600m	Effective De Time at Star				Effective De				
Time at Star			9.03	Time at Star					me at Start of Filling me at End of Filling			
	Surface to Wa	otor (D)	9.05 1.670m		V Surface to V	Notor (D)			Surface to W	latar (D)		
Water Depth			0.930m	Water Depth		valer (D <sub>TW</sub> )		Water Depth		ater (D <sub>TW</sub> )		
	II Volume (V <sub>w</sub>	.)	2.009m <sup>3</sup>		ill Volume (V <sub>V</sub>	)	-		II Volume (V <sub>M</sub>	.)	-	
	to backfill Te	.,	No		to backfill Te	.,	-		to backfill Te		-	
	Gravel Backfill		NO		Gravel Backfil				Gravel Backfill			
	ater Volume		2.009m <sup>3</sup>		/ater Volume		_		ater Volume		_	
		oakaway	2.005111	Concetted 1		soakaway				oakaway		
		Depth to	Duration			Depth to	Duration			Depth to	Duration	
	me	water			me	water			me	water		
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	
1	9.050	1.670	0									
1	9.055	1.670	30									
1	9.060	1.670	60									
1	9.070	1.670	120									
1	9.080	1.670	180									
1	9.090	1.670	240									
1	9.100	1.670	300									
	9.150	1.670	600									
1	9.200	1.670	900									
	9.250 9.300	1.670 1.670	1200 1500									
1	9.300	1.670	1800									
1												
1	9.450 9.550	1.670 1.670	2400 3000									
1	9.550	1.670	3600									
1	10.050	1.670	5400									
1	11.050	1.660	7200									
1	12.050	1.660	10800									
- 1	12.030	1.000	10800									
			10800									
			10800									
			10800									
			10800									
25% water I	oss (75% ful	D	1.903m	25% water	oss (75% fu			25% water I	oss (75% ful	D	-	
	oss (50% ful	-	2.135m		oss (50% fu	-	_		oss (50% ful	-		
	oss (25% ful		2.368m		oss (25% fu		_		oss (25% ful		-	
25% time (s		- <i>,</i>	-	25% time (s		,	-	25% time (s		- <i>,</i>	-	
75% time (s			-	75% time (s			-	75% time (s			_	
Vp 75-25	,		1.004m <sup>3</sup>	Vp 75-25	,		-	Vp 75-25	,		-	
	ual area from	n test)	6.066m <sup>3</sup>		ual area from	n test)	-	-	ual area from	n test)	-	
tp 75 - 25				tp 75 - 25		,		tp 75 - 25				
	ation Rate		-	Soil Infiltrat	tion Rate		-	Soil Infiltrat	ion Rate		-	
									Form com	pleted by		
				n (Seconds)					PRINT	Daniel S	Sanchez	
(	36	500 7	200 1	0800	14400	18000	21600	Tested By	SIGN		S	
								Tested By	000			
°) 25							25		DATE	19/03	/2021	
							50		PRINT	Daniel S	Sanchez	
75 UILLE	275						75 100	Calculated	SIGN	Daniel Sanchez		
—	) 6	50 ·	120	180	240	300	360	Ву	DATE	22/03/2021		
igree			Duratio	on (Minutes)					PRINT	Leon Wa	arrington	
De		- Test Run	1 — Te	est Run 2		ın 3		Checked by	SIGN	LW		
									DATE	07/04	/2021	

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

	Cassidy and			Deterret		17/00	0/2024			17/00	/2024	
Test Locatio			<u>206</u>	Date of star		17/03 Run 2	8/2021	Date at end			/2021	
	Test Run 1 Pit Dimensions (m)					Run 2 nsions (m)		Test Run 3 Pit Dimensions (m)				
Trial Pit Leng			3.300m	Trial Pit Len			1	Trial Dit Lon	al Pit Length (L)			
	adth / Width (I	B)	0.600m	Trial Pit Breadth / Width (B)				Trial Pit Brea				
Effective Dep		5)		Effective De		(D)		Effective De				
Time at Start			2.500m	Time at Star				Time at Star				
Time at Start			8.42	Time at Star				Time at Star				
	Surface to Wa	tor (D)	8.44		V Surface to V	Notor (D)			/ Surface to W	(otor (D))		
Water Depth		ater ( $D_{TW}$ )	1.500m	Water Depth		valer (D <sub>TW</sub> )		Water Depth		ater (D <sub>TW</sub> )		
Maximum Fil	( )	\	1.000m		ill Volume (V <sub>V</sub>	<u>,                                     </u>	-		ill Volume (V <sub>M</sub>	\	-	
	to backfill Te		1.980m <sup>3</sup>		to backfill Te	.,	-		to backfill Te		-	
			No									
	Bravel Backfill ater Volume		4.0003		Gravel Backfil /ater Volume				Gravel Backfill /ater Volume			
Corrected w			1.980m <sup>3</sup>	Corrected W			-	Conected w			-	
	Time to s	-	Duration		Time to s	soakaway	Duration		lime to s	oakaway	Duration	
Tir	me	Depth to water	Duration		me	Depth to water	Duration	Ti	me	Depth to water	Duration	
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	
1	8.440	1.500	0									
1	8.445	1.500	30									
1	8.450	1.500	60									
1	8.460	1.500	120									
1	8.470	1.500	180									
1	8.480	1.500	240									
1	8.490	1.490	300									
1	8.540	1.490	600									
1	8.590	1.490	900									
1	9.040	1.490	1200									
1	9.090	1.490	1500									
1	9.140	1.490	1800									
1	9.240	1.490	2400									
1	9.340	1.490	3000									
1	9.440	1.490	3600									
1	10.140	1.490	5400									
1	11.440	1.490	10800									
1	12.440	1.490	14400									
			14400									
			14400									
			14400									
			14400									
			14400									
25% water lo	oss (75% full	I)	1.750m	25% water	oss (75% fu	II)	-	25% water I	oss (75% ful	l)	-	
	oss (50% full		2.000m		oss (50% fu		-	50% water I	oss (50% ful	l)	-	
	oss (25% full	l)	2.250m	75% water	oss (25% fu	ll)	-	75% water loss (25% full)			-	
25% time (se			-	25% time (s	,		-	25% time (s			-	
75% time (se	econds)		-	75% time (s	econds)		-	75% time (s	econds)		-	
Vp 75-25			0.990m <sup>3</sup>	Vp 75-25			-	Vp 75-25			-	
	ual area from	n test)	5.880m <sup>3</sup>		ual area fron	n test)	-	•	ual area from	i test)	-	
tp 75 - 25				tp 75 - 25		•		tp 75 - 25				
Soil Infiltra	ation Rate		-	Soil Infiltrat	tion Rate		-	Soil Infiltrat	tion Rate		-	
									Form com	pleted by		
0	) 26	600 7		n (Seconds) 10800	14400	18000	21600		PRINT	Daniel S	Sanchez	
0 +					14400		21600 <u>+</u> 0	Tested By	SIGN	D	S	
							E .					
5) 25 50 50							25		DATE	17/03	/2021	
atic atic							50		PRINT	Daniel S	Sanchez	
25 To							75 100	Calculated	SIGN	DS		
Degree of Infiltration (%) 0 001 02 05 0 0 00000000000000000000000000000	) 6	60 · · · · · · · · · · · · · · · · · · ·	120	180	240	300	360	Ву	DATE	22/03/2021		
gree			Duratio	on (Minutes)					PRINT			
Deć		<b>T</b> . / <b>P</b>			<b>-</b>			Checked by		Leon Warrington LW		
		- Test Run	і — Ге	est Run 2 -	Test Ru	in 3		Shookou by				
								DATE 07/0			/2021	

