

BARLEY WATER TREATMENT WORKS, LANCASHIRE

Desk-Based Assessment, Walkover Survey and Watching Brief



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SUMMARY

Following a proposal to improve Water Treatment Works, including the construction of new pipelines between Barrowford and Newchurch-in-Pendle, Lancashire, the Lancashire County Archaeology Service recommended that a programme of archaeological work should be undertaken along the proposed route. This was to comprise a desk-based assessment and walkover survey of the area.

In total, 62 sites of archaeological interest were identified as being within the study area. Of these, 22 were already listed in the Historic Environment Record with a further seventeen identified during the walkover survey. Several of these (27) are considered likely to be affected by the proposed new pipelines.

The sites thought likely to be affected by the development included 17 of postmedieval origin (Sites 05, 06, 13, 15, 17, 20, 23, 32, 37, 38, 42, 45, 46, 49, 50, 58 and 60) and ten of unknown date (Sites 10-12, 14, 29, 33, 43, 53, 54 and 55). Of the postmedieval sites one was a reservoir (Site 05), 15 were agricultural in nature (Sites 06, 13, 15, 17, 20, 23, 32, 37, 38, 42, 45, 46, 50, 58 and 60) and one quarry (Site 49). Five of the undated sites were possibly agricultural in nature (Sites 10-12, 33 and 43), one was a spring (Site 29) and four were quarries (Sites 14, 53, 54, 55).

Based on the results of the desk-based assessment and walkover survey it was recommended that a targeted watching brief should be maintained during the excavation of trial pits, and also during topsoil stripping activities within eighteen specific fields (Fields 6-15, 17-21 and 23-25). No significant archaeological deposits were encountered, although numerous post-medieval field drains and culverts were observed. Finds, also post-medieval in origin, were recovered from a number of the trial pits.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank United Utilities for commissioning the project. Thanks are also due to Peter Iles at the Lancashire County Council Historic Environment Record, and all the staff of the Lancashire County Record Office in Preston for their assistance with this project. Further thanks are also due to the staff of KMI and Murphys on site during the watching brief as well as the landowners during the walkover survey for their help and patience.

Daniel Elsworth and Jeremy Bradley wrote the report and undertook the desk-based assessment and walkover survey respectively. Andrew Bates, Jason Clarke, Vix Hughes and David McNicol, carried out the watching briefs. Mark Tidmarsh produced the illustrations. Alison Plummer managed the project, and also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 As part of a current scheme of upgrading and replacing existing water pipes United Utilities proposed the construction of a new water treatment works including a pipeline Between Barrowford (SD 85673 39843) and Newchurchin-Pendle (SD 82242 39560) in Lancashire, with an additional section near Roughlee (SD 83339 40220 – 83231 40343). In response to this the specialist advisor (Archaeology) at Lancashire County Archaeology Service (LCAS) recommended that a programme of archaeological work comprising a deskbased assessment and walkover survey be implemented prior to development works for the entire route of the pipeline. Following the results of this first phase of work a programme of watching briefs was recommended. OA North produced a project design and once this was approved the work was carried out in July and August 2005.
- 1.1.2 This report sets out the results of the desk-based assessment and walkover survey in the form of a short document, outlining the findings, followed by a statement of the archaeological potential and significance, and an assessment of the impact of the proposed development. The significance criteria detailed in PPG 16 (DoE 1990) was employed during the assessment. In addition, and acting on the information gleaned from the desk-based assessment and walkover survey, the results of the watching briefs are tabulated and discussed.

2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 OA North submitted a project design in response to a verbal brief issued by the Specialist Advisor (Archaeology) at Lancashire County Archaeology Service (LCAS). The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

2.2 **DESK-BASED ASSESSMENT**

- 2.2.1 A study area of 0.5km either side of the proposed pipeline route was examined. The desk-based assessment comprised an examination of published and unpublished sources, original documents and maps and any sites of archaeological interest within the study area were collated into a gazetteer (Section 5). The results were analysed using the set of criteria used to assess the national importance of an ancient monument.
- 2.2.2 *Historic Environment Record (HER):* this is a list of all of the known sites of archaeological interest within the county, which is maintained by LCAS. It is the primary source of information for an assessment of this kind and comprises a description and location of all the sites, together with appropriate references to any primary or secondary sources. Details of Scheduled Monuments and Listed Buildings are also contained within it.
- 2.2.3 In addition, vertical aerial photographs covering the entire area were examined, as were a smaller number relating to specific HER sites. Of the verticals only those from 1963 (HSL UK) were clear and detailed enough to identify any additional sites of archaeological interest, although a large number were recorded through their examination.
- Lancashire County Record Office (LRO), Preston: this was visited in order examine primary documents relating to the area, particularly early maps. These allow the identification of further sites of archaeological interest within the study area. Other primary sources and secondary sources were also consulted to allow additional information to be gathered about individual sites and a general historical background to be compiled.
- Oxford Archaeology North: OA North has an extensive archive of secondary 2.2.5 sources relevant to the study area, as well as numerous unpublished client reports on work carried out both as OA North and in its former guise of Lancaster University Archaeological Unit (LUAU). These were consulted where necessary.

2.3 WALKOVER SURVEY

Following the desk-based assessment an enhanced Level I-type survey was 2.3.1 undertaken to relate the existing landscape to research findings. This encompassed a one hundred-metre corridor along either side of the pipeline, walked in a systematic fashion. Archaeological features identified within the landscape were recorded using the relevant OA North pro forma, and the features accurately located using differential GPS survey, which can achieve an accuracy of +-0.25m with respect to the OS national grid.

2.4 WATCHING BRIEF

- In the first instance a watching brief was maintained during the excavation of 35 geological trial pits located along the route of the easement. Following on from this, and during the subsequent topsoil stripping activities, Fields 6 to 15, 17 to 21 and 23 to 25 were monitored by the watching brief. These fields were targeted due to the presence of Sites 33 (holloway), 37 (field system), 45 (field boundaries and 46 (field system).
- 2.4.2 This programme of field observation accurately recorded the location, extent, and character of any surviving archaeological features and/or deposits within the course of the topsoil strip and trial pits within areas of open country. This work comprised the observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.
- Recording was by means of OA North's standard context recording system, 2.4.3 with trench records and supporting registers and indices. A full photographic record in colour transparency and monochrome formats was made. Section drawings and plans were made of relevant archaeological features at appropriate scales. These were located using taped measurements from existing boundaries and landmarks.

2.5 **ARCHIVE**

A full professional archive has been compiled in accordance with the project 2.5.1 design, and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the Lancashire County Record Office in Preston on completion of the project. A copy of the report will be deposited with the Lancashire County archaeology service.

3. BACKGROUND

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

- The proposed pipeline runs between Barrowford (SD 85673 39843) and 3.1.1 Newchurch-in-Pendle (SD 82242 39560). It is typically between 150m and 220m above sea level and approximately 3.5km west of Colne, and within 1km of Nelson (Ordnance Survey 1983; 1990) (Fig 1).
- The landscape is within the 'Bowland Fringe and Pendle Hill', area generally 3.1.2 typified by undulating pasture and, with areas of woodland (Countryside Commission 1998, 91). It is within the "transitional zone between the coastal plain... and the high fells of Bowland" and is "an area of undulating rolling landscape with local variation created by the valleys of the Brock, Calder and Wyre" (op cit, 93). The solid geology is generally comprised of gritstones, with bands of mudstone and limestone, often cut by the river valleys (ibid). This is overlain by mixed glacial deposits, which generally form Cambic stagnoley soils of the Brickfield 3 association (Soil Survey of England and Wales 1983).

3.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- The more general historical background consists entirely of information from secondary sources, including early histories of the area and archaeological reports. It includes evidence from a relatively wide area around the route of the pipeline in order to put it into its historical context and provide a general understanding of the factors, which have shaped the heritage of the area.
- **Prehistoric Period:** evidence for prehistoric activity is visible in the general area from the Mesolithic period onwards. Flint scatters have been discovered and in some cases excavated on some of the higher, moorland areas (Harrison (ed), 1998, 4), and these form part of a wider distribution across the south Pennines (Cowell 1996). The Neolithic and Bronze Age periods are similarly represented, with occasional stray finds and burials making up the majority of the evidence (Bannister 1929, 14; Widdup 1929, 2-3). This is a common feature of the period, although it is during the Neolithic that larger structures and monuments begin to appear for the first time (Middleton 1996, 43). It is considered possible that Barrowford may get its name from a burial mound that formerly existed in the area, although this has never been proven (Widdup 1929, 3). During the Iron Age large enclosures were constructed, in particular 'hill forts' and smaller homesteads, and there are a number of good examples of these in the surrounding area, including the multi-vallate site of Castercliffe (Hazelgrove 1996, 68) and a 'British camp' on Tum Hill (Widdup 1929, 6). Only a single site of possible prehistoric date was identified within the study area; a possible saddle quern built into the walls of a later field system (Site **45**).
- 3.2.3 *Romano-British:* the nearby town of Colne has long been regarded as having a Roman origin: 'This is unquestionably the Colunio of the anonymous Ravennas' (Whitaker 1818, 385), and there have been a number of discoveries of Roman finds in the general area (Widdup 1929, 9; Harrison (ed) 1998, 7).

- Evidence for the Roman origins of any of the nearby towns has not been forthcoming, however, despite the claim temporary camps would have existed across the area (Widdup 1929, 7), though a Roman road between Ilkley and Ribchester is thought to pass to the north of the study area (ibid). There are no sites of Romano-British date known within the study area.
- Early Medieval: there is little physical evidence for activity between the collapse of Roman control and the Norman Conquest. The area probably came under a mix of Anglian and Norse influence (Ekwall 1922, 81 and 87), while place-name evidence suggests a strong British presence (op cit, 87-8). It is thought that the battle of Brunanburh, at which the English of Wessex and Mercia defeated a confederation of invading Norse, Scots and Strathclyde Welsh in AD 937, is in the vicinity of Trawden (ibid), although a variety of other locations have been suggested (e.g. Lawrenson 2003). There are no known sites of early medieval date within the study area.
- Late Medieval: during the medieval period the entire study area was within the parish of Whalley and the Hundred of Blackburn. Much of it will have been within the forest of Pendle, which was established by the end of the thirteenth century (Farrer and Brownbill 1911, 514-20). The majority of the larger towns and villages in the study area are mentioned by name in an account of the forest dated to 1323-4 (ibid). Many of these were used as vaccaries, known locally as 'booths' (op cit, 515); in the case of Roughlee Booth and Barrowford Booth there were more than one (op cit, 519 and 541).
- A number of sites within the study area may be of medieval date. These 3.2.6 mainly comprise former field systems made up of field boundaries (Sites 06, 08 and 44-45), ridge and furrow (Sites 18, 28, 57 and 61) or combinations of both (Sites 15, 17, 23, 36-38, 40, 46 and 58).
- **Post-Medieval:** the study area is essentially rural in character but nevertheless, it changes dramatically during the late eighteenth and early nineteenth century (Mitchell et al 2004). There was a general drive towards improving areas that had previously been wasteland, parts of the medieval forest or used for common grazing. The former Forest of Pendle was divided and sold off from 1507 (Farrer and Brownbill 1911, 519) and this enabled the area to develop during the following centuries. During the early seventeenth century the area was closely connected to the famous Pendle Witch trials as many of the accused came from villages in the local area (op cit, 515). The area was also influenced by the Industrial Revolution, albeit on a relatively small scale, with a number of cotton mills being constructed around Roughlee and Barrowford during the nineteenth century (Taylor 1999). The area changed relatively little during the later nineteenth and early twentieth centuries, however, and has retained its generally rural appearance ever since.
- 3.2.8 The majority of sites within the study area are of post-medieval date, and these reflect the increase in population and building, particularly associated with industrial and agricultural processes. The sites include a chapel (Site 01); mills (Sites 02, 16 and 31); a vicarage (Site 03); wells (Sites 04 and 50); a reservoir (Site 05); ridge and furrow (Site 09, 13 and 51); quarries (Sites 19, 49, 52 and 62); field boundaries (Site 20); a smithy (Site 21); a building (Site 30), and gateposts (Sites 32, 42 and 60).

3.3 MAP REGRESSION ANALYSIS

- Early County Maps: the earliest detailed maps of the county (Yates 1786) 3.3.1 shows little useful information. Only the major settlements are depicted and named, although a number of smaller buildings are shown more schematically. Barrowford, Roughlee and Newchurch-in-Pendle are all shown, but no additional sites of archaeological interest could be identified.
- Local Estate Maps: several estate maps dating to the first half of the nineteenth century were examined (LRO(P) DDBd/5/3/1 1814; LRO(P) DDBd/5/3/2 1847; LRO(P) DDBd/5/3/3 c1850 and LRO(P) DDX/752/2 1808). Although these were generally very detailed in all cases they were outside of the study area, and therefore not able to provide any additional information.
- 3.3.3 Tithe Maps: no tithe maps were available for the study area, there having never been any produced.
- 3.3.4 Ordnance Survey 1848: the first edition 6": 1 Mile map is the first detailed plan covering the study area. Many of the sites previously identified by the Lancashire HER were taken from this map and in addition one site was added to the gazetteer (Site 30) and information was acquired for a number of others.
- 3.3.5 Ordnance Survey 1893: the first edition 25": 1 Mile map, split over several sheets, is even more detailed than the 6" plans. A further two sites (Sites 41 and 52) were added to the gazetteer through reference to this map and information was acquired for a number of others.
- Ordnance Survey 1912-1932: during the early twentieth century the rural 3.3.6 nature of the study area changed very little, and this is reflected in the Ordnance Survey maps of this date. No additional sites of archaeological interest were identified.

3.4 **ARCHAEOLOGICAL INTERVENTIONS**

No previous archaeological interventions are recorded within the study area. 3.4.1

3.5 WALKOVER SURVEY

The walkover survey identified 17 additional sites (Sites 6, 10-12, 14, 22, 29, 32, 33, 39, 42, 53-56, 59 and 60), which were added to the gazetteer (Section 5). It also provided information about sites identified in aerial photographs and in the HER.

4. WALKOVER SURVEY

4.1 INTRODUCTION

- 4.1.1 The walkover survey aimed to determine both the survival of above ground remains of sites recorded during the desk-based assessment and also identify previously unrecorded sites along the proposed pipeline routes.
- 4.1.2 Twenty-six fields containing, and adjacent to the pipeline were walked systematically along the pipeline route and ground conditions were good for identifying sites through walkover. All of the fields encountered were under pasture with short-to-medium height grass coverage over the vast majority (Fig 3).

4.2 **RESULTS**

- 4.2.1 The area surveyed was predominantly agricultural land and all the fields surveyed were under a pastoral agricultural regime. This meant that visibility in virtually all the fields was very good due to either grazing or recent mowing. The route of the pipeline was surveyed from the Barrowford end, where the land rose in a series of rounded steps alongside Pasture Lane. From there it ran south/west along the ridge overlooking the valley of the White Hough Water and thence westwards towards Newchurch in Pendle.
- 4.2.2 Both sides of the White Hough Water valley were pastoral in character with long narrow fields running down to the valley bottom. Although there are small villages and hamlets many of the farms throughout the neighbouring valleys are dispersed. Broad leaf woodland was typical on the valley floors and on the south-west-facing slopes, where tree cover was more extensive than on the north-west facing slopes.
- Running into the White Hough Water from the west was another stream 4.2.3 Dimpenley Clough. The pipeline then continued on the southern side of the broader valley of Dimpenley Clough descending so that its course was on more level ground. Again the landscape was typified by fields aligned perpendicular to the axis of the valley. Although here more rough pasture was seen on the south-east-facing slopes.
- 4.2.4 Where the easement crosses the stream it follows, but not closely, the course of Jinny Lane; the road linking the settlements of Roughlea and Crow Trees to Newchurch in Pendle to the west. The pipeline then climbs the steep slope of Barely Bank, an area characterised by its numerous quarry pits, before crossing Cross Lane and approaching the reservoir.
- 4.2.5 The results of the walkover survey are detailed in Table 1 below. Table 1 describes the features observed, their location and ascribed field number. The numbers in bold eg (Site **05**) pertain to the number it relates to in the gazetteer. Seventeen new sites were observed during the course of the walkover survey and were assigned gazetteer site numbers 06, 10, 11, 12, 14, 22, 29, 32, 33, 39, 42, 53, 54, 55, 56, 59 and 60. The walkover also confirmed the presence of sites identified by the desk-based assessment.

