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HOGSHEAD WINDFARM SITE
NEAR BACUP
Lancashire

ARCHAEOLOGICAL ASSESSMENT REPORT

Commissioned by: Renewable Energy Systems Ltd

Hogshead Windfarm Site
Near Bacup
Lancashire

Archaeological Assessment Report

Report no 1998/ 033/ AUA 7856

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SUMMARY

A desk top study and two identification surveys have been carried out by Lancaster University Archaeological Unit ahead of the proposed construction of a wind farm at Hogshead, Lancashire, by Renewable Energy Systems (SD 3705 4257 to SD 3714 4253). The first identification survey was undertaken in June 1998 and examined the area of the proposed wind farm and the second, undertaken in December 1998, examined the proposed access routes.

The purpose of the assessment was to assemble desk-based evidence for the archaeological and historical potential of the site, and to test this by identification survey. This work assessed the nature and extent of the archaeological resource affected by the proposed development from both documentary sources and surviving surface traces.

The desk-based study established that this upland region was the subject of parliamentary enclosure, in the late eighteenth or early nineteenth centuries. Prior to this the area had been subject to coal mining which became very intensive in the mid nineteenth century. Numerous collieries have been identified from OS mapping along the southern side of Hogshead Law Hill.

The identification survey identified 30 sites in the first phase and 14 in the second phase over the extent of the combined study area; some of these relate to post-medieval pastoral agricultural exploitation, mostly field barns, but the majority relate to coal extraction, and small-scale quarrying. In general the archaeological material has the potential to be of local importance, comprising typical examples of early commercial coal extraction and to a lesser extent sandstone quarrying in the region.

The proposed windfarm will have a relatively limited impact upon the identified resource. Turbine 2 will be near the edge of sandstone quarry site 83 and Turbine 9 will be close to quarry site 8. However the proposed main access route will have a greater impact since it will be utilising the old tramway which links mines to a brickworks.

It is recommended that if possible the positions of turbines 2 and 9 be moved slightly to allow for the protection of the archaeological sites, but if this is not possible, then a mitigative survey should be undertaken and the sites fenced in advance of construction. It is recommended that the proposed access route should avoid the line of the former tramway and brickworks if possible, but if this proves impossible they both should be subject to mitigation recording. It is also recommended that an archaeological watching brief be undertaken during the topsoil strip for the construction of the turbines, roads and power cables.

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For their help in locating cartographic and primary sources, Ken Harrison, map and geography librarian at Lancaster University Library, and the staff of Lancashire Record Office, and Rochdale Local Studies Library are thanked.

Thanks are also due to the landowners and tenants who permitted access to their land.

This documentary research was undertaken by Nigel Neil and the field survey by Ian Scott, Andrea Scott and Chris Scurfield. The report was written by Nigel Neil, Chris Scurfield and edited by Jamie Quartermaine (Project Manager) and Rachel Newman (Deputy Director). The project was managed by Jamie Quartermaine.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 An archaeological assessment has been undertaken at the Hogshead proposed wind farm site, near Bacup, Rossendale, Lancashire (centred at NGR SD 890 230) (Fig 1) by Lancaster University Archaeological Unit (LUAU), on behalf of Renewable Energy Systems Ltd (RES). The assessment was undertaken in two phases: the first in June examined the extent of the proposed wind farm; the second in December examined the proposed access routes. The site, extending over 1.5sqkm, comprises Reaps Moss, Hogshead Law Hill, and parts of Reaps and Hoyle Hey Cloughs. The site is one of two being considered for wind farm developments. The Great Hill site, near Calderbrook, Greater Manchester, has been reported on separately by LUAU (LUAU 1998).
- 1.1.2 The purpose of the assessment was to assemble desk-based evidence for the archaeological and historical potential of the site, and to test this by identification survey. The archaeological assessment utilised information contained in the Lancashire Sites and Monuments Record (LSMR), maintained by Lancashire County Archaeological Service, supplemented by aerial photographs, county and local published histories, early published and manuscript maps, and such primary documentation (i.e. manuscripts, etc) as was reasonably available.
- 1.1.3 The identification survey involved a systematic examination of the ground surface of the study area by field walking. The results of both elements of the survey were collated within the project gazetteer (*Appendix 2*). The desk-based survey and field inspection for the wind farm were undertaken between the 8th and 26th June 1998, and the identification survey for the access routes was undertaken between 10th and 11th December 1998.
- 1.1.4 This report sets out the results of the work in the form of a short report which outlines the findings, followed by a statement of the archaeological potential of the area, and an evaluation of the impact of the proposed development. This is complemented by a gazetteer of sites, both new to the record and formerly known, and a bibliography.

2. METHODOLOGY

2.1 PROJECT DESIGN

- 2.1.1 A project design (*Appendix 1*) was submitted in April 1998 by LUAU in response to a request from Renewable Energy Systems Ltd, for an archaeological assessment of the proposed construction of two wind farms at Hogshead and Great Hill, Lancashire.
- 2.1.2 The project design provided for archaeological assessments involving a desk-based study, a rapid identification survey, and written reports, which interpret the data discovered during the project and assess the implications of the development. This report deals with the wind farm at Hogshead only. After the initiation of the survey, the study area was reduced from that specified within the project work at the request of Renewable Energy Systems Ltd, and then subsequently an additional area encompassing the proposed access routes was added. The revised study area is shown in Figure 2. Otherwise the assessment has been carried out in accordance with the project design.

2.2 DESK-BASED SURVEY

- 2.2.1 The desk-based assessment utilised sources in Lancashire Record Office, Preston (LRO), Lancaster University Library (LU Lib), Lancashire County Archaeological Service (Lancashire County Council), Rochdale Local Studies Library, the Coal Authority's records at Bretby, Staffordshire, and LUAU and N Neil's own collections. The sources used in the documentary assessment are listed in the bibliography.
- 2.2.2 A rapid desk-based compilation of geological and topographical information was undertaken, though no borehole data specific to the site was available.
- 2.2.3 A gazetteer of archaeological sites identified from documentary and aerial photographic sources, within the designated area and its immediate environs, has been compiled (*Appendix 2*), and these sites have been plotted on Figures 2 and 3. Selected sites within *c*100m radius of the site boundary are also included in the gazetteer, where relevant. It should be noted, however, that LUAU has been advised by the Coal Authority Mining Record Office that there is a possibility that underground mine-workings, beginning from shafts further from the site boundary than this, could be relevant from an engineering point of view.
- 2.2.4 **Sites and Monuments Record study:** the Lancashire Sites and Monuments Record (LSMR) records 13 sites within or in the immediate vicinity of the proposed development area. Some of these include items (eg quarries, coal pits) at more than one location, and have therefore been sub-divided.
- 2.2.5 The site shares its eastern boundary with West Yorkshire and the West Yorkshire Archaeological Service (WYAS) was contacted for details of relevant sites on or close to the county boundary. Whilst WYAS were willing to inform LUAU informally that there were no sites of importance in the area, a large fee would be levied for fuller information. As the information related to sites beyond the

- immediate study area it was considered that it was of insufficient value to warrant the formal application SMR details.
- 2.2.6 The National Monuments Record's 'Monarch' database, based in Swindon, was consulted by letter, in order to enhance the LSMR and WYAS information. Three of the four sites on the NMR for the study area were already known from the LSMR search (NMR cross-references given in the gazetteer), and the fourth is more than 250m beyond the development site boundary.
- 2.2.7 **Museum Collections:** Barnes (1982) records the majority of prehistoric artefacts which were extant in museums at the time of his research, but other discoveries are now lost, and new discoveries may have been made since 1982. Rochdale Metropolitan Borough Council Museums Service (Debbie Walker and Andrew Moore, pers comms) and Rossendale Museum (Sandra Cruise, pers comm) were contacted for information on artefacts, documents, etc in their collections, but no material relating to the development site was located, although Rossendale Museum hold some Neolithic flint scrapers from Todmorden Moor, adjacent to the site to the north-east. Salford Museum of Mining (Alan Davis, pers comm) has artefacts and documents relating to Old Meadows Colliery (abandoned c1970), west of Bacup, in their collections, but again nothing specific to the development site.
- 2.2.8 **Aerial photographic study:** 1948 RAF vertical photographs (sortie 541/27) were located and studied in the LRO. Two further vertical sorties for the study area, held by Lancashire County Council (LCC) Planning Department, were studied, using LCC's enlarging stereoscope. These were the 1963 black and white, 1:10,560 sortie HSL UK 63.50, and the 1990 colour 1:10,000 sortie (JasAir 1390) flown for LCC.
- 2.2.9 A cover search from the National Monuments Record (NMR) in Swindon was also requested, but is still awaited. Laser prints were not requested, since the coverage already seen indicated the limited potential of the aerial photographic coverage for this particular site.
- 2.2.10 **Cartographic Research:** a comparison of the changing use of the site was undertaken principally on the basis of Ordnance Survey (OS) 6": 1 mile (1:10,560) and 1:2500 coverage of c1850-c1930 and 1:10,000 mapping of c1975. Features were compared on maps and enlarged to a uniform 1:2500 scale. Yates' (1786) map, a manuscript plan of Hogshead colliery (LRO DDX 118/159/1), and the enclosure map of 1812 (which lacks field-names; LRO AE 6/16) were the only reliable earlier sources.
- 2.2.11 **Mining Records:** the Coal Authority Mining Records Office at Burton-on-Trent, Staffordshire was contacted to supply a list of plans of abandoned mines. Records exist for 61 collieries within or adjacent to (some perhaps with workings under) the study area, but RES ltd did not consider it necessary at this stage to obtain copies. The production of plans of extant and abandoned workings was first required by law in the Mines Act 1850 (Lewis 1971, 60), but it was over 20 years before such plans had, by law, to be deposited, rather than retained by the mining companies for inspection on request. Since many of the workings in the Hogshead development site date from c1850 and earlier (many are shown on 1st edition OS 6": 1 mile maps, OS 1848-9), it is not surprising that the abandonment plans held by the Coal Authority (covering the period 1855-1970, including adjacent collieries) do not cover all known mining in the area.

- 2.2.12 **Primary and secondary documentary sources:** from a study of secondary documentation and selected primary documents, a historical framework to the site was constructed. The history of the parish of Rochdale, so far as it is relevant, and the manorial descent of Spotland township, and the manors and hamlets of Brandwood (to the north) and Whitworth (to the south), are recorded by the *Victoria County History* (Farrer and Brownbill 1910, 206-13). The *Guides* (France 1985; Martin 1992) to the Lancashire Record Office (LRO), Preston, were checked for collections of material relating to the area, for which the shelf catalogues of the most promising were studied for specific references. The site was found to be well represented by documents, a sample of which was studied in detail. Further secondary sources were obtained at the LRO, Lancaster Library (Local Studies), and Rochdale Local Studies Library.
- 2.2.13 Rawtenstall Library holds a collection of material on Rossendale coal mines compiled by the late John Davies, a former miner at Old Meadows Colliery, in the 1970s-1980s. This collection comprises a 750-page bound volume of descriptive and historical text, plans, photographs, and transcripts of newspaper coverage, covering 114 collieries, and four boxes of uncatalogued photographs, original mine plans, and other material. However, it could not be accessed in the time available, but is known to cover several, if not all, the mines within the study area in use between c1797 and 1969 (Keith Burrows, Rossendale Library, local studies, pers comm).
- 2.2.14 The importance of the mining industry was highlighted in a study by LUAU (Trueman 1988; 1995) and a more recent investigation of Rossendale quarries undertaken by LUAU (1997a) has provided a wealth of comparative data for the quarrying industry within the Hogshead study area.

2.3 IDENTIFICATION SURVEY

- 2.3.1 A systematic surface inspection of the Hogshead area was undertaken to ensure complete coverage of the ground. The whole of the study area was open pasture and was therefore walked on 30m transects to identify earthworks. The archaeological detail, as well as significant topographic detail, was mapped to an accuracy of +/- 1m, using differential Global Positioning System (GPS) techniques, which uses electronic distance measurements along radio frequencies to satellites to enable a fix in Latitude and Longitude, which were subsequently converted mathematically to Ordnance Survey National Grid.
- 2.3.2 **Artefact survey:** none of the study area was ploughed at the time of the visit and artefact survey was therefore not possible.

2.4 GAZETTEER OF SITES

- 2.4.1 All of the information concerning archaeological sites in the affected area has been collated into a gazetteer (*Appendix 2*), which provides details of their location, origin, and character. Locations are given as eight-figure National Grid References where possible. A summary description of each site is provided in conjunction with a reference to the source of the information (SMR, cartographic, documentary, field inspection) with references as appropriate and an assessment has been given of the interpretation and archaeological potential of the site. The sites have been marked

onto a digital map showing their location (Figs 2 and 3). Other sites beyond the extent of the study area, which were considered to be of background relevance, are mentioned in the text with appropriate SMR references.

2.5 ARCHIVE

- 2.5.1 A full archive of the desk-top study and the field inspection has been produced to a professional standard in accordance with current English Heritage guidelines (English Heritage 1991). The archive will be deposited in the Lancashire Record Office with a copy to the Lancashire Sites and Monuments Record and a copy will be available for deposition to the National Monuments Record.

3. TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

3.1 SOLID GEOLOGY

- 3.1.1 The solid geology of the area, as mapped in general terms by the Institute of Geological Sciences (1978), comprises what are now called the ‘Productive Coal Measures’ - grey mudstones, siltstones, and sandstones - of the Westphalian subdivision of the Upper Carboniferous. To the east, in the Todmorden and Walsden district of West Yorkshire, the underlying Namurian Carboniferous sandstones and mudstones are exposed. The uppermost rock strata are named as follows by the Geological Survey (1927): Milnrow Sandstone on Tooter Hill and Little Tooter Hill, Darwen Flags on Reaps Moss, and Trough Edge Sandstone (another name for the Darwen Flags) on Hogshead Law Hill. These would have been exploited by the various sandstone and gritstone quarries within the development site.
- 3.1.2 In the absence of recent detailed geological mapping, the seam names used in the Coal Authority’s lists have been used. The coal pits in the development site predominantly exploited strata which is called in the older literature, the ‘Upper Mountain Mine’, or locally the ‘40 Yards Mine’ (the depth to reach it, 36.6m), and the ‘Lower Mountain Mine’ or ‘Yard Mine’ (its thickness, 0.91m), of the Lower Coal Measures (Geological Survey 1927). A few collieries also exploited the Half Yard Mine seam.
- 3.1.3 The old name for the Lower Mountain Mine (pre-c1850) was the Ganister Mine. Ganister is a highly siliceous form of fireclay or seatearth, found beneath the coal. This was extensively exploited for the production of drain pipes, chimney pots, and sanitary wares, for example, at Clough Head Brickworks (north of the study area) (Edwards *et al* 1954, 81).
- 3.1.4 The most detailed descriptions of the Upper Mountain Mine coal stratigraphy, written close to the end of the productive life of the collieries, is in the Geological Survey memoir by Hull *et al* (1875, 56-7) and Bolton’s (1890) *Geology of Rossendale*. Hull *et al* (1875, 60-2) give the following description of the Bacup Coal District:

‘This district is connected with that of Littleborough [see Great Hill Proposed Wind farm site report] by the narrow neck of Trough Edge. It extends along the northern side of the Valley of Rossendale as far west as Goodshaw and Wolaw Nook, and crossing the hills along the line of the Thieveley Fault at the northern base of Dirplay (or Deerplay) Hill, it follows the line marked by the fringe of Rough Rock which crops out along the southern side of Portsmouth valley southward to Weather Hill.

‘The outcrop of the Lower and Upper Mountain Mine may be observed on the western side at Shackleton Holmes, both being 2 feet in thickness and 67 yards apart. Here the Gannister floor is on the point of disappearing. Continuing on the western crop we find both seams at Hogshead Colliery [Site 88], with shale roofs; but about half a mile further north a change takes place in the roof of the Lower Mine, in that the shale roof is replaced by irregularly-bedded sandstone, which ... attains a thickness of 60 feet and upwards.

