

MINI · SOIL · SURVEYS



MINI SOIL SURVEYS (NORTHERN) LTD. 12 BEECH WALK, LEIGH, LANCs. WN7 3LH

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GROUND INVESTIGATION

AT

WESTFIELD HOUSE

WELLTHORNE LANE

INGBIRCHWORTH

MSS REF: NTH 1374

DATE: 2/10/2014

1.0 INTRODUCTION

Following a Coal Mining Risk Assessment prepared by JNP Group ref: NG8016/WEL an intrusive ground investigation was undertaken in order to address the issues contained therein. Viz:-

That whilst historical records do not indicate the presence of shallow mineworkings within the area of the site, a residual risk remains from the possible presence of unrecorded workings in the form of "bell pits".

2.0 SCOPE

In accordance with the recommendations contained within the above report, a series of six boreholes were constructed.

Five were located in the area of the proposed new dwelling and one at the proposed location of a remote garage.

Details of the boreholes and their locations are appended.

Responsibility cannot be accepted for changes away from or below the boreholes.

3.0 FINDINGS

All boreholes revealed similar ground conditions:-

Turf overlying a modest depth of made ground. 0.3- 0.55m

The made ground consisted of clay and topsoil containing gravel, fragments of shale and sandstone, roots and occasional brick fragments.

The made ground overlay grey/brown clay which contained fragments of shale and sandstone at depth.

Some organic fibre was noted in samples of this material recovered from borehole 1.

The clay extended to depths varying from 1.1m to 1.5m in the area of the proposed dwelling and 1.8m at borehole 6 (garage).

Beneath the clay, grey/brown shale containing fragments of mudstone was typically revealed although at borehole 6 this stratum was predominantly mudstone containing much shale.

When first encountered this material was weak and highly weathered but became less weathered with depth.

4.0 DISCUSSION

The boreholes reveal a uniform progression of strata across the area in question with no anomalous features which would indicate the presence of past workings or previously disturbed ground.

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tel. 01942 269769
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Site:- WESTFIELD HOUSE INGBIRCHWORTH

Job No. NTH 1374

Date:- 29/9/14 **BH No.2 of 6**

Description	Depth	Leg	Test/ Depth	Value
Turf over grey sandy clay/topsoil with some fine gravel, fine roots and fine shale fragments. MADE GROUND.				
Firm becoming stiff light brown/grey sandy CLAY with shale fragments at depth.	0.38		0.5 DS	
Weak weathered grey/brown SHALE.	1.35		1.2 SPT N = 15	
Refusal on shale.	1.60			

SPT @ 1.2m 2/1/2,2,4,7
 Borehole dry.

Key: SPT (standard penetration test). SV (shear vane). DS (disturbed sample). U38 (38mm undisturbed sample).

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Site:- WESTFIELD HOUSE INGBIRCHWORTH

Job No. NTH 1374

Date:- 29/9/14 **BH No.1 of 6**

Description	Depth	Leg	Test/ Depth	Value
Turf over firm brown/grey sandy clay with some shale and sandstone fragments and wet clayey fragmented coal bands. MADE GROUND.				
Soft becoming firm brown/grey turning grey sandy CLAY with organic fibre. Some fine weathered shale fragments at depth.	0.55		0.6 DS	
Weak weathered grey/brown SHALE.	1.40			
Refusal on shale.	1.60			

SPT @ 1.2m 1/1/1,1,6,12

Water encountered at 0.4m. (Perched surface water.)

Key: SPT (standard penetration test). SV (shear vane). DS (disturbed sample). U38 (38mm undisturbed sample).

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Site: - WESTFIELD HOUSE INGBIRCHWORTH

Job No. NTH 1374

Date: - 29/9/14

BH No.6 of 6

Description	Depth	Leg	Test/ Depth	Value
Turf over sandy clay and topsoil with some mixed gravel, fine roots and occasional brick fragments. MADE GROUND.				
Firm becoming stiff light brown/grey sandy CLAY with shale, sandstone and mudstone fragments at depth.	0.30			
			1.0 DS	
			1.2 SPT N = 21	
Weak weathered grey/brown very shaley MUDSTONE.	1.80			
			1.8 SPT N = ***	
Refusal on shaley mudstone.	2.10			

SPT @ 1.2m 4/5/5,5,5,6 @ 1.8m 6/6/8,8,11, * Refusal.
Borehole dry.

Key: SPT (standard penetration test). SV (shear vane). DS (disturbed sample). U38 (38mm undisturbed sample).

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Site:- WESTFIELD HOUSE INGBIRCHWORTH

Job No. NTH 1374

Date:- 29/9/14

BH No.5 of 6

Description	Depth	Leg	Test/ Depth	Value
Turf over dark brown sandy clayey topsoil with gravel, roots and some sandstone cobbles. MADE GROUND.				
Firm light brown/grey sandy CLAY with some sand bands and some shale fragments at depth:	0.32			
Very weak weathered grey brown SHALE with some mudstone fragments at depth.	1.10		1.2 SPT	N = 30
Refusal on shale/mudstone.	1.70		1.8 SPT	N = ***

SPT @ 1.2m 2/4/6,7,9,8 @ 1.8m 12/' Refusal.
 Borehole dry.

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Job No. NTH 1374

Date:- 29/9/14

BH No.4 of 6

Description	Depth	Leg	Test/ Depth	Value
Turf over dark brown/grey sandy clay/topsoil with some fine gravel and some fine roots. MADE GROUND.				
Firm becoming firm/stiff light brown/grey sandy CLAY with some sand bands and shale fragments at depth.	0.35			
Very weak weathered grey/brown SHALE.	1.40			
Refusal on shale.	1.65			

1.2 SPT N = 16

SPT @ 1.2m 2/2/2,2,4,8
Borehole dry.

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Site: - WESTFIELD HOUSE INGBIRCHWORTH

Job No. NTH 1374

Date: - 29/9/14

BH No.3 of 6

Description	Depth	Leg	Test/ Depth	Value
Turf over grey sandy clay/topsoil with some fine gravel and shale fragments MADE GROUND.				
Firm becoming firm/stiff light brown/grey sandy CLAY with some shale fragments.	0.30			
			1.0 DS	
			1.2 SPT N = 8	
Very weak weathered grey/brown SHALE with mudstone fragments at depth.	1.50			
			1.8 SPT N = ***	
Refusal on shale/mudstone.	2.05			

SPT @ 1.2m 1/2/1;2,2,3 @ 1.8m 10/11/9,11,12, * Refusal.
Moist to 0.3m. No standing water.

Key: SPT (standard penetration test). SV (shear vane). DS (disturbed sample). U38 (38mm undisturbed sample).