

**Land at Slipper Lane
Mirfield Moor
West Yorkshire**

Archaeological Evaluation

for

Urban Evolution Ltd

acting on behalf of

Park Crescent Ltd

CA Project: 660334


CA Report: 14504

October 2014

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issue	01

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SUMMARY

Project Name:	Land at Slipper Lane
Location:	Mirfield Moor, West Yorkshire
NGR:	SE 1963 2172
Type:	Evaluation
Date:	8-19 September 2014
Planning Ref:	Kirklees Metropolitan Council 2014/60/90688/E
Location of Archive:	Kirklees Museums & Galleries
Site Code:	SLM14

In September 2014, Cotswold Archaeology carried out an archaeological evaluation at Slipper Lane, Mirfield Moor, West Yorkshire. The evaluation was commissioned by Urban Evolution Ltd, acting on behalf of Park Crescent Ltd, and the results will be offered in support of a planning application that has been submitted for the mixed use development of the site.

The evaluation demonstrated that the extent of 20th-century open-cast mining within the site was slightly more extensive than indicated on existing plans and that the area surrounding the open-cast mine had been heavily disturbed, with large-scale groundworks and land reinstatement being undertaken across most of the site. This activity comprised localised quarrying, ground reduction, the laying of made-ground and the possible excavation of mineshafts. The only area where the original land surface appeared to survive relatively intact was at the eastern end of the site. The only features encountered were two small, shallow undated ditches, two modern field boundary ditches and the sites of two possible lime kilns dating to the 18th century or later. The latter may have been used to manufacture quick lime mortar for the construction of buildings associated with mining in the area or for providing lime to improve sour land when the moorland was enclosed in the late 18th/early 19th century.



1. INTRODUCTION

- 1.1 In September 2014, Cotswold Archaeology (CA) carried out an archaeological evaluation at Slipper Lane, Mirfield Moor, West Yorkshire (site centred at NGR: SE 1963 2172; Fig. 1). The evaluation was commissioned by Urban Evolution Ltd, acting on behalf of Park Crescent Ltd, and the results will be offered in support of a planning application that has been submitted for the mixed use development of the site (Kirklees Metropolitan Council, planning ref. 2014/60/90688/E).
- 1.2 Kirklees Metropolitan Council receives archaeological advice on planning matters from West Yorkshire Archaeological Advisory Service (WYAAS). The scope of works was agreed with WYAAS and comprised the excavation of thirty-eight 50m trenches, equating to a 4% sample of the site area (Fig. 2). The evaluation has been informed by the Cultural Heritage chapter of the *Environmental Statement (Chapter 11)*, which was prepared by WSP (2014) in support of the planning application.
- 1.3 The evaluation was carried out in accordance with an approved *Written Scheme of Investigation (WSI)* prepared by CA (2014) and abided by the Institute for Archaeologist's (IfA) *Standard and Guidance for Archaeological Field Evaluation* (IfA 2008) and English Heritage's procedural documents *Management of Archaeological Projects 2* (EH1991) and *Management of Research Projects in the Historic Environment (MoRPHE): Project Manager's Guide* (EH 2006). The fieldwork was monitored by David Hunter, WYAAS, with a site visit being made on 16 September 2014.

The site

- 1.4 The site, which covers an area of c. 15.6ha, is located to the north of Mirfield Moor, in the civil parish of Mirfield, approximately 6.5km north-east of Huddersfield town centre (Fig. 1). It comprises an irregular block of farmland (Fig. 2, Fields 1-4), predominately under pasture, bounded by Leeds Road (A62) to the north, the gardens of houses fronting on to Sunny Bank Road to the east, playing fields, open ground and gardens to the south and Slipper Lane to the west. It is divided into two areas by a farm track, Taylor Hall Lane, and is crossed by overhead high-voltage cables in the eastern part of the site. The central part of the site, covering an area of c. 6ha, has been subject to open-cast mining and the ground has been reinstated and returned to agricultural use. The undulating ground slopes gradually to the

south, from approximately 127m above Ordnance Datum (aOD) at the north-east corner of the site to 118m aOD to the west.

- 1.5 The geology of the site comprises Carboniferous mudstone, siltstone and sandstone of the Pennine Lower Coal Measures Formation, with subsidiary beds of Falhouse Rock. The western part of the site is crossed by a fault on a north to south alignment (BGS 2014).

Archaeological background

- 1.6 The archaeological and historical background of the site has been presented in detail in the Cultural Heritage chapter of the *Environmental Statement* (Chapter 11) prepared by WSP (2014). In brief, this demonstrated that there are no records of known archaeological sites within the proposed development area although a late prehistoric or Romano-British Janiform stone head has been found to the east of the site, suggesting that there may have been a shrine or other contemporary site nearby (HER 6849). The stone head, published in '*Celtic and Other Stone Heads*' by S Jackson (1973), was found in a stone wall near a well or spring on Mirfield Moor in 1966, although the exact location of the find and its current whereabouts are unknown.
- 1.7 The site is likely to have been in use as common pasture land from the medieval period until enclosure in the late 18th century, as indicated by the 1798 Mirfield enclosure plan. In the mid-19th century the site was exploited for coal, through the Slipper Lane Colliery and Taylor Hall Colliery. The central part of the site was subject to open-cast coal mining in the mid-20th century, which would have removed any archaeological remains that may have been present in this area. The open-cast mine was subsequently backfilled and the land has since reverted to agricultural use.

Archaeological objectives

- 1.8 The objectives of the evaluation, as outlined in the WSI (CA 2104) were to:
- Determine if archaeological remains associated with the Celtic stone head found to the east of the site lie within the application area;
 - Determine the nature, extent, date, integrity and state of preservation of any archaeological remains that may be present within the site;

- Determine the potential for the survival of palaeoenvironmental remains recovered from archaeological deposits;
 - Place the investigated remains within the context of the surrounding archaeological landscape.
- 1.9 The results of the evaluation will assist WYAAS in making an informed judgement on the significance of the archaeological resource and the likely impact upon it of the proposed development, so that it can be determined if further archaeological works are required.