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

Client:	Cassidy and		07	Data af star		10/02	0/0004	D-1		10/00	/2024	
Test Locatio			<u>207</u>	Date of star			8/2021	Date at end			/2021	
Test Run 1 Pit Dimensions (m)			Test Run 2 Pit Dimensions (m)				Test Run 3 Bit Dimensions (m)					
Trial Pit Length (L) 2.900m				Trial Pit Length (L)				Pit Dimensions (m) Trial Pit Length (L)				
	adth / Width (	B)	0.600m	Trial Pit Breadth / Width (B)				Trial Pit Brea				
Effective Dep	,	6)		Effective De		<u>, Б)</u>		Effective De		5)		
	,		2.600m	Time at Star				Time at Star				
Time at Star	-		8.19	Time at Star				Time at Star				
Time at End		otor (D)	8.21			Notor (D)				latar (D)		
Water Depth	Surface to Wa	ater ( $D_{TW}$ )	1.520m	Water Depth	Surface to V	valer (D <sub>TW</sub> )		Water Depth	V Surface to W	ater (D <sub>TW</sub> )		
	II Volume (V <sub>v</sub>	<u>\</u>	1.080m	Maximum Fi	( D)	<u>,</u>	-		ill Volume (V <sub>M</sub>	<u>,</u>	-	
	to backfill Te	.,	1.879m <sup>3</sup>		to backfill Te	.,	-		to backfill Te		-	
	Gravel Backfill		No									
	ater Volume		4 070 0		Gravel Backfil	,			Gravel Backfill /ater Volume			
Corrected vv			1.879m <sup>3</sup>	Corrected W		(	-	Corrected W			-	
	Time to s	soakaway			Time to s	soakaway			Time to s	oakaway	D ()	
Tir	me	Depth to water	Duration	Ti	me	Depth to water	Duration	Ti	me	Depth to water	Duration	
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	
1	8.210	1.520	0									
1	8.215	1.520	30									
1	8.220	1.520	60									
1	8.230	1.520	120									
1	8.240	1.520	180									
1	8.250	1.520	240									
1	8.260	1.520	300									
1	8.310	1.520	600									
1	8.360	1.520	900									
1	8.410	1.520	1200									
1	8.460	1.520	1500									
1	8.510	1.520	1800									
1	9.010	1.530	2400									
1	9.110	1.530	3000									
1	9.210	1.530	3600			-						
1	9.510	1.530	5400									
1	10.210	1.540	7200									
1	11.210	1.540	10800			-						
			10800									
			10800									
			10800									
			10800									
			10800									
25% water l	oss (75% ful	0		25% water I	oss (75% fu	1	_	25% water l	oss (75% ful	D	_	
	oss (50% ful		2.060m	25% water loss (75% full) 50% water loss (50% full)			_	50% water loss (50% full)				
	oss (25% ful		2.330m	75% water loss (25% full)			_	75% water loss (50% full)			_	
25% time (se		·/	-	25% time (s		,	_	25% time (s		,	_	
75% time (se			-	75% time (s			-	75% time (s			_	
Vp 75-25			0.940m <sup>3</sup>	Vp 75-25	, <b>.</b> ,		-	Vp 75-25			-	
-	ual area from	n test)	5.520m <sup>3</sup>	ap 50 (Act	ual area from	n test)	_		ual area from	test)	-	
tp 75 - 25		,	0.02011	tp 75 - 25		,		tp 75 - 25		,		
	ation Rate		-	Soil Infiltrat	ion Rate		-	Soil Infiltrat	tion Rate			
<b>C 0 1 1 1 1 1</b>				Jon minual	Shinato	1		a		pleted by		
			Duratio	n (Seconds)					Form com	ipleted by		
		200 7			1 1 1 0 0	19000	21600		PRINT	Daniel S	Sanchez	
0		500 7	200 1	10800	14400	18000	21600 <u>+</u> 0	Tested By	SIGN		S	
							1 - C					
°) 25 ⊊ 50							25		DATE	18/03	/2021	
07 atio							50		PRINT	Daniel S	Sanchez	
75							75	Calculated				
<u>불</u> 100 <sup>‡</sup>	• • • • • • • • • • •	+	• • • • • • • • • • • •				•••• <del>•</del> 100	By	SIGN	D	S	
Degree of Infiltration (%) 001 22 002 00	) 6	50	120	180	240	300	360		DATE	22/03/2021		
jre(			Duratio	on (Minutes)					PRINT	Leon Wa	arrington	
Deč										Leon Warrington		
-		- Test Run	1 — Te	est Run 2 -	Test Ru	ın 3		Checked by	SIGN	Ľ	٧V	
									DATE	07/04	/2021	
L												

