


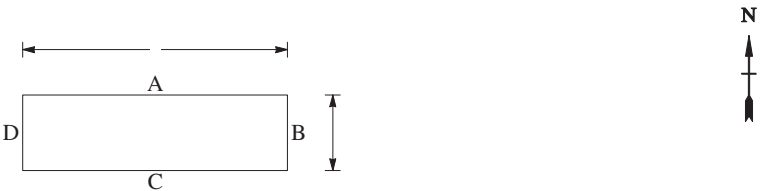


TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP2
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	Remarks/Tests
0.00-0.20		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)	0.35	D
0.20-0.45		Firm dark brown slightly sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)		
0.45-1.20		Buff brown slightly clayey locally very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)		
1.20		No further progress due to hard limestone.		

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

Shoring/Support: Stability: Sides stable.	GENERAL REMARKS Backfilled with arisings upon completion.
	

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP3
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL) 0.00 - 0.50 Live roots and rootlets.			
0.30-0.50		Firm brown sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.50-1.05		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			
1.05		No further progress due to hard limestone.			




BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

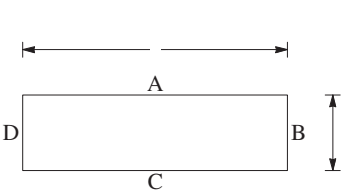
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP4
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)			
0.30-0.60		Firm brown sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)	0.50	D	
0.60-1.70		Buff brown slightly clayey locally clayey slightly sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)	0.70	B	
1.70		No further progress due to hard limestone.			




BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

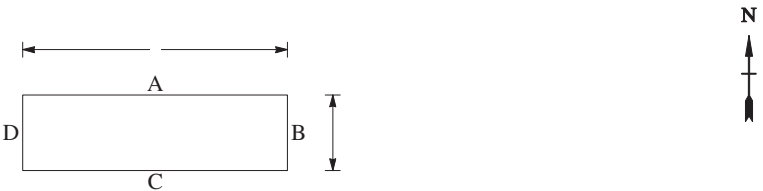
Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP5
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)	0.35	ES	
0.20-0.40		Firm brown sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.40-1.00		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded frequently tabular oolitic limestone. (OOLITE)			
1.00		No further progress due to hard limestone.	1.00	ES	

<p>Shoring/Support: Stability: Sides stable.</p> 	<p>GENERAL REMARKS</p> <p>Backfilled with arisings upon completion.</p>
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All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP6
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)			
0.30-0.50		Firm brown sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.50-1.80		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded frequently tabular oolitic limestone. (OOLITE)			
1.80		No further progress due to hard limestone.			



BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

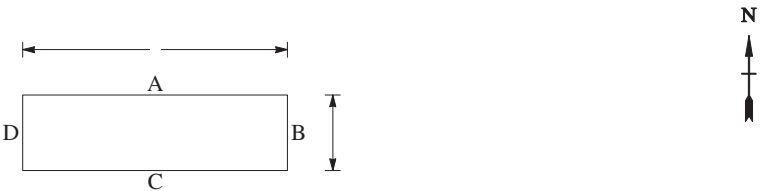
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP7
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-1.10		Grass over soft dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse limestone and red brick. Two boulder sized slabs of concrete in south west of pit. Extended pit in a northerly direction. (MADE GROUND)			
1.10-1.90		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded frequently tabular oolitic limestone. (OOLITE)			
1.90		No further progress due to hard limestone.			




BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

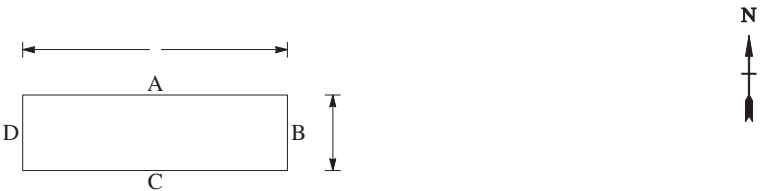
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP8
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	Remarks/Tests
0.00-0.20		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)		
0.20-0.60		Firm brown sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)		
0.60-1.60		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)	1.50	B
1.60		No further progress due to hard limestone.		

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

Shoring/Support: Stability: Sides stable.	GENERAL REMARKS Backfilled with arisings upon completion.
	

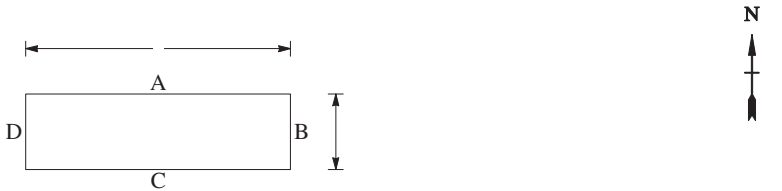
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP9
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)			
0.20-0.40		Firm brown sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. Locally a clayey gravel. (OOLITE)			
0.40-1.70		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)	0.60	ES	
1.70		No further progress due to hard limestone.			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3.1.GDT 6/11/15

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

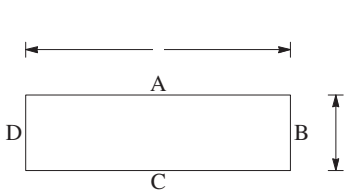
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP10
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.50		Grass over dark brown sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse limestone. Foreign objects comprise plastic bag, cobble of concrete slab, rusted can, aluminium and plastic sheeting. (MADE GROUND)			
0.50-0.80		Dark brown clayey locally very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (MADE GROUND)			
0.80-1.60		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			
1.60		No further progress due to hard limestone.			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS Backfilled with arisings upon completion.
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All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP11
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30	[Cross-hatch pattern]	Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (MADE GROUND)			
0.30-0.60	[Cross-hatch pattern]	Dark brown very clayey slightly sandy gravelly COBBLES of subangular and subrounded limestone. (MADE GROUND)	0.50	ES	
0.60-1.00	[Cross-hatch pattern]	Loose and voided brown very clayey slightly sandy, ashy demolition FILL. Foreign objects include plastic sheeting, rope, red brick, piece of brick walling, steel, timber, boulders of tabular tarmac, rare slate. Piece of tarmac (1.20m x 0.80m x 0.50m). Suspected asbestos containing roofing board. (MADE GROUND)			
1.00-1.50	[Oolitic limestone pattern]	Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			
1.50		No further progress due to hard limestone.			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

<p>Shoring/Support: Stability: Sides stable.</p> <div style="text-align: center;"> </div>	<p style="text-align: center;">GENERAL REMARKS</p> <p>Backfilled with arisings upon completion.</p>
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All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP12
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.25		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone and rare red brick. (MADE GROUND)			
0.25-1.40		Dark brown very clayey slightly sandy gravelly COBBLES of subangular and subrounded limestone. Foreign objects include brick, timber tarmac, concrete, tile and boulder of limestone. Clay is soft and firm. (MADE GROUND)	1.00	D	
1.40-1.50		Firm light brown slightly sandy CLAY. (MADE GROUND)			
1.50-2.50		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE) 2.35 Water strike. Moderate ingress. Depth of water at 2.30m after 30 minutes.			
2.50		No further progress due to hard limestone.			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

Shoring/Support: Stability: Sides stable.			GENERAL REMARKS Backfilled with arisings upon completion.	
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT	

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP13
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20	[Cross-hatch pattern]	Grass over dark brown sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (MADE GROUND)			
0.20-0.40	[Cross-hatch pattern]	Firm brown sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone and rare concrete. (MADE GROUND)			
0.40-0.90	[Cross-hatch pattern]	Brown very clayey slightly sandy GRAVEL & COBBLE of subangular and subrounded limestone. Foreign objects include red brick, plastic sheeting, concrete, plastic. Suspected asbestos containing roofing board. (MADE GROUND)			
0.90-1.80	[Cross-hatch pattern]	Firm brown slightly sandy slightly gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. Rare pockets of ash. Rare timber. Carbonaceous speckling. (MADE GROUND)	1.00	D	
1.80-2.00	[Oolitic pattern]	Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			
2.00		No further progress due to hard limestone.			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

<p>Shoring/Support: Stability: Sides stable.</p> <div style="text-align: center;"> </div>	<p style="text-align: center;">GENERAL REMARKS</p> <p>Backfilled with arisings upon completion.</p>
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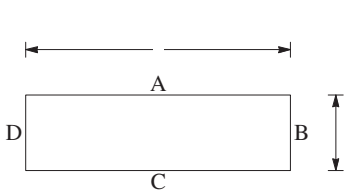
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP14
Job No BC195	Date 02-11-15	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		Grass over dark brown sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (MADE GROUND)			
0.20-1.00		Firm brown sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (MADE GROUND)			
1.00-1.60		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			
1.60		No further progress due to hard limestone.			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 6/11/15

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP15
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	Remarks/Tests
0.00-1.20		Trial trench excavated 17m long with its long axis trending northwest-southeast. Materials largely comprised reworked granular oolite to 0.90m. Horizon of dark brown ashy sandy slightly gravelly CLAY from 0.90-1.10m containing rare metal wire thinning towards the southeast. Rare fragments of asbestos sheeting. (MADE GROUND)	0.50 0.70 0.90	ES ES ES
1.20-1.30		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. Materials recorded at 1.00m in far southeast of trial trench. (OOLITE)		

<p>Shoring/Support: Stability: Sides stable.</p> <div style="text-align: center; margin-top: 20px;"> </div>	<p style="text-align: center;">GENERAL REMARKS</p> <p>Backfilled with arisings upon completion.</p>
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All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP16
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	Remarks/Tests
0.00-1.00		Trial trench excavated 7m long with its long axis trending northwest-southeast. Materials variable but generally comprised dark brown very clayey slightly sandy gravelly COBBLES of brick, tarmac, concrete, tile. Wire, timber, rusted metal sheeting. Steel pipe. Piece of masonry recovered 1.50m long by 1.00m wide. Rare fragments of asbestos sheeting. (MADE GROUND)	0.50 0.80 0.85	ES ES ES
1.00-1.20		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. Materials recorded at 1.00m in far southeast of trial trench. (OOLITE)		

Shoring/Support: Stability: Sides stable.	GENERAL REMARKS Backfilled with arisings upon completion.

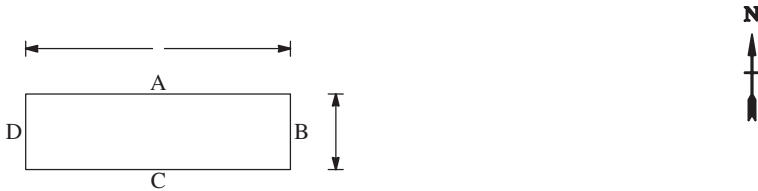
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP17
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		Grass over dark brown slightly sandy gravelly CLAY. (MADE GROUND)			
0.10-0.80		Trial trench excavated 8m long trending northwest-southeast. Materials comprised buff brown slightly clayey locally very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. Rare subangular cobble of concrete and red brick. (MADE GROUND)	0.30	ES	
0.80		No further progress due to encountering concrete. Possible sewer.			




Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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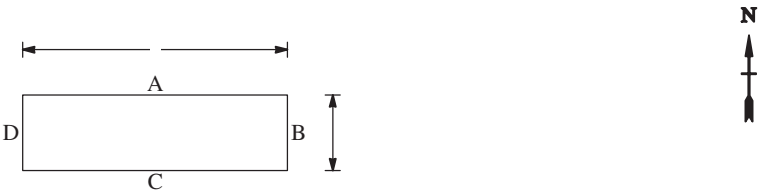
BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3.1.GDT 7/4/16

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP18
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		Grass over dark brown slightly sandy slightly gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)	0.10	ES	
0.20-0.40		Firm dark brown slightly sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.40-0.70		Buff brown slightly clayey locally very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			




BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

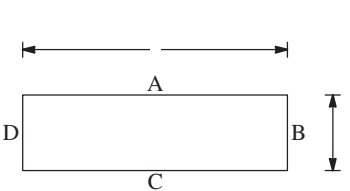
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP19
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.15		Grass over dark brown sandy slightly gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)	0.35	ES	
0.15-0.40		Firm dark brown slightly sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.40-0.80		Buff brown very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			

Shoring/Support:
 Stability: Sides stable.