‘... At the entrance to Oaken Clough Colliery the sandstone roof may be seen resting on an eroded surface of the coal, here 32” in thickness, which is its average thickness around Bacup. At High Houses and Old Hey [Site 23] on the western edge of Reaps Moss the outcrop of the Upper Mountain Mine may be seen. The roof is black shale with bands and nodules of ironstone. The distance between the two seams is about 55 yards, and at 12 yards above it is the Upper Foot Mine

‘We find a remarkable change in the thickness of the Gannister Coal caused by the junction of the Upper Foot Mine with this seam, and a corresponding increase in the thickness of both these seams, so that the union of a seam usually less than a foot along with another of an

average of 2 feet produces a solid seam of 4 or 5 feet in thickness. ... The line of contact lies in a direction nearly north-west and south-east, passing under Tooter Hill to the north of Foul Clough Colliery, on the eastern side of Trough Edge. ... After the union of the two seams ... the coal is not so good in quality as the Yard Coal ... and is consequently better adapted to the purpose of generating steam than for domestic use, and distributed throughout the mass are found numerous balls generally named 'bullions'. The roof is a strong black shale in which are found flattened nodules known as 'baum pots' ...'

- 3.1.5 It should be borne in mind that the geological strata are greatly affected by faulting, with the result that the same seam may be worked in adjacent collieries at levels 'hundreds of feet different in altitude' (Davies nd, 2).

3.2 DRIFT GEOLOGY, SOILS AND TOPOGRAPHY

- 3.2.1 The drift geology comprises boulder clay to the west, and blanket peat over most of the site (Geological Survey 1927). The soils (mapped by Lawes 1983) belong to the Winter Hill Association [map symbol 1011b], which comprise 'thick, very acid, raw peat soils, which are perennially wet and are hagged and eroded in places' (Ragg *et al* 1984; Hall and Folland 1970, 42-4, and map code 21). To the west, on the lower slopes, are 'slowly permeable fine loamy, and fine loamy over clayey upland soils with a peaty surface horizon' of the Wilcocks 1 Association (Ragg *et al* 1984; Hall and Folland 1970, 54-8, and map code 9), and to the south brown-earths of the Rivington Association (map code 7).
- 3.2.2 The development site comprises Reaps Moss, Hogshead Law Hill, and parts of Reaps and Hoyle Hey Cloughs, at the north-west corner of Spotland township, in the parish of Rochdale (Figs 1 and 2). On the eastern side, the adjacent area on the West Yorkshire side of the county boundary is part of Inchfield Moor. The main Rawtenstall-Bacup-Todmorden road (the A681) passes to the north of the site, and the A671 Bacup to Rochdale road is close to the south end. Working south to north, the villages and hamlets of Trough Gate, Britannia, Rockcliffe, Greave, Higher Change, and Sharneyford in Lancashire, and Holden Gate in West Yorkshire ring the study area. The area is part of the watershed of the River Irwell and its tributaries (Davies nd, 2).

4. ASSESSMENT RESULTS

4.1 HISTORICAL BACKGROUND

- 4.1.1 **Prehistoric:** the scarcity of prehistoric finds from the area may be a product of the lack of intensive recent research, judging by the great increase in recorded finds from such areas of topography after intensive field walking activity (LUAU 1998a). Barnes (1982, 109, no.182) mentions only the Neolithic adze from Tooter Hill (SD 888 237, **Site 93**; Jackson 1928) but none of the Calderdale, West Yorkshire finds, mentioned by Barnes, are from close to the development site. The Lancashire SMR and NMR add only a handful of poorly provenanced finds and it is therefore extremely difficult to interpret the nature of prehistoric activity in the area. As with the Great Hill wind farm site (LUAU 1998), where Mesolithic evidence predominates, the handful of prehistoric finds from in and around the Hogshead site may have come from occupation horizons sealed under the blanket peat which developed in the later prehistoric period.
- 4.1.2 **Roman:** there is little Roman activity recorded between the Manchester to Ribchester (Margary 1973, 7b) and Blackstone Edge to Ilkley (Margary 1973, 720a) roads (Margary 1973, 359, 370-1), neither of which is within the study area. The famous silver statue's arm found in 1793 was recovered from Tunshill Quarry, in Butterworth township, in the south-east corner of the parish (Fishwick 1889, 11-12).
- 4.1.3 **Early Medieval:** the Early Medieval history (pre-1066) of Salford Hundred, Rochdale Parish, Spotland Township, and Brandwood manor is poorly documented. There is spasmodic reference to of the region in relation to the Battles of Whalley in AD 798 and *Brunanburh* in AD 937 (for which Bacup is among the many suggested locations; Taylor 1956, 10) but this does little to inform the history of eastern Lancashire. Rochdale, as part of what was to be known as the land 'Between Ribble and Mersey' at the time of *Domesday Book* in 1086, was Crown land in 1066 which was included in the bishopric of Lichfield; however, there are few documented pre-Conquest churches in Lancashire, and no monastic lands are recorded in the county before 1066.
- 4.1.4 **Place-names:** March (1880), Ekwall (1922, 54-61), Schram (1935), and Mills (1976) have contributed to place-name studies of Rochdale, though March's derivations should now only be used with caution. The name Rochdale appears in *Domesday Book* as *Recedham*, meaning either 'the *ham*, or village on the [River] Roch or Rached' - with the river name being of Celtic origin, although as Ekwall (1922, 55) prefers to think, from the rarely-found Old English (i.e. Anglo-Saxon) *reced* meaning a house, hall, or palace. The township name Spotland means either the land beside the Spodden or earlier *Spotbrok* river, or perhaps the Old Norse *spotti*, 'a piece, or particle'. The manor name Brandwood comes from the Middle English *brent* 'burnt', indicating the clearance of forest by burning (Schram 1935, 40).
- 4.1.5 There is much uncertainty in the literature about the derivation of Tooter Hill and Hogshead. March (1880, 65) thought that Tooter derived from the Celtic deity name *Taith*, but Old English *tot* 'a look-out' (Mills 1976, 141) seems more plausible; the other authorities do not give a derivation. Schram (1935, 49) notes that the forms of Hogshead found in the manor survey of 1626 are *Ugshott* and *Ogshott*. The second element may be the Middle English *shute*, Old English *scyte*, 'untilled land, or woodland'. Marsh's (1880, 33) colourful 'farm on the high spout' may be half right, if we trust the later forms of the name and the first element is Old English *heah* 'high'.

- 4.1.6 **Medieval:** the study area is within the township of Spotland which is itself within the parish of Rochdale. The township incorporates smaller manors, and of these there are two covering the study area: Whitworth and Brandwood (Farrer and Brownbill 1910). Whitworth covers the southern part of the study area and Brandwood the northern part; the boundary between them now extends along a field boundary between Reaps Moss and Hogshead Low Hill, and to the north of Hogshead Colliery.
- 4.1.7 The Spotland township was formerly in the ownership of the Abbey of Stanlaw, in the Wirral (founded 1170), which moved to Whalley in 1294. They acquired their lands in the area through a large number of grants (Farrer and Brownbill 1910, 206n4). The manor of Brandwood was granted to Stanlaw by Roger de Lacy in c1200, the boundary of the forest pasture being delineated as follows (interpreted by Fishwick 1889, 79): beginning at *Gorsiche lache* [Old Sink Slack, in the south-east corner of Brandwood Lower End], going to *Cohupeved* [Cowpe Head] and by Cowpe to the Irwell, up the river to *Fulebachope* [Bacup] to Saltergate [a road across the moss], *Hamstalsclough*, *Denegreve* [Deansgreave], and across the moss to *Cumbe hope* at *Gorsiche lache*. The monks could pasture 100 cows and their offspring to two years of age (Farrer and Brownbill 1910, 211n63; Hulton 1847, 153). It is unclear, however, whether this includes the study area.
- 4.1.8 Whitworth, in the south of the study area, was held c1200 in moieties (two equal portions) by the Elland and Liversidge families. The former were descendants of the Anglo-Saxon lord Gamel. The Ellands made grants to Stanlaw, while the Liversidges made their grant to Sawley Abbey, who transferred it to the Nunnery of Hampole, near Wakefield, who re-granted it to Robert, son of Randle the White in 1259 (Farrer and Brownbill 1910, 211). It may be coincidence, but there is a field called Randle at Hogshead colliery (**Site 30**).
- 4.1.9 **Post-medieval:** after Whalley's Dissolution (1537), Henry VIII sold the Spotland possessions of the abbey to Thomas Holt of Grizlehurst in 1541 and Holt also acquired Whitworth. Theophilus Holt held almost all of Brandwood at the time of the survey of 1626, where it is called Rossendale (Farrer and Brownbill 1910, 211; Fishwick 1913). Holt and the Byron family were at variance at law from two years after Holt's receipt of the royal grant, respecting rights to hold court leets and taking stray sheep (Fishwick 1889, 77). The Rossendale manor remained in the hands of the Byron family until the poet George Gordon Byron, 6th Baron (1788-1824) sold it to James Dearden (1774-1828) in 1823 (Farrer and Brownbill 1910, 191; RLSL DEA/2/Box 1).
- 4.1.10 The Byrons had farmed the manor of Rossendale for over a century when they lost it by the Crown letting it to John Davit in 1584 for 21 years. The Byrons bought back the lease the following year, and succeeded in obtaining a royal warrant to enclose and improve wastes. In 1625 Charles I sold the manor of Rochdale to trustees for the Earl of Holderness and, after other rapid transactions, it was mortgaged and then bought by Sir John Byron in 1638. The Byrons were active enclosures of land in the seventeenth century, but do not seem to have held a tight grip on their tenants' activities until the time of William, the fourth Baron (1722-98), who aggressively leased the coal below the enclosed copyhold lands. Typically these leases were for £10 per copyhold acre which produced coal. (Wadsworth 1949, 108-9). The Deardens, along with the Stotts of Wardle, and the Lomaxes of Healey, were the principal lessees of these mines.
- 4.1.11 **Coal mining:** although the earliest references to coal in Rochdale date from 1580/1 - concerning Falinge, Knowle House near Littleborough, and Cronkeyshaw, north of Buckley (Wadsworth 1949, 105; Collingwood 1972) - the earliest located mentions of

coal mining in and around Brandwood are from the manor survey of 1626 (Fishwick 1913), which mentions coal mines on copyhold land at Priestbooth, near Sharneyford. In February 1667, Thomas Posthumus Holt let for 20 years to Thomas Lord of *Graeauclough* [Greave Clough] in Brandwood ‘*all the mines of coal and coal pits sunk within the tenements of Richard Lord and James Hoyle of Tonge, and then in the tenure of Edward Hoyle*’ (Fishwick 1889, 80). Greave Clough is c500m west of the study area, but the exact locations of these early collieries are not known.

- 4.1.12 The earliest use of a steam engine in a Rochdale colliery was at Smallbridge in 1787 and this paved the way for a significant increase in both the productivity and scale of the mining. By 1825 there were at least five steam engines in Rochdale collieries, but the smaller drift mines in Brandwood/Whitworth are not thought to have invested in this technology. In 1820, there were at least seven pits in Brandwood: Red Hole, Hoyle Hey, Slack Gate (two ‘getters’), Old Eye (four getters), Greave (two getters), Higher Clough (five getters), Lower Clough (five getters), and Oaken Clough (three getters). The Children’s Employment Commission (1842) do not mention collieries in this area, but in 1852 there were 44 collieries in Spotland, employing 330 ‘pickmen’ (Collingwood 1972). The 1861 census reveals that there were 1,100 miners in Rochdale, and in 1867 there were 56 collieries in Rochdale (Baines and Fairburn 1867, 133), compared to the 114 which are known to have existed at one time or another in Rossendale (Davies nd, index). Some of these employed as many as 100 men, and the boom continued until the 1870s, but the seams became depleted and most collieries closed by 1880, with only a handful surviving into the twentieth century.

4.2 DESK-BASED ASSESSMENT

- 4.2.1 **Sites and monuments record evidence:** sites about which data was already held on the Lancashire SMR include three nineteenth century/ early twentieth century finds of flint implements (LSMR 213-6 (**Site 93**) the precise findspots of which are not known, but which in all probability come from within or immediately adjacent to the proposed development site.
- 4.2.2 An eighteenth-century former toll house (LSMR 10897), and an inscribed nineteenth-century boundary stone (LSMR 10898), both on Todmorden Road, Bacup, are the closest Listed (Grade II) structures to the development site, but are too remote from the site to be included within the site gazetteer. The remaining LSMR sites within or immediately adjacent to the study area (Sites 1, 20, 29, 34, 45, 47, 77, 87, 88, 89, 94 and 96) refer to quarries, collieries, a tram-road, ‘coal pits’ (i.e. shafts), and wells (Fig 2).
- 4.2.3 **Cartographic and Aerial Photographic Evidence:** the vast majority of the sites identified during the documentary research came from the OS 1849, first edition 6”: 1 mile map, and the 1894-1930 editions of the 1:2500 series. It is clear from these maps, and from the Coal Authority records, that some collieries in the area were only opened after c1894, and these were all abandoned before 1930. Yates’ (1786) map, and one manuscript plan (LRO DDX 118/159/1) were the only reliable pre-OS sources. Yates shows two coal pits north of the turnpike road at Sharneyford, to the north of the study area but none within the study area. The 1845 tithe map for Spotland (LRO DRM 1/91) only maps a small part of the study area, and neither it (unusually) nor the enclosure award (LRO AE 6/16, dated 1812) give field-names. Field-names for a

small part of the study area, around Hogshead Colliery, are supplied by an estate map of 1851 (LRO DDX 118/159/1). Three manuscript surveys of landowners and tenants (RLSL DB LA Z/1/S8, and Z/3/S1-2), dated 1810, 1819-20, and 1834, refer to plot numbers on plans, but the present whereabouts of these plans have not been located, and they are not in the RLSL or LRO collections.

- 4.2.4 The production of plans of extant and abandoned workings was first required by law in the Mines Act 1850 (Lewis 1971, 60), but it was over 20 years before such plans had, by law, to be deposited, rather than retained by the mining companies for inspection on request. The 1919 Mines Office list (quoted by Coal Authority) includes references to abandonment plans of Tooter Hill, Pasture, and Whitworth Collieries, the whereabouts of which are not now known. The list supplied by the Coal Authority indicates that they hold abandonment plans from parts of Greave Colliery (1855), Reaps Moss and Greave Collieries (1862), Pasture Colliery (1866 and 1875), Blue Ball Colliery (1869 and 1879), Hogshead Colliery (1858 and 1876), and several others from 1880 (Clough Head) to 1939 (Oaken Clough); of these only Hogshead and Reaps Moss are within the study area. These plans will probably show the extent of 'levels' but may or may not give further details, beyond that on the OS maps, of surface features such as shafts, air shafts, adits, entries and buildings, tramways, etc.
- 4.2.5 **Other documentary evidence:** although much can be inferred from studies of neighbouring areas, there has been somewhat less recent analytical work on the area of the Hogshead wind farm site than on the vicinity of Great Hill (LUAU 1998). GMAU's (1990) project on post-industrial 'Reversion Areas' is restricted to the area around Watergrove and just touching the Great Hill site, although GMAU had earlier (Pearson *et al* 1985) assessed the archaeology of the whole of Rochdale Metropolitan Borough. Earlier studies, beginning with that of Fishwick (1889), are nevertheless apparently reliable.
- 4.2.6 Enclosure of common pasture in Rochdale began in earnest in the early part of the sixteenth century, along with continued forestry clearance or 'ridding'. Initially, at least, this was perceived as putting in jeopardy the medieval townfield system, to the benefit of large landowners and detriment of tenants. Although the open-fields were smaller in Northern England, because of the size of the hamlets they served, than was the case in the Midlands, they nevertheless existed, as evidenced in the *Whalley Cartulary* (Hulton 1847; Wadsworth 1922, 100). The Byrons were active enclosures of land in the seventeenth century, and by the time of the 1626 survey virtually the whole manor had been enclosed as closes and homesteads.
- 4.2.7 Enclosure of commons was nevertheless a matter of great concern until the nineteenth century. In March 1833 James Dearden, the lord of the manor, took James Maden of Greens, and other freeholders of Brandwood to trial at Lancaster assizes, charging them with enclosing with a stone wall 145 Lancashire acres of common, in 1814, mostly on Tooter Hill and Reaps Moss. This is the area covered by the Commissioners' award and map of 1812 (LRO AE 6/16). The question at issue was whether Brandwood formed part of Rochdale at all. Whilst Dearden produced evidence of customary rents paid to him, and of his letting of coal mines under the wastes, and other rights of the lord that he had exercised, the defendants successfully proved that Whalley Abbey had sold the waste of Brandwood to the freeholders before the Dissolution, so that the Crown never had a right of conveyance.
- 4.2.8 **Hogshead and other collieries:** two collections in the LRO relate to Hogshead Colliery and agricultural land adjacent to it. A list of leases relating to the colliery

(LRO DDX 118/159/12) indicates that it was leased on 1st May 1807 for 94 years, but an abstract of the late John Lomax's title in October 1850 refers to documents from 1788 (LRO DDX 118/159/7). Similarly, in the title of the executors of John Pilling to messuages and tenements at Hogshead, undated but c1809 (LRO DDX 183/1), which refers to documents from 1721 onwards, there is no specific mention of collieries before 1807. Coal Pit Field is mentioned in the latter abstract of title, and is the name of a building (**Site 89**), but is presumably in a field of the same name; it was established by 1849 (OS 1st edition map).