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

Client:	Cassidy and		000	Data of sta	.4	16/02	0/2024	Data at and		16/02	/2021			
Test Locatio	-		<u>208</u>	Date of star		16/03 Run 2	8/2021	Date at end			/2021			
	Test Run 1 Pit Dimensions (m)					nsions (m)		Test Run 3 Pit Dimensions (m)						
Trial Pit Leng		sions (III)	3.000m	Trial Pit Len			1	Trial Pit Len						
	adth / Width (I	B)	0.600m	Trial Pit Breadth / Width (B)				Trial Pit Brea						
Effective De		5)	2.300m	Effective De				Effective De						
Time at Star			9.38	Time at Star				Time at Star						
Time at End			9.40	Time at End				Time at End						
	Surface to Wa	ater (D <sub>mu</sub> )	1.250m		V Surface to V	Vater (D <sub>mu</sub> )			Surface to W	/ater (D <sub>mu</sub> )				
Water Depth			1.050m	Water Depth			-	Water Depth			-			
	II Volume (V <sub>M</sub>	.)	1.890m <sup>3</sup>		ill Volume (V <sub>V</sub>	)			II Volume (V <sub>w</sub>	<i>.</i> )				
	to backfill Te		No		to backfill Te	.,	_		to backfill Te		_			
	Gravel Backfill		NO		Gravel Backfil				Gravel Backfill					
	ater Volume		1.890m <sup>3</sup>		/ater Volume		_		ater Volume		_			
	Time to s		1.000111			soakaway	1			oakaway				
		Depth to	Duration			Depth to	Duration			Depth to	Duration			
	me <del></del>	water			me	water			me	water				
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds			
1	9.400	1.250	0											
1	9.405	1.250	30											
1	9.410 9.420	1.240	60 120											
1		1.240												
1	9.430 9.440	1.230	180											
1	9.440 9.450	1.230 1.220	240 300											
1	9.450	1.220	600											
1	9.550	1.080	900											
1	10.000	1.050	1200											
1	10.000	1.030	1200											
1	10.050	0.990	1800											
1	10.100	0.950	2400											
1	10.200	0.890	3000											
1	10.300	0.860	3600											
1	11.100	0.300	5400											
1	11.400	0.650	7200											
1	12.400	0.580	10800											
1	12.400	0.000	10800											
			10800											
			10800											
			10800											
			10800											
25% water b	oss (75% ful	D	1.513m	25% water	loss (75% fu		-	25% water I	oss (75% ful	D	-			
	oss (50% ful	-	1.775m		loss (50% fu	•	-		oss (50% ful	-	_			
	oss (25% ful		2.038m		loss (25% fu		-	75% water loss (35% full)			_			
25% time (s		,	-	25% time (s	econds)	,	-	25% time (s		,	-			
75% time (s			-	75% time (s			-	75% time (s			-			
Vp 75-25			0.945m <sup>3</sup>	Vp 75-25			-	Vp 75-25			-			
ap 50 (Actu	ual area from	n test)	5.580m <sup>3</sup>	ap 50 (Act	ual area fron	n test)	-	ap 50 (Act	ual area from	n test)	-			
tp 75 - 25				tp 75 - 25				tp 75 - 25						
Soil Infiltr	ation Rate		-	Soil Infiltrat	tion Rate		-	Soil Infiltrat	ion Rate		-			
									Form com	pleted by				
C	) 26	600 7		n (Seconds) 0800	14400	18000	21600		PRINT	Daniel S	Sanchez			
0 -		,	200		14400		<u>+</u> 0	Tested By	SIGN	D	S			
							25	,		40/00	10004			
U 20							50		DATE	16/03	/2021			
75 tratio							75		PRINT	Daniel S	Sanchez			
							100	Calculated By	SIGN	DS				
Degree of Infiltration (%) 001 002 000 000 000 0000 0000 0000 0000	) 6	50 ·	120	180	240	300	360	5,	DATE	22/03	/2021			
egree			Duratio	on (Minutes)					PRINT	Leon Warrington				
Ď		- Test Run	1 — Te	est Run 2		ın 3		Checked by	SIGN	LW				
									DATE	07/04	/2021			