GENERAL REMARKS

Backfilled with arisings upon completion.

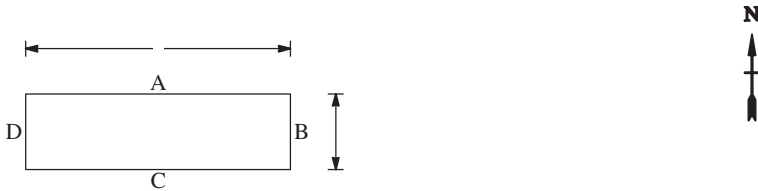
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP20
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		Grass over dark brown sandy slightly gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)	0.05	ES	
0.10-0.50		Firm dark brown slightly sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.50-0.70		Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP21
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)			
0.10-0.40		Firm dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.40-0.60		Buff brown clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)	0.40	ES	

Shoring/Support:
 Stability: Sides stable.

The diagram shows a rectangular trial pit with dimensions labeled A (width), B (depth), C (length), and D (width). A north arrow points upwards.

GENERAL REMARKS




Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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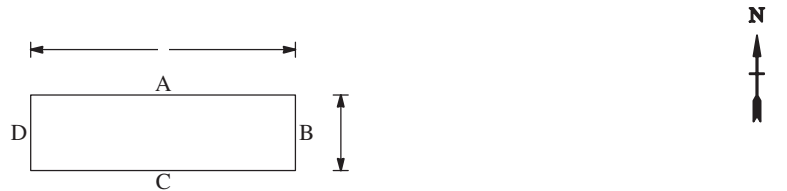
BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP22
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)	0.10	ES	
0.10-0.40		Firm dark brown slightly sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.40-0.80		Buff brown slightly clayey locally very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP23
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.60		Grass over soft brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. Rare subangular cobble of concrete. (MADE GROUND)	0.50	ES	
0.60-0.80		Buff brown slightly clayey locally very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			

Shoring/Support:
 Stability: Sides stable.

The diagram shows a rectangular trial pit with dimensions labeled A (width), B (depth), C (length), and D (width). A north arrow points upwards.

GENERAL REMARKS




Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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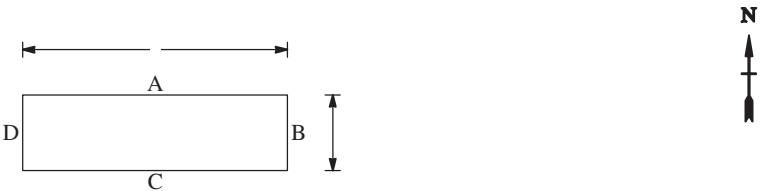
BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP24
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	Remarks/Tests
0.00-0.20		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)	0.10	ES
0.20-0.50		Firm dark brown slightly sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)		
0.50-1.00		Buff brown slightly clayey locally very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)	0.90	ES
1.00		No further progress due to encountering hard bedrock.		



BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

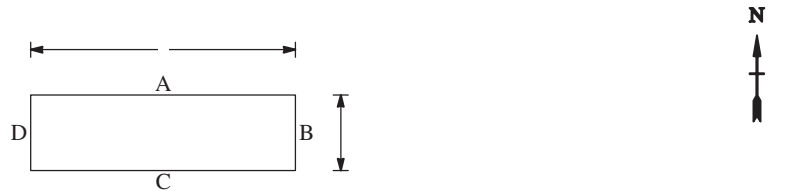
Shoring/Support: Stability: Sides stable.	GENERAL REMARKS
	Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP25
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.40		Grass over soft brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. Rare subangular cobble and boulder of concrete. Single whole red brick. (MADE GROUND)	0.35	ES	
0.40-0.90		Buff brown slightly clayey locally very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

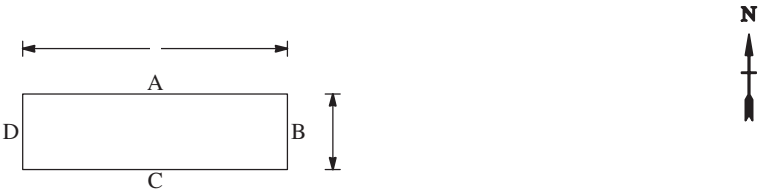
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP26
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10	1	Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)	0.15	ES	
0.10-0.40	2	Firm brown sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.40-0.90	3	Buff brown slightly clayey locally clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			

<p>Shoring/Support: Stability: Sides stable.</p> <div style="text-align: center;">  </div>	<p style="text-align: center;">GENERAL REMARKS</p> <p>Backfilled with arisings upon completion.</p>
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All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3.1.GDT 7/4/16

Project Fewcott Road, Fritwell				TRIAL PIT No TP27
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		Loose dark brown locally black very sandy very clayey GRAVEL and COBBLE of aungular to subrounded limestone, concrete and red brick. Suspected asbestos sheeting. (MADE GROUND)	0.25	ES	
0.20-0.75		Brown locally grey slightly clayey, sandy GRAVEL and COBBLE of aungular to subrounded limestone, concrete and red brick. Numerous pieces of suspected asbestos sheeting. (MADE GROUND)			
0.75-0.90		Firm brown sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.90		Investigation of a small overgrown stockpile. Trial pit terminated in virgin soils. Depths are recorded from top of stockpile above ground level.			

Shoring/Support:
 Stability: Sides stable.

The diagram shows a rectangular trial pit with dimensions labeled A (width), B (depth), C (length), and D (width). A north arrow is positioned to the right of the diagram.



GENERAL REMARKS
Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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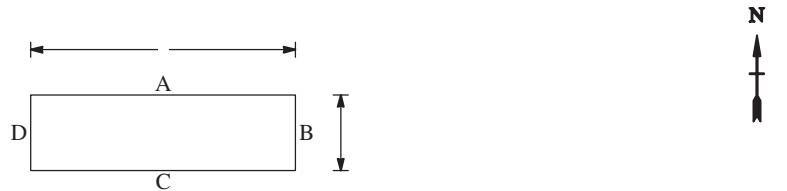
BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3.1.GDT 7/4/16

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP28
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		Loose black and grey slightly clayey very sandy GRAVEL of angular to subrounded fine to coarse brick, tile and concrete. Rare metal wire. (MADE GROUND)	0.05	ES	
0.10-0.70		Firm dark brown slightly sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
0.70		Trial pit excavated into an area formerly occupied by storage for a commercial roofer. Numerous tiles at the surface.			




BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 7/4/16

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings upon completion.

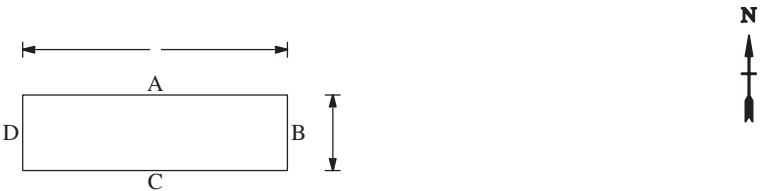
All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No TP29
Job No BC195	Date 04-03-16	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		Loose black locally grey slightly clayey very sandy GRAVEL of angular to subrounded fine to coarse tile, brick, concrete and glass. Rare metal pipe. Plastic bag. (MADE GROUND)	0.25	ES	
0.30-1.10		Firm dark brown slightly sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (OOLITE)			
1.10-1.30		Buff brown slightly clayey locally very clayey sandy GRAVEL & COBBLE of subangular and subrounded oolitic limestone. (OOLITE)			
1.30		Trial pit excavated into an area formerly occupied by storage for a commercial roofer. Numerous tiles at the surface.			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3.1.GDT 7/4/16

<p>Shoring/Support: Stability: Sides stable.</p> 	<p>GENERAL REMARKS</p> <p>Backfilled with arisings upon completion.</p>
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All dimensions in metres Scale 1:18.75	Client CALA HOMES	Method/ Plant Used JCB 3CX	Logged By JT
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APPENDIX E

Geotechnical Laboratory Results



Contract Number: 29005

Client's Reference: **BC195**

Report Date: **30-11-2015**

Client **The Brownfield Consultancy Ltd**
Woodstock
Memorial Road
Fenny Compton
Warwickshire
CV47 2XU

Contract Title: **Fritwell**
For the attention of: **Jim Twaddle**

Date Received: **11-11-2015**
Date Commenced: **11-11-2015**
Date Completed: **30-11-2015**

Test Description	Qty
Moisture Content 1377 : 1990 Part 2 : 3.2 - * UKAS	4
4 Point Liquid & Plastic Limit (LL/PL) 1377 : 1990 Part 2 : 4.3 & 5.3 - * UKAS	4
PSD Wet Sieve method 1377 : 1990 Part 2 : 9.2 - * UKAS	2
Disposal of Samples on Project	1

Notes: Observations and Interpretations are outside the UKAS Accreditation
* - denotes test included in laboratory scope of accreditation
- denotes test carried out by approved contractor
@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced in full, without the prior written approval of the laboratory.

Approved Signatories:

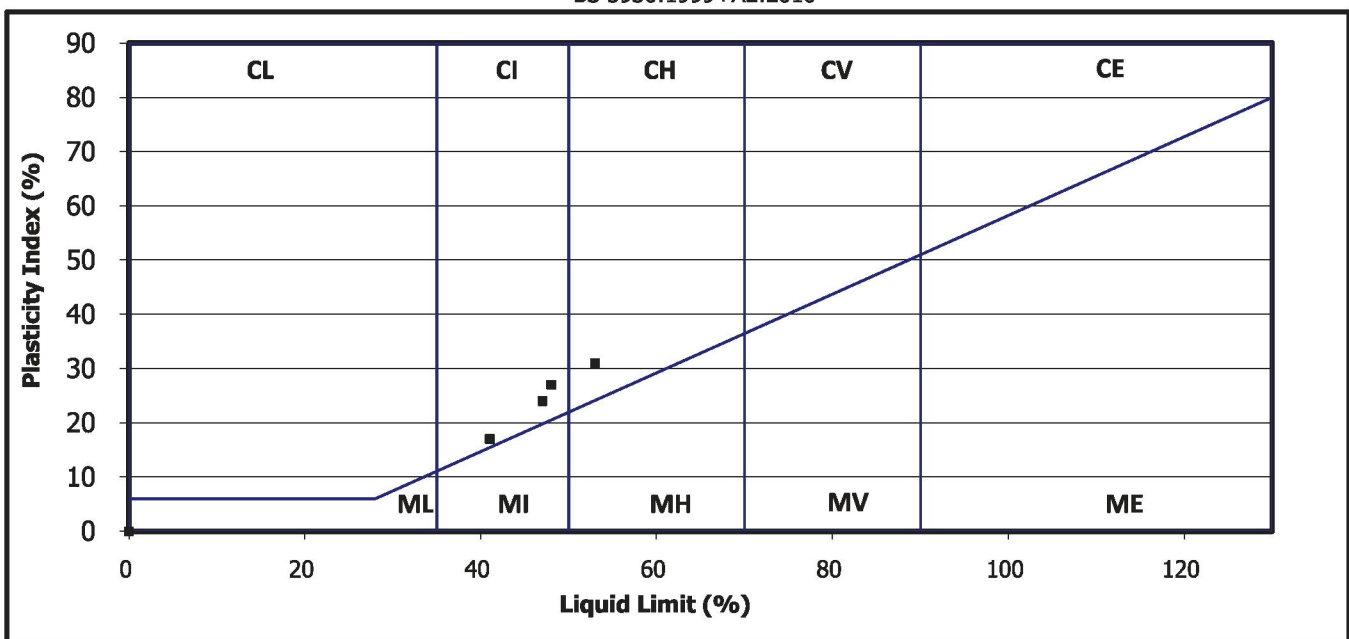
Alex Wynn (Associate Director) - Benjamin Sharp (Contracts Manager) - Emma Sharp (Office Manager)
Paul Evans (Quality/Technical Manager) - Vaughan Edwards (Managing Director)