4.3 IDENTIFICATION SURVEY (FIGS 2 AND 3)

- 4.3.1 A total of 44 sites was identified during the identification survey, of which nine related to agricultural activity. These sites represent the remains of pastoral farming within the area, and are for the most part derelict farms or barns. At the west side of Reaps Moss was a well constructed building (**Site 4**) (Fig 2 and 3); it had an 'L'-shaped plan and was divided into three main sections, with the smallest room forming the south-west corner. The building is fairly remote and there was no obvious evidence of any trackway leading to it; it would therefore appear to have been a field barn.
- 4.3.2 There are relatively few disused boundaries within the study area, which would suggest that the field system is not of great antiquity. In general the regular rectangular shape and large size of the fields would suggest that these were the product of parliamentary enclosure in the late eighteenth/early nineteenth centuries. The enclosure of Tooter Hill and Reaps Moss is documented by a trial in 1833 (*Section 4.2.7*), which attempted to contest the enclosure. The fabric of the farms around the western edge of the moor betrays a typical eighteenth/early nineteenth-century character and overall the evidence would suggest that the agricultural exploitation of this land dates from not earlier than the eighteenth century.
- 4.3.3 **Mining landscapes:** the most extensive archaeological relict landscapes identified are a product of coal mining and are concentrated along the western and southern sides of the Hogshead Law ridge. Although there were occasional small shafts identified (**Sites 05, 09 and 26**), in general they comprise much larger mining complexes, involving either multiple shafts or extensive mining landscapes associated with a single very productive shaft. The best example of the multiple shaft landscape is that on Hogshead Law Hill (**Sites 12-18**), which is significantly not represented on the 1st or 2nd edition OS maps. The shafts comprise a shaft hollow surrounded by an associated small mound, although two do not have surviving mounds (**Sites 13 and 14**). Their distribution appears to display a broad north-east/south-west orientation, which may reflect the line of a vein. The extent of the group is edged to the west by a low boundary bank (**Site 17**). The generally low degraded form of the shafts and associated mounds, coupled with their marked absence on the OS mapping, would suggest that this was an early mining landscape, which had become disused some considerable time before the production of the earliest OS maps.
- 4.3.4 The more typical intensive mining operations are those around the southern and western sides of Hogshead Law Hill and reflect considerable sub-surface extraction. **Site 20** is a complex area of mine workings on a steeply sloping area of land, which has a large working platform (25m x 20m) set into the slope. There is a very large spoil heap which is up to 15m in height, and is an indication of considerable below ground excavation. There was a trackway linking this mine to a principal road that

- extended along the slope linking the Hogshead, Coal Pit Field and Gauther Fold Collieries and farms. The mine is on the same alignment that extended through the **Site 12-18** landscape and there is a possibility that **Site 20** exploited the same vein.
- 4.3.5 The largest mining landscape is **Site 29/30** at Higher Hogshead. There was no obvious shaft identified but there were three large spoil heaps (each c20m x 30m). There are however four shafts (a-d) shown on the OS 2nd edition map (1910). Extending downslope from the mine workings is a long tramway which links the site to the Rochdale and Burnley road at the base of the hill; at the head of the tramway is a large shaft. Although most of the shafts have been obscured by spoil, it is evident from the size of the spoil heaps and the extent of the landscaping that this was a very major working operation, and probably the most intensive within the study area.
- 4.3.6 Strongly associated with mining is the tramway, **Site 113** and **Site 105**, and there are extant areas of block paving found on this line. The tramway forms a gradual incline from the Clough Head Brickworks to mineral extraction areas to the south. It forms a sinuous path up the eastern slopes of Tooter Hill, levelling off at Reaps Moss and following the 400m contour until Hogshead Law Hill where it descends. A good cross-section of the tramway was recorded at **Site 103** where a small viaduct was constructed across a drain from Reaps Moss. None of the tracks survive, but a length of rail was found just to the west of the tramway close to Reaps Moss and wooden sleepers were found re-used as gateposts (see **Site 111**). The tramway appears to truncate associated working areas of the mine at **Site 55** and therefore would appear to post date mining in this area to the east of Tooter Hill.
- 4.3.7 The Clough Head Brickworks (**Site 112**) is sited at the head of 'Midgelden Brook'. No standing buildings remain and all materials appear to have been removed except for small sporadic dumps of brick and clay pipe. There remains a very large artificial platform which occupies the upper Midgelden valley which would have provided the necessary flat land for buildings and working/storage areas; large low spoil heaps still remain. The tramway (**Site 113**) terminates at the brickworks and would appear to have been contemporary with it. A series of quarries (**Sites 101, 102, 108 and 109**) is located immediately adjacent to the tramway and all appear to be contemporary with or later than the tramway. They would have provided building materials or hard core for the tramway or the platform at the Brickworks.
- 4.3.8 A blocked and flooded air shaft (**Site 104**) was located as marked on the current OS map, and was probably associated with another to the south-east just outside the study area. This testifies to a deep mining gallery beneath Reaps Moss.
- 4.3.9 At least three of the farms, presently along the southern side of Hogshead Law Hill, appear to have had a mining-related origin. Higher Hogshead farm (**Site 88**) is shown on the OS 1st edition map as Hogshead Colliery; the Coal Pit Field farm (**Site 89**) still has a mining name and there is a coal pit shown on the OS 1st edition map just south of the farm buildings. Finally Law Clough farm (**Site 90**) has a major coal pit and spoil heaps just to the west of the present farm buildings. The evidence would suggest that in this area the earliest exploitation of the land was for coal extraction, and that subsequently the land and buildings were utilised for agriculture.

5. DISCUSSION

5.1 PREHISTORIC POTENTIAL

5.1.1 The assessment has revealed the presence of archaeological material in the area of the proposed wind farm, which dates mainly from the nineteenth century. There are isolated prehistoric findspots but, with the exception of **Site 93**, they are very poorly provenanced and **Site 93** is located outside the study area. The general paucity of artefact remains do not, however, necessarily reflect a lack of prehistoric activity. The other Wind Farm study area at Great Hill (LUAU 1998) has a much larger assemblage of find spots of this date, but this reflects a considerable and systematic programme of field walking by the Littleborough Historical and Archaeological Society, which has maximised opportunities of peat erosion and exposure to identify an extensive Mesolithic assemblage. The Hogshead site has not been subject to the same levels of peat erosion because it is for the most part a managed pastoral landscape nor has it been subject to the same level of intensive artefactual field walking. Therefore, despite the apparent dearth of findspots, there is some potential that there are buried prehistoric remains.

5.2 AGRICULTURAL LANDSCAPE

5.2.1 **Medieval:** although the ownership of the study area has been exchanged on numerous occasions since the Domesday survey (1086), there is no documentary or physical evidence of any medieval activity, beyond the normal upland pastoral grazing of common land. The landscape affected by the proposed development has not been the subject of long established settlement or intensive agricultural exploitation, a pattern largely dictated by the relatively wet, exposed and unproductive nature of the land.

5.2.2. **Post-medieval:** the historical and archaeological evidence would suggest that the moors were not enclosed until, perhaps, the period of the enclosure acts in the late eighteenth and early nineteenth centuries. Indeed there is evidence that unusually the agricultural exploitation of some areas followed on from earlier coal mining activity. Selective farms (Higher Hogshead, Coal Pit Field and Law Clough) appear to have mining origins (*Section 4.3.6*) and the extant structures have vernacular forms consistent with the late eighteenth/early nineteenth centuries. This hypothesis is reinforced by the trial of James Madens and other freeholders of Brandwood for enclosing land on Tooter Hill and Reaps Moss (*Section 4.2.7*), during which James Dearden (Lord of the Manor) testified that he had let coal mines under the wastes. Clearly in these areas coal mining pre-dated any agricultural enclosure and exploitation.

5.2.3 The farming activity practised in these areas was inevitably pastoral, by virtue of the exposed and relatively high altitude of the terrain, and this is borne out by the numbers of field barns scattered across the area and the absence of any ridge and furrow, or similar, evidence for cultivation.

5.3 MINING LANDSCAPES

- 5.3.1 The most significant archaeological landscapes identified by the assessment were those produced as a result of coal mining activities. The earliest documented coal mining in the general area was from 1667 and relates to Greaves Clough, about 500m west of the study area; however, the earliest record of a working colliery within the study area is the Hogshead Colliery which is referred to in documents from 1788 (LRO DDX 118/159/7). Significantly Yates' map of 1786, only two years prior to this date, shows mines north of the turnpike road at Sharneyford, but none within the study area, and this may suggest that the Hogshead Colliery was established at about this date. In general the documentary evidence indicates that the main period of mining was during the early to mid nineteenth century (*Section 4.2.4*); however, there are also the physical remains of mining landscapes which are potentially earlier. The mining area on Hogshead Law Hill (**Sites 12-18**) reflects a very different type of industrial landscape from the more intensive collieries, eg Hogshead Collieries. These are small, scattered shafts with only limited amounts of associated spoil; their productivity was clearly very small in comparison with the nearby collieries (**Sites 10, 20, 30 and 88**). They are also significantly absent from any eighteenth or nineteenth century maps, perhaps suggesting that their abandonment was sufficiently ancient that they were too decayed to warrant surveying by the early cartographers. Overall there is a broad variance in the techniques and intensity of mining operations as evidenced by the surface evidence within the study area and as such this suggests the development of mining operations over a relatively broad period.
- 5.3.2 Onto this mining landscape was superimposed in the later half of the nineteenth century the Clough Head Brickworks. Brickworks are commonly associated with such activity, because clay is commonly a by-product of coal mining, a notable example being at Parton, in West Cumbria, where disused mining buildings were converted into a brickworks (LUAU 1997b). The coal and clay for the brickworks was transported to the site by tramway (**Site 113**) which linked to a series of mine shafts along its length, most of which were to the south-east of the study area. At least one (**Site 100**), however, was within the study area and comprised a twin lobed prominent spoil heap, the shaft of which was not evident and may have been overlain or obscured by the spoil. The tramway also cut through some earlier mining landscapes, notably that of the Clough Head Colliery (**Sites 53-5**); the tramway and its associated mines were clearly a later component of the overall mining landscape. Quarrying (**Sites 101-2, 108-9**) associated with the tramway length appear to be either contemporary or slightly later in date.

6. ARCHAEOLOGICAL IMPACT AND RECOMMENDATIONS

6.1 IMPACT

- 6.1.1 This assessment has highlighted the archaeological resource within and around the assessment area at Hogshead. Forty four sites with surface expressions have been identified by field walking and a further thirty eight have been identified solely from documentary sources within the development boundary. The remaining thirty one sites have been identified outside the study area. In general the archaeological material has the potential to be of local importance, comprising typical examples of early commercial coal extraction and to a lesser extent sandstone quarrying in the region. There are also some agricultural features but these relate to a relatively late period of exploitation.
- 6.1.2 The generalised impact of the wind farm can be assessed, albeit in broad terms. The individual turbines will have a relatively small footprint, but it is anticipated that the site preparation and clearance of the ground cover will involve disturbance of the ground over an area of about 16-20m diameter. The proposed turbine configuration (RES Ltd letter 13th Nov 1998) for Hogshead will potentially have some impact upon the identified archaeological resource. Turbine 2 will be on or near the edge of sandstone quarry site 83. The sub-station next to Turbine 8 will be very close to boundary stone 6. Turbine 9 will be very close to quarry site 8.
- 6.1.3 In addition to the turbines, the main cause of ground disturbance will be the construction of access roads, which will link the turbines and this results in the greatest overall area of ground disturbance. Similarly the excavation of trenches for power cables may have a direct impact upon the archaeological monuments and the correlation between the proposed power lines and the archaeological resource should be investigated. The access route as proposed does threaten both the nineteenth century brickworks at Clough Head and associated tramway (**Sites 113 and 112**); in particular it is proposed that the main access route be aligned directly on top of the former tramway. Where the access routes divide into three, up on to Reaps Moss and Hogshead Hill, it should be stressed that archaeology may be present beneath the peats, but could not be investigated on the basis of the present surface-based assessment.

6.2 RECOMMENDATIONS

- 6.2.1 In accordance with the code of conduct for the Institute of Field Archaeologists, it is strongly recommended that, as the first option, the monuments identified by the present assessment be preserved *in situ*, and only if this is neither possible nor practical is it appropriate in some cases to undertake further work to mitigate the effect of development. Defined below are a series of options for mitigating and evaluating the archaeological resource in advance of and during the proposed development.
- 6.2.2 **Avoidance Options:** the size of the area, coupled with a relatively low density turbine distribution provides for a considerable latitude in the siting of individual turbines and roads. It is therefore considered that the most expedient and economic conservation option for the archaeology of the area is avoidance. For the most part the sites are individual entities and therefore avoidance of the individual monument is an adequate solution. In these instances turbine and road construction should be at least 30m away

from the edge of an identified monument to ensure that both the monument and its topographic context are undisturbed. With industrial groups or archaeological landscapes each individual monument is only one element of an interrelated complex, and any construction within the group will damage the contextual and topographic relationships that define the broad archaeological landscape. It is therefore necessary that each monument group is treated as a whole rather than a collection of independent entities. The boundary marker stones, particularly along the north-eastern edge of the study area, which is a county boundary, are an important historical and political feature and should be preserved by means of avoidance.

- 6.2.3 If engineering constraints allow it is recommended that Turbine 2 be moved a small distance (c20m) to the east in order to increase the separation from site 83. Furthermore Turbine 9 should ideally be moved c10m to the west in order to avoid site 8. If it is not possible to move the turbines then **Sites 6, 8 and 83** should be subject to detailed mitigative recording (*Section 6.2.6*) and they should be fenced off to prevent any disturbance in the course of the construction programme.

The proposed main access route runs along the top of the former tramway and it is recommended that the tramway and brickworks (**Sites 113 and 112**) should be avoided by c10m or if this proves impossible they should be subject to full mitigation recording.

- 6.2.4 **Further Assessment:** the present study examined the primary sources relevant to the study, but at the same time identified possible sources that could be very pertinent to the assessment of the archaeological resource. The most significant of these is the John Davies collection and it is therefore recommended that these be studied in advance of the Public Local Inquiry, particularly if proof of evidence is provided by an archaeologist.
- 6.2.5 **Mitigation Survey:** certain sites, if affected by the proposed construction, should be surveyed in detail, to create a record of their current extent and features as mitigation for their eventual destruction. In conjunction with this cartographic recording an oblique photographic record should be generated for the site.
- 6.2.6 **Evaluation:** if it proves impossible to avoid archaeological features adequately, it may be necessary to undertake evaluation trenching to establish the need for mitigation recording. This would be necessary to establish the nature, extent, date and detailed character of the sites in question. It is possible that this work may demonstrate the need for further recording and should be discussed with the county archaeological curator. If further evaluation is required this should be conducted in sufficient time to allow for final recording of the sites of particular significance prior to construction.
- 6.2.7 **Watching Brief:** there is some potential that prehistoric sites survive as sub-surface features and it is therefore recommended that a watching brief be undertaken during any topsoil stripping for the construction of the turbines and roads.

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DEA/2/Box 5 Documents relating to tithes in Spotland, 1771

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DEA/2/Box 12 Deeds C17-18, re Spotland

DEA/2/Box 13 Deeds and leases, C19, Spotland area

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APPENDIX 1
PROJECT DESIGN

APRIL 1998

Lancaster
University
Archaeological
Unit

WIND FARM SITES
HOGSHEAD nr WHITWORTH
and GREAT HILL nr CALDERBROOK

LANCASHIRE and GREATER MANCHESTER

ARCHAEOLOGICAL ASSESSMENT

Proposals

The following project design is offered in response to a request from Renewable Energy Systems Ltd., for an archaeological assessment of two proposed wind farm sites near Whitworth, Lancashire and Calderbrook, Greater Manchester.