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

Client:	Cassidy and		200	Data of sta	-4	16/02	0/2021	Data at and		16/02	/2021		
Test Location	-		<u>209</u>	Date of star		16/03 Run 2	8/2021	Date at end			/2021		
Test Run 1 Pit Dimensions (m)						nsions (m)		Test Run 3 Pit Dimensions (m)					
Trial Pit Len			2.900m	Trial Pit Len			1	Trial Dit Lon	rial Pit Length (L)				
	adth / Width (	B)	0.600m	Trial Pit Breadth / Width (B)				Trial Pit Brea					
Effective De		5)		Effective De		ы		Effective De		5)			
Time at Star	• • •		2.000m	Time at Star				Time at Star					
Time at Star			12.55	Time at Star				Time at Star					
		otor (D)	12.57		-	Notor (D)				latar (D)			
Water Depth	Surface to Wa	ater ( $D_{TW}$ )	1.000m	Water Depth	V Surface to V	valer (D <sub>TW</sub> )		Water Depth	Surface to V	ater (D <sub>TW</sub> )			
	I Volume (V <sub>M</sub>	<u>,                                     </u>	1.000m		ill Volume (V <sub>1</sub>	· · ·	-		I Volume (V <sub>v</sub>	<u>,                                     </u>	-		
	to backfill Te	.,	1.740m <sup>3</sup>		to backfill Te	,	-		to backfill Te		-		
	Gravel Backfill		No		Gravel Backfi				Gravel Backfill				
	ater Volume		4 7402		ater Volume				ater Volume				
Conected W			1.740m <sup>3</sup>	Confected w			-	Conected W			-		
	Time to s	oakaway	Duration		Time to	soakaway	Duration		Time to s	oakaway	Duration		
	me	Depth to water	Duration		me	Depth to water	Duration		me	Depth to water	Duration		
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds		
1	12.570	1.000	0										
1	12.575	1.000	30										
1	12.580	1.000	60										
1	12.590	1.000	120										
1	13.000	1.000	180			-							
1	13.010	1.000	240					L					
1	13.020	1.000	300					L					
1	13.070	0.980	600										
1	13.120	0.980	900										
1	13.170	0.980	1200										
1	13.220	0.970	1500										
1	13.270	0.970	1800										
1	13.370	0.960	2400										
1	13.470	0.950	3000										
1	13.570	0.940	3600										
1	14.270	0.920	5400										
1	14.570	0.900	7200										
1	15.570	0.880	10800										
			10800										
			10800										
			10800										
			10800										
		-	10800							-			
	oss (75% ful	-	1.250m		loss (75% fu		-		oss (75% ful	-	-		
	oss (50% ful		1.500m	50% water loss (50% full)				50% water loss (50% full)			-		
	oss (25% ful	1)	1.750m		loss (25% fu	11)	-	75% water loss (25% full)			-		
25% time (s			-	25% time (s			-		% time (seconds)				
75% time (s	econas)		-	75% time (s	econas)		-	75% time (s	econas)		-		
Vp 75-25			0.870m <sup>3</sup>	Vp 75-25			-	Vp 75-25			-		
	ual area from	i test)	5.240m <sup>3</sup>		ual area fror	n test)	-	•	ual area from	i test)	-		
tp 75 - 25	ation Data	- -		tp 75 - 25	den Dete	1		tp 75 - 25	Law Data				
Soli Inflitr	ation Rate		-	Soil Infiltrat	tion Rate		-	Soil Infiltrat			•		
			Duratio	· ( <b>0</b> · · · · · · · · · · )					Form con	pleted by			
		500 7		n (Seconds)	11100	10000	21600		PRINT	Daniel S	Sanchez		
0			200 1	0800	14400	18000	21600 <u>+</u> 0	Tested By	SIGN		S		
							1 - C						
° 25 ⊑ 50							£ 25		DATE	16/03	/2021		
05 ation							50		PRINT	Daniel S	Sanchez		
27 III 75							75	Calculated	SIGN	<b>_</b>	9		
<u><u> </u></u>	+ • • • • • • • • • • •	+ · · · · · · · · · · · · · · · · · · ·	· <del>  · · · · · · · · · · · · · · · · · ·</del>	<del>-  </del>			‡ 100	By		DS			
Degree of Infiltration (%) 001 100 (%)	) 6	60	120 Duratic	180 (Minutes)	240	300	360		DATE	22/03	/2021		
gre			Duratio	n (Minutes)					PRINT	Leon Wa	arrington		
Ď		<b>T</b> / <b>P</b>	· -		<b>-</b>			Checked by	SIGN				
		- Test Run	1 — Te	est Run 2	Test Ru	in 3		Shooked by		LW			
									DATE	07/04	/2021		

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

	Cassidy and					4.0/00	10004			4.0.100	10004	
Test Locatio	-		<u>210</u>	Date of star			3/2021	Date at end			/2021	
Test Run 1 Pit Dimensions (m)					Test I			Test Run 3				
. ,				Pit Dimensions (m) Trial Pit Length (L)				Pit Dimensions (m) Trial Pit Length (L)				
	adth / Width (	B)	3.200m 0.600m	Trial Pit Breadth / Width (B)					adth / Width (	D)		
Effective Dep	,	5)	2.300m	Effective De	,	5)		Effective De				
Time at Star	,		2.300m 8.43	Time at Star	,			Time at Star				
Time at Stal	-		8.45	Time at End				Time at End	-			
	Surface to Wa	ptor (D)	6.45 1.700m		Surface to W	(ator (D))			/ Surface to V	(ator (D))		
Water Depth			0.600m	Water Depth			_	Water Depth			-	
	II Volume (V <sub>w</sub>	.)	1.152m <sup>3</sup>		II Volume (V <sub>w</sub>	.)	-		ill Volume (V <sub>v</sub>	<u>ل</u>	-	
	to backfill Te	.,	No		to backfill Te	.,	-		to backfill Te	.,	-	
	Gravel Backfill		NO		Gravel Backfill				Gravel Backfil			
	ater Volume		1.152m <sup>3</sup>		ater Volume		_		/ater Volume	,	_	
0000.00		oakaway	1.10211			oakaway				oakaway		
		Depth to	Duration			Depth to	Duration	<u> </u>		Depth to	Duration	
Tir	me	water	Daration	Ti	me	water	Duration	Ti	me	water	Duration	
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	
1	8.450	1.700	0									
1	8.455	1.700	30									
1	8.460	1.700	60									
1	8.470	1.700	120									
1	8.480	1.700	180									
1	8.490	1.700	240									
1	8.500	1.710	300									
1	8.550	1.720	600									
1	9.000	1.730	900									
1	9.050	1.740	1200									
1	9.100	1.740	1500									
1	9.150	1.750	1800									
1	9.250	1.780	2400									
1	9.350	1.780	3000									
1	9.450	1.780	3600									
1	10.150	1.790	5400									
1	10.450	1.790	7200									
1	11.450	1.820	10800									
			10800									
			10800					-				
			10800									
			10800									
25% water l	oss (75% ful	N	10800	25% water l	oss (75% ful	I)		25% water	oss (75% ful	N		
	oss (75% ful oss (50% ful	-	1.850m 2.000m				-		loss (75% ful loss (50% ful		-	
	oss (30 % ful oss (25% ful		2.000m 2.150m	50% water loss (50% full)			-		-			
25% time (se	•	')	-	75% water loss (25% full) 25% time (seconds)			_	75% water loss (25% full) 25% time (seconds)			_	
75% time (s			-	75% time (s			_	75% time (s	_			
Vp 75-25			0.576m <sup>3</sup>	Vp 75-25			-	Vp 75-25			-	
-	ual area from	n test)	4.200m <sup>3</sup>	•	ual area from	test)	_	-	ual area from	n test)	-	
tp 75 - 25		,		tp 75 - 25		,		tp 75 - 25		,		
	ation Rate		-	Soil Infiltrat	ion Rate		-	Soil Infiltrat	tion Rate			
										pleted by		
			Duratio	n (Seconds)					-		Sanchez	
C	) 36	500 7	200 1	10800	14400	18000	21600		PRINT			
_ <sup>0</sup>		+	• • • • • • • • • • • • • • • • • • • •	<u> </u>	•••		<del></del> ŧ 0	Tested By	SIGN	D	S	
گ 25				-			25		DATE	16/03	/2021	
. <u>5</u> 50							50					
75 ta							Calculated	PRINT	Daniel	Sanchez		
							<b>1</b> 100	Calculated By	SIGN	D	S	
0 đ	) 6	50 ·	120	180	240	300	360	Ъy	DATE	22/03	/2021	
Degree of Infiltration (%) 001 22 002 00			Duratio	on (Minutes)								
legi									PRINT	Leon Warrington		
		- Test Run	1 — Te	est Run 2 -		n 3		Checked by	SIGN	LW		
									DATE	07/04	/2021	
L										31/04		