**Test Report: Method of the Determination of the plastic limit and plasticity index
BS 1377 : Part 2 : 1990 Method 5**

Client ref: BC195
Location: Fritwell
Contract Number: 29005-111115

Hole/ Sample Number	Sample Type	Depth m	Moisture Content % Cl. 3.2	Liquid Limit % Cl. 4.3/4.4	Plastic Limit % Cl. 5.	Plasticity Index % Cl. 6.	% Passing .425mm	Remarks
TP2	D	0.35	19	41	24	17	75	CI Intermediate Plasticity
TP4	D	0.50	18	47	23	24	58	CI Intermediate Plasticity
TP12	D	1.00	21	48	21	27	87	CI Intermediate Plasticity
TP13	D	1.00	30	53	22	31	86	CH High Plasticity

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved
PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.
BS 5930:1999+A2:2010



For and behalf of GEO Site & Testing Services Ltd

Authorised By:
Paul Evans (Quality/Technical Manager)
 Date: 30.11.15



Test Report:

Particle Size Distribution Test

BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

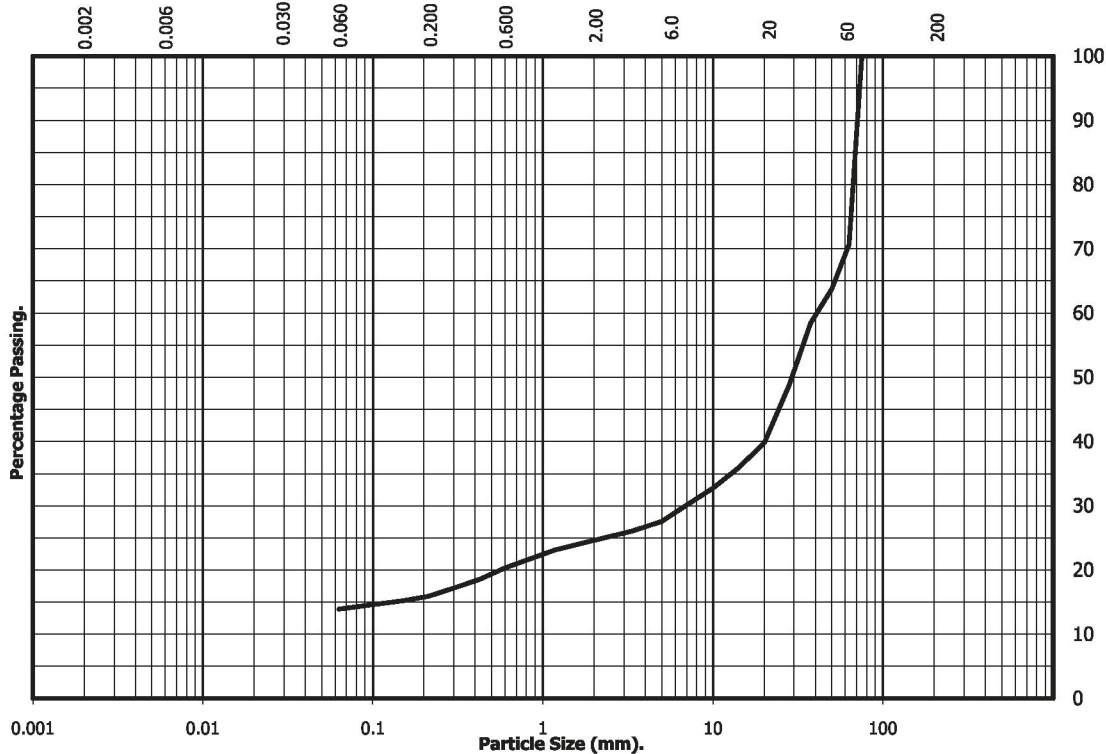
Client ref: **BC195**
 Contract Number: **29005-111115**
 Hole Number: **TP4**

Sample Number:
 Depth from (m): **0.70**
 Depth to (m): **0.80**
 Sample Type: **B**

Location: **Fritwell**
 Description: **Brown silty sandy GRAVEL with cobbles**

CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES
	SILT			SAND			GRAVEL			

BS Test Sieve	% Passing
125	100
90	100
75	100
63	71
50	64
37.5	58
28	49
20	40
14	36
10	33
6.3	29
5.0	28
3.35	26
2.00	25
1.18	23
0.60	20
0.425	19
0.300	17
0.212	16
0.150	15
0.063	14



Particle Diameter	% Passing
0.02	#
0.006	#
0.002	#

	Silt and Clay	Sand	Gravel	Cobbles	Soil Fraction
	14	11	46	29	Total Percentage

Remarks:

#- not determined

For and behalf of GEO Site & Testing Services Ltd

Authorised By:
 Paul Evans (Quality/Technical Manager)



Date: **30.11.15**



Test Report:

Particle Size Distribution Test

BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

Client ref: **BC195**
 Contract Number: **29005-111115**
 Hole Number: **TP8**

Sample Number:
 Depth from (m): **1.50**
 Depth to (m):
 Sample Type: **B**

Location: **Fritwell**
 Description: **Brown silty sandy GRAVEL with cobbles**

CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES
	SILT			SAND			GRAVEL			

BS Test Sieve	% Passing
125	100
90	100
75	100
63	95
50	93
37.5	84
28	74
20	64
14	57
10	52
6.3	47
5.0	46
3.35	45
2.00	43
1.18	41
0.60	37
0.425	35
0.300	33
0.212	30
0.150	27
0.063	21



Particle Diameter	% Passing
0.02	#
0.006	#
0.002	#

	Silt and Clay	Sand	Gravel	Cobbles	Soil Fraction
	21	22	52	5	Total Percentage

Remarks:

#- not determined

For and behalf of **GEO Site & Testing Services Ltd**

Authorised By:
 Paul Evans (Quality/Technical Manager)



Date: **30.11.15**



APPENDIX F

Chemical Laboratory Results



Jim Twaddle
The Brownfield Consultancy
Woodstock
Memorial Road
Fenny Compton
Warwickshire
CV47 2XU

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e: jim.twaddle@brownfieldconsultancy.co.uk

Analytical Report Number : 15-82288

Project / Site name:	Fritwell	Samples received on:	10/11/2015
Your job number:	BC195	Samples instructed on:	11/11/2015
Your order number:		Analysis completed by:	18/11/2015
Report Issue Number:	1	Report issued on:	19/11/2015
Samples Analysed:	3 soil samples, 1 buk sample		

Signed:

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Analytical Report Number: 15-82288

Project / Site name: Fritwell

Lab Sample Number	505622	505623	505624					
Sample Reference	TP5	TP5	TP9					
Sample Number	ES	ES	ES					
Depth (m)	0.35	1.00	0.60					
Date Sampled	02/11/2015	02/11/2015	02/11/2015					
Time Taken	None Supplied	None Supplied	None Supplied					
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1		
Moisture Content	%	N/A	NONE	17	7.2	7.2		
Total mass of sample received	kg	0.001	NONE	0.18	0.57	0.43		

General Inorganics

	pH Units	N/A	MCERTS	7.6	7.8	7.8		
pH								
Water Soluble Sulphate (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0098	0.0059	0.0079		



Analytical Report Number: 15-82288

Project / Site name: Fritwell

Lab Sample Number				505625				
Sample Reference				TP11				
Sample Number				ES				
Depth (m)				0.50				
Date Sampled				02/11/2015				
Time Taken				None Supplied				
Analytical Parameter (Bulk Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos Identification Name	Type	N/A	ISO 17025	Chrysotile-Hard/cement type material				

Analytical Report Number : 15-82288

Project / Site name: Fritwell

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
505622	TP5	ES	0.35	Brown loam and clay.
505623	TP5	ES	1.00	Light brown sandy loam with gravel.
505624	TP9	ES	0.60	Light brown sandy loam with gravel.

Analytical Report Number : 15-82288

Project / Site name: Fritwell

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Bulks	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	W	ISO 17025
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.



Jim Twaddle
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Woodstock
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WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e: jim.twaddle@brownfieldconsultancy.co.uk

Analytical Report Number : 16-12830

Project / Site name:	Fritwell	Samples received on:	08/03/2016
Your job number:	BC195	Samples instructed on:	08/03/2016
Your order number:		Analysis completed by:	17/03/2016
Report Issue Number:	1	Report issued on:	17/03/2016
Samples Analysed:	22 soil samples		

Signed: 

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed: 

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Analytical Report Number: 16-12830

Project / Site name: Fritwell

Lab Sample Number	546062	546063	546064	546065	546066			
Sample Reference	TP17	TP18	TP19	TP20	TP21			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.30	0.10	0.35	0.05	0.40			
Date Sampled	Deviating	Deviating	Deviating	Deviating	Deviating			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	19	20	20	22	17
Total mass of sample received	kg	0.001	NONE	0.37	0.41	0.18	0.34	0.38

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-

Speciated PAHs

Compound	mg/kg	Limit of detection	Accreditation Status	-	-	< 0.05	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Acenaphthene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Fluorene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Anthracene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Fluoranthene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Pyrene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-	-	< 1.60	-	-

Heavy Metals / Metalloids

Compound	mg/kg	Limit of detection	Accreditation Status	10	16	-	15	13
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	16	-	15	13
Boron (water soluble)	mg/kg	0.2	MCERTS	2.0	3.4	-	2.7	2.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.2	-	0.3	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	16	27	-	23	22
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17	25	-	21	22
Lead (aqua regia extractable)	mg/kg	1	MCERTS	26	37	-	42	30
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	21	-	19	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	63	71	-	79	52

Petroleum Hydrocarbons

Compound	mg/kg	Limit of detection	Accreditation Status	-	-	-	-	-
TPH5 (C6 - C10)	mg/kg	0.1	NONE	-	-	-	-	-
TPH5 (C10 - C20)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C20 - C30)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C30 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C6 - C40)	mg/kg	10	NONE	-	-	-	-	-

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Project / Site name: Fritwell

Lab Sample Number	546067	546068	546069	546070	546071			
Sample Reference	TP22	TP23	TP24	TP25	TP26			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.10	0.50	0.10	0.35	0.15			
Date Sampled	Deviating	Deviating	Deviating	Deviating	Deviating			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	-	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	-	15	19	11	13
Total mass of sample received	kg	0.001	NONE	-	0.42	0.42	0.18	0.39

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	-

Speciated PAHs

Compound	mg/kg	Limit of detection	Accreditation Status	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.1	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-	-	-	-	-
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Heavy Metals / Metalloids

Compound	mg/kg	Limit of detection	Accreditation Status	-	-	-	-	-
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	13	17	15	15
Boron (water soluble)	mg/kg	0.2	MCERTS	-	2.3	3.4	4.1	4.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	0.2	0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	19	24	24	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	17	22	21	22
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	50	41	34	45
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	18	21	21	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	2.7	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	49	68	70	88