Field Number	Location	Description	
1	Reservoir, north of Eden Close and Orton Court	Recently mown improved pasture field aligned west-north-west/east-south-east, with hedges forming the north-east and south-west boundaries and a dry stone wall forming the north-west boundary. This field revealed a rectangular reservoir (05), measuring 80mx 40m and now used as a fishing pond. The site lay at the south-east end of the field. The site was believed to supply water to the nearby mills. A former north/south aligned field boundary as shown on OS map, was also observed (06). The post-medieval boundary appears as a shallow linear depression 0.30m deep and could be seen across the whole width of the field.	
2	East of Higher Oaklands Farm	The field lay south-east of a lane leading to Higher Oaklands Farm. The field, which is under improved pasture, descended down to the south-east levelling out at the lower end of the field. This field revealed a east/west aligned linear depression that turns sharply to the north-east (10). It has a maximum width of 4m and a depth of 0.50m. The feature may be a relict field boundary or else a former drainage channel. The former appears more likely since it follows a similar alignment to a footpath to the north-west and is most probably post-medieval in date. A slightly sinuous low earthen bank on an east-north-east/west-south-west alignment that turns toward the north-east at its eastern end was observed (11). It mirrors a footpath, located above it and shares a common destination at the eastern end of the field. A probable post-medieval field boundary. A levelled area, which lay immediately east of a lane between Fields 2 and 3 was observed (12). The feature is approximately 25m square with the eastern scarp face standing roughly 1m above the present level of the field.	
3	Top of Pasture Lane	Large pasture field, rectangular in shape and aligned west-north-west/east-south-east that descends toward Barrowford in a series of gentle undulations (Site 13). A shallow hollow less than 0.50m deep was located adjacent to the north-east field boundary (Site 14). The feature was north-east/south-west aligned and measures 18m long. The area was marked by a clump of nettles.	
4	North of Fulshaw Head Farm	Large irregular shaped field, which lay to the east of the lane to Fulshaw Head Farm. The field had a notable low eminence toward the boundary with the lane, and descended toward the east. A shallow ditch (post-medieval) was observed describing an arc east and south round the low eminence and terminating at a Hawthorn bush where an iron pipe and trough were located (Site 17). Two former post-medieval field boundaries were also seen, both of which are shown on the OS map base. They survive as low earthen banks; one aligned north/south and the other, slightly more sinuous example orientated east/west. The boundaries do not meet but continue as a banked trackway leading toward an extant lane (Site 17).	
5	North-west of Fulshaw Head Farm	Irregular shaped field housing a covered reservoir and under closely cropped pasture. No features were visible within the field.	
6	North-west of Ridgaling Farm	Fairly level improved pasture field located on ridge above White Hough Water. There were no features visible but a spring marked by a wooden fence was located toward the north-eastern end of the field.	
7	South of High Beach Caravan	Irregular shaped pasture field that was fairly level along the south-eastern edge, before pitching down to the north-west. No features were visible.	

	Park	
8	South-east of Crow Trees Wood	Long and narrow north-west/south-east aligned pasture field that descends steeply toward White Hough Water. Dry stone walls bound the field to the south-west and north-east, with a hedge forming the north-western end of the north-east boundary. A low north-west/south-east aligned bank (Site 19) dividing up the field was observed. The bank stands 1m proud of the field. The feature, probably post-medieval is one of several relict cross field boundaries, none of which share a coherent course.
9	South-east of Crow Trees Wood	A rough pasture field punctuated by patches of junkus grass. The field shares the same alignment as Field 8 and descends steeply down to the north-west. A north-west/south-east aligned ditch (Site 20) dividing the field and located slightly further north-west than the boundary in Field 8 was seen. A 3m wide shallow ditch that continues across the width of the field forms the post-medieval boundary. A <i>c</i> 5m long by 1m high bank, down slope of the ditch can be seen at the south-western end of the feature.
10	South-east of White Hough Water	A steeply sloping narrow north-west/south-east aligned field under pasture, bounded by dry stone walls to the north-east and south-west and bounded by a hedge to the north-west. A north-west/south-east aligned trackway running down the north-east side of the field was located. It is bounded on the north-eastern side by a dry stone wall and appears as a slightly sunken feature compared with the general level of the field. The trackway begins at the north-east terminus of relict north-east/south-west aligned field boundary (Site 20). Comprising a shallow linear ditch and low earthen bank on the down slope side. The feature marks the south-east terminus of the track way. The feature had a total width of 3.5m, while the bank survives to a height of 0.5m and the ditch is 0.40m deep. Both features are possibly post-medieval in date.
11	North-east of Ridge Lane	A steeply sloping pasture field, the slope follows the general trend along the hillside and descends toward the north-west. The field is bounded to the north-east and south-west by dry stone walls and to the north-west and south-east by wire fencing. A sub-circular quarry pit, with steep sides and a sunken entrance was observed to the north-west. The site was 13m across and approximately 2m deep. The quarry (22) is now partially filled with modern building debris. A rectangular building standing in adjacent field was also observed (Site 30). It was of quoin construction with randomly coursed rubble and roughly hewn stone walls. The south-east wall was longer than the other remaining walls and had a recess within it, which was next to the entrance within the north-east wall. A blocked entrance was seen within the south-east wall. Within the building there was a cobbled floor and apertures indicating there was once a second storey. The roof joists of the sloping roof remained, but the majority of the thackstones had been removed. The structure measured 4.30m by 3.35m and a bench mark was positioned on the eastern corner. Identified as a post-medieval Hogg House, Hogg Houses were small barns used to over winter 'Hoggs' or yearling sheep. Also of note was a spring marked by an iron pipe and a rectangular stone trough (Site 29). The spring was dry at the time of the survey.
12	South-west of Ridge Lane	A fairly level square field under improved pasture. The field was bounded by Ridge Lane to the north-east and a grown-out hedge to the north-west which contained mature trees including oak and ash. A post-medieval stone gatepost (Site 32) with rounded top marking the southeast side of the entrance into Field 12 was observed. Rectangular metal fixtures on the south-eastern side presumably indicate that the post is not

Dimpenley Clough Wood South-west oundary has been almost entirely removed and is marked by an occasional hawthorn tree. No features were visible. A field system (Site 37) comprising three north-west/south-east aligned relict field boundaries that once formerly divided this field up into four smaller units. These were characterised by fairly ephemeral banks, although the middle of the three was lynchet like in that it was between 0.50m-1m high on the south-west side, while the most south-westerly example was more of a linear trend that an actual feature. The boundaries were approximately 50m apart. This field incorporates a small rectangular fenced area of long grasses and young trees and the steep sided banks of Dimpenley Clough, which are punctuated by scrubby hawthorn bushes, dog rose, areas of tormentil and meadow sweet. A roughly hewn and weathered gatepost composed of millstone grit was seen. The gatepost, which stands to a height of 1.45m and has an aperture 120mm square, close to the top. The gatepost marks the position of a style and the remains of dry-stone wall concealed beneath vegetation and topped by a hedge that forms the north-east boundary of Field 17. South of Jinny Lane A large triangular shaped field that is generally level, but with some undulations and under improved pasture. Dimpenley Clough forms the south-east boundary, while it is bounded to the north by Jinny Lane. The field is bisected by the access to Dimpenley and Nabs Farms. A large and pronounced quarry pit (Site 39) in the northern part of the field was located. It is oval or sub-circular in shape, measuring 30mx 30m and approximately 2m deep. The fairly steeply sloping sides lead to a flattish base choked with willow scrub. Relatively flat improved pasture field, rectangular in shape with the long axis aligned north-west/south-east. A stone gatepost (Site 42) located 3m from the present field access was observed. A square aperture toward the top pierces the gatepost. The post retains an iron hinge bracket leaded into positi	13	North-east of Dole House	in the original position. A north-west/south-east aligned hollow way that runs up the side of the field from the gate above and parallel to Ridge Lane itself was identified (Site 33). The south-west boundary of the feature is marked on the OS map base and exists as a grown-out hedge. It is 8m wide and deepens from 0.50m in the north-west to 1m in the south-east. The south-west terminus of the feature is marked by a pile of stones. A triangular field under improved pasture and a moderate to gentle slope down to the north-west. To the north-east it is bounded by a wire fence and a grown-out field boundary, while to the west it is bounded by a fence and semi-mature broad leafed trees. A rather sinuous north/south aligned depression may mark the position of a former, natural, drainage channel. No features were visible.
Poimpenley Clough relict field boundaries that once formerly divided this field up into four smaller units. These were characterised by fairly ephemeral banks, although the middle of the three was lynchet like in that it was between 0.50m-1m high on the south-west side, while the most south-westerly example was more of a linear trend that an actual feature. The boundaries were approximately 50m apart. This field incorporates a small rectangular fenced area of long grasses and young trees and the steep sided banks of Dimpenley Clough, which are punctuated by scrubby hawthorn bushes, dog rose, areas of tormentil and meadow sweet. A roughly hewn and weathered gatepost composed of millstone grit was seen. The gatepost, which stands to a height of 1.45m and has an aperture 120mm square, close to the top. The gatepost marks the position of a style and the remains of dry-stone wall concealed beneath vegetation and topped by a hedge that forms the north-east boundary of Field 17. South of Jinny Lane A large triangular shaped field that is generally level, but with some undulations and under improved pasture. Dimpenley Clough forms the south-east boundary, while it is bounded to the north by Jinny Lane. The field is bisected by the access to Dimpenley and Nabs Farms. A large and pronounced quarry pit (Site 39) in the northern part of the field was located. It is oval or sub-circular in shape, measuring 30mx 30m and approximately 2m deep. The fairly steeply sloping sides lead to a flattish base choked with willow scrub. Relatively flat improved pasture field, rectangular in shape with the long axis aligned north-west/south-east. A stone gatepost (Site 42) located 3m from the present field access was observed. A square aperture toward the top pierces the gatepost. The post retains an iron hinge bracket leaded into position and a small recess for a vanished fixture. The remains of a dry stone wall extend from the post along the course of the present field boundary. An improved pasture field that is fairly level in th	14	Dimpenley	Triangular shaped field under improved pasture that descends gently to the north-west and Dimpenley Clough in an undulating fashion. The south-west boundary has been almost entirely removed and is marked by an occasional hawthorn tree. No features were visible.
Dimpenley Clough and young trees and the steep sided banks of Dimpenley Clough, which are punctuated by scrubby hawthorn bushes, dog rose, areas of tormentil and meadow sweet. A roughly hewn and weathered gatepost composed of millstone grit was seen. The gatepost, which stands to a height of 1.45m and has an aperture 120mm square, close to the top. The gatepost marks the position of a style and the remains of dry-stone wall concealed beneath vegetation and topped by a hedge that forms the north-east boundary of Field 17. South of Jinny Lane A large triangular shaped field that is generally level, but with some undulations and under improved pasture. Dimpenley Clough forms the south-east boundary, while it is bounded to the north by Jinny Lane. The field is bisected by the access to Dimpenley and Nabs Farms. A large and pronounced quarry pit (Site 39) in the northern part of the field was located. It is oval or sub-circular in shape, measuring 30mx 30m and approximately 2m deep. The fairly steeply sloping sides lead to a flattish base choked with willow scrub. Relatively flat improved pasture field, rectangular in shape with the long axis aligned north-west/south-east. A stone gatepost (Site 42) located 3m from the present field access was observed. A square aperture toward the top pierces the gatepost. The post retains an iron hinge bracket leaded into position and a small recess for a vanished fixture. The remains of a dry stone wall extend from the post along the course of the present field boundary. An improved pasture field that is fairly level in the north-west corner before falling to the south-east, east and north-east. No features were visible.	15	Dimpenley	although the middle of the three was lynchet like in that it was between 0.50m-1m high on the south-west side, while the most south-westerly example was more of a linear trend that an actual feature. The boundaries
Undulations and under improved pasture. Dimpenley Clough forms the south-east boundary, while it is bounded to the north by Jinny Lane. The field is bisected by the access to Dimpenley and Nabs Farms. A large and pronounced quarry pit (Site 39) in the northern part of the field was located. It is oval or sub-circular in shape, measuring 30mx 30m and approximately 2m deep. The fairly steeply sloping sides lead to a flattish base choked with willow scrub. Relatively flat improved pasture field, rectangular in shape with the long axis aligned north-west/south-east. A stone gatepost (Site 42) located 3m from the present field access was observed. A square aperture toward the top pierces the gatepost. The post retains an iron hinge bracket leaded into position and a small recess for a vanished fixture. The remains of a dry stone wall extend from the post along the course of the present field boundary. North-west of Nabs Farm An improved pasture field that is fairly level in the north-west corner before falling to the south-east, east and north-east. No features were visible.	16	Dimpenley	and young trees and the steep sided banks of Dimpenley Clough, which are punctuated by scrubby hawthorn bushes, dog rose, areas of tormentil and meadow sweet. A roughly hewn and weathered gatepost composed of millstone grit was seen. The gatepost, which stands to a height of 1.45m and has an aperture 120mm square, close to the top. The gatepost marks the position of a style and the remains of dry-stone wall concealed beneath vegetation and topped by a hedge that forms the north-east
Nabs Farm axis aligned north-west/south-east. A stone gatepost (Site 42) located 3m from the present field access was observed. A square aperture toward the top pierces the gatepost. The post retains an iron hinge bracket leaded into position and a small recess for a vanished fixture. The remains of a dry stone wall extend from the post along the course of the present field boundary. North-west of Nabs Farm An improved pasture field that is fairly level in the north-west corner before falling to the south-east, east and north-east. No features were visible.	17	_	south-east boundary, while it is bounded to the north by Jinny Lane. The field is bisected by the access to Dimpenley and Nabs Farms. A large and pronounced quarry pit (Site 39) in the northern part of the field was located. It is oval or sub-circular in shape, measuring 30mx 30m and approximately 2m deep. The fairly steeply sloping sides lead to a flattish
Nabs Farm before falling to the south-east, east and north-east. No features were visible.	18		Relatively flat improved pasture field, rectangular in shape with the long axis aligned north-west/south-east. A stone gatepost (Site 42) located 3m from the present field access was observed. A square aperture toward the top pierces the gatepost. The post retains an iron hinge bracket leaded into position and a small recess for a vanished fixture. The remains of a dry stone wall extend from the post along the course of the present field boundary.
20 South-east of A large elongated rectangular field under rough pasture. The field is	19		before falling to the south-east, east and north-east. No features were
	20	South-east of	A large elongated rectangular field under rough pasture. The field is

	Barley Bank	predominantly flat but rises gradually toward the north-west and Jinny Lane. A relict field system lying within the confines of Field 20 and partially depicted on the OS map base was identified (Site 45). A group of former field boundaries visible on the Ordnance Survey map of 1848 were identified. In the centre of these there is a narrow enclosure orientated north-west/south-east. The majority of the boundaries are preserved as banks or tumbled dry stone walls approximately 2m wide, often associated with ditches. In the corner of the north-west part of the group a possible saddle quern is built into the wall.
21	South-east of Newchurch in Pendle	A long flat north-west/south-east aligned field under improved pasture that rises dramatically in the last third up to Jinny Lane. A relict field boundary was seen crossing the south-eastern third of the field from south-west to north-east. The shallow ditch was 3m wide and about 0.25m deep. A circular stone built well (Site 47) that is partially capped and with possible steps or access at the south-eastern side was observed. Emanating from this feature was a channel running down hill and veering off to the east along the base of slope, where its form is embanked. It should be noted that this site lies to the north-east of the position designated by the LSMR. A grassed over trackway (Site 46) descending north-west from Jinny Lane was also observed. There is no evidence of any access to Jinny Lane. The site has been cut or worn into the surrounding hillside and is 2m-2.50m wide.
22	North-east of Newchurch in Pendle	A pasture field bounded by Cross Lane to the west, Jinny Lane to the south and a conifer plantation to the north-east. The field is level at the top (north) and descends toward Jinny Lane in a series of steps. These steps have been utilised by various footpaths that cross the field. A large east/west aligned rectangular quarry pit (Site 55) with a deeply cut access onto Cross Lane was identified. The pit is 45m long by 21m wide and approximately 3m deep, with steeply sloping sides and a flat base. Also observed was a small shallow quarry pit (Site 54), one of several both in the field and within the plantation to the east. The quarry pit lies adjacent to the north-east boundary of the field and is 8.5m x 3.5m x 1m deep. Another quarry pit (Site 56) is a sub-circular scoop cut into the hillside, approximately 15m in diameter. Immediately adjacent (south) is an east/west aligned levelled area measuring 9m x 5m. The feature has been cut into a slight rise with the resulting spoil pushed forward to form a platform. A small oval quarry (Site 53) adjacent to the north-eastern boundary of the field. The site has been partially excavated into the slope and measures 7m from north-east/south-west by 6m wide. A pronounced square quarry pit (Site 49) with access off Jinny Lane and marked on the OS map base. The site has precipitous sides to the north and a marshy base carpeted with Junkus grass. It is 25m square and up ward of 3m deep.
23	Near Barley Fold	Irregular shaped field on the brow of the hill which descends ever more steeply down to the north-east. The field is under improved pasture. A single millstone grit gatepost (Site 60) marking the entrance to Field 23 was observed. The post has been squared with a round top. Simple low relief carving can be found on all faces. Iron fixtures or evidence of them can be seen on three sides indicating that the post has been moved from its original position.
24	East of Barley Fold	Fairly level rough pasture field bounded to the south and west by Cross Lane and dropping fairly steeply to the north. No features were observed.
25	South-west of Cross Lane	Small triangular shaped field containing rough pasture and bounded by Cross Lane to the north. A east-north-east/west-south-west linear feature (Site 59) 2.50m wide and 0.30m deep which extends toward Cross Lane

		opposite the entrance to Barley Fold was identified. The feature may be connected to one the several springs in the vicinity.	
26	North of Newchurch in Pendle	Long rectangular field that descends steeply (down to the north-west) in a series of steps toward the White Hough Water in the valley bottom. The field is under closely (sheep) cropped pasture. There is a rocky scarp face running north-east/south-west across the field, which was earlier utilised as a quarry.	