### **1 DAY INFILTRATION ASSESSMENT - WORKSHEET**

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

Client: Test Locatio	Cassidy and		211	Date of star	•	15/03	3/2021	Date at end		15/03	/2021
	Test l		<u></u>			Run 2	0/2021			Run 3	12021
Pit Dimensions (m)			Pit Dimensions (m)			Pit Dimensions (m)					
Trial Pit Leng			2.800m	Trial Pit Len			1	Trial Pit Len			
	adth / Width (	B)	0.600m		adth / Width (	(B)			adth / Width (	B)	
Effective Dep	oth (D)	,	1.600m	Effective De	pth (D)	, , , , , , , , , , , , , , , , , , ,		Effective De	pth (D)	,	
Time at Star			10.15	Time at Star	,			Time at Start of Filling			
Time at End	of Filling		10.17	Time at End of Filling				Time at End	of Filling		
Depth from S	Surface to Wa	ater (D <sub>TW</sub> )	0.600m	Depth below	Surface to V	Vater (D <sub>TW</sub> )		Depth below	/ Surface to V	Vater (D <sub>TW</sub> )	
Water Depth	(W <sub>D</sub> )		1.000m	Water Depth	n (W <sub>D</sub> )		-	Water Depth	n (W <sub>D</sub> )		-
Maximum Fil	ll Volume (V <sub>W</sub>	,)	1.680m <sup>3</sup>	Maximum Fi			-		ill Volume (V <sub>v</sub>	• /	-
	to backfill Te		No		to backfill Te				to backfill Te		
	Gravel Backfill				Gravel Backfi				Gravel Backfil	,	
Corrected W	ater Volume		1.680m <sup>3</sup>	Corrected W		( <b>.</b> ,	-	Corrected W	/ater Volume		-
	Time to s	oakaway	-		Time to :	soakaway	1		Time to s	oakaway	
Tir	me	Depth to water	Duration	Ti	me	Depth to water	Duration	Ti	me	Depth to water	Duration
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds
1	10.170	0.600	0								
1	10.175	0.600	30								
1	10.180	0.600	60								
1	10.190	0.600	120								
1	10.200	0.600	180								
1	10.210	0.600	240								
1	10.220	0.600	300								
1	10.270	0.600	600								
1	10.320	0.600	900								
1	10.370	0.600	1200								
1	10.420	0.600	1500								
1	10.470 10.570	0.600	1800 2400								
1	11.070	0.600	3000								
1	11.170	0.600	3600								
1	11.470	0.580	5400								
1	12.170	0.570	7200								
1	13.170	0.550	10800								
•	10.170	0.000	10800								
			10800								
			10800								
			10800								
			10800								
25% water le	oss (75% ful	I)	0.850m	25% water I	oss (75% fu	li)	-	25% water I	oss (75% ful	I)	-
50% water le	oss (50% ful	l)	1.100m	50% water I			-	50% water I	oss (50% ful	I)	-
75% water le	oss (25% ful	I)	1.350m	75% water I	oss (25% fu	ll)	-	75% water I	oss (25% ful	I)	-
25% time (s			-	25% time (s			-	25% time (s			-
75% time (s	econds)		-	75% time (s	econds)		-	75% time (s	econds)		-
Vp 75-25			0.840m <sup>3</sup>	Vp 75-25			-	Vp 75-25			-
	ual area from	n test)	5.080m <sup>3</sup>	ap 50 (Act	ual area fror	n test)	-		ual area fron	n test)	-
tp 75 - 25		F		tp 75 - 25				tp 75 - 25			
Soil Infiltra	ation Rate		-	Soil Infiltrat	ion Rate		-	Soil Infiltrat		· · · ·	
			Duratio	· ( <b>0</b> · · · · · · · · · · · · )					Form con	npleted by	
C	) 36	500 7		n (Seconds) 10800	14400	18000	21600		PRINT	Daniel S	
$\hat{0}$ 0			• • • • • • • • • • • • • • • • • • • •	<u> </u>			····ŧ 0	Tested By	SIGN	D	S
°) 25 ⊆ 50							25		DATE	15/03	/2021
07 tratio							50		PRINT	Daniel S	Sanchez
							<sup>1</sup> 100	Calculated By SIGN		D	S
Degree of Infiltration (%) 100 00 0 000 00	) 6	60120180240300360			360		DATE	22/03	/2021		
ຍັ Duration (Minutes)							PRINT	Leon Wa	arrington		
De		- Test Run	1 <u> </u>	est Run 2 -		ın 3		Checked by	Checked by SIGN LW		
		rootivui	. 10		1051111				DATE	07/04	/2021
									DATE	07/04	