Methodology

- 1.10 The evaluation comprised the excavation and investigation of thirty-eight 50m trial trenches (1900 linear metres), in accordance with the trench layout presented in Figure 2. Trenches were set out on OS National Grid (NGR) co-ordinates using a Leica 1200 series SmartRover GPS and scanned for live services by trained CA staff using CAT and Genny equipment. Trenches were generally positioned to avoid known quarried areas, although several trenches were positioned to confirm the edge of the open-cast mine, as shown on existing plans. All trenches were excavated by a mechanical excavator equipped with a toothless grading bucket. All machine excavation was undertaken under constant archaeological supervision to the top of the first significant archaeological horizon or the geological substrate, whichever was encountered first. Where potential archaeological deposits and features were encountered, they were excavated by hand in accordance with CA's *Technical Manual 1: Fieldwork Recording Manual* (CA 2013).
- 1.11 Deposits were assessed for their palaeoenvironmental potential in accordance with *CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites* (2003) and *Environmental Archaeology: a guide to the theory and practice of methods from sampling and recovery to post-excavation* (EH 2011). Two 40 litre samples were taken, one from a possible lime kiln and one from an undated ditch.
- 1.12 The project archive is currently held by CA at their offices in Milton Keynes. CA will make arrangements with Kirklees Museums & Galleries for the deposition of the

archive. A summary of information from this project, as set out within Appendix B, will be entered onto the OASIS online database of archaeological projects in Britain.

2. RESULTS

Summary

- 2.1 The evaluation demonstrated that the extent of 20th-century open-cast mining within the site was slightly more extensive than indicated on existing plans and that the area surrounding the open-cast mine had been heavily disturbed, with large-scale groundworks and land reinstatement being undertaken across most of the site. This activity comprised localised quarrying, ground reduction, the laying of made-ground and the possible excavation of mineshafts. The only area where the original land surface appeared to survive relatively intact was at the eastern end of the site. The only features encountered were two small, shallow undated ditches, two modern field boundary ditches and the sites of two possible lime kilns dating to the late 18th/early 19th century. Details of the recorded features and deposits are presented in Appendix A and are shown in Figure 2.

General stratigraphy

- 2.2 The geological substrate, where observed, was yellowish-grey or yellowish-brown clay with manganese mottling, occasionally interleaved with veins of black silt and coal. Subsoil was recorded intermittently across the site, mostly in the peripheral parts of the site that had not been quarried or mined; where encountered, it ranged in thickness between 0.07m and 0.19m thick. The topsoil, which was largely redeposited except in the eastern part of the site, comprised dark greyish-brown, almost humic, silty-clay and ranged in thickness from 0.09m to 0.33m.

Ditches

Trench 7

- 2.3 Passing through the centre of the trench on a north-west to south-east alignment and extending from the corner of the modern field was ditch 704 (Fig. 7). It measured 0.8m wide by 0.10m deep and had a shallow concave profile. Its fill, 705, was derived from weathering of the ditch sides, suggesting it had been open for some time. The feature is undated but was sealed by subsoil, suggesting that it is probably post-medieval or earlier.

Trenches 14 and 15

- 2.4 Passing through the western ends of Trenches 14 and 15 on a roughly north to south alignment and parallel to Taylor Hall Lane was ditch 1408/1508. It measured 1.9m wide by 0.74m deep and was filled with a deposit identical to the overlying made-ground 1401/1501, demonstrating that it had been deliberately backfilled. It cut earlier layers of made-ground, indicating a modern date for the ditch.

Trench 21

- 2.5 At the north-western end of Trench 21 was ditch 2102, which was aligned north-east to south-west and measured 1.5m wide by at least 0.26m deep. This had a very dark, almost black fill, within which was a ceramic drain pipe. This ditch is a continuation of the hedge and ditch to be seen directly to the east, which forms the southern boundary of Fields 3 and 4, demonstrating that Field 2 was originally two fields.

Trench 27

- 2.6 A linear feature, 2702, was recorded in Trench 27. This was a black, humic deposit occupying the base of a pronounced dip or valley in the landscape and seen on the ground surface as a wet area with reeds and weeds extending into the south-east corner of Field 3. It is not clear whether this is an anthropogenic or topographic feature.

Trench 30

- 2.7 Aligned east to west at the south-eastern end of the trench was ditch 3002. It measured 0.9m wide by 0.10m deep, had a shallow profile and was filled with grey silty clay derived from weathering of the ditch sides. Its position does not correspond to known field divisions and may indicate an older origin.

Possible lime kilns

Trenches 29 and 36

- 2.8 In Trenches 29 and 36 there were two circular or oval features, occurring as large patches of sooty black silt surrounded by a halo of scorched red clay. These have been interpreted as the possible remains of lime kilns, dating to the 18th century or later.
- 2.9 In Trench 29 the overall dimensions of feature 2901 (including scorched clay) were 4.2m by more than 1.8m.

- 2.10 Feature 3605 measured approximately 1.9m long by 0.9m wide by 0.08m deep and had a shallow concave profile. This was filled with black sooty deposit 3606. Around the edges of the pit the underlying yellow clay had been scorched a deep red colour, 3607, indicative of intense *in situ* burning. The overall affected area measured in excess of 2.2m by 1.6m. The absence of subsoil in the surrounding area suggests that the site of the possible lime kiln had been stripped of soil and ground level possibly reduced; the presence of deposits 3601 and 3602, which contained burnt material, suggests that waste material from this installation was raked out and spread over the surrounding ground surface.

Quarrying

Trenches 3, 10-12, 16-20

- 2.11 Existing plans show that the site had been subject to extensive open-cast mining and it was for this reason that the central part of the site on either side of Taylor Hall Lane had been excluded from the evaluation. Trenches 3 and 10 extended just far enough into the quarried area to demonstrate its western edge and Trench 20 revealed the eastern edge of the open-cast mine; it is likely that Trenches 16 to 19 are located within the area of the former open-cast mine as deep deposits of made-ground were recorded within these trenches. Two roughly circular features recorded in Trenches 11 and 22, with diameters of 2.8m and 3.7m respectively, are thought to be backfilled shafts, possibly associated with mining for coal. They were not investigated for safety reasons.