Petroleum Hydrocarbons

Compound	mg/kg	Limit of detection	Accreditation Status	-	-	-	-	-
TPH5 (C6 - C10)	mg/kg	0.1	NONE	-	-	-	-	-
TPH5 (C10 - C20)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C20 - C30)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C30 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C6 - C40)	mg/kg	10	NONE	-	-	-	-	-

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Project / Site name: Fritwell

Lab Sample Number	546072	546073	546074	546075	546076			
Sample Reference	TP27	TP28	TP29	TP26	TP15			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.25	0.05	0.25	0.90	0.70			
Date Sampled	Deviating	Deviating	Deviating	Deviating	Deviating			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	-	-	-	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	-	-	-	10	18
Total mass of sample received	kg	0.001	NONE	-	-	-	0.37	0.40

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile-Hard/Cement Type Material, Loose Fibres	Chrysotile-Hard/Cement Type Material	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected	Not-detected	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Pyrene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Chrysene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	-	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-	-	-	< 1.60	< 1.60
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	19
Boron (water soluble)	mg/kg	0.2	MCERTS	-	-	-	-	2.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	-	-	-	0.4
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	30
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	90
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	19
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	210

Petroleum Hydrocarbons

TPH5 (C6 - C10)	mg/kg	0.1	NONE	-	-	-	< 0.1	-
TPH5 (C10 - C20)	mg/kg	10	NONE	-	-	-	< 10	-
TPH5 (C20 - C30)	mg/kg	10	NONE	-	-	-	< 10	-
TPH5 (C30 - C40)	mg/kg	10	NONE	-	-	-	< 10	-
TPH5 (C6 - C40)	mg/kg	10	NONE	-	-	-	< 10	-



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Environmental Science

Analytical Report Number: 16-12830

Project / Site name: Fritwell

Lab Sample Number	546077	546078	546079	546080	546081			
Sample Reference	TP15	TP15	TP15	TP16	TP16			
Sample Number	5	15	2	None Supplied	None Supplied			
Depth (m)	0.50	0.90	0.70	0.50	0.80			
Date Sampled	Deviating	Deviating	Deviating	Deviating	Deviating			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	-	-	-	-	-
Moisture Content	%	N/A	NONE	-	-	-	-	-
Total mass of sample received	kg	0.001	NONE	-	-	-	-	-

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected

Speciated PAHs

Compound	Units	Limit of detection	Accreditation Status					
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.1	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-	-	-	-	-
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Heavy Metals / Metalloids

Compound	Units	Limit of detection	Accreditation Status					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	-	-	-	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	-	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-

Petroleum Hydrocarbons

Compound	Units	Limit of detection	Accreditation Status					
TPH5 (C6 - C10)	mg/kg	0.1	NONE	-	-	-	-	-
TPH5 (C10 - C20)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C20 - C30)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C30 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C6 - C40)	mg/kg	10	NONE	-	-	-	-	-

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Project / Site name: Fritwell

Lab Sample Number			546082	546083			
Sample Reference			TP16	TP16			
Sample Number			None Supplied	None Supplied			
Depth (m)			0.85	0.80-0.90			
Date Sampled			Deviating	Deviating			
Time Taken			None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	-		
Moisture Content	%	N/A	NONE	17	-		
Total mass of sample received	kg	0.001	NONE	0.30	-		

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-		
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected		

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-		
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	-		
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	-		
Fluorene	mg/kg	0.1	MCERTS	< 0.10	-		
Phenanthrene	mg/kg	0.1	MCERTS	0.22	-		
Anthracene	mg/kg	0.1	MCERTS	< 0.10	-		
Fluoranthene	mg/kg	0.1	MCERTS	0.41	-		
Pyrene	mg/kg	0.1	MCERTS	0.37	-		
Benzo(a)anthracene	mg/kg	0.1	MCERTS	0.28	-		
Chrysene	mg/kg	0.05	MCERTS	0.23	-		
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	-		
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	-		
Benzo(a)pyrene	mg/kg	0.1	MCERTS	0.20	-		
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	-		
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	-		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-		

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	1.71	-		
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	-		
Boron (water soluble)	mg/kg	0.2	MCERTS	2.0	-		
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	-		
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17	-		
Copper (aqua regia extractable)	mg/kg	1	MCERTS	34	-		
Lead (aqua regia extractable)	mg/kg	1	MCERTS	120	-		
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-		
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	-		
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-		
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	200	-		

Petroleum Hydrocarbons

TPH5 (C6 - C10)	mg/kg	0.1	NONE	-	-		
TPH5 (C10 - C20)	mg/kg	10	NONE	-	-		
TPH5 (C20 - C30)	mg/kg	10	NONE	-	-		
TPH5 (C30 - C40)	mg/kg	10	NONE	-	-		
TPH5 (C6 - C40)	mg/kg	10	NONE	-	-		

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Project / Site name: Fritwell

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
546062	TP17	None Supplied	0.30	Brown clay and loam with gravel and vegetation.
546063	TP18	None Supplied	0.10	Brown loam and clay with gravel and vegetation.
546064	TP19	None Supplied	0.35	Brown loam and clay with gravel and vegetation.
546065	TP20	None Supplied	0.05	Brown loam and clay with gravel and vegetation.
546066	TP21	None Supplied	0.40	Brown loam and clay with gravel and vegetation.
546067	TP22	None Supplied	0.10	-
546068	TP23	None Supplied	0.50	Brown loam and clay with gravel and vegetation.
546069	TP24	None Supplied	0.10	Brown loam and clay with gravel and vegetation.
546070	TP25	None Supplied	0.35	Brown loam and clay with gravel and vegetation.
546071	TP26	None Supplied	0.15	Brown loam and clay with gravel and vegetation.
546072	TP27	None Supplied	0.25	-
546073	TP28	None Supplied	0.05	-
546074	TP29	None Supplied	0.25	-
546075	TP26	None Supplied	0.90	Light brown clay and sand with gravel.
546076	TP15	None Supplied	0.70	Brown loam and clay with gravel.
546077	TP15	5	0.50	-
546078	TP15	15	0.90	-
546079	TP15	2	0.70	-
546080	TP16	None Supplied	0.50	-
546081	TP16	None Supplied	0.80	-
546082	TP16	None Supplied	0.85	Brown loam and clay with gravel and vegetation.
546083	TP16	None Supplied	0.80-0.90	-

Analytical Report Number : 16-12830

Project / Site name: Fritwell

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH5 (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method	L076-PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.



Jim Twaddle
The Brownfield Consultancy
Woodstock
Memorial Road
Fenny Compton
Warwickshire
CV47 2XU

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e: jim.twaddle@brownfieldconsultancy.co.uk

Analytical Report Number : 16-12831

Project / Site name:	Fritwell	Samples received on:	08/03/2016
Your job number:	BC195	Samples instructed on:	08/03/2016
Your order number:		Analysis completed by:	16/03/2016
Report Issue Number:	1	Report issued on:	16/03/2016
Samples Analysed:	1 wac multi sample		

Signed:



Dr Irma Doyle
Senior Account Manager
For & on behalf of i2 Analytical Ltd.

Signed:



Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

i2 Analytical

7 Woodshots Meadow
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Watford, WD18 8YS

Telephone: 01923 225404

Fax: 01923 237404

email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	16-12831						
	Client: BROWNFIELD						
Location	Fritwell						
Lab Reference (Sample Number)	546084						
Sampling Date	Deviating						
Sample ID	TP24						
Depth (m)	0.90						
					Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Solid Waste Analysis							
TOC (%)**	0.4				3%	5%	6%
Loss on Ignition (%) **	1.8				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.30				1	--	--
Mineral Oil (mg/kg)	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 1.6				100	--	--
pH (units)**	7.0				--	>6	--
Acid Neutralisation Capacity (mol / kg)	0.0000				--	To be evaluated	To be evaluated
Eluate Analysis	2:1	8:1		Cumulative 10:1	Limit values for compliance leaching test		
(BS EN 12457 - 3 preparation utilising end over end leaching procedure)	mg/l	mg/l		mg/kg	using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.010	< 0.010		< 0.050	0.5	2	25
Barium *	0.0061	0.011		0.10	20	100	300
Cadmium *	< 0.0005	< 0.0005		< 0.0020	0.04	1	5
Chromium *	< 0.0010	< 0.0010		0.0072	0.5	10	70
Copper *	0.0033	< 0.0030		< 0.020	2	50	100
Mercury *	< 0.0015	< 0.0015		< 0.010	0.01	0.2	2
Molybdenum *	< 0.0030	< 0.0030		< 0.020	0.5	10	30
Nickel *	< 0.0010	0.0019		0.018	0.4	10	40
Lead *	< 0.0050	< 0.0050		0.026	0.5	10	50
Antimony *	< 0.0050	< 0.0050		< 0.020	0.06	0.7	5
Selenium *	< 0.010	< 0.010		< 0.040	0.1	0.5	7
Zinc *	< 0.0010	< 0.0010		< 0.020	4	50	200
Chloride *	< 4.0	< 4.0		< 15	800	4000	25000
Fluoride	0.33	0.24		2.5	10	150	500
Sulphate *	3.6	1.7		19	1000	20000	50000
TDS	90	60		640	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.13	< 0.13		< 0.50	1	-	-
DOC	5.2	3.4		37	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.6						
Dry Matter (%)	90						
Moisture (%)	10						
Stage 1							
Volume Eluate L2 (litres)	0.33						
Filtered Eluate VE1 (litres)	0.25						

Results are expressed on a dry weight basis, after correction for moisture content where applicable
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation

* = UKAS accredited (liquid eluate analysis only)

** = MCERTS accredited

Analytical Report Number : 16-12831

Project / Site name: Fritwell

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
546084	TP24	None Supplied	0.90	Light brown clay and sand with gravel.

Analytical Report Number : 16-12831

Project / Site name: Fritwell

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046-PL	W	NONE
BTEX (Sum of BTEX compounds) in soil	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Chloride in WAC leachate (BS EN 12457-3 Prep)	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
DOC in WAC leachate (BS EN 12457-3 Prep)	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR analyser.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L037-PL	W	NONE
Fluoride in WAC leachate (BS EN 12457-3 Prep)	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L033-PL	W	NONE
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L047-PL	D	MCERTS
Metals in WAC leachate (BS EN 12457-3 Prep)	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L039-PL	W	ISO 17025
Mineral Oil in Soil	Determination of dichloromethane/hexane extractable hydrocarbons in soil by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
PCB's by GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L005-PL	W	MCERTS
Phenol Index in WAC leachate (BS EN 12457-3 Prep)	Determination of monohydric phenols in leachate by continuous flow analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Sociated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate in WAC leachate (BS EN 12457-3 Prep)	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L039-PL	W	ISO 17025
TDS in WAC leachate (BS EN 12457-3 Prep)	Determination of total dissolved solids in leachate by electrometric measurement.	In-house method based on Standard Methods for the Examination of Water and Waste Water, 21st Ed.	L004-PL	W	NONE
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS



Analytical Report Number : 16-12831

Project / Site name: Fritwell

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

APPENDIX G

Soakaway Results

Your Ref:

Our Ref: BC195 L.003 / JT

CALA Homes (Chiltern) Limited
Riverside House
Holtspur Lane
Wooburn Green
Buckinghamshire
HP10 0TJ

21st April 2020

For the attention of James Forbes

Dear James

**FEWCOTT ROAD, FRITWELL. OX27 7QA
Results of Soakaway Testing**

The Brownfield Consultancy was commissioned by CALA Chiltern to undertake trial pit soakaway testing in accordance with BRE 365 at the above site. The fieldwork was undertaken on 25th and 26th March 2020.