Table 1: Walkover Survey Results

5. GAZETTEER OF SITES

Site number 01

Site name 1-5 Stansfield Close, Pasture Lane, Barrowford

NGR 385921 439804

Site type Chapel Post-medieval Period

HER No 22299

Statutory

Designation

Sources HER; Ordnance Survey 1893

A chapel shown on the Ordnance Survey map of 1893 **Description**

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

02 Site number

Site name Albert Mills, Mill Street, Barrowford

NGR 385840 439730

Site type Mill

Period Post-medieval **HER No** 21963

Sources HER; Taylor 1999

Description Albert Mills is a cotton-spinning and weaving mill built between 1844 and 1879

on steeply sloping land above Barrowford Beck. It is a complex site of multiphase construction. It comprised of a large, roughly rectangular south-east-facing spinning block at least five storeys in height. This towered over the White Bear public house, which stood just in front of it and fronted Gisburn Road. Behind this block and forming a roughly L-shaped plan with it stood a multi-storey block, probably used for yarn preparation, and behind this a single storey weaving shed, the grouping indicating a succession of processes as cotton moved through the mill, spinning followed by yarn preparation and then by weaving. Power was supplied from a tall narrow engine house and a boiler house, for two boilers, and a chimney, attached side by side at the north-east end of the varn preparation block. At a later date, but before 1890-1 a second weaving shed was built, butting against the south-west side of the first. In the mid or late twentieth century an extension to the second shed was built to the south in red brick. In 1998 the surviving mill buildings were occupied and in good condition but the spinning block had been completely demolished as had the chimney and the second weaving shed,

although its external walls survived.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number

Site name The Old Vicarage, rear of 26-40 Church Street, Barrowford

385749 439607 **NGR** Site type Vicarage Period Post-medieval **HER No** 22301

Sources HER; Ordnance Survey 1893

A vicarage is shown on the Ordnance Survey map of 1893. Description

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number 04

Site name 21 Lupton Drive, Barrowford

NGR 385611 439640

Site type Well

Post-medieval Period

HER No 22427

HER; Ordnance Survey 1893 **Sources**

A well is shown on the Ordnance Survey map of 1893. **Description**

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number 05

Site name North of Eden Close and Orton Court, Appleby Drive, Barrowford

NGR 385575 439797 Site type Reservoir Period Post-medieval 22432 **HER No**

HER; Ordnance Survey 1893 Sources

Description A reservoir is shown on the Ordnance Survey map of 1893. This is still present

and used as a fishing pond.

The site lies close to the proposed development area and is likely to be affected **Assessment**

Site number **06**

Site name North-west of Barrowford Reservoir

NGR 385463 439874 Site type Field boundary

Period Medieval/post-medieval

HER No

Sources Walkover survey

Description A former field boundary visible as a shallow depression, no more than 0.3m deep,

orientated approximately north/south.

Part of the site will be crossed by the proposed development and will be affected Assessment

Site number 07

Site name North-west of Barrowford

NGR 385600 440177 Ditches? Site type Period Unknown

HER No

HSL UK 1963, Run 14 Frame 9224 **Sources**

Description A group of amorphous linear features, possibly ditches, are visible in an aerial

photograph.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number 08

Site name North-west of Barrowford

385447 440241 NGR Site type Field boundary

Period Medieval/post-medieval

HER No 2475

HER; HSL UK Run 14 Frame 9224 Sources

Description A linear feature orientated north-west/south-east is visible on an aerial photograph

from 1963. It is probably a former field boundary and forms part of a large group

of features visible in an aerial photograph forming HER No. 2475.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number 09

Site name Near Higher Oaklands Farm

385355 440082 NGR Ridge and furrow Site type Post-medieval Period

HER No 2475

Sources HER; HSL UL 1963 Run 14 Frame 9224

An area of very straight and narrow ridge and furrow orientated approximately **Description**

east/west is visible in an aerial photograph from 1963.

Assessment The site lies close to the proposed development area but is unlikely to be affected

Site number 10

Site name North-east of Higher Oaklands Farm

NGR 385244 439985 Site type Linear feature Period Unknown **HER No**

Walkover survey **Sources**

Description A linear feature aligned approximately east/west with a turn to the north at the

east exists as a linear depression. It is up to 4m wide and 0.5m deep.

Assessment Part of the site will be crossed by the proposed development area and will be

affected

Site number 11

Site name North-east of Higher Oaklands Farm

385202 440025 **NGR** Site type Linear feature Period Unknown

HER No

Sources Walkover survey

Description A linear feature aligned approximately north-east/south-west exists as a low

earthen bank up to 0.5m high.

Assessment Part of the site will be crossed by the proposed development area and will be

affected

Site number **12**

Site name North of Higher Oaklands Farm

NGR 385151 440047 Site type Building platform?

Period Unknown

HER No

Sources Walkover survey

Description A possible building platform visible as a level area up to 1m high and 25m by

25m was identified during the walkover survey.

Assessment The site lies close to the proposed development area and may be affected

Site number 13

Site name North-west of Higher Oaklands Farm

384989 440121 **NGR** Site type Ridge and furrow Post-medieval Period

HER No

Sources HSL UK 1963 Run 14 Frame 9223

Description A large area of straight and narrow ridge and furrow orientated north-west/south-

east with probable associated field boundaries is visible in aerial photographs

Part of the site lies with the proposed development area and will be affected Assessment

Site number 14

Site name North-west of Higher Oaklands Farm

NGR 385010 440160 Site type Ouarry? Period Unknown

HER No

Sources Walkover survey

Description A shallow hollow 0.5m deep and 18m north-east/south-west by 1m north-

west/south-east was observed during the walkover survey.

The site lies within the proposed development area and will be affected Assessment

Site number 15

Site name South-east of Roughlee **NGR** 384690 440346 Site type Field system

Period Medieval - post-medieval

HER No

Walkover survey; HSL UK 1963 Run 14 Frame 9223 Sources

Description An area of ridge and furrow with associated terraced field boundaries was visible

during the walkover survey and is partially visible in aerial photographs from

Assessment Part of the site lies within the proposed development area and will be affected

Site number 16

Site name Lower Mill, Roughlee 384500 440300 NGR

Site type Mill

Period Post-medieval

HER No 5849

Sources HER; Ordnance Survey 1848

The site of Lower Mill, which is shown on the Ordnance Survey map of 1848. **Description** Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number

Site name North of Fulshaw Head Farm

NGR 384675 440019 Field system Site type

Period Medieval/post-medieval

HER No

HSL UK 1963 Run 14 Frame 9223; Walkover survey Sources

An large field system comprising ridge and furrow and field boundaries was **Description**

observed in aerial photographs from 1963. The field boundaries were still visible

during the walkover survey.

Assessment Part of the site will be crossed by the proposed development area and will be

affected

Site number 18

Site name South of Ridgaling Farm **NGR** 384415 439631 Site type Ridge and furrow Period Medieval/post-medieval

HER No

HSL UK 1963 Run 14 Frame 9223 Sources

Description A large area of ridge and furrow is visible in an aerial photograph from 1963

orientated north-west/south-east.

The site lies outside of the proposed development area and is unlikely to be **Assessment**

affected

Site number 19

Site name West of Ridgaling Farm

384249 439776 **NGR**

Site type Quarry Period Post-medieval 11217 **HER No HER**

Description A probable quarry is visible in an aerial photograph associated with HER No.

11217. It has a probable former field boundary to the north-west of it.

Assessment The site lies close to the proposed development area but is unlikely to be affected

20 Site number

Sources

Site name South-west of High Beach

NGR 384049 439831 Site type Field boundaries Period Post-medieval

HER No 11217

Sources HER; Walkover survey

Description A group of three former field boundaries orientated north-east/south-west is

> visible in an aerial photograph associated with HER No. 11217. These were also visible during the walkover survey as banks between 0.5m and 1m high and up to 3.5m wide, some with ditches. A possible hollow way orientated north-

west/south-east is also associated with the central bank.

Part of the site will be crossed by the proposed development area and will be Assessment

affected

Site number 21

Site name Crow Trees **NGR** 383928 440007 Site type Smithy Period Post-medieval

HER No 6269

Sources HER; Ordnance Survey 1848

Description A smithy is shown here on the Ordnance Survey map of 1848.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number 22

South-west of Crow Trees Wood Site name

NGR 383856 439798 Quarry Site type Period Unknown

HER No

Sources Walkover survey

Description A sub-circular quarry with steep sides up to 2m deep, 13m long and with an

entrance on the north-west side identified during the walkover survey.

Assessment The site lies close to the proposed development area but is unlikely to be affected

Site number

Site name South-west of Crow Trees Wood

NGR 383899 439723 Field system Site type

Period Medieval/post-medieval

HER No

HSL UK 1963 Run 14 Frame 9222 **Sources**

Description A field system comprising areas of ridge and furrow orientated north-west/south-

east with associated field boundaries is visible in an aerial photograph from 1963.

Assessment Part of the site will be crossed by the proposed development area and will be

affected

Site number 24

Site name South of Crow Trees Wood

NGR 384057 439646

Site type Quarry Period Unknown **HER No** 11217 **HER Sources**

Description A probable linear quarry is visible in an aerial photograph associated with HER

No. 11217.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number 25

Site name East of Noggarth Cottage

NGR 384106 439479 Site type Field system

Period Medieval/post-medieval

HER No

HSL UK 1963 Run 14 Frame 9222 Sources

A field system comprising large areas of ridge and furrow is visible in an aerial **Description**

photograph from 1963.

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number **26**

Site name North of Noggarth Cottage

383961 439632 NGR

Site type Ditch? Period Unknown

HER No

Sources HSL UK 1963 Run 14 Frame 9222

Description A large curving feature, probably a ditch is visible in an aerial photograph from

1963. It may be a track associated with nearby quarrying.

The site lies outside of the proposed development area and is unlikely to be **Assessment**

affected

Site number

Site name North of Noggarth Cottage

NGR 383911 439556

Site type Quarry Period Unknown **HER No** 11217 **Sources** HER

Description A linear quarry, with a similar feature immediately to the north, is visible in an

aerial photograph associated with HER site 11217.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number 28

Site name North-west of Noggarth Cottage

NGR 383859 439538 Site type Ridge and furrow Period Medieval/post-medieval

HER No 11217 Sources **HER**

Description A small area of ridge and furrow is visible in an aerial photograph associated with

HER No. 11217.

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

29 Site number

Site name South-west of Crow Trees Wood

NGR 383803 439750 Site type Spring Period Unknown

HER No

Sources Walkover survey

Description A spring marked by an iron pipe and a rectangular stone trough was identified

during the walkover survey.

Assessment The site lies close to the proposed development area and may be affected

30 Site number

South-west of Crow Trees Wood Site name

383785 439764 NGR Site type Building Period Post-medieval

HER No

Sources Ordnance Survey 1848; Walkover survey

Description A small stone-built building measuring 5.6m north-east/south-west by 5.35m

north-west/south-east was identified during the walkover survey. It is constructed of randomly coursed rubble walls with quoins and a cobble floor. The majority of the roof survives. A building, initially described as a barn, is present on this spot

from 1848 onwards.

The site lies close to the proposed development area but is unlikely to be affected Assessment

Site number 31

Site name Thorneyholme Mill 383540 440060 **NGR**

Site type Mill

Period Post-medieval

HER No 6267

HER; Ordnance Survey 1848 Sources

Description A cotton mill, shown on the Ordnance Survey map of 1848, but subsequently

converted for domestic and agricultural use.

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number **32**

Site name South-west of Crow Trees Wood

NGR 383821 439669 Site type Gatepost Post-medieval Period

HER No

Walkover survey **Sources**

Two gateposts, one of which is stone with an arched top forming the south side of **Description**

the gateway into the field. The other post is concrete and has rectangular iron

fittings on the south side.

The site lies close to the proposed development area and may be affected Assessment

Site number 33

Site name South-west of Crow Trees Wood

NGR 383821 439669 Site type Hollow way Period Unknown

HER No

Sources Walkover survey

Description A hollow way orientated approximately north-west/south-east along the field

boundary. It is up to 0.5m deep and 8m wide and may represent the original

course of Ridge Lane.

Assessment Part of the site will be crossed by the proposed development area and will be

affected

Site number 34

Site name West of Noggarth Cottage

NGR 383741 439426 Site type Field boundaries Period Unknown HER No 11217

HER Sources

A group of former field boundaries are visible in an aerial photograph and form **Description**

part of HER No. 11217.

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number 35

Site name South of Dole House NGR 383627 439402 Site type Quarry

Period Unknown **HER No** 11217 **Sources**

Description An area of quarrying visible in an aerial photograph making up HER No. 11217. The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number 36

Site name South of Dole House **NGR** 383600 439298 Site type Field system

Medieval - post-medieval Period

HER No 11217 **Sources HER**

Description A small area of ridge and furrow orientated north-west/south-east with an associated field boundary is visible in an aerial photograph associated with HER

No 11217.

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number 37

Site name North of Lower Grey Stones

NGR 383408 439434 Site type Field system

Period Medieval/post-medieval

HER No

Sources HSL UK 1963 Run 14 Frame 9221; Ordnance Survey 1848; Walkover survey **Description** A group of field boundaries forming narrow six narrow fields are visible in an

aerial photograph from 1963. The majorities of these were still evident during the walkover survey and were typically 0.2m - 0.5m high and 1m - 2m wide. These

boundaries are present on the Ordnance Survey map of 1848.

Assessment Part of the site is crossed by the proposed development area and will be affected

Site number 38

Site name North of Lower Dimpenley Farm

383201 439536 **NGR** Site type Field system

Period Medieval/post-medieval

HER No

Sources HSL UK 1963 Run 14 Frame 9221; Ordnance Survey 1848; Walkover survey **Description** A group of former field boundaries and an area of ridge and furrow are visible in

aerial photographs from 1963. Part of this was still visible during the walkover

survey and they are present on the Ordnance Survey map of 1848.

Assessment Part of the site will be crossed by the proposed development and will be affected

Site number

Site name South of Thorny Bank NGR 383138 439539 Site type Quarry Period Unknown

HER No

Sources Walkover survey

An oval or sub-circular quarry, approximately 30m by 30m and 2m deep with **Description**

steeply sloping sides was identified during the walkover survey.