Modern made-ground and disturbance

Trenches 1-3, 7, 8, 10-15 and 22-26

- 2.12 Made-ground deposits were recorded across the western and central parts of the site. These comprised mixed layers of dark grey and brown silty clay, interleaved with layers of yellow clay and drifts of coal waste. The combined depth varied from 0.10m in Trenches 3 and 7 to more than 0.7m in Trench 13, indicating that a slightly undulating landscape had been built up and levelled off by successive dumping episodes. Substantial made-ground deposits were recorded at either end of Trench 11, with a ridge of geology in the centre. These were highly compacted deposits, indicative of successive levelling operations by mechanical means.
- 2.13 Modern disturbance was noted in Trenches 25 and 26, consistent with rutting by heavy vehicles, possibly during road improvement works on Leeds Road.

3. DISCUSSION

Field 1

- 3.1 The evaluation was able to demonstrate that the site had been extensively quarried in modern times. In Field 1, located between Slipper Lane and Taylor Hall Lane, Trenches 1-13 occupied the northern and western parts of the field around an area of known open-cast mining. These trenches contained varying depths of made-ground and disturbance; the edge of the coal pit was encountered in Trenches 3 and 10. Trenches 4, 5 and 9 were located over a large hump, the remnant of a spoil heap which had been partially spread out across the rest of the field, to a depth of several metres. In Trench 11 there was a large, backfilled feature, possibly an infilled mine shaft. An undated ditch in Trench 7 may predate the late 18th-century field system.

Field 2

- 3.2 In Field 2, to the east of Taylor Hall Lane, Trenches 14-24 identified further made-ground deposits of variable depth, consistent with ground remediation following the closure of the open-cast mine. The edge of the open-cast mine was recorded in Trench 20 and it is likely that Trenches 16-19 lie within the quarried area. A circular feature, possibly a backfilled mine-shaft, was recorded in Trench 22. A relict field boundary ditch, a continuation of the southern boundary of Field 3 and Field 4, was recorded in Trench 21; it is shown on the 1855 First Edition Ordnance Survey map of the area.

Field 3

- 3.3 In Field 3, the possible remains of a lime kiln were identified in Trench 29. It comprised a scorched patch of ground with a shallow spread of black silt in the centre; no evidence survived for the superstructure of the kiln or for any raking-out pits or stoke- or flue-holes, so it is not possible to comment on its possible type (EH 2011). The kiln may have been used to manufacture quick lime mortar for the construction of buildings associated with mining in the area or for providing lime to improve sour land when the moorland was enclosed in the late 18th/early 19th century (Raistrick 1972). An undated ditch, possibly predating enclosure of the moor in the late 18th century, was encountered in Trench 30. The southern end of the field was occupied by a large, waterlogged depression supporting reeds and weeds; it is

likely that this feature is artificial and was formed by earthmoving activity associated with the former mine.

Field 4

- 3.4 In Field 4, at the eastern end of the site, the original land surface appeared to have survived *in situ*, suggesting that this area lay beyond the area of mining and associated activity. The remains of a second possible lime kiln were identified in Trench 36, close to the eastern edge of the field.

4. CA PROJECT TEAM

The fieldwork was supervised by Jeremy Mordue, assisted by Caoimhín O Coileain, Dan Riley, Rob Scott, Kostas Papagiannatis and Ben Morton. The report was written by Jeremy Mordue and the illustrations were prepared by Dan Bashford. The archive has been compiled by Jeremy Mordue and prepared for deposition by Emily Evans. The project was managed for CA by Simon Carlyle.

5. REFERENCES

BGS (British Geological Survey) 2014 *Geology of Britain Viewer* http://maps.bgs.ac.uk/geology_viewer_google/googleviewer.html Accessed 7 August 2014

CA (Cotswold Archaeology) 2014 *Land off Slipper Lane, Mirfield Moor, West Yorkshire: Written Scheme of Investigation for an Archaeological Evaluation*, unpublished document

EH (English Heritage) 2011 *Introductions to Heritage Assets: Pre-industrial Lime Kilns*

Raistrick, A, 1972 *Industrial Archaeology*, Granada Publishing Ltd, London

WSP 2014 *Cultural Heritage, Chapter 11*, Volume 1: Environmental Statement - Main Text and Figures, Park Crescent Ltd

APPENDIX A: CONTEXT DESCRIPTIONS

Context	Type	Description	L (m)	W (m)	D/T (m)	Date
Trench 1						
100	Topsoil	Dark greyish brown clay silt			0.20	
101	Made-ground	Made-ground. Mixed, grey-brown silt-clay with frequent small stones			>0.13	Modern
102	Made-ground	Made-ground. Re-deposited mid yellowish brown clay.			>0.14	Modern
103	Made-ground	Made-ground. Dark greyish brown silt clay, frequent coal flecks.			>0.32	Modern
104	Geology	Yellowish grey clay interleaved with black coal seams.				
Trench 2						
200	Topsoil	Dark greyish brown clay-silt			0.15	
201	Made-ground	Made-ground. Mixed, grey-brown silt-clay with frequent small stones.			>0.15	Modern
202	Quarry	Possible cut of quarry pit, but more likely to be a positive feature.	>41.0	>1.8		Modern
203	Fill of 202	Backfill of quarry pit. More likely a positive layer. Mixed clay with stones.				
204	Geology	Light yellow clay.				
Trench 3						
300	Topsoil	Dark greyish brown clay silt, friable with moderate small sub-angular stones			0.27	
301	Made-ground	Made-ground. Mixed yellow clay and dark grey-brown clay-loam.			>0.10	Modern
302	Subsoil	Mid greyish brown silt clay with common coal flecks.			0.13	
303	Quarry	Cut of quarry pit.	>9.0	>1.8	>0.15	Modern
304	Fill of 303	Backfill of quarry pit. Mixed clay with stones.			>0.15	
Trench 4						
400	Topsoil	Dark brownish grey silt clay.	-	-	0.30	
401	Subsoil	Light yellowish brown clayey silt	-	-	0.22	
402	Geology	Light yellowish brown clay.	-	-	-	
Trench 5						
500	Topsoil	Dark brownish grey silt clay.	-	-	0.22	
501	Subsoil	Light yellowish brown clayey silt	-	-	0.01	
502	Geology	Light yellowish brown clay.	-	-	-	
Trench 6						
600	Topsoil	Dark brownish grey silt clay.			0.22	
601	Subsoil	Dark grey silt clay.			>0.19	
602	Geology	Light yellowish brown soft clay.				
Trench 7						
700	Topsoil	Mid greyish brown silt clay			0.20	
701	Made-ground	Made-ground. Mid grey-brown silt clay, compact			0.10	Modern
702	Subsoil	Light grey-brown clay silt, occasional charcoal flecks, compact.			0.07	
703	Geology	Light orange clay with light grey and yellow mottling.				
704	Ditch	Cut of north-west to south-east ditch.	>1.0	0.80	0.10	
705	Fill of 704	Fill of ditch. Mid brownish grey clay silt, friable with occasional small sub-angular stones.			0.10	
Trench 8						
800	Topsoil	Dark brownish grey silt clay			0.22	
801	Made ground	Made-ground. Dark grey silt clay.			>0.10	Modern
802	Geology	Light yellowish brown soft clay.				
803	Made-ground	Made-ground. Light whitish grey sandy clay with charcoal.			>0.40	Modern