The site comprises of a square plot of paddock land on the south eastern outskirts of Fritwell, Oxfordshire. Access is off Fewcott Road. It is proposed to apply for planning permission for the construction of 32No. two storey houses with associated access roads, driveways and gardens. The site slopes gently from south to north. This report is subject to limitations which are presented in Appendix D.

A previous ground investigation was undertaken in November 2015 by The Brownfield Consultancy and reported in 'Fewcott Road, Fritwell – Report on Ground Conditions' dated 29th December 2015. A second report entitled 'Desk Top Study and Contaminated Land Assessment' was undertaken dated 8th April 2016.

1. FIELDWORK

Soakaway tests were undertaken within five trial pits denoted SA1, SA2, SA3, SA4 and SA6 as denoted on the exploratory hole location plan in Appendix A. The pits were excavated by a backhoe excavator, their dimensions carefully measured and then flooded using a mobile water bowser. The time for the water to drain was then measured.

2. GROUND CONDITIONS

The ground conditions encountered during the investigation were consistent with the published geological map and the findings of the previous investigations. A veneer of Topsoil or Made Ground overlies the Great Oolite Group described by the British Geological Survey as :-

'A variety of mudstone-dominated and ooidal, bioclastic and fine-grained limestone formations'.

A summary of the strata encountered during the investigation is described in the following sections but for full details of the strata encountered, samples taken, results of any in-situ testing and any other relevant information, reference should be made to the exploratory hole logs presented in Appendix B.

Topsoil

Topsoil was encountered in SA1, SA3, SA4 and SA6 to depths varying between 0.30-0.45m bgl. Materials comprised dark brown clay with varying quantities of sand and gravel. Gravel comprised brown limestone.

Made Ground

Made Ground was encountered in SA2 and SA4 to depths of 0.30-0.40m. Materials were similar to the Topsoil with the inclusion of tile, red brick and string.

Great Oolite Group

The Great Oolite Group was encountered in all trial pit locations and comprised of brown gravel and cobbles of ooidal limestone in a clay matrix with varying quantities of sand. Occasionally, thin units of sandy gravelly clay were encountered. 'Bedrock' was encountered in SA3 at 1.40m and SA4 at 1.00m bgl where no further penetration was possible with the backhoe excavator.

Groundwater

Groundwater was encountered in trial pits SA1, SA2 and SA5. All three pits were located at the lowest level of the site (north). In SA1 soils were recorded as 'damp' from 1.40m to the base of the pit. Prior to the test, groundwater was recorded at 1.50m bgl. In SA2, soils were recorded as damp from 0.40-1.50m and a water seepage was recorded at 1.20m. Prior to flooding the pit, groundwater was recorded at 1.28m bgl. In SA5 a slow ingress of groundwater was encountered at 0.90m and the pit was abandoned and backfilled.

3. SOAKAWAY DRAINAGE

In accordance with the digest, three repeat tests were successfully undertaken in SA1, SA3 and SA4. A single successful test was undertaken in SA6. The test in trial pit SA2, which contained 22cm of groundwater at the start of the test, was not successful.

The following soil infiltration rates were obtained:

SA1 2.6×10^{-5} m/s, 4.6×10^{-5} m/s, 3.1×10^{-5} m/s

SA3 3.4×10^{-5} m/s, 1.5×10^{-5} m/s, 1.6×10^{-4} m/s

SA4 1.6×10^{-5} m/s, 1.2×10^{-5} m/s, 1.5×10^{-5} m/s

SA6 1.0×10^{-5} m/s

In accordance with BRE 365, it is recommended that the lowest infiltration rate of the three tests is taken as the design figure for each location. The full results of soakaway testing are presented in Appendix C.

Groundwater was encountered in SA1, SA2 and SA5 in the north of the site. A 'freeboard' of 1m is often required i.e. at least 1 metre clearance between the base of any soakaway and the top of the water table. Clearly this is not achievable in the north of the site. If soakaways are the only viable

means of disposing of surface water at the site, then a number of boreholes will need to be installed across the site followed by the implementation of a groundwater level monitoring programme, to account for seasonal variations and extreme rainfall events.

We trust the above is satisfactory for your purposes. Should you have any queries please do not hesitate to contact me.

Yours sincerely



Jim Twaddle cGeol

Director

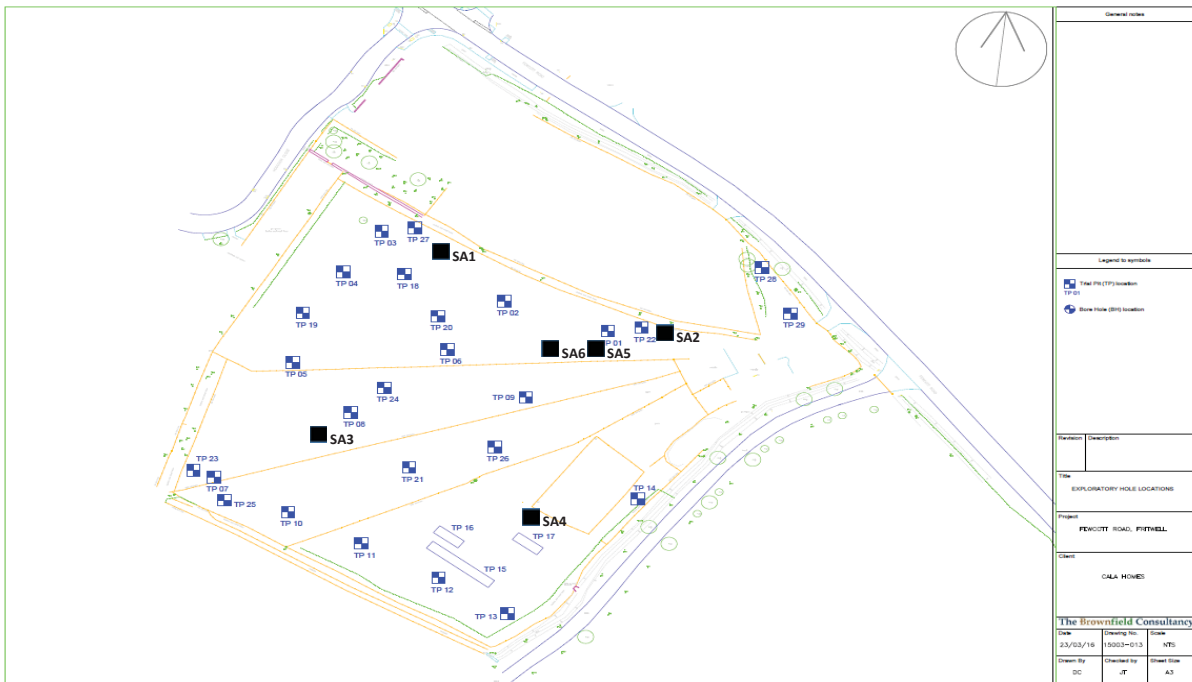
<i>Appendix A</i>	<i>Exploratory Hole Location Plan</i>
<i>Appendix B</i>	<i>Exploratory Hole Logs</i>
<i>Appendix C</i>	<i>Soakaway Test Calculations</i>
<i>Appendix D</i>	<i>Limitations</i>

APPENDIX A

Exploratory Hole Location Plan

FRITWELL SOAKAWAY TESTS

Exploratory Hole Location Plan







APPENDIX B

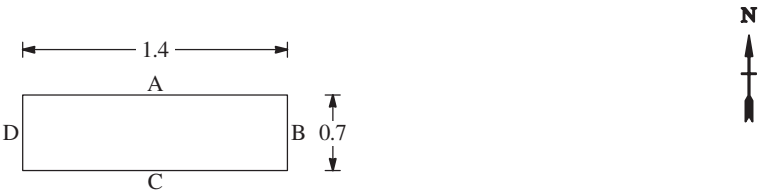
Exploratory Hole Logs

TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No SA1
Job No BC195	Date 25-03-20	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.40		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)			
0.40-1.00		Buff brown sandy clayey locally very clayey GRAVEL of subangular and subrounded fine to coarse limestone with a low cobble content. Cobbles are limestone. (OOLITE)			
1.00-1.40		Buff brown slightly sandy slightly clayey GRAVEL of subangular and subrounded fine to coarse limestone with a low cobble content. Cobbles are limestone. (OOLITE)			
1.40-1.55		Damp buff brown sandy very clayey GRAVEL of subangular and subrounded fine to coarse limestone. (OOLITE)			
1.55		Trial pit terminated. Water level at 1.50m at the start of the soakaway test.			



BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 21/4/20

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Soakaway test undertaken. Backfilled with arisings.

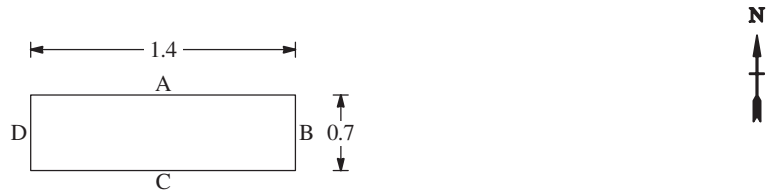
All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used 5t excavator	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No SA2
Job No BC195	Date 25-03-20	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.40		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to medium buff brown limestone, tile and red brick. (MADE GROUND)			
0.40-1.50		Damp buff brown slightly sandy clayey GRAVEL of subangular and subrounded fine to coarse limestone with a low cobble content. Cobbles are limestone. (OOLITE) 1.20 Seepage.			
1.50		Trial pit terminated. Water level at 1.28m bgl at the start of the soakaway test.			




BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 21/4/20

Shoring/Support: Stability: Sides stable. 	N
	GENERAL REMARKS Soakaway test undertaken. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used 5t excavator	Logged By JT
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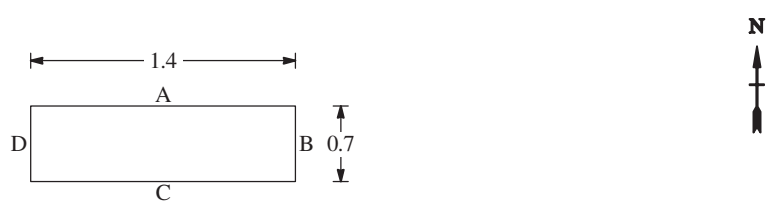
TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No SA3
Job No BC195	Date 25-03-20	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.40		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)			
0.40-1.20		Buff brown sandy clayey GRAVEL of subangular and subrounded fine to coarse limestone with a low cobble content. Cobbles are limestone. (OOLITE)			
1.20-1.40		Buff brown SAND & GRAVEL. Gravel is subangular and subrounded fine to coarse limestone. (OOLITE)			
1.40		No further progress. Unable to penetrate bedrock. Groundwater not encountered.			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 21/4/20





Shoring/Support: Stability: Sides stable.	GENERAL REMARKS Soakaway test undertaken. Backfilled with arisings.
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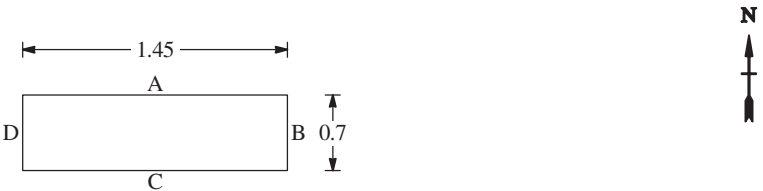
All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used 5t excavator	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No SA4
Job No BC195	Date 25-03-20	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA		SAMPLES & TESTS			
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.45		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)			
0.45-0.80		Buff brown sandy clayey locally very clayey GRAVEL of subangular and subrounded fine to coarse limestone with a low cobble content. Cobbles are limestone. (OOLITE)			
0.80-0.90		Firm brown sandy very gravelly CLAY. Gravel is subangular and subrounded fine to coarse limestone. (OOLITE)			
0.90-1.00		Buff brown slightly sandy slightly clayey GRAVEL of subangular and subrounded fine to coarse limestone with a high cobble content. Cobbles are limestone. (OOLITE)			
1.00		No further progress. Unable to penetrate bedrock. Groundwater not encountered.			