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number 40

Site name Thorny Bank **NGR** 383011 439904 Site type Field system

Period Medieval/post-medieval

HER No

Sources HSL UK 1963 Run 14 Frame 9221; Ordnance Survey 1848

Description A large area of former field boundaries and ridge and furrow orientated north-

west/south-east is visible in an aerial photograph of 1963. Some of these are

present on the Ordnance Survey map of 1848.

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number 41

Site name South-west of Thorny Bank

NGR 382831 439769

Site type Quarry Unknown Period

HER No

Ordnance Survey 1893 **Sources**

A small crescent-shaped quarry is visible on the Ordnance Survey map of 1893. **Description** Assessment

The site lies outside of the proposed development area and is unlikely to be

affected

Site number 42

Site name North-west of Dimpenley Farm

NGR 382917 439394 Site type Gatepost Period Post-medieval

HER No

Sources Walkover survey

A pierced stone gatepost and the remains of a dry stone wall identified during the **Description**

walkover survey. The gatepost is 1.3m in height and 0.25m square in section. The

remains of iron fixtures and holes are also present within it.

The site lies close to the proposed development area and may be affected Assessment

Site number 43

Site name West of Dimpenley Farm

NGR 382912 439265 Site type Cropmark Period Unknown

HER No

HSL UK 1963 Run 14 Frame 9221 Sources

Description A large curving feature showing as a dark crop mark is visible in an aerial

photograph from 1963. It is very wide and long, and may be natural.

Part of the site will be crossed by the proposed development area and will be Assessment

affected

Site number 44

Site name West of Nabs Farm **NGR** 382942 439198 Field boundaries Site type Period Medieval/post-medieval

HER No

HSL UK 1963 Run 14 Frame 9221 **Sources**

Description A group of probable former field boundaries is visible in aerial photographs from

> 1963. Two approximately parallel linear features cross the field, aligned northeast/south-west, with a further linear feature aligned north-west/south-east joined to the most southerly north-east/south-west linear, terminating with an existing

field boundary to the south-east.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number

Site name North-east of Dimpenley Head Farm

382745 439214 **NGR** Field boundaries Site type Period Medieval/post-medieval

HER No

Sources Ordnance Survey 1848; Walkover survey

Description A group of former field boundaries visible on the Ordnance Survey map of 1848

> and identified during the walkover survey. In the centre of these there is a narrow enclosure orientated north-west/south-east. The majority of the boundaries are preserved as banks or tumbled dry stone walls approximately 2m wide, often associated with ditches. In the corner of the north-west part of the group a

possible saddle quern is built into the wall.

Part of the site is crossed by the proposed development area and will be affected Assessment

Site number 46

Site name East of Newchurch-in-Pendle

382457 439394 **NGR** Site type Field system

Period Medieval/post-medieval

HER No

HSL UK 1963 Run 14 Frame 9221; Walkover survey Sources

Description An area of ridge and furrow is visible in an aerial photograph from 1963

> orientated north-west/south-east, with a former field boundary forming the northwest edge. Running across this is a possible trackway, orientated north-

west/south-east forming a hollow way between 2m and 2.5m wide.

Part of the site lies within the proposed development area and will be affected Assessment

Site number 47

Site name Jinny Well, Newchurch-in-Pendle

NGR 382400 439400

Site type Well Period Unknown **HER No** 3541

Sources HER; Walkover survey

Description A possible holy well. During the walkover survey a spring and water channel,

which collects at a stone-lined chamber was identified. The chamber is 0.6m in diameter and possibly roofed over in stone with a plinth or steps to access the hole, which is 0.73m above the ground. It is not certain if this is the same site as that recorded by the HER, although the proximity of the locations would suggest

Assessment The site lies close to the proposed development area but is unlikely to be affected

Site number

Site name St Mary's Churchyard, Goldshaw Booth

382290 439350 NGR Site type Site of cross(es) Period Medieval

HER No

Sources HER; Baines 1836; Taylor 1901

Baines states: 'In the churchyard anciently stood a low, plain cross, at which, in **Description**

the 29th year of Henry VI (1451), Rauf, abbot of Whalley, with the charterers and customary tenants of eight townships without the chapelry, held a meeting to

abate encroachments on the common'. The cross has since disappeared.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number

Site name South-west of Barley Bank

382448 439459 NGR Site type Quarry Period Post-medieval

HER No

Sources Ordnance Survey 1893; Walkover survey

Description A quarry is marked on the Ordnance Survey map of 1893. This was identified

during the walkover survey as a semi-circular pit.

The site lies close to the proposed development area and may be affected Assessment

50 Site number

Site name Barley Bank

NGR 382570 439550, 382260 438460, 382280 438490, 382300 439770, 381300

438940, 383630 439460

Site type Wells

Period Post-medieval

HER No 6304

Sources HER; Ordnance Survey 1848

Description Six wells are shown in the vicinity of Newchurch-in-Pendle on the Ordnance

Survey map of 1848.

Parts of the site lie close of the proposed development area and may be affected Assessment

Site number 51

Site name North of Barley Bank **NGR** 382542 439626 Ridge and furrow Site type Post-medieval Period

HER No

Sources HSL UK 1963 Run 14 Frame 9221

Description A large area of very straight and narrow ridge and furrow is visible on an aerial

photograph from 1963.

Assessment Part of the site lies close to the proposed development area but is unlikely to be

affected

Site number 52

North of Barley Bank Site name **NGR** 382512 439568 Site type Ouarry

Period Post-medieval

HER No

Ordnance Survey 1893 Sources

Description An 'Old Quarry' is shown on the Ordnance Survey map of 1893.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number

Site name North-west of Newchurch-in-Pendle

NGR 382410 439547

Site type Quarry Period Unknown

HER No

Sources Walkover survey

A small quarry pit identified during the walkover survey. It is partially excavated **Description**

into the slope, measuring up to 2m deep and 7m long by 6m wide.

The site lies within the proposed development area and will be affected Assessment

Site number 54

Site name North-west of Newchurch-in-Pendle

NGR 382388 439580 Site type Quarry Period Unknown

HER No

Sources Walkover survey

A small quarry pit identified during the walkover survey. It is shallow, little more **Description**

than 1m deep, and 8.5m long by 3.5m wide. It is probably truncated by the dry

stone wall forming the field boundary to the north-east.

The site lies within the proposed development area and will be affected Assessment

Site number

Site name North of Newchurch-in-Pendle

Unknown

NGR 382351 439565 Site type Quarry

HER No

Period

Walkover survey Sources

Description A large quarry in the form of a rectangular pit identified during the walkover

survey. It is aligned east/west and up to 3m deep.

Assessment The site lies close to the proposed development area and may be affected

Site number 56

Site name North of Newchurch-in-Pendle

NGR 382345 439537

Site type Quarry Period Unknown

HER No

Sources Walkover survey

A quarry pit and associated building platform. The quarry comprises a sub-**Description**

> circular scoop cut into the hillside approximately 15m in diameter and 3m deep at its deepest point. Adjacent to its south side is a levelled area 9m long and 3m wide, orientated east/west. Material appears to have been excavated to the east to form the platform, which is 1m higher than the level of the field, and immediately

south-east there is another level area.

The site lies close to the proposed development area but is unlikely to be affected Assessment

Site number 57

Site name Newchurch-in-Pendle **NGR** 382297 439491 Site type Ridge and furrow Period Medieval/post-medieval

HER No

HSL UK 1963 Run 14 Frame 9220 **Sources**

Description A small area of feint ridge and furrow orientated north-west/south-east is visible

in an aerial photograph from 1963.

The site lies outside of the proposed development area and is unlikely to be Assessment

affected

Site number

North-west of Newchurch-in-Pendle Site name

NGR 382189 439602 Field system Site type

Period Medieval/post-medieval

HER No

HSL UK 1963 Run 14 Frame 9220 Sources

Description A field system comprising two areas of ridge and furrow, orientated north/south

and associated field boundaries is visible in an aerial photograph from 1963.

Assessment Part of the site lies within the proposed development area and will be affected

Site number 59

Site name North of Newchurch-in-Pendle

NGR 382312 439595 Site type Linear feature Period Unknown

HER No

Sources Walkover survey

Description A linear feature orientated approximately east/west identified during the walkover

survey. It comprises a shallow ditch, 0.3m deep and 2.5m wide, and may be the

remains of a former field boundary or hollow way.

Assessment The site lies close to the proposed development area but is unlikely to be affected

Site number 60

Site name North-west of Newchurch-in-Pendle

NGR 382357 439622 Site type Gatepost Post-medieval Period

HER No

Walkover survey **Sources**

Description A gatepost identified during the walkover survey. It is 1.36m high, 0.24m in depth

and 0.35m wide, and constructed from gritstone, dressed in a rusticated style with

a rounded top. There is an iron fitting in the centre of the north-east face.

Assessment The site lies within the proposed development area and will be affected

Site number 61

West of Cross Lane Farm Site name

382019 439912 **NGR** Site type Ridge and furrow

Period Medieval – post-medieval

HER No

Sources HSL UK 1963 Run 14 Frame 9220

Description A large area of ridge and furrow with associated field boundaries is visible in an

aerial photograph from 1963. It is orientated approximately north-west/south-east.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

Site number **62**

Site name Stoney Bank **NGR** 383090 440100

Site type Ouarry Period Post-medieval

HER No 6266

HER; Ordnance Survey 1848 Sources

Description A quarry is shown here on the Ordnance Survey map of 1848.

Assessment The site lies outside of the proposed development area and is unlikely to be

affected

6. WATCHING BRIEF RESULTS

6.1 Introduction

A watching brief was undertaken during the excavation of 35 out of a 6.1.1 proposed 42 geological trial pits at a number of locations along the proposed pipeline route (Fig 3). In addition, a watching brief was maintained during the topsoil removal from 18 fields within the pipeline easement (Fig 3); these being Fields 6-15, 17-21 and 23-25.

6.2 TRIAL PIT RESULTS

6.2.1 All of the trial pits measured 1m² and were machine excavated to approximately 1.2m in depth. Plate 1 shows an example of an excavated trial pit. The results of the trial pit excavations are summarised in Table 2 below.

Trial Pit	Description	Field	Finds
TP1	A dark brown-to-black silty-topsoil 0.15m deep overlay 0.3m of subsoil containing 70-80% stone. This was probably a dump of rubbish and building rubble. Below this was light brown sandy-clay with 10-15% stones extending 0.65m deep to the base of the pit.	26	Glass and metal from the rubbish dump deposit
TP2	A dark brown to black silty-topsoil 0.15m deep overlay 0.5m of subsoil containing stone and brick rubble (70-80% stones). This was probably a dump of rubbish and building rubble. Below this was a light brown sandy-clay with 10-15% stones extending 0.6m deep to the base of the pit.	26	Ceramic building material and metal from the rubbish dump deposit (discarded)
ТР3	A dark brown-to-black silty-topsoil/subsoil 0.3m deep, overlay grey-brown sandy-clay with 10-15% stones, 0.5m deep. Below this was a light grey clay extending 0.4m deep to the base of the pit.	25	None
TP4	A dark brown-to-black silty-topsoil/subsoil 0.3m deep, that overlay 0.5m deep grey-brown sandy clay with 10-15% stones. Below this was a light grey clay extending 0.4m deep to the base of the pit	24	Two sherds of 19th/20th century pottery
TP5	A dark brown-to-black silty-topsoil/subsoil 0.25m deep, overlay 0.85m of orange-brown sand, with less than 5% small-sized stones and large patches of limestone. This overlay more limestone and sandstone, 0.1m deep to the base of the pit.	22	Pottery from topsoil
TP6	A dark brown-to-black silty-topsoil/subsoil measuring 0.3m deep, overlay an orange-brown silty-sand with 80% small-to-medium sized stones, extending 0.9m deep to the base of the pit.	22	Two sherds of 17th/18th century pottery
TP7	A dark brown-to-black silty-topsoil/subsoil 0.3m deep, overlay an orange-brown silty sand with 80% small-to-	22	Pottery from topsoil

	medium stones, 0.9m deep to the base of the pit.		
TP8	A dark brown-to-black silty-topsoil/subsoil 0.3m deep, overlay mid grey clay, with patches of orange-brown clay and 10-15% small sized stones, 0.75m deep. This overlay dark grey clay with 70% small-to-medium sized stones 0.15m deep, which overlay dark grey clay with 60-70% medium-sized stones 0.15m deep to the base of the pit.	21	Pottery from topsoil
TP9	A dark brown-to-black silty-topsoil/subsoil 0.25m deep, overlay a mid-brown to orange clay, with 70% small-to-medium sized stones, 0.6m deep. This overlay a dark grey to orange clay with 70% small-to-medium sized stones 0.35m deep to the base of the pit	21	Pottery from topsoil
TP10	A dark brown-to-black silty-topsoil/subsoil 0.25m deep, overlay a mid-brown to beige clay, with 10-15% small stones, 0.2m deep. This overlay a mid-grey to orange clay with 70-80% medium stones 0.6m deep, which overlay a dark grey clay with 60-70% medium stones 0.15m deep to the base of the pit.	20	None
TP11	A dark brown-to-black silty-topsoil/subsoil 0.3m deep, with 5% small sized stones, overlay a mid-brown to grey clay, with 5% small stones, 0.7m deep. This overlay mid-to-dark grey clay with 70-80% medium sized stones, 0.2m deep to the base of the pit.	20	None
TP12	A dark brown-to-black silty-topsoil/subsoil 0.3m deep, overlay a mid-brown to grey clay, 0.6m deep. This overlay a further deposit of clay, which contained a land drain at 0.9m below the surface. The pit was not excavated below this depth (Plate 1).	19	None
TP13	A dark brown-to-black silty-topsoil/subsoil 0.2m deep, with 5% small sized stones, overlay a mid-brown to grey clay, with 5% small sized stones, 0.7m deep. This overlay mid-to-dark grey clay with 70-80% medium sized stones, 0.3m deep to the base of the pit.	18	None
TP14	A dark brown-to-black silty-topsoil/subsoil 0.3m deep, with 5% small sized stones, overlay a mid-brown to grey clay, with 5% small sized stones, 0.7m deep. This overlay mid-to-dark grey clay with 70-80% medium stones, 0.2m deep to the base of the pit.	17	Ceramic field drain in topsoil (discarded)
TP15	A dark brown-to-black silty-topsoil/subsoil 0.3m deep, with 5% small sized stones, overlay a mid-brown-to-grey clay, with 5% small sized stones, 0.6m deep. This overlay mid-to-dark grey clay with 70-80% medium sized stones, 0.3m deep to the base of the pit.	17	None
TP16	A dark brown-to-black silty-topsoil/subsoil with 5% small-to-medium sized stones overlay a mid-grey clay, with 5% small-to-medium sized stones. This overlay mid-dark grey clay with orange-grey clay lenses. At the base of the pit a water pipe was hit and the pit flooded so no measurements could be taken.	17	Iron fixing plate

		1	1
TP17	A dark grey-to-black sandy topsoil/subsoil containing less than 5% small sized stones, 0.3m deep, overlay a mid-brown to grey stony clay 0.9m deep to the base of the pit.	15	None
TP18	A dark grey-to-black sandy topsoil/subsoil containing less than 5% small sized stones, 0.3m deep, overlay a mid-brown to grey stony clay 0.9m deep to the base of the pit.	15	None
TP19	A dark grey-to-black sandy topsoil/subsoil containing less than 5% small sized stones, 0.25m deep, overlay a white-beige silty-clay 0.15m deep. This in turn overlay mid-dark grey clay with patches of brown and 50-60% stones, 0.8m deep to the base of the pit.	13	None
TP20	A dark grey-to-black sandy-topsoil/subsoil containing less than 5% small stones, 0.3m deep, overlay a brown-to-grey clay with 10-15% stones, 0.9m deep to the base of the pit	13	None
TP21	A dark grey-to-black sandy-topsoil/subsoil containing less than 5% small sized stones, 0.3m deep, overlay a light grey-beige clay with brown and orange patches and 15% stones, 0.9m deep to the base of the pit.	12	None
TP22	A dark grey-to-black sandy-topsoil/subsoil containing less than 5% small sized stones, 0.3m deep, overlay light grey/beige clay with brown and orange patches and 15% stones, 0.9m deep to the base of the pit.	12	None
TP23	A dark brown-to-black silty-topsoil/subsoil 0.3m deep overlay a light brown/grey or beige silty-clay with 30% medium sized stones 0.4m deep. This overlay dark-grey to black clay with 70-80% large sized stones, 0.5m deep to the base of the pit.	11	None
TP24	A dark brown-to-black silty-topsoil/subsoil 0.25m deep, overlay light brown sand, with 10-15% small-to-medium sized stones 0.2m deep. This overlay an orange-brown sandy clay with 10-15% medium sized stones 0.3m deep, beneath which was a dark grey-brown sandy-clay with 70-80% medium-large stones 0.2m deep to the base of the pit.	11	None
TP25	A dark brown-to-black silty-topsoil/subsoil 0.3m deep overlay beige-light brown sand, with 10-15% small-to-medium sized stones 0.2m deep. This overlay orange-brown sandy-clay with 10-15% medium sized stones 0.5m deep, beneath which was a dark grey-brown sandy-clay with 70-80% medium-to-large sized stones, 0.2m deep to the base of the pit.	10	None
TP26	A dark brown-to-black silty-topsoil/subsoil 0.3m deep overlay the natural orange-brown sandy-clay, which was 0.25m deep. Below this was a deposit of dark grey clay containing 80% medium-to-large sized stones, 0.65m deep to the base of the pit.	9	None