Context	Type	Description	L (m)	W (m)	D/T (m)	Date
Trench 9						
900	Topsoil	Dark brownish grey silt clay.	-	-	0.22	
901	Subsoil	Light yellowish brown clayey silt	-	-	0.20	
902	Geology	Light yellowish brown clay.	-	-	-	
Trench 10						
1000	Topsoil	Dark brownish grey silt clay			0.20	
1001	Made-ground	Made-ground. Dark grey silt clay.			0.14	Modern
1002	Geology	Mid yellow brown clay				
1003	Quarry	Cut of quarry pit.	>30.0	>1.8	>0.80	Modern
1004	Fill	Fill of quarry pit. Mixed mid-brownish grey clay			>0.80	
Trench 11						
1100	Topsoil	Mid brownish grey silt clay.			.032	
1101	Geology	Mid yellowish brown soft clay.				
1102	Made-ground	Made-ground. Dark grey silt clay.			0.30	Modern
1103	Quarry	Cut of mine shaft	>2.80	>1.3		Modern
1104	Fill of 1103	Fill of mine shaft. Black clay with charcoal.		0.15		
1105	Fill of 1103	Fill of mine shaft. Dark brownish grey clay, with occasional charcoal.		>1.2		
1106	Made-ground	Made-ground. Mid brownish grey silt clay.			0.40	
Trench 12						
1200	Topsoil	Mid brownish grey silt clay			0.23	
1201	Made-ground	Made-ground				Modern
1202	Geology	Light orange clay with light brown and grey mottling, compact with occasional charcoal flecks				
1203	Pit	Cut of possible pit, observed only in section		0.90	0.25	
1204	Fill of 1203	Fill of ?pit. Light greyish brown clay silt, compact with occasional small stones.			0.25	
Trench 13						
1300	Topsoil	Mid brownish grey silt clay			0.22	
1301	Made-ground	Made-ground. Dark grey silty clay, with modern debris.			>0.38	Modern
1302	Made-ground	Made-ground. Mid yellowish brown clay.			>0.32	Modern
Trench 14						
1400	Topsoil	Mid brownish grey soft silty clay.			0.17	
1401	Layer	Made-ground. Dark grey silty clay withy common building material.			0.15	
1402	Made-ground	Made-ground. Mid greyish brown soft sandy clay.			0.09	Modern
1403	Made-ground	Made-ground. Light yellowish brown clay, re-deposited natural.			0.17	Modern
1404	Quarry	Possible cut of quarry.	>50.0	1.80	0.22	Modern
1405	Fill of 1404	Fill of quarry pit. Black coal dust.			0.16	
1406	Fill of 1404	Fill of quarry pit. Mid yellowish brown silt clay with common stones.			0.34	
1407	Geology	Light yellow brown and grey clay.				
1408	Ditch	Cut of north-west to south-east ditch. Same as 1508. Not excavated.	>1.80	1.89		
1409	Fill of 1408	Fill of ditch. Dark grey silty clay withy common building material.				
Trench 15						
1500	Topsoil	Dark brownish grey soft silt clay.			0.20	
1501	Made-ground	Made-ground. Black silt clay with moderate building debris.			0.12	Modern
1502	Made-ground	Made-ground. Mid grey-brown soft sandy clay.			0.11	Modern
1503	Made-ground	Made-ground. Re-deposited natural; yellow brown clay.			0.16	Modern
1504	Geology	Light yellowish brown and light grey clay				