### **1 DAY INFILTRATION ASSESSMENT - WORKSHEET**

Site:	Whyndyke Farm
Client:	Cassidy and Ashton

Client:	Cassidy and					45/00	10004			4 5 /00	10004		
Test Locatio	-		<u>12</u>	Date of star			8/2021	Date at end			/2021		
	Test I					Run 2			Test I	isions (m)			
Trial Dit Law		sions (m)	0.000	Trial Dit Law		nsions (m)	1	Trial Dit Law		isions (m)			
Trial Pit Leng	adth / Width (	B)	2.800m 0.600m	Trial Pit Len	adth / Width (	P)		Trial Pit Len	adth / Width (I	D)			
Effective De		5)				Б)				6)			
Time at Star			1.600m 11.10	Effective Depth (D) Time at Start of Filling				Effective Depth (D) Time at Start of Filling					
Time at End			11.10	Time at End				Time at End	-				
	Surface to Wa	ater (D)	0.650m		V Surface to V	Vater (D)			Surface to W	/ater (D)			
Water Depth			0.950m	Water Depth			-	Water Depth			-		
	II Volume (V <sub>w</sub>	<i>.</i> )	1.596m <sup>3</sup>		II Volume (V <sub>v</sub>	<u>ل</u>	-		II Volume (V <sub>w</sub>	ر) ا			
	to backfill Te	.,	No		to backfill Te	.,	-		to backfill Te	.,	-		
	Gravel Backfill		NO		Gravel Backfil				Gravel Backfill				
	ater Volume		1.596m <sup>3</sup>		ater Volume	( )	_		ater Volume		_		
		oakaway	1.000111			soakaway				oakaway			
		Depth to	Duration			Depth to	Duration			Depth to	Duration		
Tir	me	water	2 4 4 4 1	Ti	me	water	Daration	Ti	me	water	Duration		
Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds	Day	Time	(m bgl)	Seconds		
1	11.120	0.650	0										
1	11.125	0.650	30										
1	11.130	0.650	60										
1	11.140	0.650	120										
1	11.150	0.650	180										
1	11.160	0.650	240										
1	11.170	0.700	300										
1	11.220	0.640	600										
1	11.270	0.640	900										
1	11.320	0.630	1200										
1	11.370	0.630	1500										
1	11.420	0.630	1800										
1	11.520	0.620	2400										
1	12.020	0.610	3000										
1	12.120	0.600	3600										
1	12.420	0.570	5400										
1	13.120	0.540	7200										
1	14.120	0.510	10800										
			10800										
			10800										
			10800										
			10800										
OF0/ weter l	(7 <b>5</b> 0/ ful	N	10800	050/	(7E0/ feel	N		050/	(7E0/ ful	N			
	oss (75% ful	-			oss (75% ful		-		oss (75% ful	-	-		
	oss (50% ful		1.125m		oss (50% ful		-		oss (50% ful		-		
25% time (s	oss (25% ful	<u>)</u>	1.363m	25% time (s	oss (25% ful	<u>1)</u>	-	25% time (s	oss (25% ful	<u>ı)</u>	-		
75% time (s			-	75% time (s			-	75% time (s	/		-		
Vp 75-25	econusj		- 0.798m <sup>3</sup>	Vp 75-25	econusj		-	Vp 75-25	econusj		-		
-	ual area from	tost)	4.910m <sup>3</sup>		ual area fron	n tost)	-	-	ual area from	tost)	-		
tp 75 - 25		11031)	4.91011	tp 75 - 25		110317	-	tp 75 - 25		11031)			
	ation Rate		-	Soil Infiltrat	ion Rate		-	Soil Infiltrat	ion Rate		-		
										pleted by			
			Duratio	n (Seconds)									
C	) 36	500 7			14400	18000	21600		PRINT	Daniel	Sanchez		
0			4	<u>.                                    </u>	•••		<u>+</u> 0			Testello	ested By SIGN		DS
<u>گ</u> 25							25		DATE	15/03	/2021		
<u>5</u> 50							50						
75 trati							75	Coloulated	PRINT	Daniel S	Sanchez		
			Calculated	SIGN	D	S							
J d	Ву Ву			DATE	22/03	/2021							
Degree of Infiltration (%) 001 22 002 002 002			Duratio	on (Minutes)									
legi				,					PRINT	Leon Wa	arrington		
		- Test Run	1 — Te	est Run 2 -		n 3		Checked by	SIGN	Ľ	W		
									DATE	07/04	/2021		

F



# Appendix E Soakaway Assessment Sheets

TECHNICAL DESIGN NOTE | Whyndyke Garden Village | 18299



i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



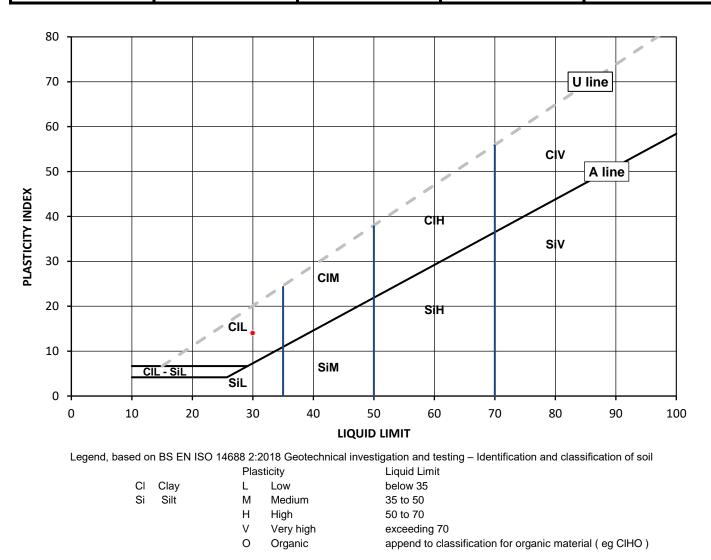
Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

	Tested III Accordance with BS 1377-2. 198	0. Clause 4.4 and 5
Client:	Hydrock Consultants Ltd	Client Reference: C-18299-C
Client Address:	4 Lakeside, Festival Park, Stoke on Trent, ST1 5RY	Job Number: 21-68002 Date Sampled: 01/04/2021 Date Received: 06/04/2021
Contact:	Daniel Sanchez	Date Tested: 15/04/2021
Site Address:	Whyndyke Farm Garden Village	Sampled By: Client - DS
Testing carried out at i	2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Po	land
Test Results:		
Laboratory Reference:	1833307	Depth Top [m]: 1.00
Hole No.:	TP02	Depth Base [m]: 1.50
Sample Reference:	Not Given	Sample Type: B
Soil Description:	Brown slightly gravelly very sandy CLAY	

Sample Preparation: Tested after >425um removed by hand

404

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [ W ] %	[ WL ] %	[ Wp ] %	[ lp ] %	BS Test Sieve
19	30	16	14	86