1. INTRODUCTION

- 1.1 The construction of wind farms at Hogshead and near Whitworth, Lancashire and Great Hill, Calderbook, Greater Manchester is proposed and LUAU have been requested by Renewable Energy Systems Ltd (RES) to submit a project proposal for an archaeological assessment of the two sites as part of an environmental impact assessment.
- 1.2 The Hogshead site has a documented archaeological potential and there are fifteen sites in and around it, which are for the most part mine shafts or associated mining remains. They are concentrated at either end of the study area, particularly on Tooter Hill, and are symptomatic of the intensive mining activity that occurred in this part of Eastern Lancashire during the nineteenth century. The Great Hill site has similarly been subject to nineteenth century extraction.
- 1.3 The Lancaster University Archaeological Unit has considerable experience of the evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects during the past 18 years. Evaluations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. LUAU has the professional expertise and resource to undertake the project detailed below to a high level of quality and efficiency. LUAU and all its members of staff operate subject to the Institute of Field Archaeologists (IFA) Code of Conduct.

2. OBJECTIVES

- 2.1 The following programme has been designed in accordance with a request from Renewable Energy Systems Ltd to provide an accurate archaeological assessment of the designated area. The principal purpose of the assessment is to collate existing information about the archaeology of the site, to determine the significance of the identified archaeological resource, to assess the impact of the proposed development upon the identified archaeological resource and to provide recommendations for any further archaeological investigation. The required stages to achieve these ends are as follows:
 - 2.2 **Desk Top Survey:** to accrue an organised body of data to inform the identification survey.
 - 2.3 **Identification Survey:** to record the character of the extant earthworks within the two study areas and provide an assessment of the archaeological significance of any earthwork remains.
 - 2.4 **Assessment Report:** a written assessment report will be generated for each of the two sites. These will assess the significance of the data generated by this programme within a local and regional context. They will advise on the requirements for further evaluation or recording measures as necessary.

3. METHODS STATEMENT

- 3.1 The following work programme is submitted in line with the stages and objectives of the archaeological work summarised above.
 - 3.2 **DESK TOP SURVEY**
 - 3.2.1 The following will be undertaken as appropriate, depending on the availability of source material. The level of such work will be dictated by the time scale of the project.
 - 3.2.2 **Documentary and cartographic material:** this work will rapidly address the full range of potential sources of information. It will include an appraisal of the Lancashire and Greater Manchester Sites and Monuments Records, as well as appropriate sections of County histories, early maps, and such primary documentation (tithe and estate plans etc.) as may be reasonably available. Particular attention will be paid to field and place names recorded on early cartographic sources as these often provide important evidence of archaeological activity. Any photographic material lodged in either the County Sites and Monuments Records or the County Record Offices will also be studied. Published documentary sources will also be examined and assessed. This work will involve visits to the County Record Offices in Preston and Manchester; it will consult the records of the Littleborough Historical Society and potentially also the Rochdale Libraries, Local Studies Department.
 - 3.2.3 **Aerial photography:** a survey of the extant air photographic cover will be undertaken. This may indicate the range and survival of archaeological and structural features in the designated area, and if

appropriate coverage is available, allow an assessment of the rate and progress of erosion of archaeological features. It will also facilitate the rapid recognition and plotting of archaeological features including those no longer visible at ground level. Identified features will be plotted at 1:10,000. Aerial photographic work may entail liaison with the Royal Commission on the Historical Monuments (England), although, within the time scale available, it is unlikely that prints will be forthcoming from this body for inclusion in this report.

- 3.2.4 **Physical environment:** a rapid desk-based compilation of geological (both solid and drift), pedological, topographical and palaeoenvironmental information will be undertaken. This will not only set the archaeological features in context but also serves to provide predictive data, that will increase the efficiency of the field inspection.

3.3 FIELD INSPECTION

- 3.3.1 **Access:** liaison for basic site access will be undertaken through Renewable Energy Systems Ltd.

3.3.2 It is proposed to undertake a level 1 survey of the two study areas; the Hogshead site covers an extent of 2.2sqkm and the Great Hill site extends over 1 sq km. This is a rapid survey undertaken alongside a desk top study as part of a site assessment. It is an initial site inspection intended to inform the environmental impact assessment which will consider fully the archaeological implications of a development; it also serves as the basis for undertaking and planning further archaeological work on the site. It represents the minimum standard of record and is appropriate to exploratory survey aimed at the discovery of previously unrecorded sites. Its aim is to record the existence, location and extent of any such site. The emphasis for the recording is on the written description which will record type and period and would not normally exceed c50 words. The extent of a site is defined for sites or features greater than 50m in size and smaller sites are shown with a cross.

3.3.3 The reconnaissance will be undertaken in a systematic fashion, walking on approximately 30m wide transects, within the extent of the defined study area. It is proposed to use Global Positioning System (GPS) techniques to locate and record the features. GPS instrumentation uses electronic distance measurement along radio frequencies to satellites to enable a positional fix in latitude and longitude which can be converted mathematically to Ordnance Survey National Grid. The use of GPS techniques has proved to be an essential and extremely cost effective means of locating monuments, and can achieve an accuracy of better than +/- 1m.

3.3.4 A photographic record will be undertaken simultaneously. An early surface inspection such as this is highly recommended, as such work can frequently double the amount of archaeological information for an area. This fieldwork will result in the production of plans at a scale of 1: 2500 or any other appropriate scale required, recording the location of each of the sites listed in the gazetteer. All archaeological information collected in the course of field inspection will be recorded in standardised form, and will include accurate national grid references. This will form the basis of a gazetteer, to be submitted as part of the report.

3.3.5 LUAU provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997) and risk assessments are now being implemented for all projects.

3.4 ASSESSMENT REPORT

3.4.1 **Archive:** the results of Stages 3.2-3.3 will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects, 2nd edition, 1991*). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. It will include summary processing and analysis of any features and finds recovered during fieldwork. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.

3.4.2 This archive can be provided in the English Heritage Central Archaeology Service format, both as a printed document and on computer disks as ASCII files (as appropriate), and a synthesis (in the form of the index to the archive and the report) will be deposited with the Lancashire or Greater Manchester Sites and Monuments Record, as appropriate. A copy of the archive will also be available for

- deposition in the National Archaeological Record in London. LUAU practice is to deposit the original record archive of projects (paper, magnetic, and plastic media) with the appropriate County Record Office, and a full copy of the record archive, should any material be recovered, with the material archive (artefacts, ecofacts, and samples, at this stage from surface collections) with an appropriate museum.
- 3.4.3 **Collation of data:** the data generated by 3.2 and 3.3 (above) will be collated and analysed in order to provide an assessment of the nature and significance of the known surface and subsurface remains within the designated area. It will also serve as a guide to the archaeological potential of the area to be investigated, and the basis for the formulation of any detailed field programme and associated sampling strategy, should these be required in the future.
- 3.4.4 **Assessment Report:** An independent report will be generated for each of the two proposed wind farm sites. One bound and one unbound copy of each report will be submitted to the Client, and further copies submitted to the Lancashire and Greater Manchester Sites and Monuments Record Offices. The reports will include a copy of this project design, and indications of any agreed departure from that design. They will present, summarise, and interpret the results of the programme detailed above and will include a full index of archaeological features identified in the course of the project, together with appropriate illustrations, including maps and gazetteers of known or suspected sites identified within or immediately adjacent to the study area. They will also include a complete bibliography of sources from which the data has been derived, and a list of further sources identified during the programme of work, but not examined in detail. The reports will also include a complete bibliography of sources from which data has been derived, and a list of further sources identified during the programme of work, but not examined in detail.
- 3.4.5 These reports will identify areas of defined archaeology, an assessment and statement of the actual and potential archaeological significance of any features within the broader context of regional and national archaeological priorities will be made. Illustrative material will include a location map, which can be tailored to the specific requests of the client (eg particular scales etc.), subject to discussion. The report will be in the same basic format as this project design; a copy of the report can be provided on 3.5" disk (IBM compatible format).
- 3.4.6 **Proposals:** the reports will make a clear statement of the likely archaeological implications of the intended development. They will also make recommendations for any further evaluation of the identified archaeological potential deemed necessary or desirable for individual sites. They will seek to achieve, as a first option, the preservation *in situ* of all significant archaeological features, and possible strategies for the mitigation of the development, including design modifications, will be considered. Where conservation is neither possible, nor practical, it may be appropriate to recommend a further stage of more intensive archaeological work in order to mitigate the effects of development.
- 3.4.7 **Confidentiality:** the assessment reports are designed as a document for the specific use of the client, for the particular purpose as defined in the project brief and this project design, and should be treated as such; they are not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.
- 3.5 **PROJECT MONITORING**
- 3.5.1 LUAU will liaise with the Greater Manchester and Lancashire County Archaeologists prior to implementing the archaeological works, but there is no allowance made in the costings (defined below) for pre-works meetings with the county archaeologists.

4. WORK TIMETABLE

The phases of work will comprise:

4.1 **Desk Top Study**

A two day period is required to collate all the available data.

4.2 Field Inspection

A three day period is required for the identification survey.

4.3 Prepare Assessment Report

A three day period would be required to complete this element.

4.4 LUAU can execute projects at very short notice once an agreement has been signed with the client.

5. OUTLINE RESOURCES

The following resource base will be necessary to achieve the proposals detailed above.

5.1 Desk Top Study

4 man-days External Consultant

5.2 Field Survey

3 man-days Project Supervisor

3 man-days Project Assistant

5.3 Assessment Report

3 man-days Project Supervisor

1.5 man days Illustrator

5.4 The project will be under the management of **Jamie Quartermaine, BA, Surv Dip, MIFA** (Unit Project Manager) to whom all correspondence should be addressed. All Unit staff are experienced, qualified archaeologists, each with several years professional expertise.

APPENDIX 2 SITE GAZETTEER

Site number 01
Site name Dry Corner Farm
NGR SD 8849 2246
SMR PRN 7557
Site type Structure/Well
Period Post-medieval/ Pre-1849
Source Identification Survey 1998 / 1st Edition OS map of 1849

Description

An eighteenth century farm building which is still in use. The structure consists of a two storey building with a catslide roof off to one side and a single outbuilding. The edifice itself is in a poor state of repair, particularly the tin roofed outbuildings which appear on the verge of collapse. The farm building consists of a slate roofed structure that needs some general repair work although it is occupied. There is a well shown on the OS (1849) map, but not on the current sheet.

Assessment: the site is within the study area.

Site number 02
Site name Higher Hogshead
NGR SD 8873 2241
Site type Mound / Clearance Cairn?
Period Post-medieval
Source Identification Survey 1998

Description

This feature stands to a height of approximately 0.5m and is 10m x 5m in area.. It is largely earthfast, with only two medium sub-angular stones protruding from the surface. The mound itself is very well defined with a rounded profile; it is roughly ovoid in plan, aligned roughly north to south, and is of clearly modern origin.

Assessment: the site is within the study area.

Site number 03
Site name Higher Hogshead
NGR SD 8873 2243
Site type Drain
Period Post-medieval
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

This drain follows the line of the fence some 12m to the west, at roughly a north to south direction running for approximately 40m. The drain itself is of a stone construction with flat stones capping the top and bottom with medium sub-angular stones on the sides. The feature itself has been badly washed away with the peat, and is therefore exposed in places. The dimensions of this construction are 0.6m wide by 0.4m in height.

Assessment: the site is within the study area.

Site number 04
Site name Higher Hogshead
NGR SD 8900 2240
Site type Structure? building/pen
Period Post-medieval/Pre-1910
Source Identification Survey 1998 / 2nd Edition OS map of 1911

Description

The remains of a substantial building measuring overall approximately 12m x 20m; it is shown on the OS 1910 map and on the current edition, but not on the OS 1849, or 1894 maps. This structure is well constructed in a roughly L-shaped plan with the point of the L being situated against a drystone wall running east to west through the field. The fabrication of this building consists of small to medium sub-angular stones with no evidence of any bonding material, although there is quoining on all corners of the edifice. Internally, the building is divided into three main sections along the L-shaped design, with a smaller 2m x 2m room situated in the south-west

corner of the first quadrant. These larger rooms appear square in plan, roughly 9m sq. The remaining larger room is approximately 12m x 4m. The remaining walls stand to a height of 0.65m, down to a single stretch in the central bay division. There is quoining on both of the main divisions, suggesting a wide entranceway approximately 3m in either direction into each room. This may indicate that the structure was utilised as a barn, the large amount of loose material in the base of the building suggests that the construction stood to a reasonable height. All evidence of roofing material is lost although this could suggest that the structure originally had a tin roof. The building appears to have been demolished fairly recently as very little of the roof material is covered. There is no obvious evidence of any trackway leading to this structure.

Assessment: the site lies within the boundary of the proposed development area..

Site number 05
Site name Higher Hogshead/Lomax pasture (field name)
NGR SD 8897 2255
Site type Shaft Mound/Colliery shaft
Period Post-medieval/Pre-1849
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

This coal pit is shown on the OS 1849 map and as 'old shaft' on all later editions, including the current edition. It possibly relates to Hogshead Colliery Half Yard or Little seam which was abandoned in 1858 or the Higher and Lower Mountain seams which were abandoned in 1876.

This substantial structure is well defined on the surface to the extent that the mine shaft itself is fenced off. The design of the shaft indicates its use as an airshaft, the fabric of which is stone lined although this is obscured by the dense fern coverage. The structure itself is approximately 4m x 2m, forming a rectangular profile to the shaft, the depth appears to descend in excess of 10m below the existing ground level. There is no associated mine workings in evidence. The shaft itself is surrounded by a mound approximately 20m x 15m running roughly north to south. This mound is the result of the construction phase of the airshaft itself, and is largely earthfast although occasional small to medium sub-angular stones are visible resulting from the downward erosion from the top of the mound. This suggests that the site itself is of some age.

Assessment: this site lies within the development area boundary.

Site number 06
Site name Higher Hogshead
NGR SD 8929 2261
Site type Boundary Stone
Period Post-medieval
Source Identification Survey 1998 / 1st edition OS map (1849)

Description

This boundary marker is fabricated of stone and stands vertically to a height of approximately 1m and is approximately 0.2m x 0.3m in plan. The stone facings are marked with a 'T' to the north and an 'S' to the south and are marked on the 1st edition OS map.

Assessment: the site is within the study area.

Site number 07
Site name Reaps Moss
NGR SD 8937 2264
Site type Boundary Stone
Period Post-medieval/Pre-1849
Source Identification Survey 1998 / 1st edition OS map (1849)

Description

A boundary stone is shown on the OS 1849 map as 'Old Dublin', but on LRO DDX 118/159/1 map as 'Mere Stone'. It is also shown but not named on the OS map of 1911. This boundary stone appears to be of a later date than Site 06. It is also fabricated of a well dressed stone and stands vertically to a height of approximately 1m and is approximately 0.2m x 0.3m in plan. The northern stone facing is marked with 'BB', although the southern facing remains blank. The only other marking is the number '42' stamped on its surface. The stone appears marked on the 1st edition OS map as a boundary stone and a benchmark, although the latter marking is absent from the facings of the stone itself.

Assessment: the site is within the study area.

Site number 08
Site name Hogshead Law Hill
NGR SD 8938 2249
Site type Quarry
Period Post-medieval / Pre-1894
Source Identification Survey 1998 / 2nd edition OS map (1894)

Description

An 'Old quarry' is shown on OS map edition of 1894, but not shown on the OS 1849 map. This feature appears to meander for the first 30m alongside the county boundary and is approximately 35m long x 5m wide and descends to a depth of 1.95m. The sides are steeply sloping breaking to a water filled base. The presence of the water obscures the actual profile of the base, although it is assumed to be relatively flat in this case. The quarry itself is aligned east to west.

Assessment: The site lies on the boundary of the proposed development area.