Context	Type	Description	L (m)	W (m)	D/T (m)	Date
1505	Quarry	Possible cut of quarry.	>30.0	>1.8	>0.65	
1506	Fill of 1505	Fill of quarry. Black coal dust.			0.34	
1507	Fill of 1505	Fill of quarry. Mid brown sandy clay, mixed with coal dust and re-deposited clay.			0.28	
1508	Ditch	Cut of north-west to south-east ditch. Same as 1408. Not excavated.	>1.80	>0.7		
1509	Fill of 1508	Fill of ditch. Dark grey silty clay with common building material.				
Trench 16						
1600	Topsoil	Dark brownish grey silt clay.			0.14	
1601	Made-ground	Made-ground. Probable quarry backfill. Dark grey silt clay with modern debris.			0.16	Modern
1602	Made-ground	Made-ground. Probable quarry backfill. Mid greyish brown clay silt with flecks of coal.			0.13	Modern
1603	Made-ground	Made-ground. Probable quarry backfill. Mid yellowish brown soft sandy clay.			0.19	Modern
1604	Made-ground	Made-ground. Probable quarry backfill. Mid greyish brown silt clay with reddish patches; flecks of coal.				Modern
Trench 17						
1700	Topsoil	Dark brownish grey soft silt clay.			0.17	
1701	Made-ground	Made-ground. Probable quarry backfill. Mid brownish grey firm silt clay.			0.13	Modern
1702	Made-ground	Made-ground. Probable quarry backfill. Mid greyish brown silt-clay with dark grey mottling.			0.13	Modern
1703	Made-ground	Made-ground. Probable quarry backfill. Mid yellowish brown clay with grey mottling.				Modern
1704	Made-ground	Made-ground. Probable quarry backfill. Dark brownish grey firm silt clay with coal flecks.			0.11	Modern
Trench 18						
1800	Topsoil	Dark brownish grey silt clay.			0.23	
1801	Layer	Made-ground. Probable quarry backfill. Mixed mid greyish brown soft sandy clay.			>0.27	
Trench 19						
1900	Topsoil	Dark brownish grey silt clay			0.27	
1901	Made-ground	Made-ground. Probable quarry backfill. Mid greyish brown soft sandy clay.			>0.34	Modern
Trench 20						
2000	Topsoil	Dark greyish brown clayey silt, firm.			0.23	
2001	Made-ground	Made-ground. Mixed dark grey silt with yellowish clay, abundant coal flecks	21.0	>1.8	0.10	Modern
2002	Made-ground	Made-ground. Probable quarry backfill. Mixed dark grey silt with yellowish clay, abundant coal flecks.	29.0	>1.8	>0.40	Modern
2003	Geology	Light yellowish grey clay.				
Trench 21						
2100	Topsoil	Dark greyish brown clay silt, firm, rare small sub-angular stones			0.24	
2101	Subsoil	Mid grey-brown silt-clay, common coal flecks			0.10	
2102	Ditch	Cut of north-east to south-west ditch. Unexcavated.	>1.80	1.50		
2103	Fill of 2102	Fill of ditch. Dark grey/black silt.				
Trench 22						
2200	Topsoil	Dark brownish grey silt-clay			0.24	
2201	Made-ground	Made-ground. Mid yellowish brown sandy clay			0.16	Modern
2202	Made-ground	Made-ground. Light yellowish brown sandy clay			0.10	Modern
2203	Made-ground	Made-ground. Light yellowish grey sandy clay.			0.14	Modern
2204	Quarry	Cut of mine shaft. Unexcavated.	>3.69	>1.8		
2205	Fill of 2204	Fill of mine shaft. Light grey silt clay with frequent stones.				
2206	Fill of 2204	Fill of mine shaft. Dark greyish brown clayey sand.				
2207	Geology	Light yellowish brown sandy clay.				

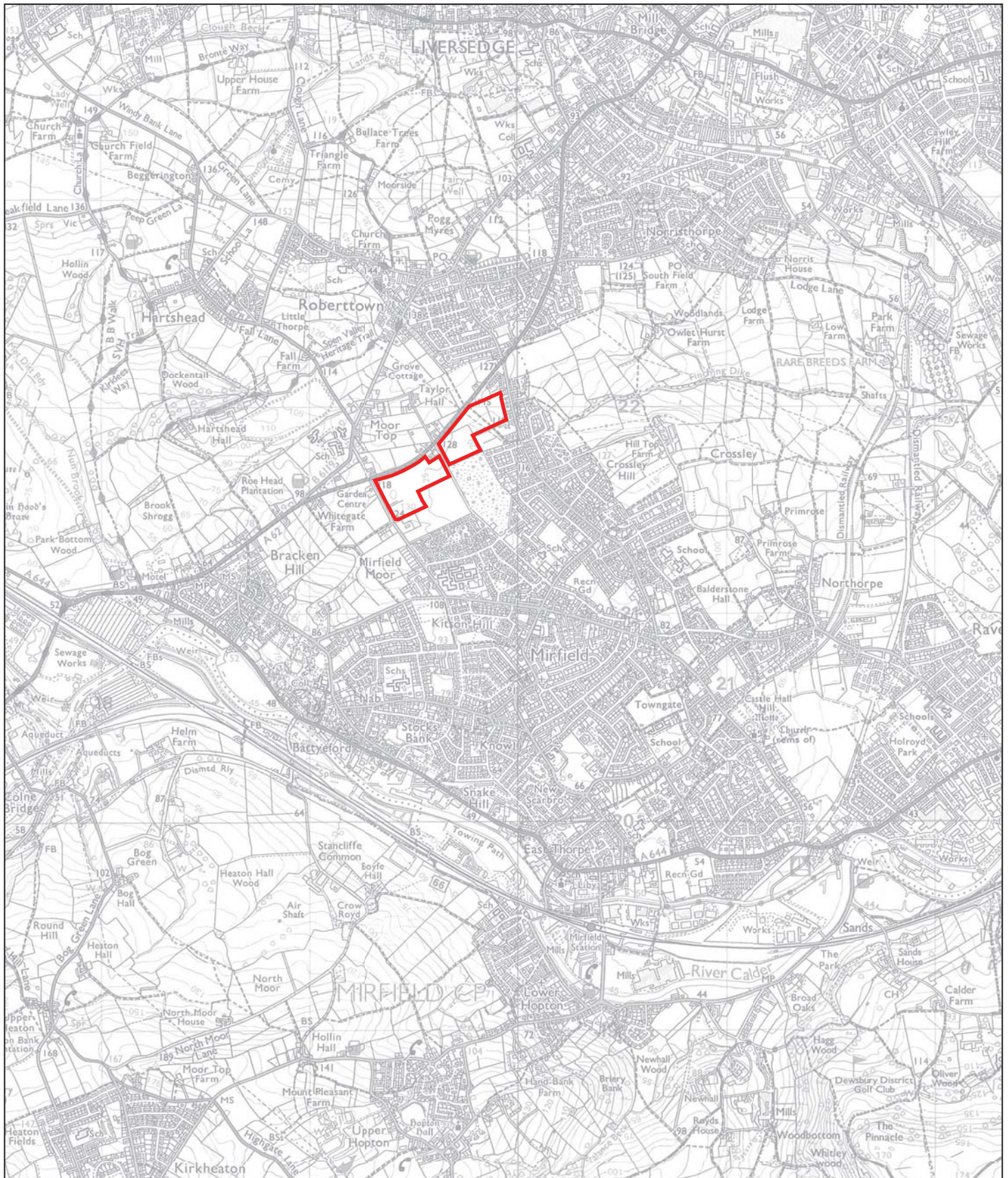
Context	Type	Description	L (m)	W (m)	D/T (m)	Date
Trench 23						
2300	Topsoil	Dark brownish grey silt clay			0.24	
2301	Made-ground	Made-ground. Mid greyish brown soft silt-clay.			0.10	Modern
2302	Made-ground	Made-ground. Mixed light yellowish brown clay with coal dust.			0.44	Modern
2303	Made-ground	Made-ground. Light grey clay with mid-brown mottling.			0.29	Modern
2304	Made-ground	Made-ground. Light brownish grey clay.			0.12	Modern
2305	Geology	Black coal seam.				
2306	Made-ground	Made-ground. Coal dust with occasional light grey clay patches.			>0.10	Modern
Trench 24						
2400	Topsoil	Dark brownish grey soft silt-clay			0.20	
2401	Made-ground	Made-ground. Mid greyish brown soft sandy clay.			0.13	Modern
2402	Made-ground	Made-ground. Mixed mid grey-brown and light yellowish brown soft sandy clay with fragments of coal.			0.16	Modern
2403	Made-ground	Made-ground. Dark grey, firm sandy clay with patches of mid yellowish brown sandy clay.			>0.04	Modern
2404	Geology	Light yellowish brown and light grey clay with moderate small sub-angular stones.				
Trench 25						
2500	Topsoil	Dark brownish grey soft silt-clay.			0.17	
2501	Made-ground	Made-ground. Mid grey-brown soft silt clay. Disturbed subsoil.			0.13	Modern
2502	Geology	Light yellowish brown clay with light grey mottling.				
2503	Geology	Black coal seam.				
Trench 26						
2600	Topsoil	Dark brownish grey silt clay.			0.09	
2601	Made-ground	Made-ground. Dark brownish grey firm silt-clay.			0.14	Modern
2602	Made-ground	Made-ground. Mid brownish grey firm silt-clay with patches of brick dust.			0.12	Modern
2603	Geology	Light yellowish brown clay				
2604	Made-ground	Mid brownish grey firm silt-clay with moderate manganese and charcoal. Probably the same as 2602. Possible wheel rut.		2.13	0.12	Modern
Trench 27						
2700	Topsoil	Mid greyish brown clay silt, firm			0.22	
2701	Geology	Mid yellowish brown clay with patches of blue and orange mottling				
2702	Made-ground	Wet valley deposit. Black silt with occasional brick fragments and small sub-rounded stones, friable	>1.80	3.0		Modern
Trench 28						
2800	Topsoil	Mid brownish grey silt clay			0.19	
2801	Geology	Mid yellowish brown soft sandy clay				
2802	Subsoil	Mid brownish grey soft sandy clay			0.06	
Trench 29						
2900	Topsoil	Mid greyish brown clay-silt, with rare small sub-rounded stones			0.25	
2901	Pit	Cut of possible lime kiln. Roughly circular. Not excavated.	4.20	>1.8		
2902	Fill of 2901	Fill of lime kiln. Black charcoal rich silt-clay grading to red towards perimeter.				
2903	Geology	Yellowish grey clay with patches of orange mottling.				
Trench 30						
3000	Topsoil	Dark brownish grey silt clay			0.20	
3001	Geology	Mid yellowish brown sandy clay				
3002	Ditch	Cut of east-west ditch.	>1.0	0.90	0.10	
3003	Fill of 3002	Fill of ditch. Mid brownish grey sandy clay, compact, occasional small stones.			0.10	