Remarks:			
Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.	Signed: Sergen Guldan	Szczepan Bielatowicz PL Deputy Head of Geotechnical Section for and on behalf of i2 Analytical Ltd	
	Page 1 of 1	Date Reported: 19/04/2021	GF 232.10



i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



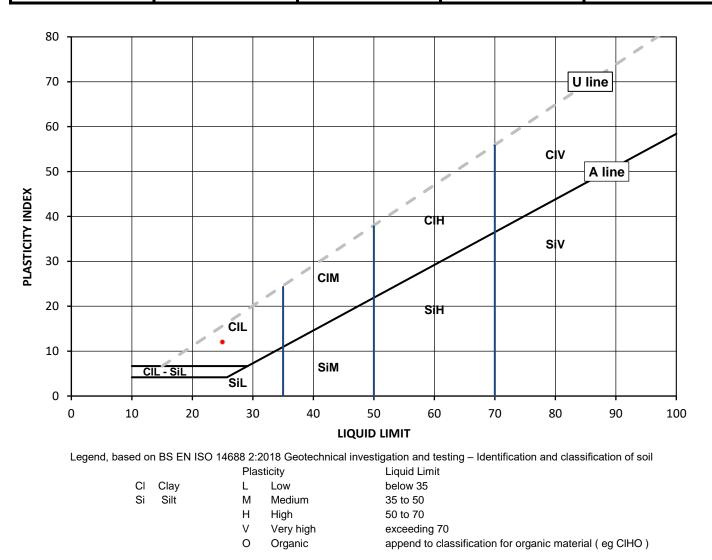
Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

	rested in Accordance with BS 1377-2. 1990. Clause 4.4 and	5
Client:	Hydrock Consultants Ltd	Client Reference: C-18299-C
Client Address:	4 Lakeside, Festival Park, Stoke on Trent, ST1 5RY	Job Number: 21-68002 Date Sampled: 01/04/2021 Date Received: 06/04/2021
Contact:	Daniel Sanchez	Date Tested: 15/04/2021
Site Address:	Whyndyke Farm Garden Village	Sampled By: Client - DS
Testing carried out at it	2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland	
Test Results:		
Laboratory Reference:	1833309	Depth Top [m]: 1.00
Hole No.:	TP05	Depth Base [m]: 1.50
Sample Reference:	Not Given	Sample Type: B
Soil Description:	Brown slightly gravelly SAND and CLAY	

Sample Preparation: Tested after >425um removed by hand

404

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [ W ] %	[ WL ] %	[ Wp ] %	[ lp ] %	BS Test Sieve
16	25	13	12	82



Remarks:			
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	Page 1 of 1	Date Reported: 19/04/2021	GF 232.10



i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



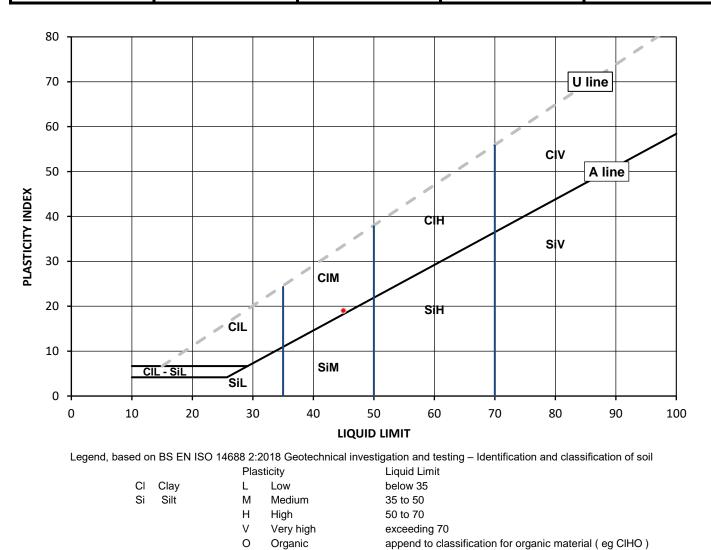
Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client Reference: C-18299-C
Job Number: 21-68002 Date Sampled: 01/04/2021 Date Received: 06/04/2021
Date Tested: 15/04/2021
Sampled By: Client - DS
Depth Top [m]: 1.00
Depth Base [m]: 1.50
Sample Type: B

Sample Preparation: Tested after >425um removed by hand

404

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [ W ] %	[ WL ] %	[ Wp ] %	[ lp ] %	BS Test Sieve
33	45	26	19	



Remarks:			
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	Page 1 of 1	Date Reported: 19/04/2021	GF 232.10



i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

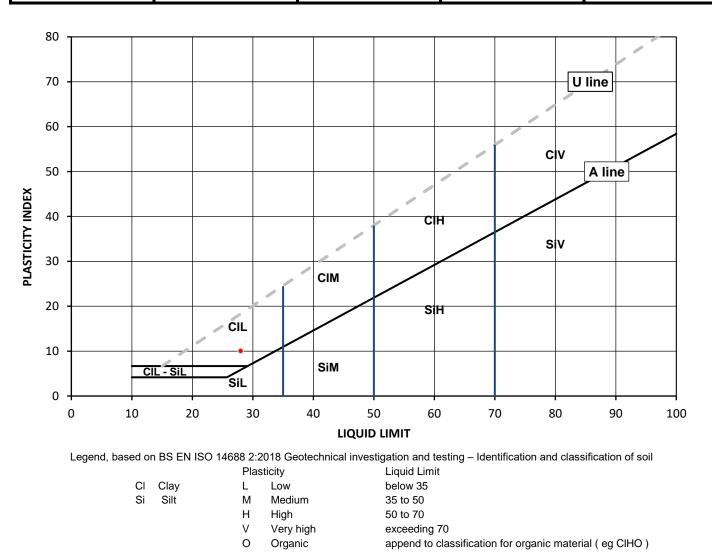
	rested in Accordance with DO 1377-2. 1350. Clause 4.4 al	iu J
Client:	Hydrock Consultants Ltd	Client Reference: C-18299-C
Client Address:	4 Lakeside, Festival Park,	Job Number: 21-68002
	Stoke on Trent. ST1 5RY	Date Sampled: 01/04/2021
		Date Received: 06/04/2021
Contact:	Daniel Sanchez	Date Tested: 15/04/2021
Site Address:	Whyndyke Farm Garden Village	Sampled By: Client - DS
Testing carried out a	t i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland	
Test Results:		
Laboratory Reference	e: 1833313	Depth Top [m]: 1.00
Hole No.:	TP10	Depth Base [m]: 1.50
Sample Reference:	Not Given	Sample Type: B

Soil Description: Brown gravelly CLAY and SAND

Sample Preparation: Tested after >425um removed by hand

404

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [ W ] %	[ WL ] %	[ Wp ] %	[ lp ] %	BS Test Sieve
21	28	18	10	