Site number 09
Site name Shackleton Colliery (?part of)
NGR SD 8933 2226
Site type Shaft Mound/Colliery shaft
Period Post-medieval/Pre-1849
Source Identification Survey 1998 / 1st edition OS map (1849) / 2nd edition OS map of 1911

Description

A 'coal pit' is shown on OS map edition of 1849, and as 'Old Shaft' on OS map editions of 1894 and 1911. It is unclear as to which colliery they belong. It appears to be too far from Hogshead Colliery (**Site 88**) c130m outside the proposed development site, and is more likely to be associated with Shackleton Colliery. According to the Coal Authority the Forty Yards seam was abandoned there in 1898, the Lower Mountain seam abandoned 1904.

This shaft appears as a ring mound approximately 12m x 12m and is circular in plan. The bank is well defined with a rounded profile and a flat summit. This banking stands to approximately 0.4m x 3m. The shaft appears to have been backfilled at some point. This has subsequently collapsed and as a result the shaft only descends to around 0.5m. This 2m circular shaft is located in the centre of the surrounding ring mound.

Assessment: the site is within the study area.

Site number 10
Site name Law (Lowe in 1849) Fold/Lower Clough Farm
NGR SD 8942 2201
Site type Structure/Colliery shaft
Period Post-medieval / Pre-1849
Source Identification Survey 1998 / 1st edition OS map (1849)/ 2nd edition OS map of 1911

Description

There are two elements to the site: a farm and an adjacent mine shaft. The 'Coal pit' is shown on the OS map edition of 1849, but not on the OS map edition of 1894 or any of the later editions. It is unclear as to which colliery they belong although it appears to be too far from Hogshead Colliery (south-east colliery of this name) **Site 88**, c130m outside the proposed development site, and is more likely to be associated with Shackleton Colliery. According to the Coal Authority the Forty Yards seam was abandoned there in 1898, the Lower Mountain seam abandoned in 1904. The farm buildings are still in use. The farm house itself is roofed, with associated modern barn buildings and an above ground red brick modern tank is visible, although this is probably a replacement for the tank indicated on the 1st edition OS map. The farm itself appears to have undergone some recent repairs as the second storey seems later than the first storey which appears completely closed.

Assessment: the site is within the study area.

Site number 11
Site name Higher Hogshead
NGR SD 8921 2203
Site type Pond

Period Post-medieval
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

This is an artificial body of water banked on the downslope sides. The bank stands to a height of approximately 0.5m creating a roughly rectangular shaped pond. Although this feature is still in use by cattle, the high concentration of silt indicates that the pond has been utilised for a long period of time, although the presence of several mounds of soil visible above the water line suggests that the pond itself is of no real depth.

Assessment: the site is within the study area.

Site number 12
Site name Hogshead Law Hill
NGR SD 8908 2213
Site type Shaft Mound
Period Post-medieval
Source Identification Survey 1998

Description

This site is situated at the pinnacle of Hogshead Law Hill and consists of a shaft and a small associated mound to the immediate west of the shaft. The dimensions of the area are 5m x 5m. The shaft hollow is 0.6m in depth and the mound itself is approximately 2m x 2m and 0.35m in height. The mound is roughly circular in plan. This shaft forms part of a group of completely earthfast mounds in the area.

Assessment: the site is within the study area.

Site number 13
Site name Hogshead Law Hill
NGR SD 8911 2213
Site type Shaft Mound
Period Post-medieval
Source Identification Survey 1998

Description

This site is defined as a shallow shaft hollow with no associated mound. The feature itself is well defined and is approximately 3m x 3m x 0.65m with a concave base.

Assessment: the site is within the study area.

Site number 14
Site name Hogshead Law Hill
NGR SD 8912 2216
Site type Shaft Mound
Period Post-medieval
Source Identification Survey 1998

Description

This site is 6m to the north of site 13. It is not as well defined and its elongated profile tends to indicate that one side has collapsed. There is no associated mound with this site. The dimensions of the hollow are 3m x 2m x 0.75m, with the longer side being oriented north/south. There are some medium sub-angular stones protruding from the concave base of this site.

Assessment: the site is within the study area.

Site number 15
Site name Hogshead Law Hill
NGR SD 8913 2218
Site type Shaft Mound
Period Post-medieval
Source Identification Survey 1998

Description

This site is very poorly defined and may in fact be an erosion scar, although it is closely associated with the previous sites in the area which are situated 8m to the west. The roughly circular shaft hollow is approximately 1.5m x 1.5m x 0.15m with small to medium sub-angular stones visible in the base. Although it is largely earthfast, there is a piece of stone defining one of the edges.

Assessment: the site is within the study area.

Site number 16
Site name Hogshead Law Hill
NGR SD 8911 2222
Site type Shaft Mound
Period Post-medieval
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

A possible shaft mound ring is approximately 5m x 5m x 0.3m in depth. The associated bank extends around the north and south sides becoming less well defined to the west. The shaft itself is 1.5m x 1.5m with no mound and a possible entranceway into it to the east. The mound stands to 0.6m in height and is well defined with a rounded profile. The site is completely earthfast.

Assessment: the site is within the study area.

Site number 17
Site name Hogshead Law Hill
NGR SD 8910 2226
Site type Bank
Period Post-medieval
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

This site comprises a bank that extends around the shaft mounds (**Sites 12-16**) located in this field. It stands to a height of 0.3m but is 3m in width. The top of the bank is rounded with no obvious ditches visible on either side. This feature appears to delimit the shaft mounds to the north travelling in a relatively straight line north-east/south-west overlooking, and appearing to connect to, other mine workings further down the slope (**Site 20**). From the position of this bank, there is some semblance of a vein that runs approximately north-west to south-east across the hill. It is possible that sites 12-16 are a series of airshafts, although the presence of the ring mound of Site 12 tends to indicate otherwise. The bank does not descend the steepest aspect of the slope, but takes the form of a hollow-way leading downhill. This may suggest that this site forms part of a tramway/trackway that connected the mine workings at the top of the hill with the associated mine workings (**Site 18**) at the base of the hill. This hollow-way terminates approximately 20m to the south of the Sites 12-16 grouping.

Assessment: the site is within the study area.

Site number 18
Site name Hogshead Law Hill
NGR SD 8904 2204
Site type Spring/ Natural?
Period Post-medieval?
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

This site appears to be of natural origin although it may have been artificially enhanced via the construction of a small earthfast bank. It is 0.20m in height and 0.35m wide, surrounding a natural depression, and is roughly semi-circular in plan. It is identified as a spring on the OS map and is distinguishable as a small length of clough approximately 25m long that flows into a natural pond located on a relatively flat area of ground.

Assessment: the site is within the study area.

Site number 19
Site name Gauther Fold
NGR SD 8887 2197
Site type Shaft Hollow
Period Post-medieval?
Source Identification Survey 1998

Description

Two adjacent shaft hollows located on an area of sloping ground to the south-west and below a natural spring (**Site 18**). The hollows are both well defined with depressions 0.85m in depth, sub-rectangular in plan and are possibly associated with the main Gauther Fold mine complex (**Site 20**). Whilst they may form the remains of air shafts, their position below a natural water feature would, assuming both features are contemporary, seem to indicate that they were constructed for the purposes of extraction.

Assessment: the site is within the study area.

Site number 20
Site name Gauther (or Gowther) Fold
NGR SD 8898 2196
SMR PRN 7559
Site type Mine Complex / Colliery shaft
Period Post-medieval?/Pre-1910
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

A complex area of mine workings located on a steeply sloping area of land to the west of Gauther Fold. The mine is centred around a level working platform 25m by 20m, roughly rectangular in plan, constructed via the cutting back of the natural slope, with a large spoil heap, 15m in height, assembled from a fine material, leading down the slope, southward, and serving to extend the working area.

The spoil heap would appear to have been subject to small scale recent disturbance, possibly a result of attempts to identify coal measures within the spoil. Within, and to the south of, the platform a large shaft hollow was identified, circular in plan and to a depth of 0.75m. A natural stream leading from the spring (**Site 18**) delimits the complex to the west and provides a direct association with the shaft mounds located on the summit of Hogshead Law Hill (**Sites 7-12**) suggesting that a significant vein, aligned south-west to north-east, has been subjected to extended extraction.

Within the complex is an 'Old shaft' (**Site 20a**) shown on the OS edition 1910 map, but not shown on the OS map edition of 1894, and apparently c30m south-west of the shaft shown on the OS map edition of 1849 (**Site 20b**). It is unclear as to which colliery both of these relate. Hogshead Colliery Half Yard or Little seam was abandoned 1858 and Higher and Lower Mountain seams were abandoned 1876, according to the Coal Authority, but it is worth noting that the OS map edition of 1849 shows two collieries called 'Hogshead Colliery', one at SD 8860 2211 (**Site 88**), and another of the same name at SD 8873 2185, c130m outside the development site boundary, to which this coal pit is more likely to be associated.

Site 20b is one of number of coal pits, possibly belonging to the Hogshead Colliery shown on the OS (1849) map and is also shown on the current sheet.

Assessment: this site lies within the development site boundary.

Site number 21
Site name Gauther Fold
NGR SD 8896 2201
Site type Building
Period Post-medieval
Source Identification Survey 1998

Description

A single-celled brick structure to the north of the main mine complex, at a similar level to the base of spoil heap (**Site 20**) located in steeply sloping pasture. It is constructed entirely from brick, is two courses thick, and is bonded in English Garden Wall with a lime-based mortar. It measures 2m by 3m with a possible entrance to the south. It is now in disrepair, with walls standing to 0.65m in height, and its function is uncertain.

Assessment: the site is within the study area

Site number 22
Site name Gauther Fold
NGR SD 8849 2274
Site type Building
Period Post-medieval
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

A single-celled stone building with a single entrance in the south-west corner. The fabric of this building consists of small to medium sub-angular stones with no evidence of any bonding material, although there is quoining on all corners of the structure. There is a large amount of loose material in the base of the building suggesting that the construction formerly stood to a reasonable height. All evidence of roofing material is lost, but it is possible that the structure originally had a tin roof in keeping with the style of building still in use throughout the region.

Assessment: the site is within the study area.

Site number 23
Site name Hoyle Hey Clough
NGR SD 8844 2282
Site type Trackway/Farmstead
Period Post-medieval /Pre-1849
Source Identification Survey 1998 / 1st edition OS map (1849)/ 2nd edition OS map (1911)

Description

A trackway lies alongside the current course of Hoyle Hey Clough and on the site of a documented building. This feature possibly obscures any trace of the documented structure. The farmstead is shown as just south of the trackway on the OS 1849 1st edition map. It measures c25 x 20m and is shown as disused on the OS 1849 map but is not shown on the OS 1930 or current edition maps.

Assessment: this site lies just within the development area boundary.

Site number 24
Site name Hoyle Hey Clough
NGR SD 8851 2286
Site type Tramway
Period Post-medieval / Modern
Source Identification Survey 1998 /1st edition OS map (1849)

Description

A possible tramway is shown on the OS first edition map (1849), consisting of a linear platform with a slight incline trackway alongside the current course of Hoyle Hey Clough. It is on the site of a documented building and has possibly obscured any trace of this structure.

Assessment: this site lies just within the development area boundary.

Site number 25
Site name Hoyle Hey Clough
NGR SD 8852 2295
Site type Mound
Period Post-medieval / Modern
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

A largely earthfast mound has medium sub-angular stone protruding from the surface and is sub-rectangular in plan. It measures 10m by 4m, stands to a height of 0.35m, and is aligned east to west. It may be the remains of a now destroyed structure.

Assessment: this site lies just within the development area boundary.

Site number 26
Site name Lower Reaps Farm
NGR SD 8853 2301 ac
Site type Colliery Level
Period Post-medieval /Pre-1930
Source Identification Survey 1998 / 3rd edition OS map of 1930

Description

An 'Old Level' is shown on the OS 1930 map, but not on the OS 1849 map or on the current edition. It is entirely earthfast and extends for 35m with steeply sloping sides, is 2.2m in depth and has a rounded profile.

Assessment: this site lies within the development area boundary.

Site number 27
Site name Lower Reaps Farm
NGR SD 8883 2327
Site type Structure
Period Post-medieval/Pre-1894
Source Identification Survey 1998 / 2nd edition OS map (1894)

Description

A small building is shown on the OS 1894 map; it was enlarged by 1930, and is existent on the current edition. It survives as a disused single-celled structure alongside the current footpath to the north of Reaps Moss. It is constructed from small to medium sub-angular stone with quoining at each corner, the south and east walls standing to a height of 2.4m. The building is square (4m by 4m) and would appear to have been disused for some time.

Assessment: this site lies within the development area boundary.

Site number 28
Site name Lower Reaps Farm
NGR SD 8893 2326
Site type Structure
Period Post-medieval /Pre-1930
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

A small building is shown on the OS 1930 map, is extant on the current edition, but not on the OS map editions of 1849 nor 1894. It survives as a single-celled structure alongside the current footpath to the north of Reaps Moss. It is constructed from small to medium sub-angular stone with quoining at each corner, and an entrance to the south; the walls stand to a height of 2.4m with a timber roof supporting stone slabs. The building is rectangular (8m by 6m) and is a field barn which is still in use at the time of survey.

Assessment: this site lies within the development area boundary.

Site number 29
Site name Higher Hogshead
NGR SD 8878 2238
SMR PRN 7559, 2109
Site type Tramway/Colliery; quarry
Period Post-medieval /Pre-1849
Source Identification Survey 1998 / 1st edition OS map 1849, 2nd edition OS map of 1911

Description

The Hogshead Colliery tramway, and a series of coal pits, is shown on the OS (1849) map. Hogshead Colliery (Site 88) Half Yard or Little seam was abandoned in 1858 and the Higher and Lower Mountain seams were abandoned in 1876, according to the Coal Authority. There is a trackway alongside the current course of Hoyle Hey Clough and on the site of a building shown on the OS 1st edition map; the trackway has possibly obscured any trace of this structure. At the north-eastern end of the tramway is a series of coal pits, which possibly belonged to the Hogshead Colliery. These are shown on the OS 1st edition (1849) map. This is one of seven shafts still seen on the current sheet. On the OS 1910 map, a quarry is shown around the site of the coal pit.

29c] is a 'Tunnel' shown on the OS 1910 map, but not on the OS 1849 or 1894 editions and may relate to a quarry adjacent to the trackway of Site 29. The earthwork continues approximately south-west, to the development site boundary.

Assessment: this site lies within the development area.

Site number 30
Site name Higher Hogshead
NGR SD 8850 2236 to 8860 2231 lin; and 8862 2230 ac
SMR PRN 7559
Site type Colliery
Period Post-medieval /Pre-1849
Source Identification Survey 1998 / 2nd edition OS map of 1911

Description

An extensive area of mine workings lies to the north of Higher Hogshead and is shown in detail on the OS 2nd edition map.

Surface evidence: whilst there is no obvious shaft within this area, three large spoil heaps, each 20m by 30m, extend downslope suggesting that material was extracted locally, possibly at shaft 30a. A probable tramway, aligned east /west, extends for 15m to the west of the area and it would appear that coal was exported from the workings in that direction. A small stream was identified to the south and adjacent to these workings which would appear to follow an artificial course along the line of a tunnel marked on the OS 2nd edition map; this may have been formed as a result of this tunnel. Several coal pits, possibly belonging to Hogshead Colliery, are shown on the OS (1849) map. This is one of seven shafts still seen on the current sheet. Hogshead Colliery Half Yard or Little seam was abandoned 1858 and Higher and Lower Mountain seams were abandoned in 1876, according to the Coal Authority. There are four distinct sites documented: 30a-d.

30a] Several pits, possibly belonging to the Hogshead Colliery, are shown on the OS (1849) map.

30b] A group of field boundaries lie to the north-west and south-east of Hogshead Colliery tramway.

30c] A 'coal pit' is shown south-east of Hogshead Colliery tramway, and at the north end of field boundaries (**20b**) on the OS 1849 map.

30d] A small building is shown at the north-east end of Hogshead Colliery tramway on MS map LRO DDX 118/159/1, dated 1851.

Assessment: this site lies on the development site boundary, but the extent of underground workings is unknown.

Site number 31
Site name Parrock Colliery
NGR SD 8827 2398
Site type Documentary/Colliery
Period Post-medieval/Pre-1914
Source OS map edition of 1930

Description

A small colliery 60m south-east of Blue Ball Colliery is shown as disused on the OS 1930 map. The Coal Authority list says 'Forty Yards or Upper Mountain' seam was abandoned in 1914.

Assessment: this site lies c200m outside the boundary of area of the proposed development, but the extent of the underground workings is unknown.