TP27 A dark brown-to-black silty-topsoil/subsoil 0.3m deep overlay the natural orange-brown sandy-clay, which was 0.7m deep. Below this was a deposit of dark grey clay containing 20-30% medium-to-large sized stones, 0.2m deep to the base of the pit. TP28 A black silty-topsoil/subsoil 0.3m deep overlay a natural mid-orange sand with 25-30% small-to-medium sized stones, which was 0.35m deep. Below this was grey-brown silt with 80-90% angular pieces of sandstone, which was 0.6m deep to the base of the pit. TP29 A grey/black silty topsoil/subsoil 0.3m deep with 10-15% small sized stones overlay the natural orange-brown clay, which was 0.8m deep and contained 15-20% medium sized stones. This overlay mid-dark grey clay, containing 5% stones that was 0.1m deep to the base of the pit. TP30 Not excavated - None TP31 Not excavated - None TP32 A grey black silty-topsoil/subsoil 0.3m deep overlay the natural greenish-brown clay with 5% small-to-medium sized stones, which was 0.45m deep to the base of the pit. TP33 A black silty-topsoil 0.25m deep overlay the natural mid orange-brown compact clay, which was 1m deep to the base of the pit. TP34 A black silty-topsoil 0.25m deep overlay the natural mid orange-brown compact clay, which was 1m deep to the base of the pit. TP35 A black silty-topsoil 0.25m deep overlay the natural mid orange-brown compact clay, which was 1m deep to the base of the pit. TP36 A black silty-topsoil 0.25m deep overlay grey-black clay-silt subsoil 0.25m deep. This was situated on top of a brown-orange natural clay with 20-30% medium sized stone inclusions 0.6m deep, over a natural grey clay 0.6m deep to the base of the pit, also with 20-30% medium sized stone inclusions 0.6m deep, over a natural grey clay 0.6m deep to the base of the pit, also with 20-30% medium sized stone inclusions 0.6m deep, over a natural grey clay 0.6m deep to the base of the pit, also with 20-30% medium sized stone inclusions 0.6m deep, over a natural grey clay 0.6m deep to the base of the pit, also with 20-30% medium s				
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orange-brown compact clay, which was 1m deep to the base of the pit TP34 A black silty topsoil 0.2m deep overlay the natural midorange-brown compact clay, which was 1m deep to the base of the pit. TP35 A black silty-topsoil 0.25m deep overlay grey-black claysilt subsoil 0.25m deep. This was situated on top of a brown-orange natural clay with 20-30% medium sized stone inclusions 0.6m deep, over a natural grey clay 0.6m deep to the base of the pit, also with 20-30% medium stone inclusions TP36 Not excavated - None TP37 Not excavated - None TP38 Not excavated - None TP39 Not excavated - None TP40 Not excavated - None TP40 Not excavated - None TP40 Not excavated - None TP41 Not excavated - None TP41 Not excavated - None TP42 This was located in the road and no deposits of interest - None	TP32	natural greenish-brown clay with 5% small-to-medium sized stones, which was 0.45m deep. This overlay mid-	5	None
orange-brown compact clay, which was 1m deep to the base of the pit. TP35 A black silty-topsoil 0.25m deep overlay grey-black claysilt subsoil 0.25m deep. This was situated on top of a brown-orange natural clay with 20-30% medium sized stone inclusions 0.6m deep, over a natural grey clay 0.6m deep to the base of the pit, also with 20-30% medium stone inclusions TP36 Not excavated TP37 Not excavated None TP38 Not excavated None TP39 Not excavated None TP40 Not excavated None TP40 Not excavated None TP41 Not excavated None TP42 This was located in the road and no deposits of interest None	TP33	orange-brown compact clay, which was 1m deep to the	3	•
silt subsoil 0.25m deep. This was situated on top of a brown-orange natural clay with 20-30% medium sized stone inclusions 0.6m deep, over a natural grey clay 0.6m deep to the base of the pit, also with 20-30% medium stone inclusions TP36 Not excavated - None TP37 Not excavated - None TP38 Not excavated - None TP39 Not excavated - None TP40 Not excavated - None TP40 Not excavated - None TP41 Not excavated - None TP41 Not excavated - None TP42 This was located in the road and no deposits of interest - None	TP34	orange-brown compact clay, which was 1m deep to the	3	
TP37 Not excavated - None TP38 Not excavated - None TP39 Not excavated - None TP40 Not excavated - None TP41 Not excavated - None TP42 This was located in the road and no deposits of interest - None	TP35	silt subsoil 0.25m deep. This was situated on top of a brown-orange natural clay with 20-30% medium sized stone inclusions 0.6m deep, over a natural grey clay 0.6m deep to the base of the pit, also with 20-30% medium	3	
TP38 Not excavated - None TP39 Not excavated - None TP40 Not excavated - None TP41 Not excavated - None TP42 This was located in the road and no deposits of interest - None	TP36	Not excavated	-	None
TP39 Not excavated - None TP40 Not excavated - None TP41 Not excavated - None TP42 This was located in the road and no deposits of interest - None	TP37	Not excavated	-	None
TP40 Not excavated - None TP41 Not excavated - None TP42 This was located in the road and no deposits of interest - None	TP38	Not excavated	-	None
TP41 Not excavated - None TP42 This was located in the road and no deposits of interest - None	TP39	Not excavated	-	None
TP42 This was located in the road and no deposits of interest - None	TP40	Not excavated	-	None
i	TP41	Not excavated	-	None
	TP42	_	-	None

Table 2: Summary of trial pit results

6.3 **TOPSOIL STRIP RESULTS**

- Four of the Gazetteer sites (33, 37, 45 and 46) were located, investigated and 6.3.1 recorded during the topsoil strip watching brief within Fields 12, 15, 20 and 21 respectively, described in Table 3 below. Numerous land drains/culverts were observed within Fields 6, 10, 12, 15 and 17-21. These were of various constructions, the more modern, 1845 onwards, being made of segmented ceramic pipes. Simple shallow ditch and gully drains were observed, filled with silt as they had a fairly short life span as well as simple trenches filled with randomly deposited stones. The more complex drainage systems such as the stone culverts began in Stuart times but predominantly between 1840 and 1880 needing a lot of investment in resources, ending suddenly with the coming of the depression (Harvey 1980)
- 6.3.2 Field 15 exhibited a stone bank 122 and parallel ditch 117 to the extreme east of the field and most probably represents a field boundary. Due to the proximity and alignment of this feature it would appear to be of the same field system described as Site 37 in the gazetteer, therefore being medieval/postmedieval in date.

Field	Location	Description
6	North-west of Ridgaling Farm	mid-orange/grey natural geology 164, comprised moderately sandy-clay with sub-angular stones, and overlain by 0.3m in depth of topsoil 163, a very dark grey medium sandy-clay with sub-angular sandstone inclusions. Two fairly modern field drains crossed the easement. No archaeologically significant features or deposits were observed.
7	South of High Beach Caravan Park	Orangy-brown sandy-clay with large limestone boulders natural geology <i>158</i> , was overlain by mid-greyish-black sandy-clay topsoil <i>157</i> , 0.3m in depth. No archaeologically significant features or deposits were observed.
8	South-east of Crow Trees Wood	Yellowish-brown with light grey patches sandy-clay natural geology <i>156</i> , was overlain by mid-greyish-black sandy-clay topsoil <i>155</i> , 0.3m in depth. No archaeologically significant features or deposits were observed.
9	South-east of Crow Trees Wood	Yellowish-brown sandy-clay with frequent large boulders and stone inclusions natural geology <i>154</i> , was overlain by a midgreyish-black sandy-clay topsoil <i>153</i> , 0.3m in depth. No archaeologically significant features or deposits were observed.
10	South-east of White Hough Water	Mid-yellow sandy-clay with 20-30% limestone fragments natural geology 152, was overlain by mid-greyish-brown sandy-clay topsoil 151, 0.3m in depth. Two fairly modern field drains were observed crossing the easement. No archaeologically significant features or deposits were observed.
11	North-east of Ridge Lane	Pale to mid-greyish-yellow silty-clay with some sand patches natural geology 135, was overlain by dark brown silty-clay topsoil 134, 0.25-0.3m in depth. No archaeologically

 L		significant features or deposits were observed.
12	South-west of Ridge Lane	Pale greyish-yellow sandy-clay natural geology 114, was overlain by dark greyish brown silty-clay topsoil 108, 0.25m in depth. A cobbled area 109, was observed to the eastern extent of the field with a north-west/south-east aligned bank 110, (Plate 2) to the west of hollow way (33). A moderate amount of land drains, some stone filled and some clay filled were observed crossing the easement.
13	North-east of Dole House	Mid-greyish-orangy-yellow silty-clay natural geology 115, was overlain by dark greyish-brown silty-clay topsoil 111, 0.2m on depth. At least six land drains, some stone filled and some clay filled were observed crossing the easement. A stone filled culvert 120, aligned north-west/south-east across the easement, 1.2m wide comprising of medium sub-angular stones within a dark brownish-grey clayey-silt matrix 121 (Fig 5; Plate 3). A north-west/south-east aligned land drain was recorded as 113, containing a mid-brown with yellow clay patches in the upper part of the fill silty-clay with <20% small stones 112, measuring 0.4m in width.
14	South-east of Dimpenley Clough Wood	Not Stripped, only topsoil exposed. No archaeologically significant features or deposits were observed.
15	South-east of Dimpenley Clough	Mid-orangy-yellow sandy-clay natural geology 129, was overlain by dark greyish-brown silty-clay topsoil 116, 0.2m in depth. Three linear features were investigated, these were identified on the desk-based assessment (Site 37). A north-west/south-east bank 123 (Fig 4), measuring 2.7m in width, 0.2m in height and shallow depression measuring 2.3m in width, 0.06m in depth (Plate 4), was recorded towards the north-east of the field. A bank constructed of cobbles 124, aligned north-west/south-east was observed along the centre the field. To the south-west of the field a bank 125 (Fig 5) measuring 2m wide 0,2m in height with a possible ditch 126, to the east, measuring 1.44m in width, 0.16m in depth, containing fill 127, a dark grey silty-clay. To the extreme east of the field aligned north-west/south-east was a stone bank 122 overlain by a mid-yellow silty-clay 118, 0.35m in height, 1.3m wide, with a ditch 117 to the west measuring 1.3m wide and 0.44m deep, containing a dark grey silty-clay 119 (Fig 4). A number of land drains/culverts aligned north/south cross the easement containing yellow clay fill.
17	South of Jinny Lane	Mid-orangy-yellow silty-clay natural geology 131, was overlain by a dark greyish-brown silty-clay topsoil 130, 0.25m in depth. To the immediate west of the track crossing the field were two parallel ditches aligned north-east/south-west, 1.2m apart. The northern most ditch, 133, was investigated measuring 1.23m wide and 0.35m deep, containing fill 132, a dark brownish-grey silty-clay. Both are believed to be post-medieval and possibly drainage ditch related. One north-east/south-west aligned stone-sided culvert, along with a stone packed land drain aligned north-west/south-east were observed. Further clay filled land drains were also located.
18	North-west of	Mid-greyish-yellow silty-clay natural geology <i>107</i> , was overlain by a dark brownish-grey silty-clay topsoil <i>106</i> , 0.2m

	Nabs Farm	in depth. Numerous land drains were observed crossing the
		easement. No archaeologically significant features or deposits were observed.
19	North-west of Nabs Farm	Greyish-yellow silty-clay natural geology 105, was overlain by a dark brown silty-clay topsoil 100, 0.13-0.2m in depth. An east/west aligned sod land drain was located running along the north side of the easement 102, filled by dark blackish-brown silty-clay 101 (Fig 5). A second field drain was observed running north-west/south-east across the easement seemingly joined to field drain 102, a third field drain ran north-east/south-west across the entire easement. A north/south aligned linear feature 104 (Fig 5), was located c 26m from the eastern field boundary 0.17m in width and 0.15m in depth, probably a field drain or narrow gully and contained a dark brown silty-clay fill 103. No archaeologically significant features or deposits were observed.
20	South-east of Barley Bank	Pale to mid-orangy-grey clay with sand patches natural geology 142, was overlain by very dark brownish-grey topsoil 136, 0.2m in depth. A number of drainage ditches were located towards the lowest part and to east side of the field. An example of which was recorded as 140, measuring 1.05m wide containing a dark brownish-black silty-clay 141. A number of segmented orange ceramic field drains were also observed one of which truncates 140. Towards the west side of the field was an existing bank and ditch (Site 45) was recorded as ditch cut 138 measuring 2.6m in width and 0.75m in depth (Plate 5), containing a dark brownish-black silty-clay fill 139 (Fig 6). The bank 137 lies to the north-east of the ditch measuring 2.9m in width and 0.4m in height constructed of medium sub-angular sandstone blocks within a mid-brown silty-clay matrix.
21	South-east of Newchurch in Pendle	Pale greyish-yellow clayey-sand natural geology 144, was overlain by a peat like material at base of slope between two drainage ditches subsoil 150. This in turn was overlaid by a dark brownish-black silty-clay topsoil 143. A culvert 146 constructed of flat sandstone overlaying parallel side stones 145 was observed aligned north-east/south-west, 0.4m in width and 0.18m in depth (Fig 6). A ditch probably contemporary to culvert 146 was aligned east/west 0.9m deep and 3.95m in width (Plate 6), seen on the walkover survey as Site 46 Numerous land drains crossed the easement.
23	Near Barley Fold	A light grey with orangy-brown patches with compacted 10-20% poorly sorted sub-angular limestone fragments natural geology 162, was overlain by 0.4m in depth of greyish-black sandy-clay topsoil 161. No archaeologically significant features or deposits were observed.
24	East of Barley Fold	A light grey with orangy-brown patches with compacted 10-20% poorly sorted sub-angular limestone fragments natural geology 162, was overlain by 0.4m in depth of greyish-black sandy-clay topsoil 161. No archaeologically significant features or deposits were observed.
25	South-west of Cross Lane	A light grey clay with compacted 10-20% poorly sorted limestone fragments natural geology <i>160</i> , was overlain by mid-greyish-black sandy-clay topsoil <i>159</i> , 0.2-0.3m in depth.

No archaeologically significant features or deposits	were
observed	

Table 3: Summary of topsoil stripping results.