Remarks:			
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	Page 1 of 1	Date Reported: 19/04/2021	GF 232.10



i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



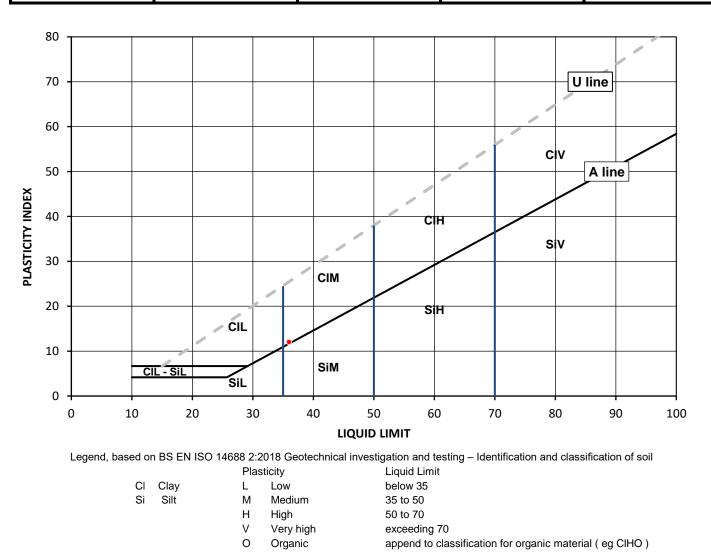
Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

	Tested in Accordance with DS 1577-2. 1990. Of	ause 4.4 and 5
Client:	Hydrock Consultants Ltd	Client Reference: C-18299-C
Client Address:	4 Lakeside, Festival Park, Stoke on Trent, ST1 5RY	Job Number: 21-68002 Date Sampled: 01/04/2021 Date Received: 06/04/2021
Contact:	Daniel Sanchez	Date Tested: 15/04/2021
Site Address:	Whyndyke Farm Garden Village	Sampled By: Client - DS
Testing carried out at	i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland	
Test Results:		
Laboratory Reference:	1833608	Depth Top [m]: 1.50
Hole No.:	TP06	Depth Base [m]: 2.00
Sample Reference:	Not Given	Sample Type: B
Soil Description:	Dark brown slightly gravelly very sandy CLAY	

Sample Preparation: Tested after >425um removed by hand

404

As Received Moisture	Liquid Limit	Plastic Limit	Plasticity Index	% Passing 425µm
Content [ W ] %	[ WL ] %	[ Wp ] %	[ lp ] %	BS Test Sieve
22	36	24	12	



Remarks:			
Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.	Signed: Sergen Gildson	Szczepan Bielatowicz PL Deputy Head of Geotechnical Section for and on behalf of i2 Analytical Ltd	
	Page 1 of 1	Date Reported: 19/04/2021	GF 232.10

### **SUMMARY REPORT**

#### Summary of Classification Test Results

#### Tested in Accordance with:

Moisture Content by BS 1377-2: 1990: Clause 3.2; Water Content by BS EN

17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test),

Clause 4.4 (1 Point Test) and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



Client Reference: C-18299-C Job Number: 21-68002 Date Sampled: 01/04/2021 Date Received: 06/04/2021 Date Tested: 15/04/2021 Sampled By: Client - DS

Hydrock Consultants Ltd 4 Lakeside, Festival Park, Stoke on Trent, ST1 5RY

Contact:Daniel SanchezSite Address:Whyndyke Farm Garden VillageTesting carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

#### Test results

4041

Client Address:

Client:

			Sample	9				ntent	Content W ]		Atte	rberg			Density		#	
Laboratory Reference	Hole No.	Reference	Depth Top	Depth Base	Туре	Description	Remarks	Moisture Content [ W ]	Water Con [ W ]	% Passing 425um	WL	Wp	lp	bulk	dry	PD	Total Porosity#	
			m	m				%	%	%	%	%	%	Mg/m3	Mg/m3	Mg/m3	%	
1833307	TP02	Not Given	1.00	1.50	В	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	19		86	30	16	14					
1833308	TP02	Not Given	1.50	Not Given	D	Brown slightly gravelly sandy CLAY		16										
1833309	TP05	Not Given	1.00	1.50	В	Brown slightly gravelly SAND and CLAY	Atterberg 1 Point	16		82	25	13	12					
1833310	TP05	Not Given	1.50	Not Given	D	Brown slightly gravelly sandy CLAY		16										
1833608	TP06	Not Given	1.50	2.00	В	Dark brown slightly gravelly very sandy CLAY	Atterberg 1 Point	22		86	36	24	12					
1833611	TP06	Not Given	1.50	Not Given	D	Brown slightly gravelly slightly sandy CLAY		16										
1833311	TP07	Not Given	1.00	1.50	В	Dark brown slightly gravelly very sandy CLAY	Atterberg 1 Point	33		88	45	26	19					
1833312	TP07	Not Given	1.50	Not Given	D	Dark brown slightly gravelly sandy CLAY		25										
1833313	TP10	Not Given	1.00	1.50	В	Brown gravelly CLAY and SAND	Atterberg 1 Point	21		86	28	18	10					
1833314	TP10	Not Given	1.50	Not Given	D	Brown sandy CLAY		25										

Note: # Non accredited; NP - Non plastic

Comments:

Signed:



Szczepan Bielatowicz PL Deputy Head of Geotechnical Section for and on behalf of i2 Analytical Ltd

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### Particle Size Distribution

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



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#### Remarks:

Signed:

Szczepan Bielatowicz PL Deputy Head of Geotechnical Section for and on behalf of i2 Analytical Ltd

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### Particle Size Distribution

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



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### Particle Size Distribution

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



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#### Szczepan Bielatowicz PL Deputy Head of Geotechnical Section for and on behalf of i2 Analytical Ltd

Date Reported: 19/04/2021

### **Particle Size Distribution**

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



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#### Remarks:

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Page 1 of 1

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#### Szczepan Bielatowicz PL Deputy Head of Geotechnical Section for and on behalf of i2 Analytical Ltd

Date Reported: 19/04/2021

### Particle Size Distribution

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd Unit 8 Harrowden Road Brackmills Industrial Estate Northampton NN4 7EB



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#### Remarks:

Signed:

Szczepan Bielatowicz PL Deputy Head of Geotechnical Section for and on behalf of i2 Analytical Ltd

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