Site number 32
Site name Parrock Farm
NGR SD 8844 2387 ac
Site type Documentary/Roofed building: farmstead
Period Post-medieval?/Pre-1849
Source OS map edition of 1849

Description

A farmstead is shown on the OS 1849 and on current edition maps, but is now somewhat smaller than shown. The well is shown on the OS 1849 map is **Site 36**.

Assessment: the building lies outside the boundary of the development site.

Site number 33
Site name Tooter Hill
NGR SD 8887 2364
Site type Documentary/Quarry
Period Post-medieval/Pre-1894
Source OS map edition of 1849

Description

An earthwork, around 30m x 20m, is shown on the OS 1894 map as 'old quarry', but not on the OS map edition of 1849 or any of the current editions. It is one of five quarries or possible quarries on Tooter Hill on the OS 1930 map (**Sites 33, 36, 39 and 40-41**).

Assessment: this site lies outside the development area.

Site number 34
Site name Parrock Farm
NGR SD 8841 2387
SMR PRN 7529
Site type Documentary/Well
Period Post medieval/Pre-1849
Source 1st edition OS map of 1849

Description

This site is identified as a well on the OS first edition map, but is shown on the current sheet as ‘springs’.

Assessment: this site lies outside the development area.

Site number 35
Site name Tooter Hill/Parrock Farm
NGR SD 8859 2384
Site type Documentary/Spring
Period Post-medieval/Pre-1930
Source OS map edition of 1930

Description

A spring is shown on the OS 1930 map, but it does not appear on the earlier OS 1894 map.

Assessment: this site lies outside the development area.

Site number 36
Site name Tooter Hill
NGR SD 8871 2383
Site type Documentary/Quarry?; Colliery shaft?
Period Post-medieval/Pre-1930
Source OS map edition of 1930

Description

An earthwork is shown on the OS 1930 map although it is not indicated whether it is a quarry or colliery shaft.

Assessment: this site lies outside the development area.

Site number 37
Site name Parrock Farm
NGR SD 8852 2376 ac
Site type Documentary/Field boundary
Period Post-medieval/Pre-1849
Source OS map 1st edition of 1849

Description

Three field boundaries are shown on the OS 1849 map, but not on the current edition. The southern and eastern boundaries were not shown on the OS 1930 map.

Assessment: this site lies outside the development area.

Site number 38
Site name Parrock Farm (near)
NGR SD 8845 2365
Site type Documentary/Pond
Period Post-medieval/Pre-1930
Source OS map edition of 1930

Description

A large (30 x 20m) pond is shown on the OS map edition of 1930, but it does not appear on the earlier OS map editions of 1849 or 1894, or the current edition.

Assessment: this site lies outside the development area.

Site number 39
Site name Tooter Hill

NGR SD 8872 2370
Site type Documentary/Quarry
Period Post-medieval/Pre-1894
Source OS map 1st edition of 1894

Description

An earthwork (c 40m diameter) is shown on the OS 1894 map as an 'old quarry', but not on the earlier OS 1849 edition nor any of the subsequent editions. It is one of five quarries or possible quarries on Tooter Hill on the OS 1930 map (**Sites 33, 36, 39 and 40-41**).

Assessment: this site lies outside the development area.

Site number 40
Site name Tooter Hill
NGR SD 8888 2375
Site type Documentary/Quarry?
Period Post-medieval/Pre-1930
Source OS map edition of 1930

Description

An earthwork, c20m diameter, is not described, but shown on the OS 1930 map but not on earlier or current editions. It was probably a quarry, one of five such features on the OS 1930 map (**Sites 33, 36, 39 and 40-41**).

Assessment: this site lies outside the development area.

Site number 41
Site name Tooter Hill
NGR SD 8889 2372
Site type Documentary/Quarry?
Period Post-medieval/Pre-1930
Source OS map edition of 1930

Description

An earthwork, c20 x 15m (not described), is shown on the OS 1930 map, but not on earlier or current editions. It was probably a quarry, and one of five such features on the OS 1930 map (**Sites 33, 36, 39 and 40-41**).

Assessment: this site lies outside the development area.

Site number 42
Site name Tooter Hill Ed (field name)
NGR SD 8854 2351
Site type Documentary/Quarry?; colliery level
Period Post-medieval/Pre-1930
Source OS map edition of 1930

Description

A T-shaped earthwork (c 30m x 20m) is shown on the OS 1930 map, but not described. It does not appear on the OS 1849 map nor any of the current editions.

Assessment: this site lies outside the development area.

Site number 43
Site name High Houses
NGR SD 8822 2349
Site type Documentary/Colliery level
Period Post-medieval/Pre-1930
Source OS map edition of 1930

Description

An 'Old level' is shown on the OS map of 1930, but not on the earlier editions nor the current edition. The Coal Authority do not list a colliery at High Houses, so it may be part of the New Barn Colliery (SD 8812 2365) c150m to the north-west. New Barn Colliery was abandoned in 1920.

Assessment: this site lies c180m outside the boundary of area of the proposed development, but the extent of the underground workings is unknown.

Site number 44
Site name High Houses Farm or Pasture Bottom Farm
NGR SD 8844 2336 ac
Site type Documentary/Field boundary
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A field boundary is shown on the OS map edition of 1849, but not on the OS map of 1894 nor any of the later editions.

Assessment: this site touches the development area boundary.

Site number 45
Site type Documentary/Colliery
Site name Lower Reaps
NGR SD 8863 2327
SMR PRN 7544
Period Post medieval/Pre-1849
Source OS map edition of 1849

Description

One of two coal pits (the other is **Site 47**) is shown on the OS (1849) map, but it does not appear on the current sheet. The easternmost pit site is represented by a hollow at a junction of tracks. The pits may be associated with the Oaken Clough Colliery, some 500m to the west (LSMR PRN 7543).

Assessment: the site is within the study area.

Site number 46
Site type Documentary/Field boundary
Site name Higher Reaps
NGR SD 8871 2319
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A large farmhouse with associated yard and outbuildings, cover an area of c20 x 20m. This site is shown on the OS map of 1849, but does not appear on the OS map of 1894 nor any of the later editions. There was no evidence of the site from the identification survey.

Assessment: this site lies within the development area boundary.

Site number 47
Site type Documentary/Colliery
Site name Lower Reaps
NGR SD 8852 2321
SMR PRN 7544
Period Post medieval/Pre-1849
Source Identification survey / OS map edition of 1849

Description

One of two coal pits (the other is **Site 45**) is shown on the OS (1849) map, but not on the current sheet. The easternmost pit is represented by a hollow at a junction of tracks. The pits may be associated with the Oaken Clough Colliery located some 500m to the west (LSMR PRN 7543).

Assessment: this site lies within the development area boundary.

Site number 48
Site name Lower Reaps Farm and Colliery
NGR SD 8850 2313 ac
Site type Documentary/Farm, formerly colliery
Period Post-medieval/Pre-1930

Source OS map edition of 1849

Description

A farmhouse is shown on the OS map of 1849 (slightly larger than now) and on the current edition. An 'Old level' at SD 8853 2315 is shown on the OS 1930 map, but not on the OS 1849 or 1894 maps. It is uncertain as to which colliery this relates, but the Coal Authority states that Reaps Colliery was abandoned in 1923.

Assessment: this site lies just within the development area boundary.

Site number 49

Site name Tooter Hill

NGR SD 8900 2395

Site type Documentary/Colliery shaft

Period Post-medieval/Pre-1894

Source OS map edition of 1894

Description

A shaft is shown on the OS map of 1894, but not on the OS map of 1849. This site does not appear on the current edition.

Assessment: this site lies outside the development area.

Site number 50

Site name Tooter Hill

NGR SD 8914 2388

Site type Documentary/Boundary stone

Period Post-medieval/Pre-1849

Source OS map editions of 1849 and 1911

Description

A boundary stone is shown on the OS maps of 1849, 1911, and on the current edition.

Assessment: this site lies within the development area.

Site number 51

Site name South Graine Colliery (part)

NGR SD 8936 2383

Site type Documentary/Colliery shaft; quarry

Period Post-medieval/Pre-1849

Source OS map edition of 1849

Description

A coal pit is shown on the OS map of 1849. This site is probably part of South Graine Colliery (see also **Site 56**), although it is not shown on the current edition OS map. The Coal Authority list states that the Clough Head Colliery (**Site 55**) c140m to the south-west was abandoned in 1880, but South Graine is not listed. The site is on the edge of, and possibly destroyed by, a large quarry (disused) shown on the current OS map.

Assessment: this site is outside the development area.

Site number 52

Site name Tooter Hill

NGR SD 8916 2376

Site type Documentary/Boundary stone

Period Post-medieval/Pre-1849

Source OS map editions 1849 and 1911

Description

A boundary stone (not described), is shown on the OS maps of 1849, 1911, and on the current edition.

Assessment: this site lies on the development site boundary.

Site number 53

Site name South Graine (near); Limers Gate (road)
NGR SD 8926 2365 ac
Site type Documentary/Boundary stone
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

Two boundary stones are shown c20m off one another on the OS 1849 map. Neither are shown on the OS map of 1894 or any of the later editions.

Assessment: this site lies within the development area.

Site number 54
Site name South Graine Colliery or Clough Head Colliery (part)
NGR SD 8924 2370 ac
Site type Documentary/Colliery shaft
Period Post-medieval/Pre-1849?
Source Identification survey / OS map edition of 1849

Description

A coal pit is shown on the OS map of 1849 and 'day hole' (i.e. adit) on the OS map of 1894. It is probably part of either Clough Head Colliery or South Graine Colliery (see also **Sites 51 and 56**). This site is not shown on the current edition map. The Coal Authority list states that the Clough Head Colliery was abandoned in 1880, but South Graine is not listed. It probably predates 1855.

Assessment: this site lies within the development area.

Site number 55
Site name Clough Head Colliery
NGR SD 8928 2372
Site type Documentary/Colliery shaft
Period Post-medieval/Pre-1894
Source Identification Survey 1998/OS map edition of 1894

Description

Clough Head Colliery (see also **Sites 51 and 54**) is shown on the OS map of 1894, but not on the OS map of 1849 nor the current edition. The Coal Authority list states that the Clough Head Colliery 'Half Yard' seam was abandoned in 1880, and 'Upper Mountain' seam was abandoned in 1938.

Located to the west of the tramway cutting of the north-east slope, it is just at the start of the northern dip slope. The shaft forms a low depression c.4m diameter, slightly ovalar (N-S). It appears to be in association with what is now a 'pond' like basin to the north-east which has been dammed by the later tramway (**Site 113**).

Assessment: this site lies within the development area.

Site number 56
Site name South Graine Colliery or Clough Head Colliery (part)
NGR SD 8915 2362
Site type Documentary/Colliery shaft
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A coal pit is shown on the OS map of 1849. This site is probably part of either Clough Head or South Graine Collieries (see also **Sites 51, 54 and 55**). It does not appear on the OS 1909-30 maps nor the current edition. According to the Coal Authority list, the Clough Head Colliery was abandoned in 1880, but South Graine was not listed; it probably predates 1855.

Assessment: this site lies outside the development area.

Site number 57
Site name Tooter Hill
NGR SD 8903 2348
Site type Documentary/Quarry; pond

Period Post-medieval/Pre-1894
Source OS map edition of 1894 and 1930

Description

A pond and quarry are shown on the OS maps of 1894 and 1930, but not on the OS map of 1849 nor the current edition.

Assessment: this site lies outside the development area boundary.

Site number 58
Site name Tooter Hill
NGR SD 8895 2344
Site type Documentary/Quarry?
Period Post-medieval/Pre-1930
Source OS map edition of 1930

Description

An earthwork is shown but not described on the OS map of 1930, but not on the OS map of 1849 or 1894, or on the current edition. It is probable that this site is a disused quarry.

Assessment: this site lies outside the development area boundary.

Site number 59
Site name Tooter Hill
NGR SD 8931 2358
Site type Documentary/Boundary stone
Period Post-medieval/Pre-1849
Source OS map editions of 1849 and 1911

Description

A boundary stone (not described) is shown on the OS maps of 1849, 1911, and the current edition.

Assessment: this site lies on the development site boundary.

Site number 60
Site name Reaps Moss
NGR SD 8937 2349
Site type Documentary/Boundary stone
Period Post-medieval/Pre-1849
Source Identification survey / OS map editions of 1849 and 1911

Description

A boundary stone is shown on the OS maps of 1849, 1911 and on the current edition.

Assessment: this site lies on the development site boundary.

Site number 61
Site name Reaps Moss
NGR SD 8938 2333
Site type Documentary/Boundary stone
Period Post-medieval/Pre-1849
Source Identification survey / OS map editions of 1849 and 1911

Description

A boundary stone is shown on the OS maps of 1849, 1911, and on the current edition.

Assessment: this site lies on the development site boundary.

Site number 62
Site name Reaps Moss
NGR SD 8939 2319
Site type Documentary/Boundary stone
Period Post-medieval/Pre-1849
Source Identification survey / OS map editions of 1849 and 1911

Description

A boundary stone is shown on the OS maps of 1849, 1911, and on the current edition.

Assessment: this site lies on the development site boundary.

Site number 63
Site name Hoyle Hey Clough
NGR SD 8850 2293 ac
Site type Documentary/Field boundary
Period Post-medieval/Pre-1849
Source Identification survey / OS map edition of 1849

Description

A field boundary is shown on the OS map of 1849, but not on the OS map of 1894 nor on the current edition.

Assessment: this site touches the development area boundary.

Site number 64
Site name Hoyle Hey Clough tram-road (?Hoyle Hey or Reaps Moss Colliery)
NGR SD 879 2290 to 8866 2280 lin
Site type Documentary/Colliery tram-road
Period Post-medieval/Pre-1849
Source Identification survey / OS map edition of 1849

Description

A c900m long tramway is shown on the OS map of 1849. The west end begins c80m north-east of Hoyle Hey Colliery beside the coal pit (**Site 66**) on the edge of Reaps Moss. It is unclear as to which colliery this belongs. Reaps Moss Colliery (Little, Yard, and Mountain seams) was abandoned in 1862 then continued or re-opened and the Upper Mountain seam was abandoned in 1903, according to the Coal Authority. Hoyle Hey Colliery is not listed by the Coal Authority, probably indicating that it was abandoned before c1855. The tramway is only a very decayed linear earthwork, with a flat topped surface, and is discontinuous and ill-defined.

Assessment: approximately 250m of the tram-road site lies within the development area boundary.

Site number 65
Site name Hoyle Hey Clough; ?Hoyle Hey or Reaps Moss Colliery
NGR SD 8855 2282 ac
Site type Documentary/Colliery buildings
Period Post-medieval/Pre-1849

Description

At least two buildings are shown on the OS map of 1849, associated with the tram-road (**Site 64**) and coal pit (**Site 66**). It is unclear as to which colliery these belong although Reaps Moss Colliery (Little, Yard, and Mountain seams) was abandoned in 1862, continued or re-opened and the Upper Mountain seam was abandoned 1903. As Hoyle Hey Colliery is not listed by Coal Authority, it probably indicates that it was abandoned before c1855.

Assessment: this site lies within the development area boundary.

Site number 66
Site name Hoyle Hey Clough; ?Hoyle Hey or Reaps Moss Colliery)
NGR SD 8866 2280
Site type Documentary/Colliery shaft
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A coal pit is shown on the OS map of 1849. The tram-road (**Site 64**) ends beside this pit, on the edge of Reaps Moss. It is unclear as to which colliery this belongs. Hoyle Hey Colliery is not listed by the Coal Authority, probably indicating that it was abandoned before c1855.

Assessment: this site lies within the development area boundary.

Site number 67
Site name Old Hey; Hoyle Hey Clough
NGR SD 8849 2270 ac
Site type Documentary/Field boundary
Period Post-medieval/Pre-1849
Source Identification survey / OS map edition of 1849

Description

A dog-legging field boundary is shown on the OS map of 1849, although this appears straightened on the current edition. The boundary survives as a dry-stone wall, which is decayed in places.

Assessment: this site lies within the development area boundary.

Site number 68
Site name Hoyle Hey Clough/Reaps Moss
NGR SD 8867 2257 to 8873 2275 lin
Site type Documentary/Field boundary
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A field boundary is shown on the OS map of 1849, but not on the current edition.

Assessment: this site lies within the development area boundary.