Context	Type	Description	L (m)	W (m)	D/T (m)	Date
Trench 31						
3100	Topsoil	Dark greyish brown clay-silt, firm with rare small sub-rounded stones.			0.24	
3101	Geology	Mid yellowish grey clay with patches of orange mottling.				
Trench 32						
3200	Topsoil	Dark greyish brown silt-clay, loose.			0.23	
3201	Subsoil	Mid brownish grey clay-silt, friable, occasional charcoal flecks.			0.15	
3202	Geology	Light mottled grey and orange clay, compact with occasional small sub-angular stones.				
Trench 33						
3300	Topsoil	Mid greyish brown silty clay			0.20	
3301	Buried topsoil?	Possible older topsoil horizon. Mid grey silt clay, friable, with occasional small angular stones.			0.10	Modern
3302	Subsoil	Mid greyish orange clay-silt, friable with frequent small angular stones.			0.16	
3303	Geology	Mid orange grey soft clay, with frequent pockets of small angular gravel				
Trench 34						
3400	Topsoil	Dark brownish grey soft silty clay			0.24	
3401	Buried topsoil?	Possible older topsoil horizon. Light grey firm silt clay. Essentially the same as 3400, but without roots.			0.09	
3402	Subsoil	Mid brownish grey firm silt-clay.			0.10	
3203	Geology	Light yellow brown clay with some discoloration.				
Trench 35						
3500	Topsoil	Dark brownish grey soft silty clay			0.12	
3501	Buried topsoil?	Possible older topsoil horizon. Dark brownish grey friable silty clay. Essentially the same as 3500, but without roots.			0.15	Modern
3502	Subsoil	Mid greyish brown firm sandy clay.			0.09	
3503	Geology	Light yellowish brown clay with light grey mottling.				
3504	Pit	Modern pit. Sub-square. Unexcavated.	2.06	>1.8		Modern
3505	Fill of 3504	Fill of pit. Dark grey friable sandy clay.				
Trench 36						
3600	Topsoil	Dark brownish grey soft silty clay.			0.28	
3601	Made-ground	Made-ground. Light red sandy clay, containing ?brick dust or scorched clay.			0.23	Modern
3602	Made-ground	Made-ground. Black silty clay with common building debris, charcoal.			0.18	Modern
3603	Geology	Light yellowish brown clay with light grey mottling.				
3604	Made-ground	Made-ground. Mid brownish grey clay			0.14	Modern
3605	Pit	Cut of sub-ovoid lime kiln.	1.90	1.0	0.08	Modern
3606	Fill of 3605	Fill of fire pit. Black silt-clay, friable, no inclusions.			0.08	
3607	Burnt area	Light red sandy clay. Heat affected natural clay underneath fire pit 3605.			0.08	
Trench 37						
3700	Topsoil	Dark grey soft silty clay			0.14	
3701	Buried topsoil?	Possible older topsoil horizon. Dark grey friable silty clay with building debris. Essentially the same as 3700, but without roots.			0.10	Modern
3702	Subsoil	Mid brownish grey firm silty clay.			0.09	
3703	Geology	Light yellowish brown clay, with light grey patches, iron panning and small sub-rounded stones.				
Trench 38						
3800	Topsoil	Dark brownish grey soft silty clay.			0.19	
3801	Buried topsoil?	Possible older topsoil horizon. Dark grey friable silty clay with building debris. Essentially the same as 3800, but without roots.			0.08	Modern