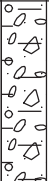
BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 21/4/20

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Soakaway test undertaken. Backfilled with arisings.

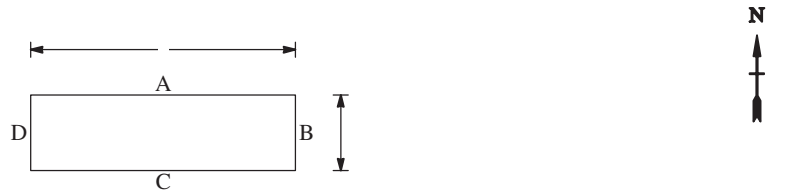
All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used 5t excavator	Logged By JT
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TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No SA5
Job No BC195	Date 25-03-20	Ground Level (m)	Co-Ordinates ()	
Contractor BROWNFIELD CONSULTANCY				Sheet 1 of 1

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to medium buff brown limestone, tile and pieces of orange string. (MADE GROUND)			
0.30-0.45		Firm brown sandy very gravelly CLAY. Gravel is angular to subrounded fine to coarse limestone. (OOLITE)			
0.45-0.90		Buff brown sandy clayey locally very clayey GRAVEL of subangular and subrounded fine to coarse limestone with a low cobble content. Cobbles are limestone. (OOLITE)			
0.90		Trial pit terminated. Slow ingress of groundwater at 0.90m.			




BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 21/4/20

Shoring/Support: Stability: Sides stable. 	GENERAL REMARKS
	Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used 5t excavator	Logged By JT
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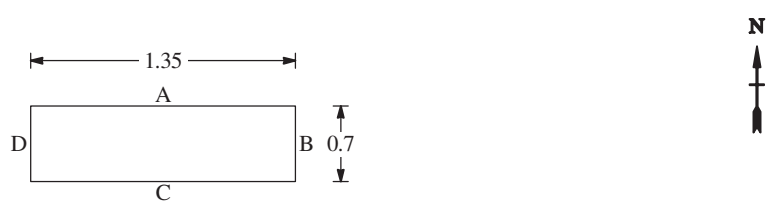
TRIAL PIT LOG

Project Fewcott Road, Fritwell				TRIAL PIT No SA6	
Job No BC195	Date 25-03-20	Ground Level (m)	Co-Ordinates ()	Sheet 1 of 1	
Contractor BROWNFIELD CONSULTANCY					

STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.30		Grass over dark brown slightly sandy gravelly CLAY. Gravel is subangular and subrounded fine to coarse buff brown limestone. (TOPSOIL)			
0.30-0.40		Firm brown sandy very gravelly CLAY. Gravel is angular to subrounded fine to coarse limestone. (OOLITE)			
0.40-0.90		Buff brown sandy clayey locally very clayey GRAVEL of subangular and subrounded fine to coarse limestone with a low cobble content. Cobbles are limestone. (OOLITE)			
0.90		Trial pit terminated.			

BROWNFIELD TP FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 21/4/20

Shoring/Support: Stability: Sides stable.	GENERAL REMARKS Soakaway test undertaken. Backfilled with arisings.
--	--



All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used 5t excavator	Logged By JT
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APPENDIX C

Soakaway Calculation Sheets

The Brownfield Consultancy	SOIL INFILTRATION TEST
Woodstock Memorial Road Fenny Compton CV47 2XU Tel: 07852881086	Project: Fewcott Road, Fritwell
	Project No: BC195

Test Location: SA2

Test No: 1

Date: 25.3.20

Water level during test

Time mins	Depth m bgl
0	0.660
15	0.670
38	0.690
72	0.720
194	0.720
228	0.720

Trial pit dimensions

depth (m)	1.50
length (m)	1.40
width (m)	0.70

$$f = \frac{V_p}{\alpha_p \times t_p}$$

f = soil infiltration rate

V_p = volume of water from 75% to 25% effective depth

α_p = Internal surface area at 50% effective depth

t_p = time for the water level to fall from 75% to 25% effective depth

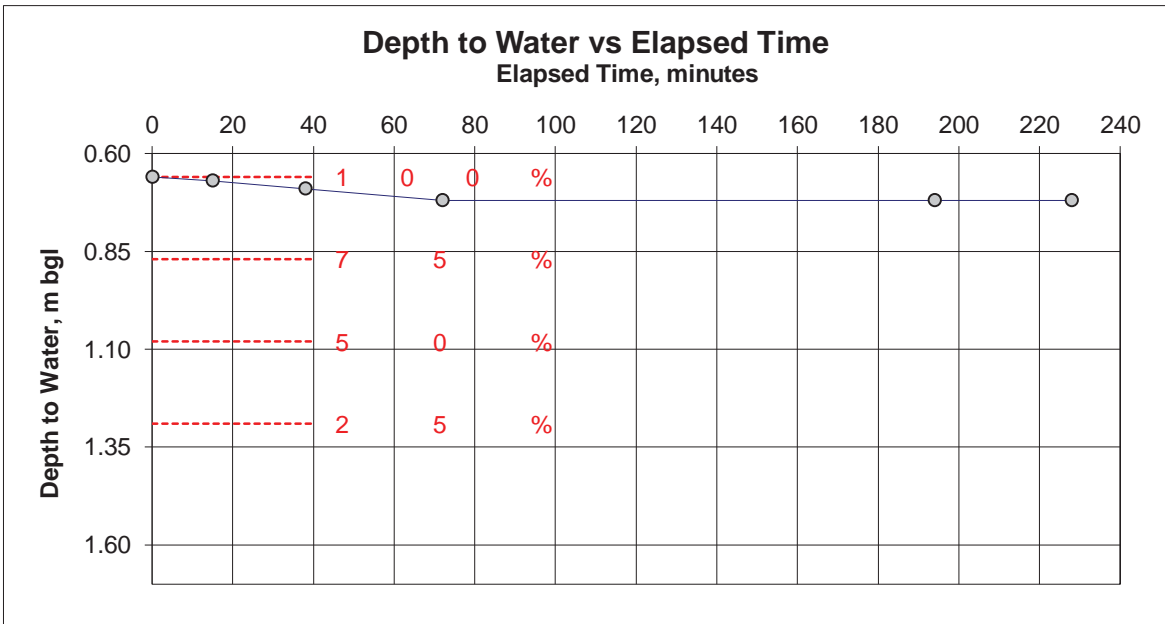
time at 75% effective depth (mins)

time at 25% effective depth (mins)

(from graph)

Calculated Soil Infiltration Rate =

- m/sec



The Brownfield Consultancy	SOIL INFILTRATION TEST
Woodstock Memorial Road Fenny Compton CV47 2XU Tel: 07852881086	Project: Fewcott Road, Fritwell
	Project No: BC195

Test Location: SA3

Test No: 2

Date: 25.3.20

Water level during test

Time mins	Depth m bgl
0	0.450
10	0.530
25	0.700
40	0.780
70	0.900
82	0.930
135	1.100
159	1.150
176	1.180

Trial pit dimensions

depth (m)	1.40
length (m)	1.40
width (m)	0.70

$$f = \frac{V_p}{\alpha_p \times t_p}$$

f = soil infiltration rate

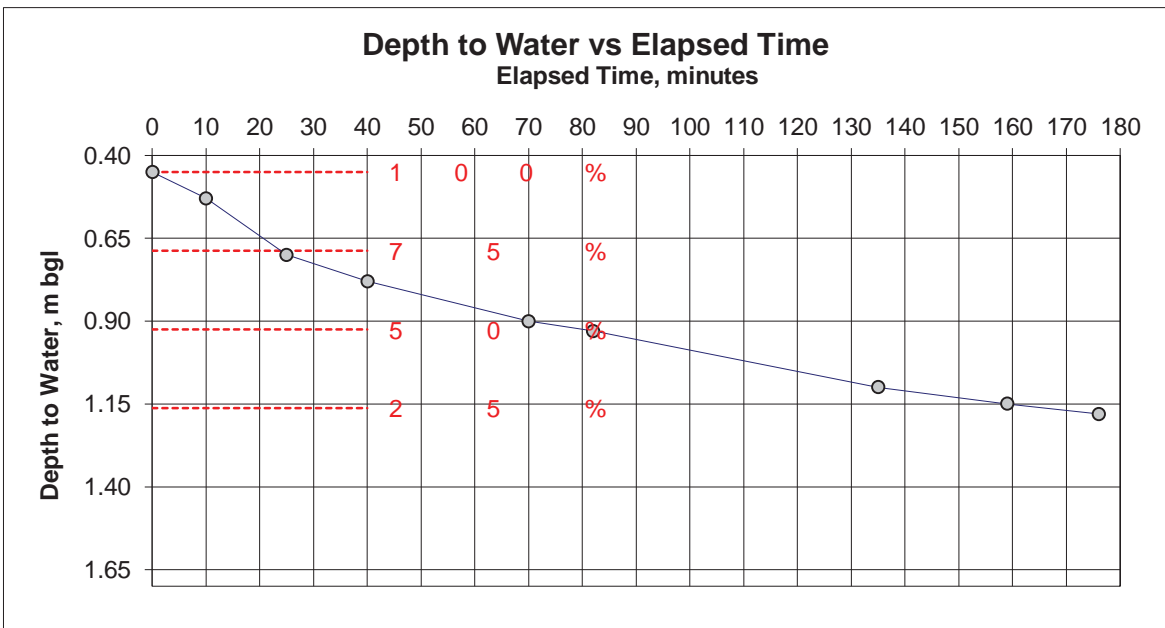
V_p = volume of water from 75% to 25% effective depth

α_p = Internal surface area at 50% effective depth

t_p = time for the water level to fall from 75% to 25% effective depth

time at 75% effective depth (mins) 25
time at 25% effective depth (mins) 160
(from graph)