Site number 69
Site name Hoyle Hey Top
NGR SD 8837 2256
Site type Documentary/Farmstead
Period Post-medieval/Pre-1849
Source OS map editions of 1849 and 1894

Description

A farmstead called Hoyle Hey Top is shown on the OS maps of 1849 and 1894. It is shown as disused and called Hoyle Hey on the OS map of 1930.

Assessment: it is just outside the study area.

Site number 70
Site name Dry Corner Farm
NGR SD 8849 2260 ac
Site type Documentary/Field boundary
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A field boundary is shown on the OS map of 1849, but it does not appear on the current edition.

Assessment: this site lies within the development area.

Site number 71
Site name Dry Corner Farm
NGR SD 8853 2256
Site type Documentary/Colliery shaft
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A coal pit is shown on the OS map of 1849 but not on any later editions. It is unclear as to which colliery this belongs, although Reaps Moss Colliery (Little, Yard, and Mountain seams) was abandoned in 1862, then continued or re-opened and the Upper Mountain seam was abandoned in 1903. Neither Hoyle Hey Colliery (on

the OS map of 1849) nor Dry Corner Farm Colliery are listed. Hogshead Colliery Half Yard or Little Seam was abandoned in 1858 and Higher and Lower Mountain seams were abandoned in 1876.

Assessment: the site lies within the development area boundary.

Site number 72
Site name Dry Corner Farm, Highmost Field
NGR SD 8876 2256
Site type Documentary/Colliery entry; ?colliery tramway
Period Post-medieval/Pre-1849
Source Identification survey / OS map edition of 1849

Description

'Enters' is shown on the OS map of 1849, but not on the later editions. The earthwork between this point and Dry Corner Farm (shown on the OS map of 1930), is possibly a colliery feature, rather than a field boundary. Although it is unclear as to which colliery these belong. Reaps Moss Colliery (Little, Yard, and Mountain seams) was abandoned in 1862, but was continued or re-opened and Upper Mountain seam was abandoned in 1903, according to the Coal Authority. Neither Hoyle Hey (on the OS map of 1849) nor Dry Corner Farm Collieries are listed, therefore this probably indicates that they were abandoned before c1855. Hogshead Colliery Half Yard or Little seam was abandoned in 1858 and Higher and Lower Mountain seams were abandoned 1876. The site survives as a farm track, with little indication of substantial earthworks.

Assessment: this site lies within the development area boundary.

Site number 73
Site name Dry Corner Farm, Highmost Field
NGR SD 8876 2256
Site type Documentary/Boundary stone
Period Post-medieval/Pre-1930
Source Identification survey / OS map edition of 1930

Description

A boundary stone is shown on the OS map of 1930 and the current edition, but not on the OS map of 1849. The boundary in 1930 is between Tong Ward of Brandwood and Royton Division of Whitworth Urban. A boundary stone was identified here during the identification survey.

Assessment: this site lies within the development area.

Site number 74
Site name Reaps Moss
NGR SD 8940 2312
Site type Documentary/Boundary stone
Period Post-medieval/Pre-1849
Source Identification survey / OS map editions of 1849 and 1930

Description

A boundary stone is shown on the OS maps of 1849, 1911, and the current edition. A boundary stone was identified here during the identification survey.

Assessment: the site lies on the development site boundary.

Site number 75
Site name Hogshead Law Hill; New Ground/Highmost Field (field names)
NGR SD 8885 2240 to 8899 2243 lin
Site type Documentary/Field boundary
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A field boundary is shown on the OS map of 1849 map, but not on later editions. It is c60m north-east of a coal pit/quarry (Site 29).

Assessment: this site lies within the development area.

Site number 76
Site name Hogshead Law Hill; New Ground (field name)
NGR SD 8874 2214 to 8903 2238 lin
Site type Documentary/Road
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A track is shown on the OS map of 1849 map, leading from near Coal Pit Field (building, to near the summit of Hogshead Law Hill.

Assessment: this site lies within the development area.

Site number 77
Site name Higher Hogshead
NGR SD 8839 2228
Site type Documentary/Colliery
Period Post medieval/Pre-1849
Source OS map of map edition of 1849

Description

A number of coal pits, possibly belonging to the Hogshead Colliery, are shown on the OS map of 1849. This is one of seven shafts still seen on the current sheet. Hogshead Colliery Half Yard or Little seam were abandoned in 1858 and Higher and Lower Mountain seams were abandoned in 1876, according to the Coal Authority.

Assessment: this site lies c50m outside the development site boundary, but the extent of underground workings is unknown.

Site number 78
Site name Reaps Moss
NGR SD 8939 2304
Site type Documentary/Boundary stone
Period Post-medieval/Pre-1849
Source Identification survey / OS map editions of 1849 and 1911

Description

A boundary stone is shown on the OS maps of 1849, 1911, and the current edition. A boundary stone was identified here during the identification survey.

Assessment: it is on the development site boundary.

Site number 79
Site name Reaps Moss
NGR SD 8937 2300 ac
Site type Documentary/Pond; quarry?
Period Post-medieval/Pre-1849
Source Identification survey / OS map edition of 1849

Description

A group of ponds was probably formerly a quarry; it is shown on the OS maps of 1849, 1894, 1930, and partly on the current edition.

Assessment: this site lies on the development area boundary.

Site number 80
Site name Reaps Moss
NGR SD 8939 2293
Site type Documentary/Boundary stone
Period Post-medieval/Pre-1849

Source Identification survey / OS map editions of 1849 and 1911

Description

A boundary stone is shown on the OS map of 1849, 1911, and the current edition. A boundary stone was identified here during the identification survey.

Assessment: it lies on the development site boundary.

Site number 81

Site name Reaps Moss

NGR SD 8938 2275

Site type Documentary/Boundary stone

Period Post-medieval/Pre-1849

Source Identification survey / OS map editions of 1849 and 1911

Description

A boundary stone is shown on the OS maps of 1849, 1911, and the current edition. A boundary stone was identified here during the identification survey.

Assessment: it lies on the development site boundary.

Site number 82

Site name Reaps Moss

NGR SD 8937 2264

Site type Documentary/Boundary stone

Period Post-medieval/Pre-1849

Source Identification survey / OS map editions of 1849 and 1911

Description

A boundary stone is shown on the OS maps of 1849, 1911, and the current edition. A boundary stone was identified here during the identification survey.

Assessment: it lies on the development site boundary.

Site number 83

Site name Hoyle Hey Clough/Reaps Moss

NGR SD 8895 2273 ac

Site type Documentary/Quarry

Period Post-medieval/Pre-1849

Source OS map edition of 1849

Description

A sandstone quarry is shown on the OS map of 1849; it is 'old', but much larger at c90m diameter on the OS map of 1894. It is not shown on the current edition.

Assessment: this site lies within the development area.

Site number 84

Site name Inchfield, ?part of Shackleton Colliery

NGR SD 8976 2238

Site type Documentary/Colliery air shaft

Period Post-medieval/Pre-1910

Source OS map edition of 1910

Description

An 'old air shaft' is shown on the OS map of 1910 and as a 'shaft' on the current edition. The 1894 edition was not available, but it is not shown on the OS map of 1849. It may be associated with Shackleton Colliery (see also **Site 99**). According to the Coal Authority, the Forty Yards seam was abandoned there in 1898, the Lower Mountain seam was abandoned in 1904.

Assessment: the site lies c160m outside the boundary of the proposed development area, but the extent of underground workings is unknown.

Site number 85
Site name Limers Gate (path), Hogshead Law Hill
NGR SD 8964 2225 ac
Site type Documentary/Pond, quarry?
Period Post-medieval/Pre-1910
Source Identification survey / OS map edition of 1910

Description

A large irregular pond, c50m diameter, has a larger earthwork to south; it is shown on the OS map of 1910 and on the current edition, but not on the OS 1849 and 1894 maps.

Assessment: the site lies on the boundary of the proposed development area.

Site number 86
Site name Hogshead Colliery
NGR SD 8853 2214
Site type Documentary/Hydraulic ram
Period Post-medieval/Pre-1910
Source OS map edition of 1910

Description

A 'hydraulic ram' is shown on the OS 1910 map, but not on the OS map of 1849 or later editions, to the south-east of the tram-road. Hogshead Colliery (**Site 88**) Half Yard or Little seam was abandoned in 1858 and Higher and Lower Mountain seams were abandoned in 1876, according to the Coal Authority. This may therefore relate to a quarry at the site of coal pit **Site 29**, rather than to the colliery.

Assessment: this site lies c20m outside the development area boundary.

Site number 87
Site name Lower Hogshead/Moor View
NGR SD 8840 2210
SMR PRN 7559
Site type Documentary/Colliery
Period Post medieval/Pre-1849
Source OS map edition of 1849

Description

A number of coal pits, possibly belonging to the Hogshead Colliery (**Site 88**), are shown on the OS (1849) map. This is one of seven shafts still seen on the current sheet. This pit lies adjacent to Moor View (name on the OS map of 1910 and current edition), and was previously (the OS map of 1849 and 1894) called Lower Hogshead. Hogshead Colliery Half Yard or Little seam was abandoned in 1858 and Higher and Lower Mountain seams were abandoned in 1876, according to the Coal Authority.

Assessment: this site lies c120m outside the development site boundary, but the extent of underground workings is unknown.

Site number 88
Site name Hogshead Colliery
NGR SD 8860 2211 ac
SMR PRN 7558; NMR UId 45231
Site type Documentary/Colliery shaft
Period Post-medieval/Pre-1849
Source Identification survey / OS map edition of 1849

Description

A colliery is shown on the OS (1849) map. The earthwork of the tram-road (PRN 2106) can be followed from the colliery site south-west to Rochdale Road, with a bridge over Tong Lane. Coal Pit Field (**Site 89**) is presumably a farmstead or workers' terrace. Several shafts and 'coal pits' are shown on the adjacent lands (see **Sites 20, 29, 77, 87 94 and 96**). Hogshead Colliery Half Yard or Little seam was abandoned in 1858 and Higher and Lower Mountain seams were abandoned in 1876, according to the Coal Authority. The building called Higher Hogshead on the OS 1910 map was as now. Lower Hogshead (the OS map of 1849 and 1894) is now called Moor View (**Site 87**). Note that the OS map of 1849 shows two collieries called 'Hogshead Colliery', **Site 88** at SD 8860 2211, and another of the same name at SD 8873 2185, c130m outside the development site boundary.

Assessment: this site lies on the boundary of the development area, but the extent of underground workings is unknown without reference to the Coal Authority plans.

Site number 89
Site name Coal Pit Field, near Hogshead Colliery, Higher Hogshead
NGR SD 8869 2204
SMR PRN 7558
Site type Documentary/Colliery
Period Post medieval/Pre-1849
Source Identification survey 1998 / OS map edition of 1849

Description

This is presumably a farmstead or workers' terrace, associated with Hogshead Colliery and 'coal pits' (**Sites 20, 77, 87, and 96**).

Assessment: this site lies on the boundary of the development area.

Site number 90
Site name Hogshead Colliery; Coal Pit Field (building name)
NGR SD 8868 2204
Site type Documentary/Colliery shaft
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A 'coal pit' is shown on the OS 1849 map, but not on later editions, south of Coal Pit Field (**Site 89**). Hogshead Colliery (**Site 88**) Half Yard or Little seam were abandoned in 1858 and Higher and Lower Mountain seams were abandoned in 1876, according to the Coal Authority.

Assessment: this site lies c10m outside the development area boundary, but the extent of underground workings is unknown.

Site number 91
Site name Hogshead Colliery; House Field (field name)
NGR SD 8872 2200
Site type Documentary/Well
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A well is shown on the OS 1849 map, but not on later editions. It is c50m south-east of a Coal Pit Field (**Site 89**).

Assessment: this site lies within the development area boundary.

Site number 92
Site name Hogshead Law Hill; New Ground/Highmost Field (field names)
NGR SD 8868 2191 to 8884 2195 lin
Site type Documentary/Field boundary
Period Post-medieval/Pre-1849
Source OS map edition of 1849

Description

A field boundary is shown on the OS 1849 map, but not on later editions. It is c60m north-east of a coal pit/quarry (**Site 29**).

Assessment: this site lies outside the development area boundary.

Site number 93
Site name Tooter Hill
NGR SD 888 237 ac
SMR PRN 216; NMR UId 45223
Site type Finds/Stone: flint adze
Period Prehistoric/Bronze age

Source Jackson 1928, 90-1 and photo; 1935, 75; Barnes 1982, 109, no.182

Description

A partially polished flint adze was found in c1927. "A remarkably fine flint adze was found, on Tooter Hill ... by Mr R Ratcliff. The adze is nearly 7ins long, the butt about 1.5ins wide, and the implement narrows somewhat towards the middle and then expands to a sharp and finely polished cutting edge about 2.25ins wide. The polishing extends right across the cutting edge and for a little distance along each face. The remaining surface on both faces is chipped, and there is a pronounced median ridge running longitudinally down one face. The maximum thickness through the ridge is 3.25ins".

Assessment: the find is outside the study area.

Site number 94

Site name Higher Hogshead

NGR SD 8866 2208

SMR PRN 7559

Site type Documentary/Colliery

Period Post medieval/Pre-1849

Source Identification Survey 1998 / OS map edition of 1849

Description

A number of coal pits, possibly belonging to the Hogshead Colliery, are shown on the OS (1849) map. This is one of seven shafts still seen on the current sheet. Hogshead Colliery Half Yard or Little seam was abandoned in 1858 and Higher and Lower Mountain seams were abandoned in 1876, according to the Coal Authority.

Assessment: this site lies on the development site boundary, but the extent of underground workings is unknown.

Site number 95

Site name Hogshead Law Hill

NGR SD 8904 2207

Site type Documentary/Quarry

Period Post-medieval/Pre-1849

Source OS map edition of 1849

Description

A 'sandstone quarry' c10m in diameter is shown on the OS map of 1849, but not on the OS map of 1894 or 1909.

Assessment: the site lies within the boundary of the proposed development area.

Site number 96

Site name Green Brow

NGR LSMR give SD 8911 2190 [should read 8911 2188]

SMR PRN 7559

Site type Documentary/Colliery

Period Post medieval/Pre-1849

Source OS map edition of 1849

Description

A number of coal pits, possibly belonging to the Hogshead Colliery (**Site 88**), are shown on the OS (1849) map. This is one of seven shafts still seen on the current sheet. Hogshead Colliery Half Yard or Little seam was abandoned in 1858 and the Higher and Lower Mountain seams were abandoned in 1876, according to the Coal Authority. Note that the OS map of 1849 shows two collieries called 'Hogshead Colliery', **Site 88** at SD 8860 2211, and another of the same name at SD 8873 2185, c130m outside the development site boundary, to which this coal pit is more likely to be associated, or perhaps with Shackleton Colliery (Forty Yards seam was abandoned 1898, Lower Mountain seam in 1904).

Assessment: this site lies within the development site boundary.

Site number 97

Site name Green Brow/Law Clough, Hogshead Law Hill

NGR SD 8930 2190 to 8938 2192 and 8940 2178 to 8942 2192

Site type Documentary/Field boundary

Period Post-medieval/Pre-1849

Source OS map edition of 1849

Description

Two field boundaries are shown on the OS map of 1849. The north/south boundary was still shown in 1910, and the east/west boundary is represented by a track at that date. Neither is shown on the current 1:10,000 sheet.

Assessment: the east/west boundary abuts the development site boundary, the north-south boundary is a minimum of 50m from it.

Site number 98

Site name Law Clough/Shackleton, Hogshead Law Hill

NGR SD 8957 2209 to 8970 2205

Site type Documentary/Field boundary

Period Post-medieval/Pre-1910

Source OS map edition of 1910

Description

A field boundary is shown on the OS map of 1910, but not on the OS maps of 1849, 1894, or current editions.

Assessment: the site lies within the boundary of the proposed development area.

Site number 99

Site name Shackleton Colliery

NGR SD 8976 2194

Site type Documentary/Colliery

Period Post-medieval/Pre-1894

Source OS map edition of 1894

Description

An 'old level' (i.e. adit) is shown on the OS map of 1894, and on the OS map of 1910, but not shown on the OS map of 1849 or the current edition. It was probably part of Shackleton Colliery (see also **Site 84**). According to the Coal Authority, the Forty Yards seam was abandoned there in 1898, and the Lower Mountain seam was abandoned in 1904.