Context	Type	Description	L (m)	W (m)	D/T (m)	Date
3802	Subsoil	Mid brownish grey firm silty clay.			0.12	
3803	Geology	Light yellowish brown clay with outcroppings of stone.				

APPENDIX C: OASIS REPORT FORM

PROJECT DETAILS		
Project name	Slipper Lane, Mirfield, West Yorkshire	
Short description	The evaluation demonstrated that the extent of 20th-century open-cast mining within the site was slightly more extensive than indicated on existing plans and that the area surrounding the open-cast mine had been heavily disturbed, with large-scale groundworks and land reinstatement being undertaken across most of the site. This activity comprised localised quarrying, ground reduction, the laying of made-ground and the possible excavation of mineshafts. The only area where the original land surface appeared to survive relatively intact was at the eastern end of the site. The only features encountered were two small, shallow undated ditches, two modern field boundary ditches and the sites of two possible lime kilns dating to the 18th century or later. The latter may have been used to manufacture quick lime mortar for the construction of buildings associated with mining in the area or for providing lime to improve sour land when the moorland was enclosed in the late 18th/early 19th century.	
Project dates	8-19 September 2014	
Project type	Evaluation	
Previous work	Environmental Statement (WSP 2014)	
Future work	Unknown	
Monument type	Modern mining activity	
Significant finds	None	
PROJECT LOCATION		
Site location	Slipper Lane, Mirfield Moor, West Yorkshire	
Study area	15.6ha	
Site co-ordinates	SE 1963 2172	
PROJECT CREATORS		
Name of organisation	Cotswold Archaeology (CA)	
Project Brief originator	WYAAS	
Project Design (WSI) originator	CA	
Project Manager	Simon Carlyle (CA)	
Project Supervisor	Jeremy Mordue (CA)	
PROJECT ARCHIVE		
	Accession no: n/a	Content
Physical	Kirklees Museums & Galleries	None
Paper		Site records
Digital	West Yorkshire HER	Report, digital photos
BIBLIOGRAPHY		
Cotswold Archaeology 2014 <i>Land at Slipper Lane, Mirfield Moor, West Yorkshire: Archaeological Evaluation</i> . CA typescript report 14504		