Pottery Type	Date Range	Quantity
Unidentified stoneware	19th/20th century?	5
Unglazed red earthenware	19th century	3
Factory-made slipware	19th/20th century	20
Bone china	19th/20th century	128
Porcelain	20th century	1
Total		320

Table 4: Post-medieval pottery types

- 7.2.2 A range of 17th to 18th century finewares was represented (50% of assemblage), comprising Blackwares, Mottled Ware, slip-coated and slipdecorated ware, dark-glazed buff earthenware and Staffordshire yellow ware. Of these, slip-coated ware were the most numerous, of which many of the fragments derived from single vessels such as plates. The bulk of the 17th/18th century pottery derived from Trial Pit 34.
- 7.2.3 The remainder of the pottery vessels comprised large quantities of tablewares (principally white earthenware and bone china) and coarsewares (black-glazed red earthenware kitchenware vessels, such as crocks and pancheons, and stoneware bowls and storage jars). The patterns represented on the white earthenware included 'Willow' and 'Broseley' transfer-prints, and blue painted and relief-moulded shell edge. Other forms of decoration were also present (sponge-printing, painting, relief moulding, and factory-produced slip decoration). The types of white earthenware represented were mainly dinnerware and tea-ware, with little identifiable bedroomware. Other pottery from this period include factory-made slipware bowls and a fragment from a moulded hand-painted porcelain cup, that probably derived from the early 20th century.
- Glass: in total, 33 fragments of vessel glass were collected from Fields 21 and 23 of which, pharmaceutical, mineral, wine and beer bottles were represented. A stamped, thick walled brown beer bottle and a clear medicine bottle date to the latter half of the 19th century, both fragments derived from the topsoil (161) in field 23. A single body fragment from a moulded thick walled milk bottle was collected from Trial Pit 1, which can be dated to the mid 20th century.
- 7.2.5 Clay tobacco pipe: in total, five fragments of clay tobacco pipe were recovered from topsoil deposits 143 and 161 in Fields 21 and 23 respectively. All were plain medium bored stems with no diagnostic features, of which a broad date range within the 19th century can be ascribed.
- 7.2.6 *Iron:* in total, two iron objects in fragile condition were collected from Trial Pits 1 and 17, and three unidentifiable lumps from Field 17. These included a degraded encrusted round headed nail, and a spike attached to an iron fixing plate. Both identifiable objects were not closely datable, although a broad date range between the 19th and 20th century can be ascribed.
- 7.2.7 Industrial residue: a single piece of iron slag and fuel waste were recovered the topsoil from Field 12, and a lump of charcoal from Field 19. The presence

- of the waste residue is typical of the type of material commonly used to aid in mineralising soil for agriculture.
- **Conclusion:** although the bulk of the material derived from topsoil deposits, it is of interest that a relatively high deposition of 18th century tableware material derived from the trial pits (Pits 4 to 7). This may be the result of localised dumping from this period, and perhaps was associated with as yet undiscovered household activity. The bulk of the finds assemblage is represented by 19th and 20th century pottery, which suggests later dumping activity was undertaken across the fields during this period.
- 7.2.7 Overall, the finds overall are of interest as a small post-medieval assemblage from rural Lancashire. However, since the majority of the finds were from unstratified deposits, their archaeological value is limited.

8. SIGNIFICANCE OF THE REMAINS

8.1 **RESULTS**

In total, 62 sites were identified during the desk-based assessment and walkover survey. Of these 22 were previously recorded in the Lancashire HER. The majority of the additional sites were identified through the examination of aerial photographs and during the walkover survey. These are summarised by period in Table 4 below:

Period	No of sites	Sites
Neolithic	1	Quern? (Site 45)
Bronze Age	0	
Iron Age/ Romano- British	0	
Roman	0	
Medieval	1	Cross (Site 48)
Medieval – post- medieval	18	Field boundaries (Sites 06 , 08 , 44-45), field systems (Sites 15 , 17 , 23 , 25 , 36-38 , 40 , 46 , 58), ridge and furrow (Sites 18 , 28 , 57 , 61)
Post-medieval	21	Chapel (Site 01), mills (Sites 02 , 16 , 31), vicarage (Site 03), wells (Sites 04 , 50), reservoir (Site 05), ridge and furrow (Sites 09 , 13 , 51 , quarries (Sites 19 , 49 , 52 , 62), field boundaries (Site 20), smithy (Site 21), building (Site 30), gateposts (Sites 32 , 42 , 60)
Unknown	22	Ditches (Site 07 , 26), linear features (Site 10-11 , 59), building platform (Site 12), quarries (Sites 14 , 22 , 24 , 27 , 35 , 39 , 41 , 53-56), spring (Site 29), hollow way (Site 33), field boundaries (Site 34), cropmark (Site 43), well (Site 47)

Table 6: Number of sites by period

- No additional sites were added as a result of the trial pit and topsoil strip 8.1.2 watching briefs. However the topsoil strip watching brief identified three of the Gazetteer sites 33, 37, 45 and 46 within Fields 12, 15, 20 and 21 respectively, described in Table 3. Of the 62 gazetteer sites 27were judged to be at risk from the development. These comprised 17 of post-medieval origin (Sites 05, 06, 13, 15, 17, 20, 23, 32, 37, 38, 42, 45, 46, 49, 50, 58 and 60) and ten of unknown date (Sites 10-12, 14, 29, 33, 43, 53, 54 and 55).
- There are no Scheduled Monuments within the study area, but the area around Newchuch-in-Pendle is a Conservation Area. There are 17 Listed Buildings within the study area, and while it is considered unlikely that any of these will be affected by the proposed development, and they are therefore not listed in the gazetteer, they are summarised in Table 7 below:

HER No.	Name	Location	Listing
1134	Whiteclough House	383166 440366	П
2239	Church of St Mary the Virgin, Newchurch-in- Pendle	382310 43980	П*
6302	No.1 Newchurch Street, Newchurch-in- Pendle	382271 439338	II
17339	Parker Tomb, Church of St Mary	382310 439360	П
17340	Nutter Headstone, Church of St Mary	382320 439360	П
17344	Nos. 16, 18 and 20, Newchurch Steet, Newchurch-in-Pendle	382326 439519	П
17346	No. 22 Newchurch Street	382330 439520	П
17347	Mounting steps, southwest of St Mary's vicarage	382256 439318	II
17398	Lower Fulshaw Head Farmhouse	385010 439930	П
17479	Nabs House, Roughlee	383100 439220	П
17483	Roughlee Old Hall	384462 440428	П
17484	Fern Cottage, Lynwood	384030 440070	П
17485	Dam Head Farm, Roughlee	383856 439994	П
17486	Thorneyholme Hall, Roughlee	383550 440000	П
17532	Nos. 1, 2, 3 and 4, Whiteclough Cottages	383140 440390	П
17533	Whitaker's Cottages, Barley New Road	383128 440380	П
17534	Barn adjoining Whitaker's Cottages	383117 440371	П

Table 7: Listed Buildings within the study area

7. FINDS

7.1 INTRODUCTION

7.1.1 In total, 359 fragments of artefacts were collected during the trial pit and field topsoil strip watching briefs. Of these, 320 (86%) sherds derived from pottery vessels of post-medieval date, with the remainder represented by glass bottles and vessels (33), clay tobacco pipe (8), objects of iron (5), and industrial residues (3). The artefacts were collected from topsoil, rubbish dumps or spoil heap deposits across the route of the pipeline. Of the fields observed during the topsoil removal, nine fields (6, 12, 13, 15, 17 to 21, and 23) contained fragments of artefacts, with the most pieces (286) deriving from topsoil layer 143 in Field 21. All artefacts appeared to fall into a date range between the 17th to 20th centuries, with the pottery fragments providing the most reliable dating evidence. Details of the pottery are set out below, followed by a brief record of the other categories of finds. The finds catalogue is summarised in Appendix 1.

7.2 **RESULTS**

Pottery: most of the pottery fragments were collected from topsoil deposits and spoil heaps during the watching brief and as such many of the fragments were abraded, perhaps caused from the effects of ploughing activity. The assemblage was dominated by fine tableware vessels, whilst the remainder comprised coarseware vessels for use in the kitchen. The former are more useful for dating purposes, since they were more subject to changing fashion and technology, thereby remaining in circulation for shorter periods than fineware. The quantities of the different pottery types identified are set out in Table 4 below.

Pottery Type	Date Range	Quantity
Blackware	17th - 18th century	11
Staffordshire yellow ware	17th - 18th century	1
Mottled Ware	Late 17th - early 18th century	3
Slip-coated earthenware (including ones with additional trailed decoration)	Late 17th - 18th century	27
Dark-glazed buff earthenware	18th century	4
Yellow-glazed red earthenware	Late 18th - 19th century	7
Dark-glazed red earthenware	Late 18th - 19th century	39
Self-glazed yellow and orange earthenware	18th - 19th century	7
Salt-glazed stoneware	18th - 19th century	14
English refined stoneware	19th century	3
Glazed white earthenwares	19th/20th century	47

8.2 **CRITERIA**

- 8.2.1 There are a number of different methodologies used to assess the archaeological significance of sites; that to be used here is the 'Secretary of State's criteria for scheduling ancient monuments' which is included as Annex 4 of PPG 16 (DoE 1990). Only those sites considered to be at risk from the development (refer to Section 8.1.2) were considered using these criteria, with the results below.
- **Period**: none of the sites are particularly significant for their period, most probably being typical features making up a landscape of predominantly medieval and post-medieval date (Sites 06, 10-11, 13, 14-15, 17, 20, 32, 33, 37-38, 42, 45-46 and 58). Similarly, the numerous quarries (Sites 14, 23, 49, and 53-55) mainly represent small-scale local construction, probably of postmedieval date. Some of the sites of unknown date (Sites 12 and 43) could prove to be significant if their period of origin was to be established.
- 8.2.3 Rarity: similarly none of the sites are particularly rare and therefore significant.
- 8.2.4 **Documentation**: none of the sites are particularly well-documented and therefore none have any additional significance on this account.
- Group Value: the former field systems (Sites 06, 10-11, 13, 14-15, 17, 20, 32, 33, 37-38, 42, 45-46 and 58) have some regional significance on account of their group value. Some of these cover very large areas, and/or represent the remains of considerable periods of agricultural activity, which has had a significant impact on the landscape.
- Survival/Condition: many of the former field systems (Sites 06, 10-11, 13, 14-8.2.6 15, 17, 20, 32, 33, 37-38, 42, 45-46 and 58) appear to have survived in relatively good condition, although little of the ridge and furrow visible in the aerial photographs was apparently evident during the walkover survey, suggesting that there may have been some loss in the last 40 years. Many of the other sites were also identified as extant earthworks, suggesting a relatively good degree of survival, which gives them some local significance.
- Fragility/Vulnerability: as mentioned above there has evidently been some loss of elements of the former field systems (Sites 06, 10-11, 13, 14-15, 17, 20, 32, 33, 37-38, 42, 45-46 and 58) in the last 40 years, and their presence in itself suggests more general damage to parts of the historic landscape has been taking place over a much longer period. Despite their size these features are remarkably susceptible to damage and therefore quite fragile. Many of the other sites are quite small, and therefore would be easily damaged by the development. In particular, the gateposts (Sites 32, 42 and 60) could easily be destroyed.
- 8.2.8 *Diversity*: none of the sites are particularly diverse.
- 8.2.9 *Potential*: the field systems (Sites 06, 10-11, 13, 14-15, 17, 20, 32, 33, 37-38, 42, 45-46 and 58) have the greater potential as they could reveal evidence for earlier origins than previously expected. The possible quern at Site 45 perhaps gives this field system more potential than the others.

8.3 **SIGNIFICANCE**

8.3.1 None of the sites within the study area could be considered to have regional or national significance, but the good quality of the survival of many of the field systems and the large extent of them means that these in particular have some local importance.

9. DISCUSSION

9.1 **SYNTHESIS**

- 9.1.1 The results of the desk-based assessment and walkover survey suggest that while there are a large number of sites of archaeological interest within the study area, most of these are post-medieval in date and/or represent the remains of former field systems. Evidence for earlier remains is not prevalent, and although a number of sites are undated the majority of these are likely to be post-medieval in date. Nevertheless the field systems could have earlier origins, although without further investigation this is impossible to assess. There are earlier sites known from the general area, however (see Section 3), so there is some potential for similar remains existing within the study area, and the possible saddle quern at Site 45 may be an indication of this.
- Neither the watching brief results nor those of the finds assessment contradict the findings of the desk-based assessment and walkover survey. Numerous land drains/culverts were observed during the watching brief and although the construction technique varied none are though to be earlier than post-medieval in date. The finds assemblage ranged from the 18th century trough to the 20th century and represented domestic waste.
- No recommendations for further archaeological investigation are made 9.1.3 concerning the current pipeline development.

10. BIBLIOGRAPHY

PRIMARY AND CARTOGRAPHIC SOURCES 10.1

LRO(P) DDBd/5/3/1, 1814 Plan and Survey of Park Hill and Millholme in **Barrowford**

LRO(P) DDBd/5/3/2, 1847 Survey of Barrowford

LRO(P) DDBd/5/3/3, c1850 Plan of Property Belonging to the Rev. John and Mrs Parker

LRO(P) DDX/752/2, 1808 A Plan of Intack Farm in the Forest of Pendle and County of Lancaster

Ordnance Survey, 1848 6": 1 Mile, Lancashire Sheet 48, surveyed 1844

Ordnance Survey, 1848 6": 1 Mile, Lancashire Sheet 56, surveyed 1844

Ordnance Survey, 1893 25": 1 Mile, Lancashire Sheet 48.14, surveyed 1892

Ordnance Survey, 1893 25": 1 Mile, Lancashire Sheet 48.15, surveyed 1891

Ordnance Survey, 1893 25": 1 Mile, Lancashire Sheet 56.1, surveyed 1891

Ordnance Survey, 1893 25": 1 Mile, Lancashire Sheet 56.2, surveyed 1891

Ordnance Survey, 1893 25": 1 Mile, Lancashire Sheet 56.3, surveyed 1890-1

Ordnance Survey, 1912 25": Mile, Lancashire Sheet 48.14, revised 1910

Ordnance Survey, 1912 25": 1 Mile, Lancashire Sheet 48.15, revised 1910

Ordnance Survey, 1912 25": 1 Mile, Lancashire Sheet **56.1**, revised 1910

Ordnance Survey, 1912 25": 1 Mile, Lancashire Sheet 56.2, revised 1910

Ordnance Survey, 1912 25": 1 Mile, Lancashire Sheet 56.3, revised 1910

Ordnance Survey, 1931 25": 1 Mile, Lancashire Sheet 48.14, revised 1929

Ordnance Survey, 1931 25": 1 Mile, Lancashire Sheet 56.1, revised 1929

Ordnance Survey, 1931 25": 1 Mile, Lancashire Sheet 56.3, revised 1930

Ordnance Survey, 1932 25": 1 Mile, Lancashire Sheet 48.15, revised 1929-30

Ordnance Survey, 1932 25": 1 Mile, Lancashire Sheet 56.2, revised 1930

Ordnance Survey, 1983 Barnoldswick & Earby, Pathfinder 670, 1: 25000

Ordnance Survey, 1990 Burnley, Pathfinder 681, 1: 25000

Soil Survey of England and Wales, 1983 Soils of Northern England, Sheet 1, 1: 250000

Yates, W, 1786 The County Palatine of Lancaster

10.2 SECONDARY SOURCES

Baines, E, 1836 The History of the County Palatine and Duchy of Lancaster, London Bannister, F, 1929 The Early History of Barrowford, in J Blakey (ed), The Annals and Stories of Barrowford, Nelson, 14-27

Countryside Commission, 1998 Countryside Character, Volume 2: North West, Cheltenham

Cowell, R, 1996 The Palaeolithic and Mesolithic, in R Newman (ed), The Archaeology of Lancashire, Lancaster, 19-34

DoE, 1990 Planning Policy Guidance Note 15: Archaeology and Planning, PPG15

Ede, J, and Darlington, J, 2002 Lancashire Historic Landscape Characterisation Programme: A Report on the Context, Method and Results for the Lancashire, Blackburn with Darwen and Blackpool Areas, unpubl rep

English Heritage, 1991 Management of Archaeological Projects, 2nd edition, Swindon

Ekwall, E, 1922 The Place-Names of Lancashire, Manchester

Farrer, W, and Brownbill, J, (ed), 1911 The Victoria History of the County of Lancaster, 6, London

Harrison, D (ed), 1998 The History of Colne, Pendle

Harvey, N, 1980 The Industrial Archaeology of Farming in England and Wales, London, 70-2

Hazelgrove, C, 1996 The Iron Age, in R Newman (ed), The Archaeology of Lancashire, Lancaster, 61-74

Lawrenson, WH, 2003 Brunanburh Discovered, Over-Wyre Hist J, 9, 36-41

Middleton, R, 1996 The Neolithic and Bronze Age, in R Newman (ed), The Archaeology of Lancashire, Lancaster, 35-60

Mitchell, L, Newman, C, and Darlington, J, 2004 Lancashire Historic Towns Survey Programme: Nelson, Historic Town Assessment Report, draft unpubl rep

Taylor, H, 1901 The Ancient Crosses of Lancashire, Blackburn Hundred, Trans *Lancashire Cheshire Antiq Soc*, **18**, 1-60