Calculated Soil Infiltration Rate = 1.5E-05 m/sec



The Brownfield Consultancy

SOIL INFILTRATION TEST

Woodstock
 Memorial Road
 Fenny Compton
 CV47 2XU
 Tel: 07852881086

Project:
 Fewcott Road, Fritwell

Project No:
 BC195

Test Location: SA3

Test No: 3

Date: 26.3.20

Water level during test

Time mins	Depth m bgl
0	0.550
7	0.700
22	1.150
37	1.400

Trial pit dimensions

depth (m)	1.40
length (m)	1.40
width (m)	0.70

$$f = \frac{V_p}{\alpha_p \times t_p}$$

f = soil infiltration rate

V_p = volume of water from 75% to 25% effective depth

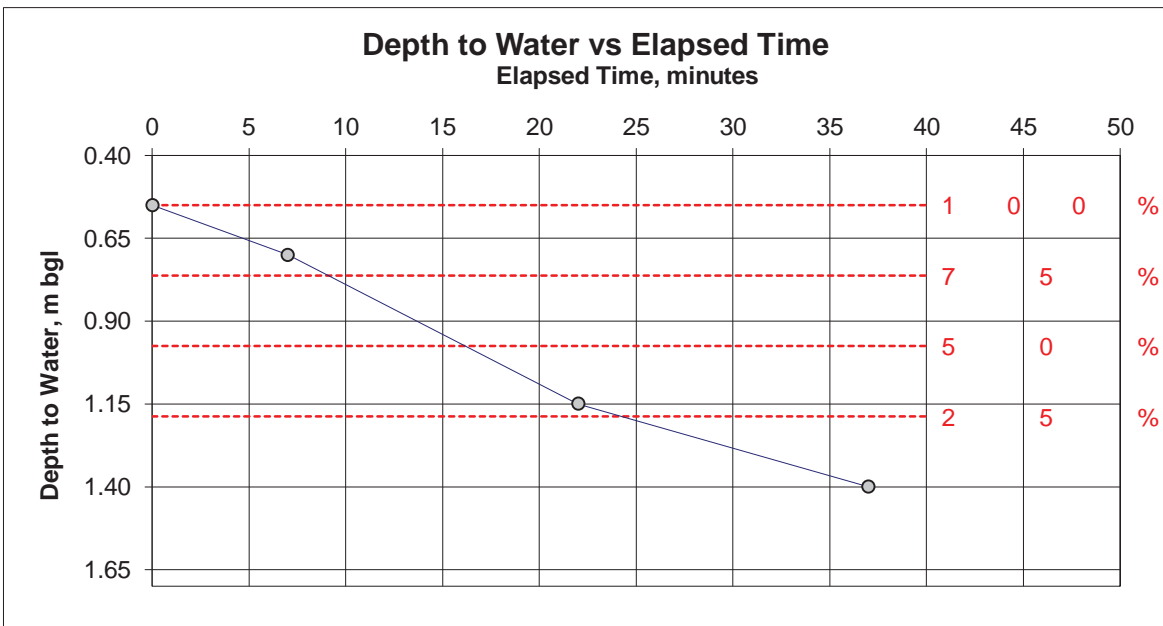
α_p = Internal surface area at 50% effective depth

t_p = time for the water level to fall from 75% to 25% effective depth

time at 75% effective depth (mins) 8

time at 25% effective depth (mins) 24
 (from graph)

Calculated Soil Infiltration Rate = 1.6E-04 m/sec



Woodstock
Memorial Road
Fenny Compton
CV47 2XU
Tel: 07852881086

Project:
Fewcott Road, Fritwell

Project No:
BC195

Test Location: SA4

Test No: 1

Date: 25.3.20

Water level during test

Time mins	Depth m bgl
0	0.300
4	0.350
12	0.400
36	0.530
49	0.590
63	0.640
82	0.700
121	0.800
145	0.850
158	0.880

Trial pit dimensions

depth (m)	1.00
length (m)	1.45
width (m)	0.70

$$f = \frac{V_p}{\alpha_p \times t_p}$$

f = soil infiltration rate

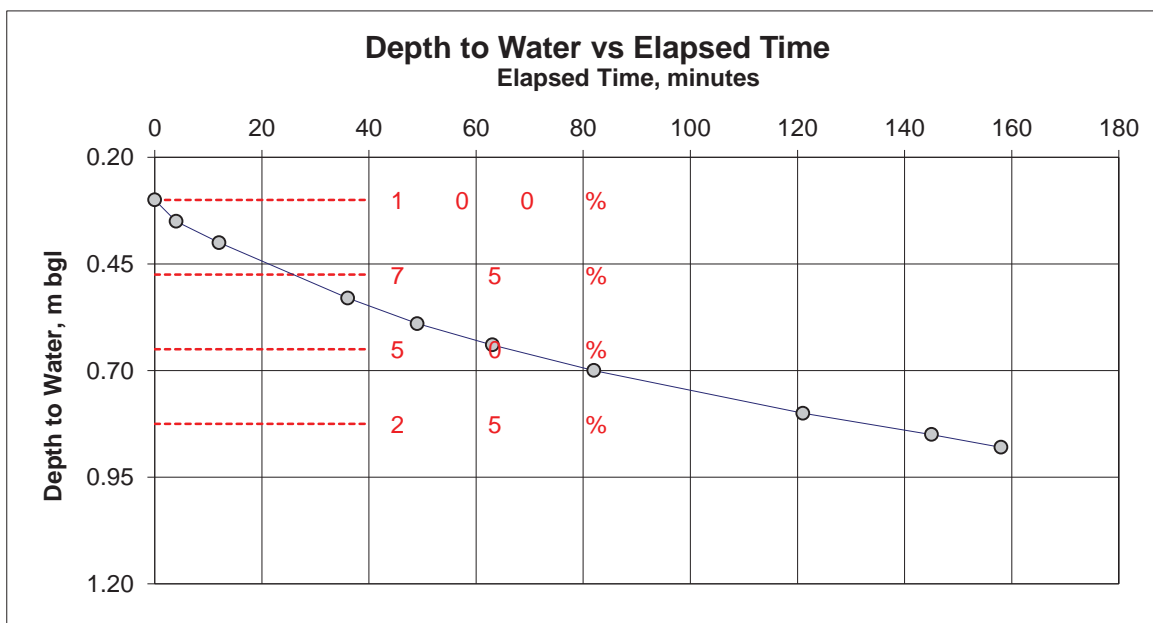
V_p = volume of water from 75% to 25% effective depth

α_p = Internal surface area at 50% effective depth

t_p = time for the water level to fall from 75% to 25% effective depth

time at 75% effective depth (mins) 25
time at 25% effective depth (mins) 144
(from graph)

Calculated Soil Infiltration Rate = 1.6E-05 m/sec



The Brownfield Consultancy	SOIL INFILTRATION TEST
Woodstock Memorial Road Fenny Compton CV47 2XU Tel: 07852881086	Project: Fewcott Road, Fritwell
	Project No: BC195

Test Location: SA4

Test No: 2

Date: 25.3.20

Water level during test

Time mins	Depth m bgl
0	0.400
20	0.500
34	0.530
62	0.610
84	0.670
119	0.730
157	0.790
178	0.830
204	0.880

Trial pit dimensions

depth (m)	1.00
length (m)	1.45
width (m)	0.70

$$f = \frac{V_p}{\alpha_p \times t_p}$$

f = soil infiltration rate

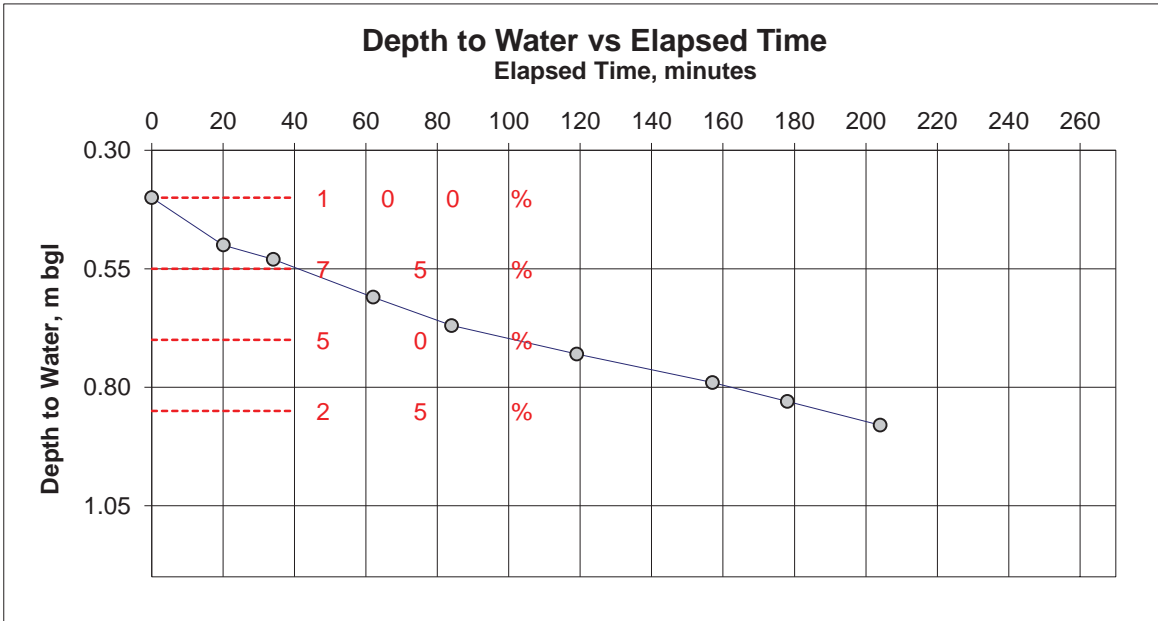
Vp = volume of water from 75% to 25% effective depth

αp = Internal surface area at 50% effective depth

tp = time for the water level to fall from 75% to 25% effective depth

time at 75% effective depth (mins) 40
time at 25% effective depth (mins) 185
(from graph)

Calculated Soil Infiltration Rate = 1.2E-05 m/sec



The Brownfield Consultancy	SOIL INFILTRATION TEST
Woodstock Memorial Road Fenny Compton CV47 2XU Tel: 07852881086	Project: Fewcott Road, Fritwell
	Project No: BC195

Test Location: SA4

Test No: 3

Date: 26.3.20

Water level during test

Time mins	Depth m bgl
0	0.500
37	0.630
58	0.700
92	0.790
155	0.900

Trial pit dimensions

depth (m)	1.00
length (m)	1.45
width (m)	0.70

$$f = \frac{V_p}{\alpha_p \times t_p}$$

f = soil infiltration rate

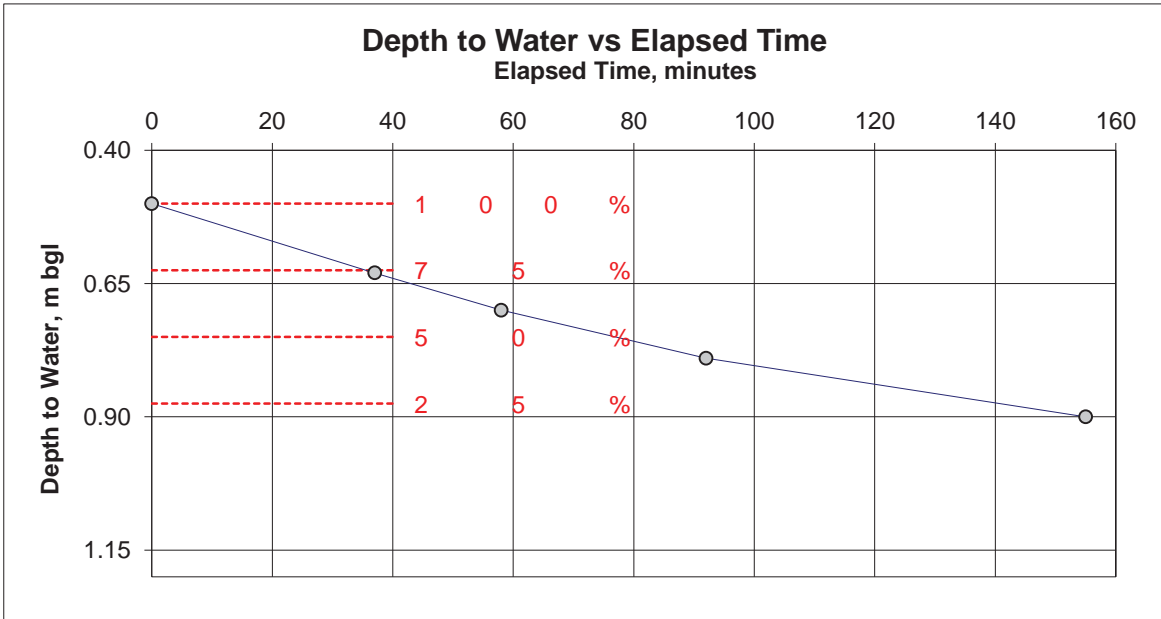
V_p = volume of water from 75% to 25% effective depth

α_p = Internal surface area at 50% effective depth

t_p = time for the water level to fall from 75% to 25% effective depth

time at 75% effective depth (mins) 38
time at 25% effective depth (mins) 150
(from graph)