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PROJECT TITLE

Land at Slipper Lane, Mirfield, West Yorkshire

FIGURE TITLE

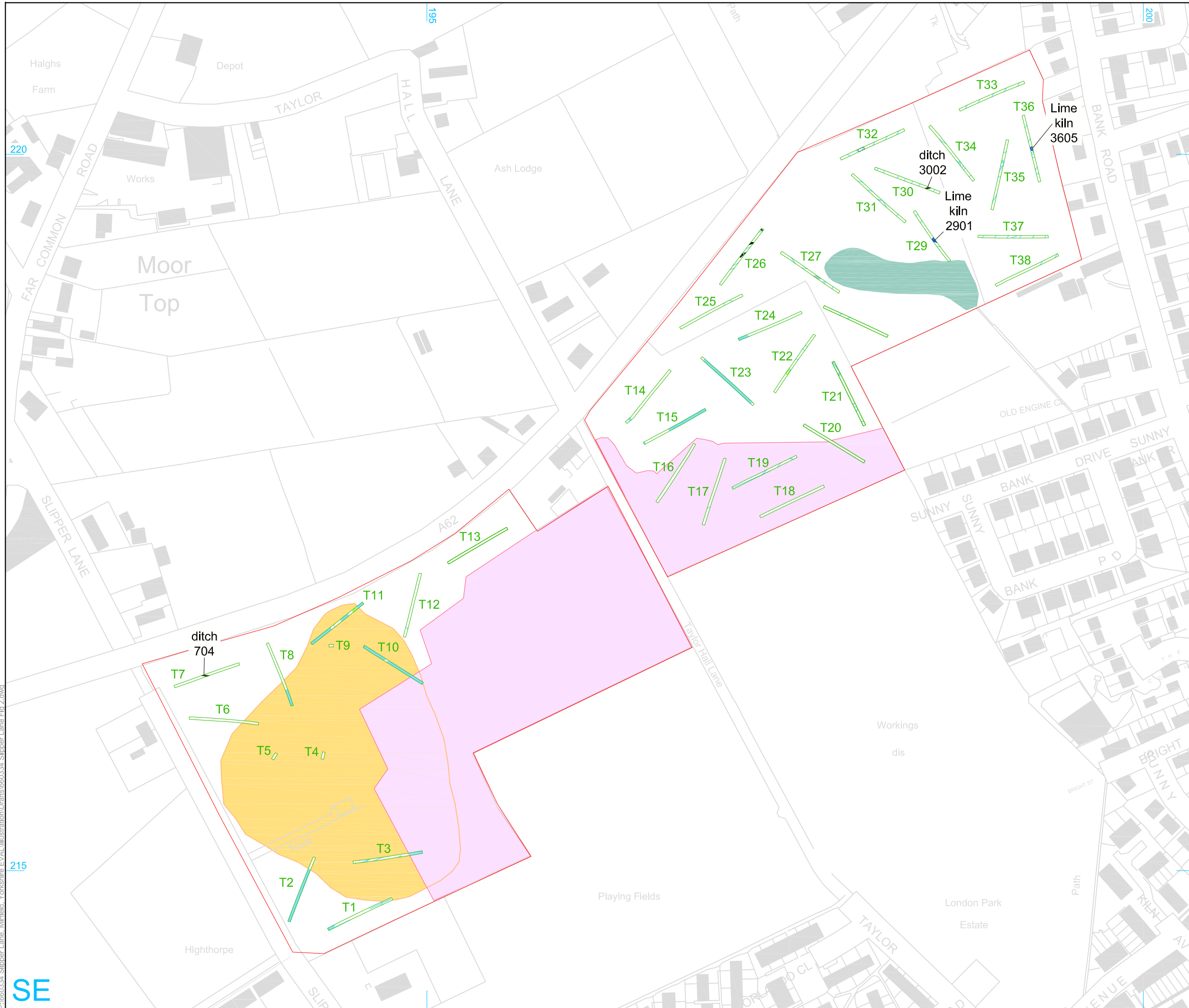
Site location plan

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PROJECT NO. 660334 DATE 25-09-14
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 APPROVED BY LM SCALE@A4 1:25,000

FIGURE NO.

1



- site
- evaluation trench
- archaeological feature
- modern
- lime kilns
- mine shafts
- area of open cast mine
- spoilheap
- wetland



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PROJECT TITLE
 Land at Slipper Lane, Mirfield, West Yorkshire

FIGURE TITLE
 Trench location plan

PROJECT NO.	660334	DATE	25-09-2014	FIGURE NO.
DRAWN BY	DJB	REVISION	00	2
APPROVED BY	LM	SCALE@A3	1:2500	

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SE



3



4

- 3 Trench 1 looking north-east (scales 1m)
- 4 Trench 1 north-west facing section (scale 1m)



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FIGURE TITLE

Photographs

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FIGURE NO.

3 & 4



5



6

- 5 Trench 2 looking south-west (scales 1m)
- 6 Trench 2 south-east facing section (scale 1m)



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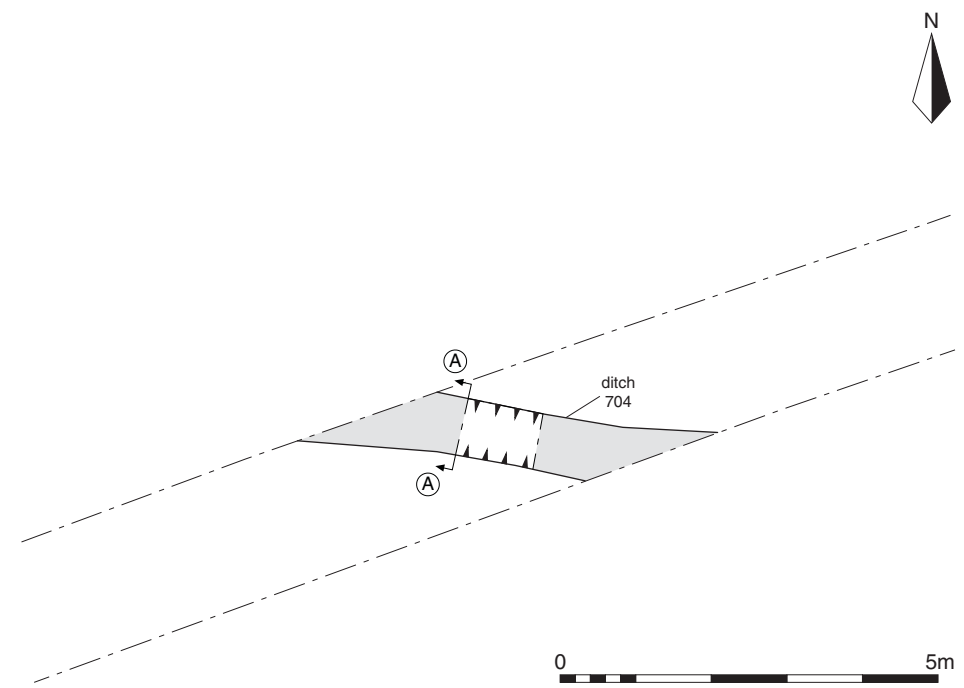
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Photographs

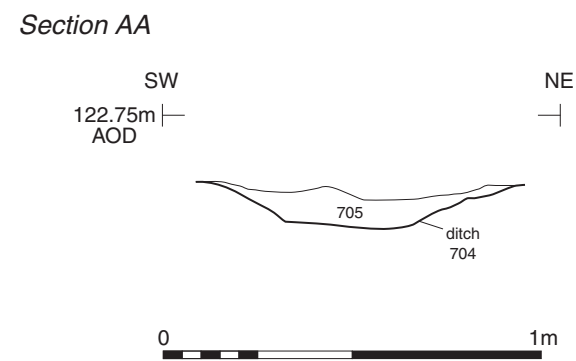
PROJECT NO. 660334 DATE 25-09-2014
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FIGURE NO.

5 & 6



Trench 7 south facing section (scale 1m)



Ditch 704 looking west (scale 0.5m)



8



9

8 Trench 11 looking south-west (scales 1m)

9 Trench 13 south facing section (scale 1m)



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FIGURE NO.

8 & 9



10



11

10 Trench 17 looking north-east (scales 1m)

11 Trench 27 looking north-west (scales 1m)



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FIGURE TITLE

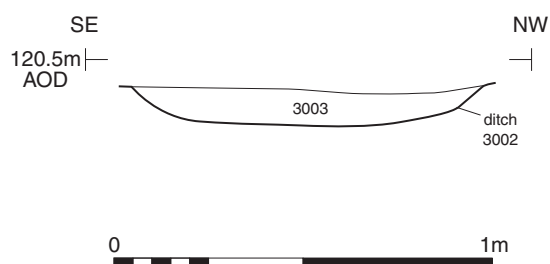
Photographs

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FIGURE NO.

10 & 11

Section BB



Ditch 3002 looking south-west (scale 0.5m)



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FIGURE TITLE

Trench 30: section and photograph

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FIGURE NO.

12



13

13 Lime kiln 3605 looking north-west (scale 1m)



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FIGURE TITLE

Photograph

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FIGURE NO.

13