Taylor, S, 1999 Lancashire Textile Mills: Barrowford, Borough of Pendle, English Heritage, survey rep

Whitaker, TD, 1818 An History of the Original Parish of Whalley, London

Widdup, J, 1929 Early History, in J Blakey (ed), The Annals and Stories of Barrowford, Nelson, 1-13

10.3 **AERIAL PHOTOGRAPHS**

HSL UK, 1963 Run 14, Frames 9220-9224

11. ILLUSTRATIONS

11.1 **FIGURES**

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- Figure 4: Feature, Field 15
- Figure 5: Features, Fields 13, 17 and 19
- Figure 6: Features, Fields 20 and 21

11.2 **PLATES**

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- Plate 2: Cobbled surface 109 and north-west/south-east aligned bank 110, within Field
- Plate 3: Stone culvert 120, within Field 13
- Plate 4: Bank and ditch 123 (Site 37), within Field 15
- Plate 5: Ditch 138 (Site 45), within Field 20
- Plate 6: East/west aligned ditch 146 (Site 46), within Field 21

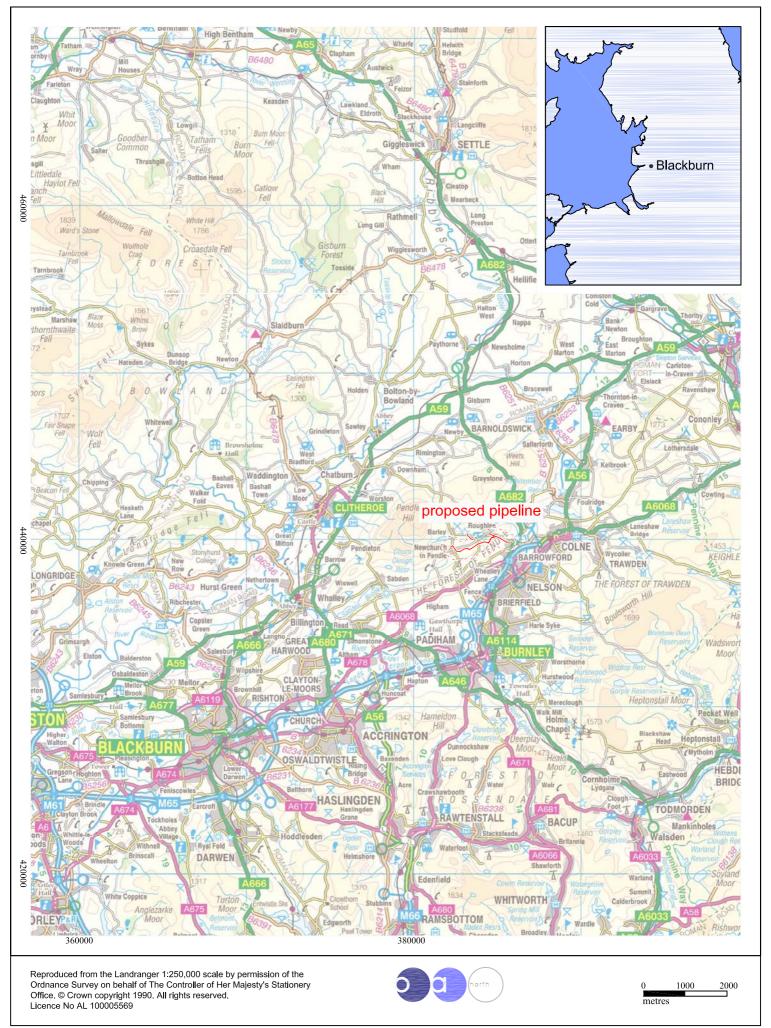


Figure 1: Location Map

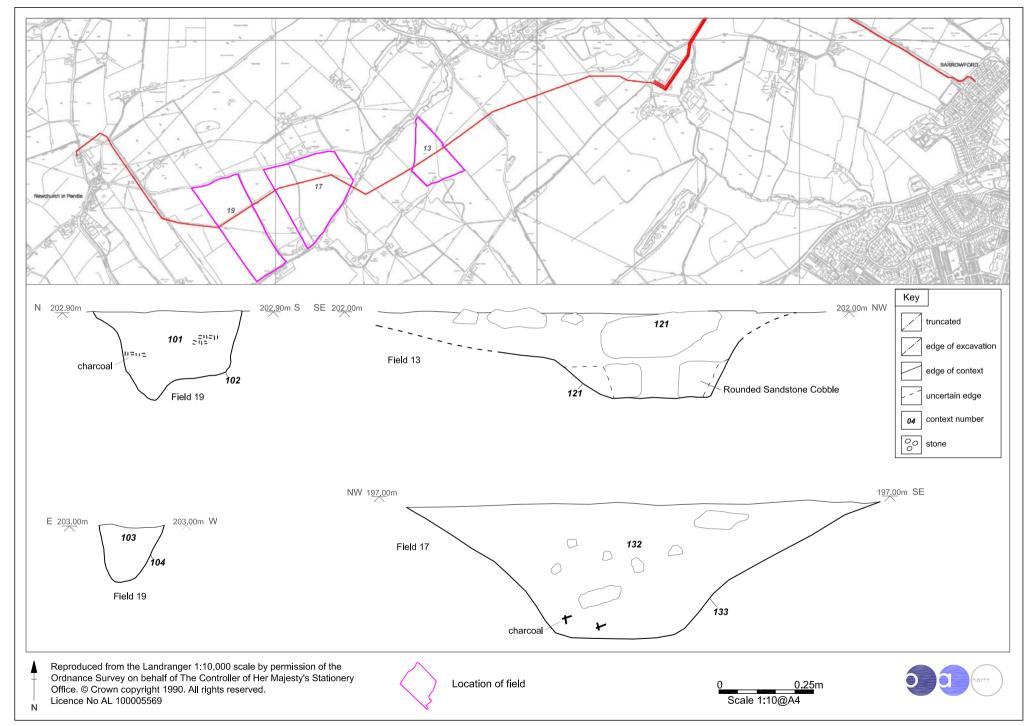


Figure 5: Features, fields 13, 17 and 19

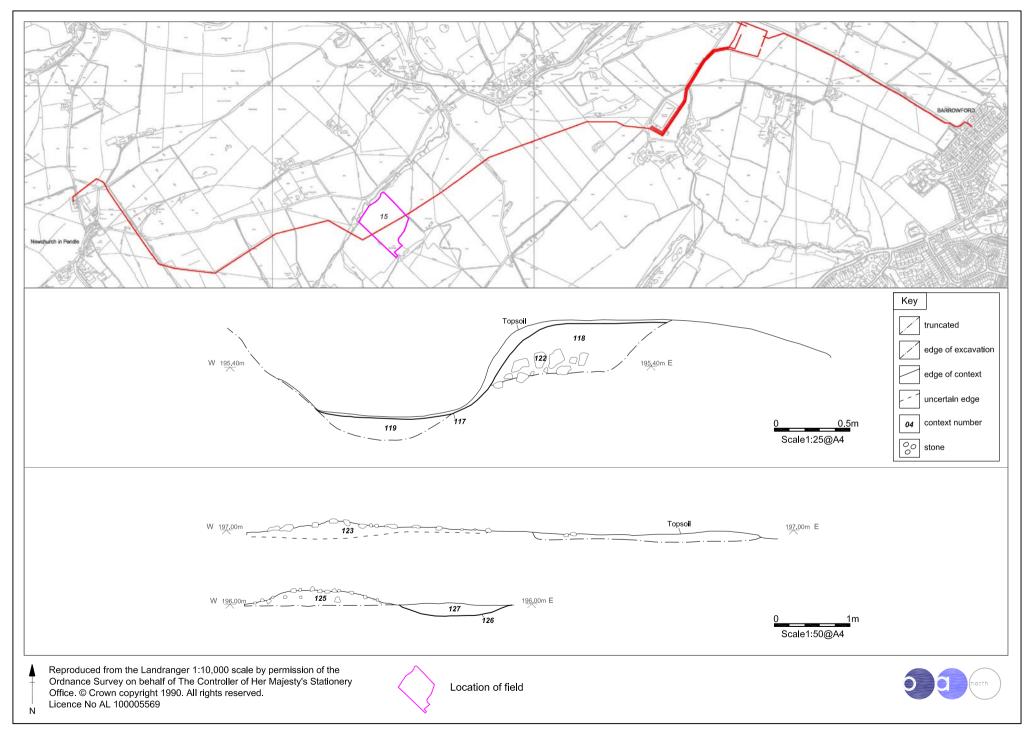


Figure 4: Features, field 15

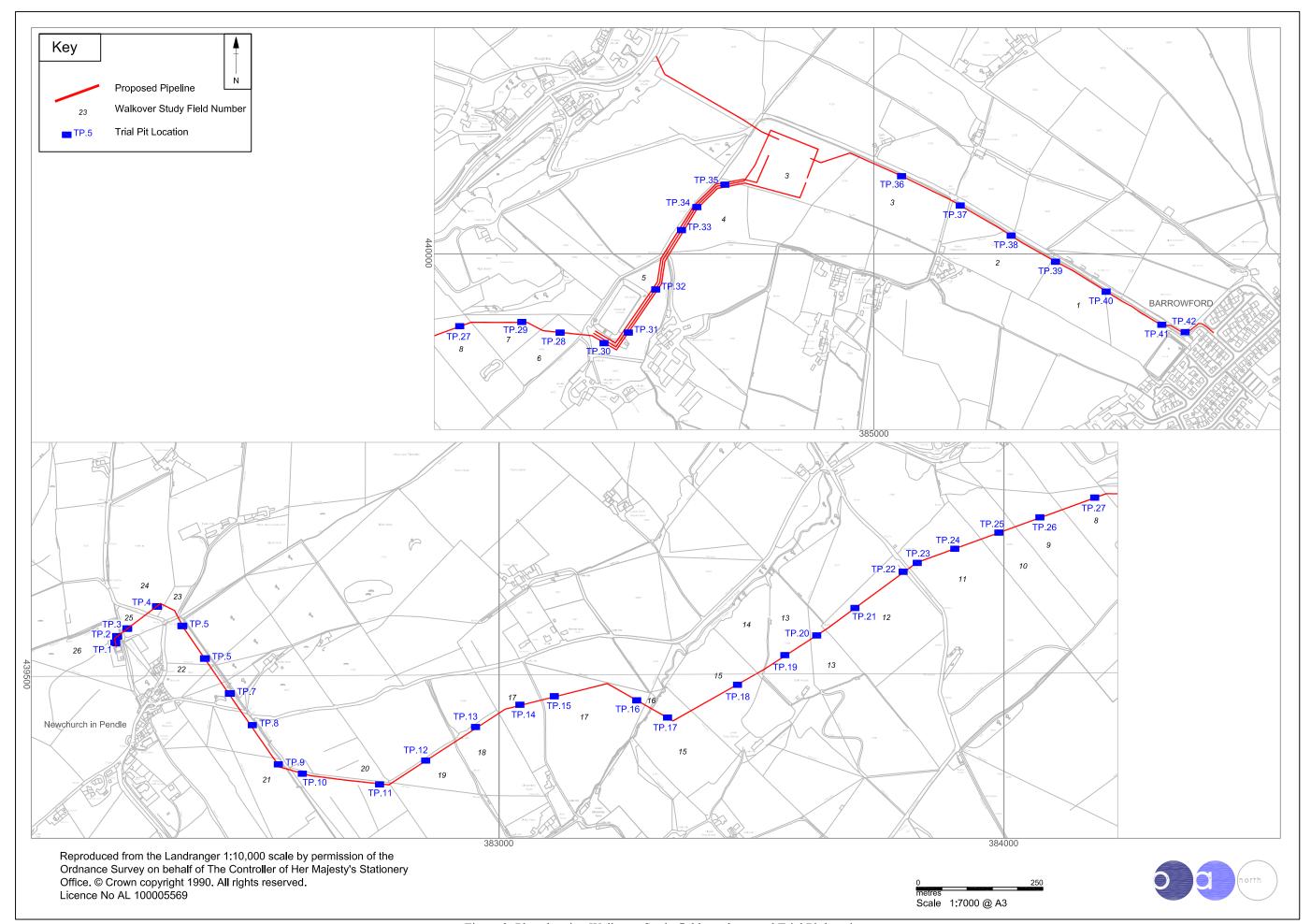


Figure 3: Plan showing Walkover Study field numbers, and Trial Pit locations

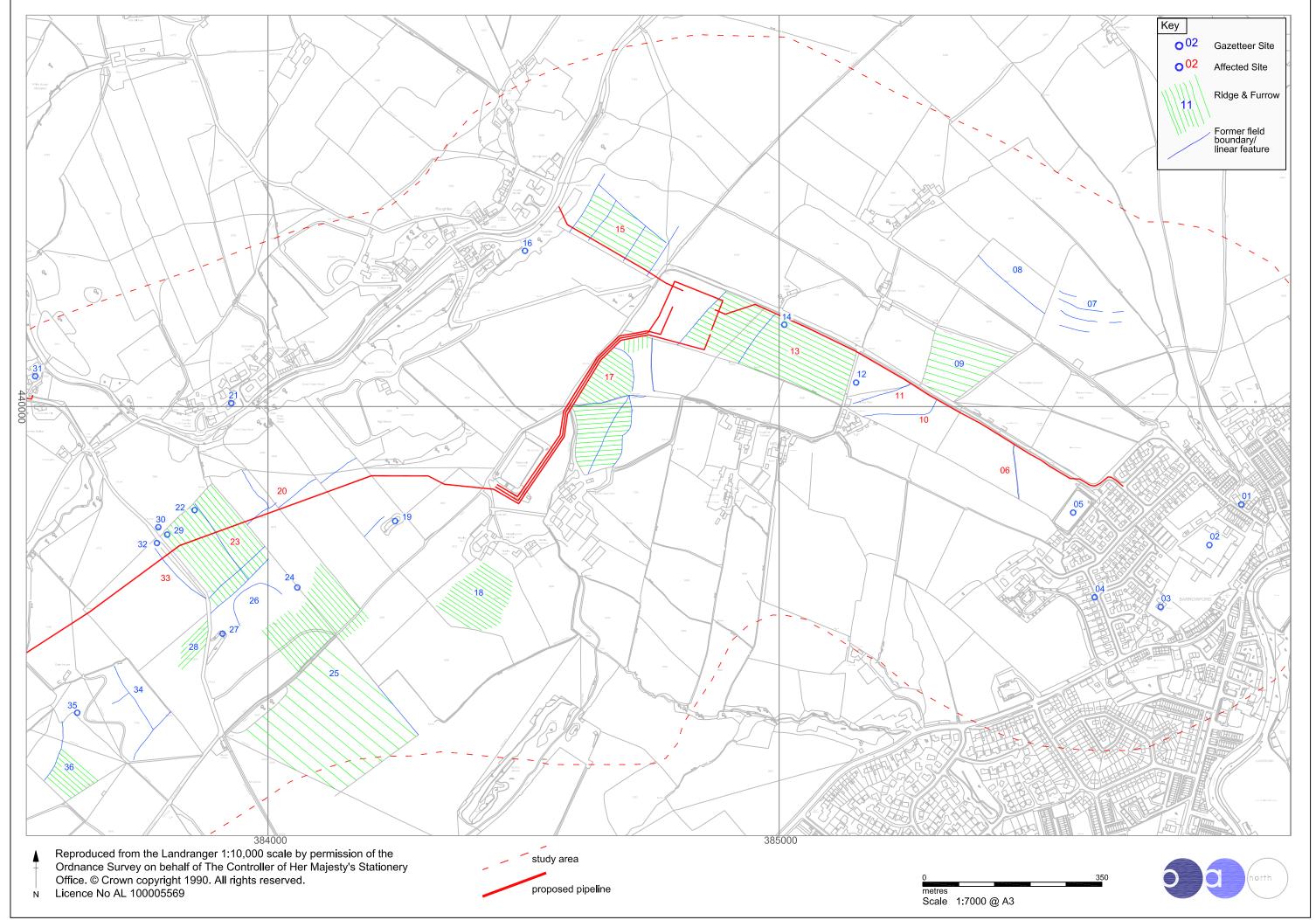


Figure 2b: Gazetteer sites plan (east)