Calculated Soil Infiltration Rate = 1.5E-05 m/sec



Woodstock
Memorial Road
Fenny Compton
CV47 2XU
Tel: 07852881086

Project:
Fewcott Road, Fritwell

Project No:
BC195

Test Location: SA6

Test No: 1

Date: 26.3.20

Water level during test

Time mins	Depth m bgl
0	0.290
6	0.350
31	0.450
53	0.500
65	0.530
108	0.600
123	0.630
140	0.660
171	0.710
189	0.740
203	0.770

Trial pit dimensions

depth (m)	0.90
length (m)	1.35
width (m)	0.70

$$f = \frac{V_p}{\alpha_p \times t_p}$$

f = soil infiltration rate

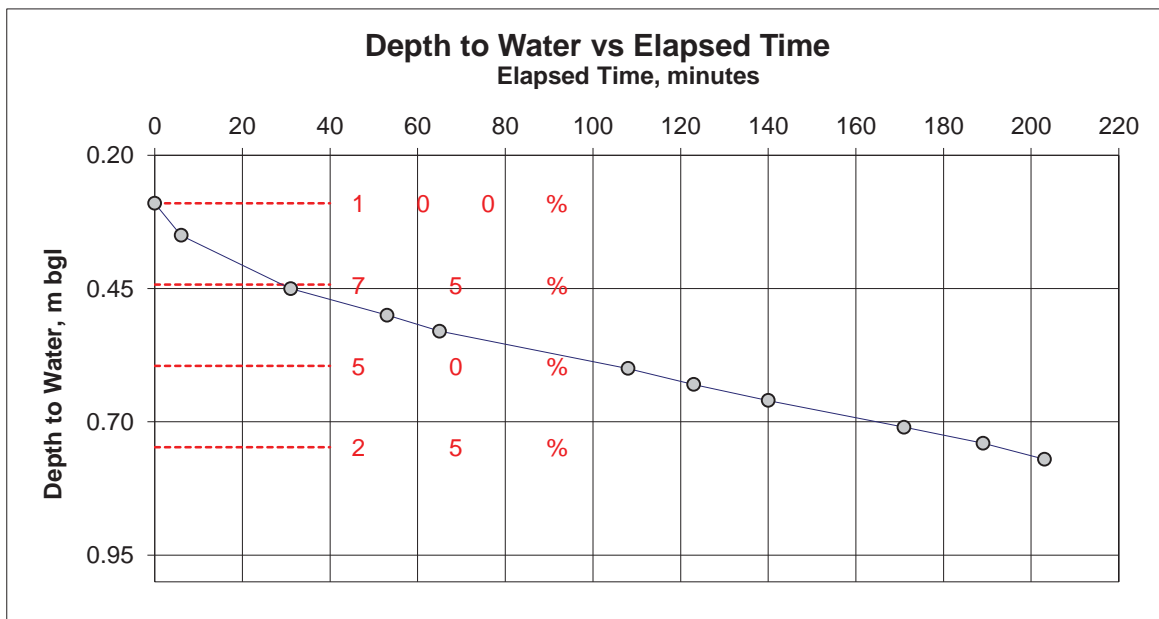
V_p = volume of water from 75% to 25% effective depth

α_p = Internal surface area at 50% effective depth

t_p = time for the water level to fall from 75% to 25% effective depth

time at 75% effective depth (mins) 32
time at 25% effective depth (mins) 200
(from graph)

Calculated Soil Infiltration Rate = 1.0E-05 m/sec



APPENDIX D

Limitations

NOTES ON LIMITATIONS

This report has been prepared by the Brownfield Consultancy with all reasonable skill, care and diligence. This report is confidential and has been prepared solely for the benefit of the client as stated at the front of the report in relation to a specific development or scheme; and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from The Brownfield Consultancy; a charge may be levied against such approval. We accept no responsibility or liability for the consequences of this document being used for any purpose or project other than for which it was commissioned, and: this document to any third party with whom an agreement has not been executed.

Any comments given are based on the understanding that the proposed development will be as detailed. The Brownfield Consultancy warrants the accuracy of this report up to and including the published date. Additional information, improved practice or changes in legislation may necessitate this report having to be reviewed in whole or in part after that date.

This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report. Whilst this report and the opinion made herein are correct to the best of our belief we cannot guarantee the accuracy or completeness of any information provided by third parties.

The opinions and recommendations expressed in this report are based on statute, guidance, and appropriate practice current at the date of its preparation. The Brownfield Consultancy does not accept any liability whatsoever for the consequences of any future legislative changes or the release of subsequent guidance documentation, etc. Such changes may render some of the opinions and advice in this report inappropriate or incorrect and we will be pleased to advise if any report requires revision due to changing circumstances. Following delivery of a report we have no obligation to advise the Client or any other party of such changes or their repercussions.

Phase 1 Reports

The work undertaken to provide the basis of a Phase I report comprised a study of available documented information from a variety of sources, together with (where appropriate) a brief walk over inspection of the site. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. It should be noted that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

Historical maps and aerial photographs provide a “snap shot” in time about conditions or activities at the site and cannot be relied upon as indicators of any events or activities that may have taken place at other times.

Phase II Intrusive Investigations

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, and ground and groundwater conditions to allow a reasonable risk assessment to be made. The conclusions and recommendations made in this site appraisal report and the opinions expressed are based on the information reviewed and/or the ground conditions encountered in exploratory holes and the results of any field or laboratory testing undertaken. There may be ground conditions at the site that have not been disclosed by the information reviewed or by the investigative work undertaken. Such undisclosed conditions cannot be taken into account in any analysis and reporting.

Some of the conclusions in this site appraisal report may be based on third party data. No guarantee can be given for the accuracy or completeness of any of the third party data used.

The evaluation and conclusions do not preclude the existence of contamination, which could not reasonably have been revealed by the current work. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. The number of sampling points and the methods of sampling and testing do not preclude the existence of localised “hotspots” of contamination where concentrations may be significantly higher than those actually encountered. Hence this report should be used for information purposes only and should not be construed as a comprehensive characterisation of all site conditions.

It should be noted that groundwater levels, groundwater chemistry, surface water levels, surface water chemistry, soil gas concentrations and soil gas flow rates can vary due to seasonal, climatic, tidal and man-made effects.

The interpretation carried out in this report is based on scientific and engineering appraisal carried out by suitably experienced and qualified technical consultants based on the scope of our engagement. We have not taken into account the perceptions of, for example, banks, insurers, other funders, lay people, etc., unless the report has been prepared specifically for that purpose. Advice from other specialists may be required such as the legal, planning and architecture professions, whether specifically recommended in our report or not.

The objectives of the investigation have been linked to establishing the risks associated with potential human targets, building materials, the environment (including adjacent land), and to surface and ground water. The amount of exploratory work and chemical testing undertaken has necessarily been restricted by the short timescale available, and the locations of exploratory holes have been restricted to areas unoccupied by the building(s) on the site and by buried services.

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APPENDIX H

Photographs

Photographs



Trial Trench TP15 looking North West



Trial Trench TP15 looking South East

Photographs of the Site



Suspected ACM - Trial Trench TP15



Trial Trench TP15 stockpiled arisings

Photographs of the Site



Trial Trench TP16 arisings



Trial Trench TP16 arisings

Photographs of the Site



Suspected ACM - Trial Trench TP16



Trial Trench TP16

Photographs of the Site



Trial Trench TP16 – large piece of masonry



TP27 – Stockpile in North-West Corner

Photographs of the Site



Location of TP28



TP29

Photographs of the Site



TP29

APPENDIX I

Limitations

NOTES ON LIMITATIONS

This report has been prepared by the Brownfield Consultancy with all reasonable skill, care and diligence. This report is confidential and has been prepared solely for the benefit of the client as stated at the front of the report in relation to a specific development or scheme; and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed.

Should any third party wish to use or rely upon the contents of the report, written approval must be sought from The Brownfield Consultancy; a charge may be levied against such approval. We accept no responsibility or liability for the consequences of this document being used for any purpose or project other than for which it was commissioned, and: this document to any third party with whom an agreement has not been executed.

Any comments given are based on the understanding that the proposed development will be as detailed. The Brownfield Consultancy warrants the accuracy of this report up to and including the published date. Additional information, improved practice or changes in legislation may necessitate this report having to be reviewed in whole or in part after that date.

This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report. Whilst this report and the opinion made herein are correct to the best of our belief we cannot guarantee the accuracy or completeness of any information provided by third parties.

The opinions and recommendations expressed in this report are based on statute, guidance, and appropriate practice current at the date of its preparation. The Brownfield Consultancy does not accept any liability whatsoever for the consequences of any future legislative changes or the release of subsequent guidance documentation, etc. Such changes may render some of the opinions and advice in this report inappropriate or incorrect and we will be pleased to advise if any report requires revision due to changing circumstances. Following delivery of a report we have no obligation to advise the Client or any other party of such changes or their repercussions.

Phase 1 Reports

The work undertaken to provide the basis of a Phase I report comprised a study of available documented information from a variety of sources, together with (where appropriate) a brief walk over inspection of the site. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. It should be noted that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

Historical maps and aerial photographs provide a “snap shot” in time about conditions or activities at the site and cannot be relied upon as indicators of any events or activities that may have taken place at other times. Any borehole data from the British Geological Survey sources are included on the following basis: “The British Geological Survey accept no responsibility for omissions or misinterpretation of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation”.

Phase II Intrusive Investigations

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, and ground and groundwater conditions to allow a reasonable risk assessment to be made. The conclusions and recommendations made in this site appraisal report and the opinions expressed are based on the information reviewed and/or the ground conditions encountered in exploratory holes and the results of any field or laboratory testing undertaken. There may be ground conditions at the site that have not been disclosed by the information reviewed or by the investigative work undertaken. Such undisclosed conditions cannot be taken into account in any analysis and reporting.

Some of the conclusions in this site appraisal report may be based on third party data. No guarantee can be given for the accuracy or completeness of any of the third party data used.

The evaluation and conclusions do not preclude the existence of contamination, which could not reasonably have been revealed by the current work. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. The number of sampling points and the methods of sampling and testing do not preclude the existence of localised “hotspots” of contamination or different ground conditions where concentrations may be significantly higher than those actually encountered. Hence this report should be used for information purposes only and should not be construed as a comprehensive characterisation of all site conditions.

It should be noted that groundwater levels, groundwater chemistry, surface water levels, surface water chemistry, soil gas concentrations and soil gas flow rates can vary due to seasonal, climatic, tidal and man-made effects.

Exploratory hole locations provided in the report are generally established by tape measurement from existing features or boundaries. Hole locations are not accurately surveyed and ground levels at these locations are not obtained unless specifically requested.

The interpretation carried out in this report is based on scientific and engineering appraisal carried out by suitably experienced and qualified technical consultants based on the scope of our engagement. We have not taken into account the perceptions of, for example, banks, insurers, other funders, lay people, etc., unless the report has been prepared specifically for that purpose. Advice from other specialists may be required such as the legal, planning and architecture professions, whether specifically recommended in our report or not.

The objectives of the investigation have been linked to establishing the risks associated with potential human targets, building materials, the environment (including adjacent land), and to surface and ground water. The amount of exploratory work and chemical testing undertaken has necessarily been restricted by the short timescale available, and the locations of exploratory holes have been restricted to areas unoccupied by the building(s) on the site and by buried services.

New information, improved practices and legislation may necessitate an alteration to the report in whole, or in part, after its submission. Therefore with any change in circumstances or after the expiry of one year from the date of the report, the report should be referred to the Brownfield Consultancy Limited for re-assessment and, if necessary, re-appraisal.

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