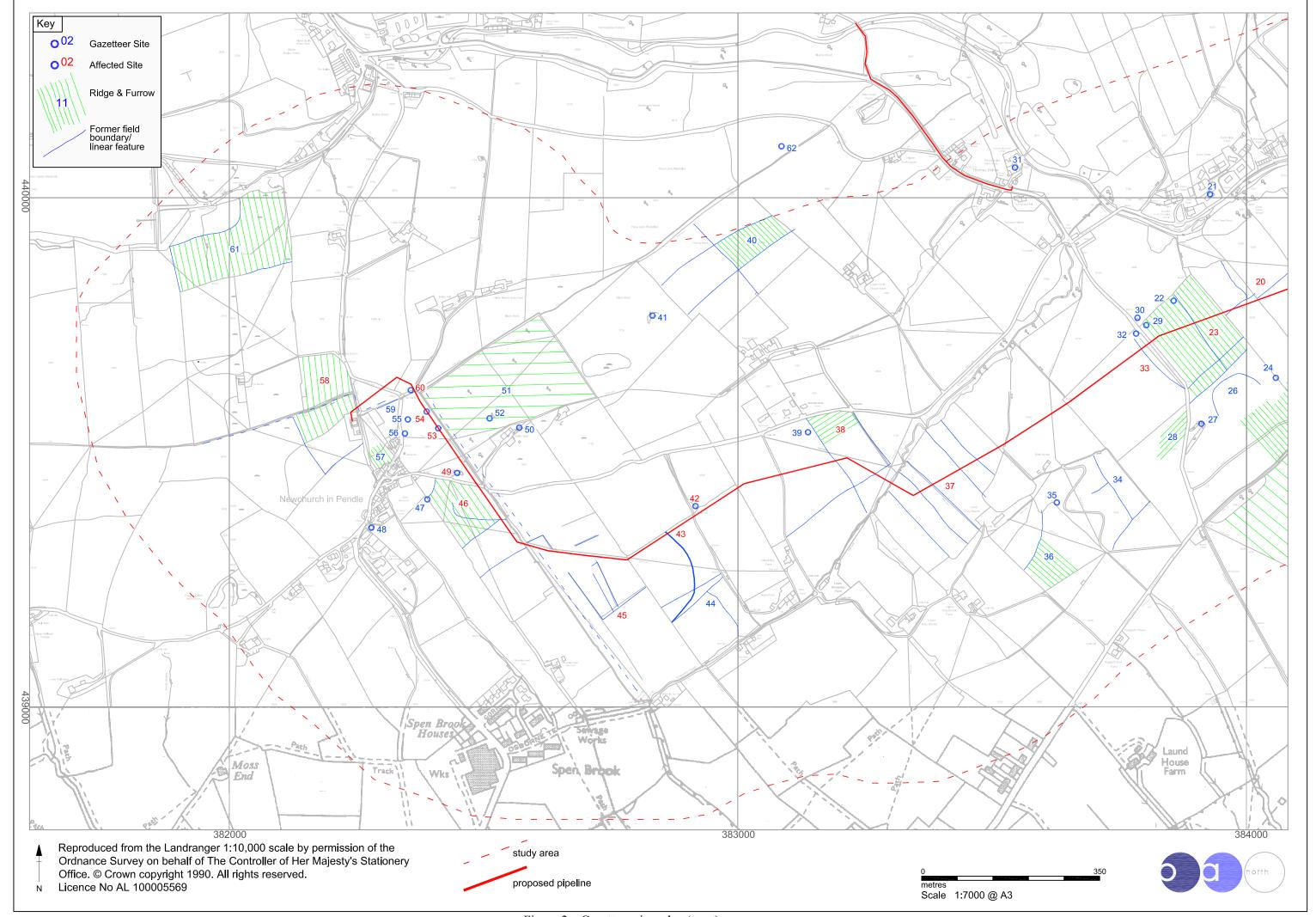


Figure 2a: Gazetteer sites plan (west)

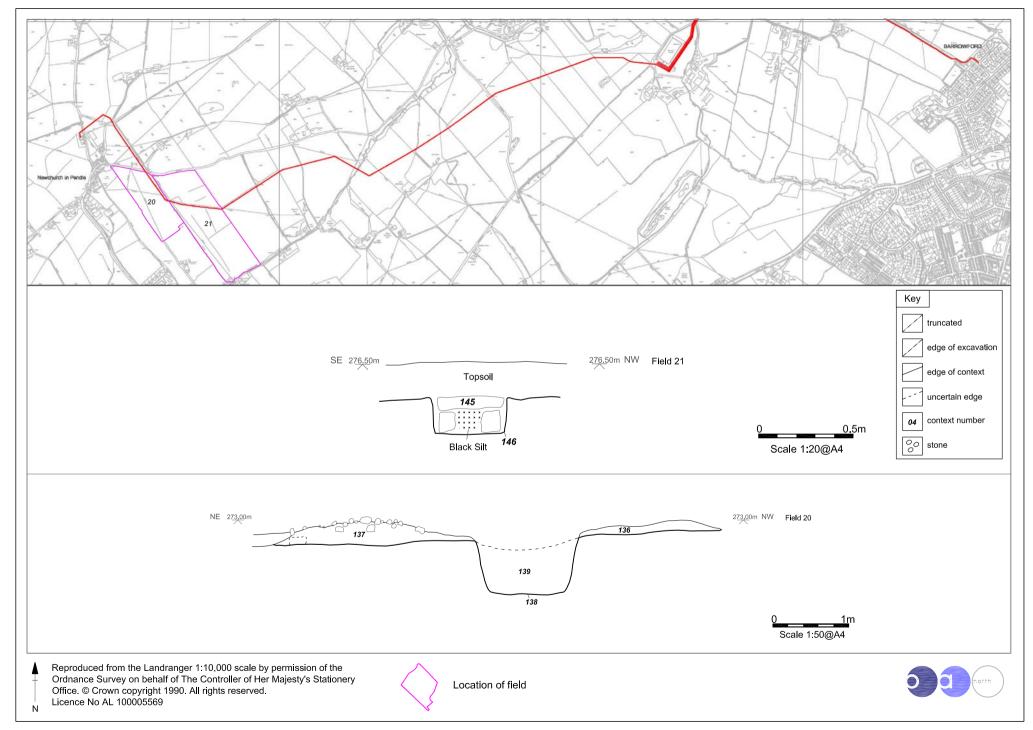


Figure 6: Features, fields 20, 21



Plate 1: Trial Pit 12, looking south-east



Plate 2: Cobbled surface 109 and bank 110, within Field 12



Plate 3: Stone culvert 120, within Field 13



Plate 4: Bank and ditch 123 (Site 37), within Field 15



Plate 5: Ditch 138 (Site 45), within Field 20



Plate 6: East/west aligned ditch 146 (Site 46), within Field 21

APPENDIX 1: FINDS SUMMARY

Trial Pit	Field	Context	Category	Quantity	Description	Date
1		U/s	Glass	1	Clear vessel, probably from bottle, although fragment too small for identification	20th century
1		U/s	Iron	1	Nail; round-headed, heavily encusted	20th century?
4		U/s	Pottery	1	Yellow glazed red earthenware (coarseware, highly fired))	19th century
5		U/s	Pottery	1	Black glazed buff earthenware, fabric has numerous iron and manganese inclusions, with traces of a red slip under the glaze	18th century
6		U/s	Pottery	1	Slip-coated earthenware which has a pimply salt-glazed type texture	17th/18th century
6		U/s	Pottery	1	Mottled Ware; waster?	Late 17th/early 18th century
7		U/s	Pottery	1	Mottled ware chamber pot	Late 17th/early 18th century
7		U/s	Pottery	1	Yellow ware	17th/18th century
7		U/s	Pottery	1	Slip coated red earthenware	17th/18th century
7		U/s	Pottery	2	Glazed white earthenwares; single blue transfer printed ware	18th/19th century
8		U/s	Pottery	1	Glazed white earthenware	19th/20th century
9		U/s	Pottery	1	Dark glazed buff earthenware	17th/18th century
9		U/s	Pottery	3	Glazed white earthenware: single blue transfer printed saucer rim	18th/19th century
9		U/s	Pottery	1	Refined stoneware	18th/19th century
9		U/s	Pottery	2	Factory made slipware with banded decoration	19th/20th century

17		U/s	Iron	1	Nail with fixing plate attachment	19th/20th century
28		U/s	Pottery	1	Dark glazed red earthenware (coarseware, with frequent large limestone clay granular inclusions)	19th century
33		U/s	Pottery	1	English porcelain	20th century
34		U/s	Pottery	12	Yellow slip coated red earthenware plate (all sherds derive from one vessel), with white slip under glaze along rim	18th/19th century
34		U/s	Pottery	2	Refine stoneware (identical in hardness to the sherd found in Trial Pit 9)	18th/19th century
34		U/s	Pottery	4	Glazed white earthenware; sherd size too small for identification.	19th/20th century?
	19	100	Iron	1	Brace	19th/20th century
	19	100	Pottery	1	Salt-glazed stoneware	18th/19th century
	19	100	Industrial Residue	1	Charcoal	19th/20th century
	19	100	Glass	1	Clear vessel, wine glass	19th/20th century
	18	106	Pottery	4	Dark glazed red earthenware, salt glazed jar, porcelain, glazed white earthenware; transfer print and bone china plates	18th-20th century
	18	106	Iron	1	Stud	19th century
	18	106	СВМ	1	Brick fragment	19th/20th century
	18	106	Glass	2	Clear beaker, wine bottle	19th/20th century
	18	106	Industrial Residue	2	Clinker	19th/20th century?
	12	108	Industrial Residue	2	Slag; ferrous and charcoal	18th/19th century
	13	111	Clay Tobacco Pipe	1	Plain medium bored stem	18th/19th century

13	111	Glass	1	Blue vessel (flask?)	18th/19th century
13	111	Pottery	26	Cistercian ware, Blackwares (8; fine/coarse), Staffordshire produced trail slipware, glazed white earthenwares; transfer printed shell edge plates, Asiatic Pheasant pattern, and leaf designs	16th-19th century
13	112	Pottery	1	Transfer print plate	18th/19th century
15	123	Pottery	1	Self-coloured orange bodied earthenware	18th/19th century
15	127	Pottery	1	Coarse red earthenware with manganese rich 'Mottled ware' type glaze, large bowl	18th century
15	128	Pottery	15	Mottled Ware cup (3), trail slipware cup, Blackware mug, Dark glazed red earthenware; fine pale red and purple-red plates and bowl, creamware sugar bowl, glazed white earthenware	18th/19th century
17	130	Pottery	15	Dark green glazed buff ware and Yellow ware(17th century), Trail slipware (18th century) and 12 sherd of glazed white earthenwares including; factory made slipware cups, and bone china bowls and plates	17th-20th century
17	130	Iron	1	Nail	19th century
17	130	Glass	2	Clear window	19th/20th century
20	U/s	Pottery	14	Dark glazed red earthenwares (3), brown glazed red ware, creamware, unglazed stoneware, glazed white earthenwares; transfer print (2), bone china with flower decoration, and factory slipware	18th-20th century
21	143	Clay Tobacco Pipe	3	Bowl (undecorated) and broken stem (two fragments)	18th/19th century
21	143	Rubber	1	Moulded beer bottle stopper, branded Whitbread	Late 20th century
21	143	Glass	23	Eleven vessel fragments; three white and blue opaque flint glass, six brown beer bottles including	Mid 19th to 20th

				two neck fragments, blue-green moulded medicine bottle, blue-green square flask and Venus, Lightening Cough Cure bottle, press-moulded clear bottles including Green & Smith mineral water and small cut glass beaker	century
21	143	Pottery	1	Mottled ware	Late17th early 18th century
21	143	Pottery	7	Slip-coated earthenware (fineware including one with additional trailed decoration)	Late17th 18th century
21	143	Pottery	4	Blackwares	17th to 19th century
21	143	Pottery	19	Dark glazed red earthenware storage jars, bowls and kitchen vessesl	17th to 19th century
21	143	Pottery	7	Self-glazed yellow and orange earthenwares (coarse)	18th/19th century
21	143	Pottery	3	Unglazed red earthenware	19th century
21	143	Pottery	14	Salt-glazed stoneware jars (blue)	18th/19th century
21	143	Pottery	5	Stoneware; ginger beer bottle, wide mouthed jar, and three sherds that possibly derived from Nottingham or Derby	18th/19th century
23	161	Glass	2	Clear medicine bottle and brown beer bottle base bearing fragmented trademark of ASH	19th/20th century
23	161	Glass	2	Clear medicine bottle and brown beer bottle base bearing fragmented trademark of ASH	19th/20th century
6	163	Pottery	3	Glazed white earthenware; saucer, cup	19th/20th century

APPENDIX 2: CONTEXT INDEX

Context	Description	Depth
100	Dark brown silty-clay topsoil	0.13- 0.2m
101	Dark blackish-brown silty-clay - fill of 102	0.25m
102	Sod land drain	0.25m
103	Dark brown silty-clay - fill of 104	0.15m
104	Land drain/narrow gully	0.15m
105	Greyish-yellow silty-clay - natural	-
106	Dark brownish-grey silty-clay - topsoil	0.2m
107	Mid-greyish-yellow silty-clay - natural	-
108	Dark greyish brown silty-clay - topsoil	0.25m
109	Cobbled area	-
110	North-west/south-east aligned bank	-
111	Dark greyish-brown silty-clay - topsoil	0.2m
112	Cut of land drain	-
113	Fill of 112	-
114	Pale greyish-yellow sandy-clay - natural	-
115	Mid-greyish-orangy-yellow silty-clay - natural	-
116	Dark greyish-brown silty-clay - topsoil - same as 128	0.2m
117	Ditch	0.44m
118	Mid-yellow silty-clay - material overlying 122	0.35m
119	Dark grey silty-clay - fill of 117	0.44m
120	Cut of stone filled culvert	0.23m
121	Culvert	0.23m
122	Stone bank	0.35m
123	Bank	-
124	Bank	-
125	Bank	-

		1
126	Cut of Ditch	0.16m
127	Fill of ditch 126	0.16m
128	Dark greyish-brown silty-clay topsoil - same as 116	0.2m
129	Mid-orangy-yellow sandy-clay - natural	-
130	Dark greyish-brown silty-clay topsoil	0.25m
131	Mid-orangy-yellow silty-clay - natural	-
132	Fill of ditch 133	0.35m
133	Ditch	0.35m
134	Dark brown silty-clay topsoil	0.25- 0.3m
135	Pale to mid-greyish-yellow silty-clay with some sand patches - natural	-
136	Dark brownish-grey topsoil	0.2m
137	Bank	-
138	Cut of ditch	0.75m
139	Dark brownish-black silty-clay - fill of 138	0.75m
140	Land drain	-
141	Dark brownish-black silty-clay - fill of 140	-
142	Pale to mid-orangy-grey clay with sand patches - natural	-
143	Dark brownish-black silty-clay - topsoil	-
144	Pale greyish-yellow clayey-sand - natural	-
145	Culvert	0.18m
146	Cut of culvert 145	0.18m
147	Fill of ditch 148	0.35m
148	Cut of ditch	0.9m
149	Fill of ditch 148	0.13m
150	Peaty subsoil	-
151	Mid-greyish-brown sandy-clay topsoil	0.3m
152	Mid-yellow sandy-clay with 20-30% limestone fragments - natural	-
153	Mid-greyish-black sandy-clay topsoil	0.3m
	•	•

154	Yellowish-brown sandy-clay with frequent large boulders and stone inclusions - natural	-
155	Mid-greyish-black sandy-clay topsoil	0.3m
156	Yellowish-brown with light grey patches sandy-clay - natural	-
157	Mid-greyish-black sandy-clay topsoil	0.3m
158	Orangy-brown sandy-clay with large limestone boulders - natural	-
159	Mid-greyish-black sandy-clay topsoil	0.2-0.3m
160	Light grey clay with compacted 10-20% poorly sorted limestone fragments - natural	-
161	Greyish-black sandy-clay topsoil	0.4m
162	Light grey with orangy-brown patches with compacted 10-20% poorly sorted sub-angular limestone fragments - natural	-
163	Very dark grey medium sandy-clay with sub-angular sandstone inclusions - topsoil	0.3m
164	Mid-orange/grey moderately sandy-clay with sub-angular stones - natural	-