Assessment: the site lies c60m outside the boundary of the proposed development area, but the extent of underground workings is unknown.

Site number 100

Site name Reaps Moss

NGR SD 89543 22977

Site type Spoil heap/ Shaft ?

Period Post-medieval/Modern

Source Identification survey 1998

Description

This is a twin-lobed spoil heap oriented east/west located to the east of the tramway (113). It is 30m (east/west) x 20m wide and is 1.75m high. The spoil heap is largely covered in turf with small exposures of shale and the larger heap to the south forms a flat promontory to the east. The top and bottom breaks of slope are rounded and covered in short grass contrasting with the coarser and longer moorland grasses. There was no evidence for an associated shaft, which may be obscured by the spoil.

Assessment: the site is within the study area.

Site number 101

Site name Reaps Moss

NGR SD 89482 23125

Site type Quarry

Period Post-medieval/Modern

Source Identification survey 1998

Description

An east/west oriented 'cutting' which abuts the tramway (113) to the east. It is c30m (east/west) x c15m wide and is c4m high. It is covered in turf with one steep side with a marked break of slope at the base which is denoted by reeds.

Assessment: the site is within the study area.

Site number 102
Site name Reaps Moss
NGR SD 89495 23145
Site type Quarry
Period Post-medieval/Modern
Source Identification survey 1998

Description

An east/west oriented 'cutting' which abuts the tramway (113) to the west. It is located to the north of 101 and is parallel to it. It is c20m (east/west) x c10m wide and is c3m high. It is grass covered and has a steep side with a marked break of slope at the base which is denoted by reeds.

Site number 103
Site name Reaps Moss
NGR SD 89491 23121
Site type Viaduct
Period Post-medieval/Modern
Source Identification survey 1998

Description

A viaduct is located beneath tramway 113, with a continuous graded slope to the east. It is now largely grass covered but to the west is a sharp break of slope which has truncated it. The primary stratigraphic phase is of sub-angular /rounded coarse sandstone blocks, up to 400mm across; this shows no coursing. Drainage through the structure appears to be facilitated by the coarse stone layer, and no pipes or ducts were visible. On top of the stones is a spread of finer material comprising broken bricks, pipes and coarse furnace slag. The next layer is much finer dark slag material and would be ideal to support the block paving of bricks (113) of the tramway.

Assessment: the site is within the study area.

Site number 104
Site name Reaps Moss
NGR SD 89507 23213
Site type Air shaft
Period Post-medieval/Pre-1849
Source OS map edition of 1849/Identification survey 1998

Description

An air shaft has been cut into the east-facing slope to the west of 'Maden Pasture'. It is c15m in diameter with a low turf covered crescent-shaped spoil heap to the east. The centre is marked by standing water and there is no apparent bottom to it. Another air shaft is located to the south-east of 104, but just outside the study area.

Assessment: the site is within the study area.

Site number 105
Site name Reaps Moss
NGR SD 89530 23404
Site type Tramway surface
Period Post-medieval/Modern
Source Identification survey 1998

Description

A section of block-paving comprising of bricks lies on the tramway. The bricks are reddish buff in colour laid at approximate right angles to each other. Subsequent repairs may have altered the blocks giving them a haphazard appearance.

Assessment: the site is within the study area.

Site number 106
Site name Reaps Moss

NGR SD 89352 23671
Site type Quarry
Period Modern/Post-1849
Source Identification survey 1998/2nd edition OS map of 1911

Description

A very large, roughly rectangular quarry is flanked by an associated large spoil heap to the west. The quarry has been recut/excavated as demonstrated by two break of slopes. To the south-east is a narrow causeway c0.5m across x c7m long x c1.75m high, linking the eastern slope to the spoil heap.

Assessment: the site is within the study area.

Site number 107
Site name Reaps Moss
NGR SD 89390 23637
Site type Bank
Period Post-medieval/Pre-1849
Source Identification survey 1998/2nd edition OS map of 1911

Description

A sub-rectangular shaped enclosure marked by a bank is located to the south of quarry 106. The bank, which is most prominent to the south (c1.5m high), encloses a damp reedy area (40 x 30m). There is an associated trackway which comes over a ditch by a broad causeway heading towards the north-east where it appears to be truncated by quarry 108.

Assessment: the site is within the study area.

Site number 108
Site name Reaps Moss
NGR SD 89174 23818
Site type Quarry
Period Post-medieval/Pre-1849
Source Identification survey 1998 / 2nd edition OS map of 1911

Description

A quarry is located just to the west of tramway 113 on a gradual north-east slope; there is a large quarry adjacent (109). It has probably been truncated by tramway 113. It is 6-7m high x 40m (east/west) x 20m (north/south).

Assessment: the site is within the study area.

Site number 109
Site name Reaps Moss
NGR SD 89174 23818
Site type Quarry
Period Post-medieval/Pre-1849
Source Identification survey 1998 / 2nd edition OS map of 1911

Description

A quire located just to the west of tramway 113. It is 4-5m high x 30m (east/west) x 15m (north/south).

Assessment: the site is within the study area.

Site number 110
Site name Reaps Moss
NGR SD 89127 23979
Site type Bank
Period Post-medieval/Pre 1849
Source Identification survey 1998

Description

A bank with associated ditch to the south-west is on a north-west / south-east orientation. It has been interpreted as a drainage run-off channel from tramway 113.

Assessment: the site is within the study area.

Site number 111
Site name Reaps Moss
NGR SD 89143 24017
Site type Clough
Period Post-medieval/Pre-1849
Source Identification survey 1998

Description

A clough with a 'V'-shaped profile has a north-east / south-west orientation. There are reeds growing in a deltaic fan to the north-east where it merges into a track and gateway. The gateway is bounded by vertical sleepers probably from the tramway (113). It is probably a natural spring as it parallels others not so pronounced.

Assessment: the site is within the study area.

Site number 112
Site name Reaps Moss
NGR SD 89149 24098
Site type Brickworks
Period Post-medieval/Pre-1849
Source Identification survey 1998/1st edition OS map 1849

Description

This is the site of the Clough Head Brickworks. It forms an extensive man-made platform which obscures the natural valley running to the south/east (Midgelden Brook) adjacent to the modern Bacup road. The platform rises to approximately 60m to the east, and is now largely grassed over. The platform has been cut into the north-eastern slope along its south and south-western fringe and in the north-west corner. There are large domed-shaped spoil heaps which, together with the platform, are covered with short grass. Smaller tips of material are composed of fragments of cemented wall, clay drainage pipes and brick fragments.

Assessment: the site is within the study area.

Site number 113
Site name Reaps Moss
NGR SD 89115 24073
Site type Tramway
Period Modern/c1911
Source Identification survey 1998

Description

This tramway links the 'Clough Head Brickworks' with mines to the south. It forms a sinuous linear feature using the eastern slopes of Tooter and Hogshead Hills to form a gradual incline to the south. It appears to be linked to quarries (103, 108 and 109), which were possibly worked in conjunction with the construction of the tramway. There are sporadic dumps of clay pipes, brick and slag which are now largely grassed over. The tramway has a drainage ditch to the west to the east of Midgelden and Maden Pastures. This runs between the tramway and quarry 106 with an associated causeway.

Assessment: the site is within the study area.

ILLUSTRATIONS

- Fig 1 Hogshead wind farms site location plan
- Fig 2 Hogshead overall site plan
- Fig 3 Hogshead south-west sector detail plan
- Fig 4 Hogshead northern sector detail plan
- Fig 5 Photograph of building/pound - Site 4
- Fig 6 Photograph of field barn - Site 28

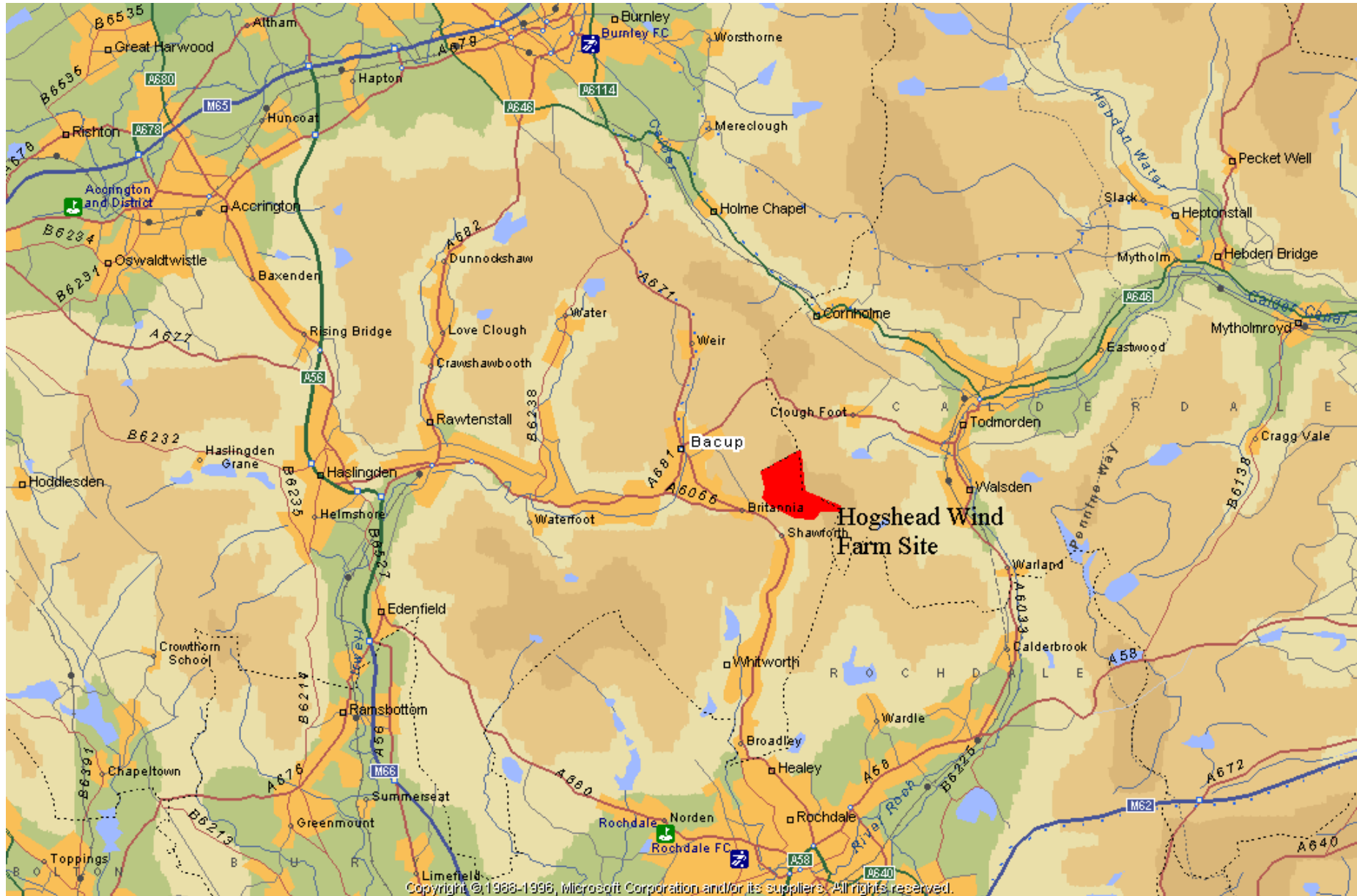
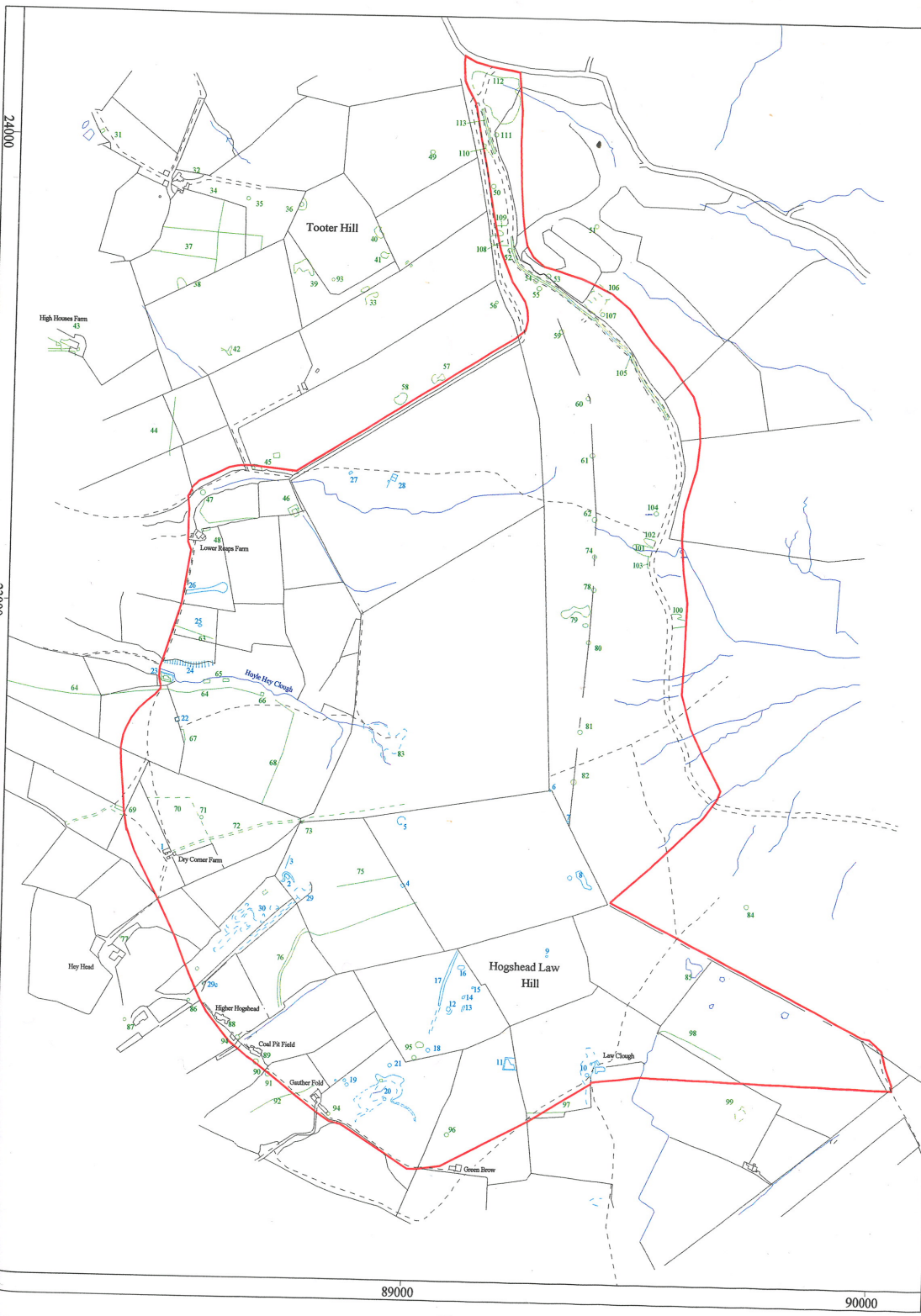


Fig 1 Hogshead Wind Farm Site Location Plan



HOGSHEAD WIND FARM SITE Archaeological Assessment

Hogshead Site Map

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FIGURE 2






SCALE 1:10,000 AT A3

DRAWN BY: JQ and AP

DATE: 12/98

KEY:

-  Documentary Site
-  Identification Survey Site
-  Study Area

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Fig 2 Hogshead Overall Site Map

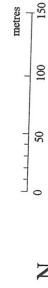
**HOGSHEAD WIND
FARM SITE
Archaeological
Assessment**

**South West Sector
Detail Map**

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FIGURE 3

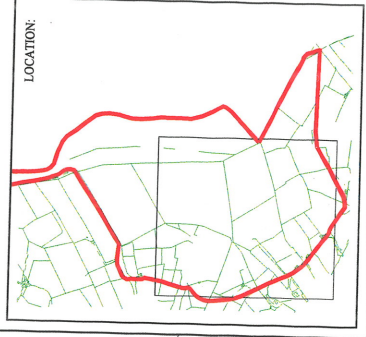


SCALE 1:5000 AT A3

DRAWN BY: JQ

DATE: 07/98

- KEY:
- Documentary Site
 - Identification Survey Site
 - Study Area



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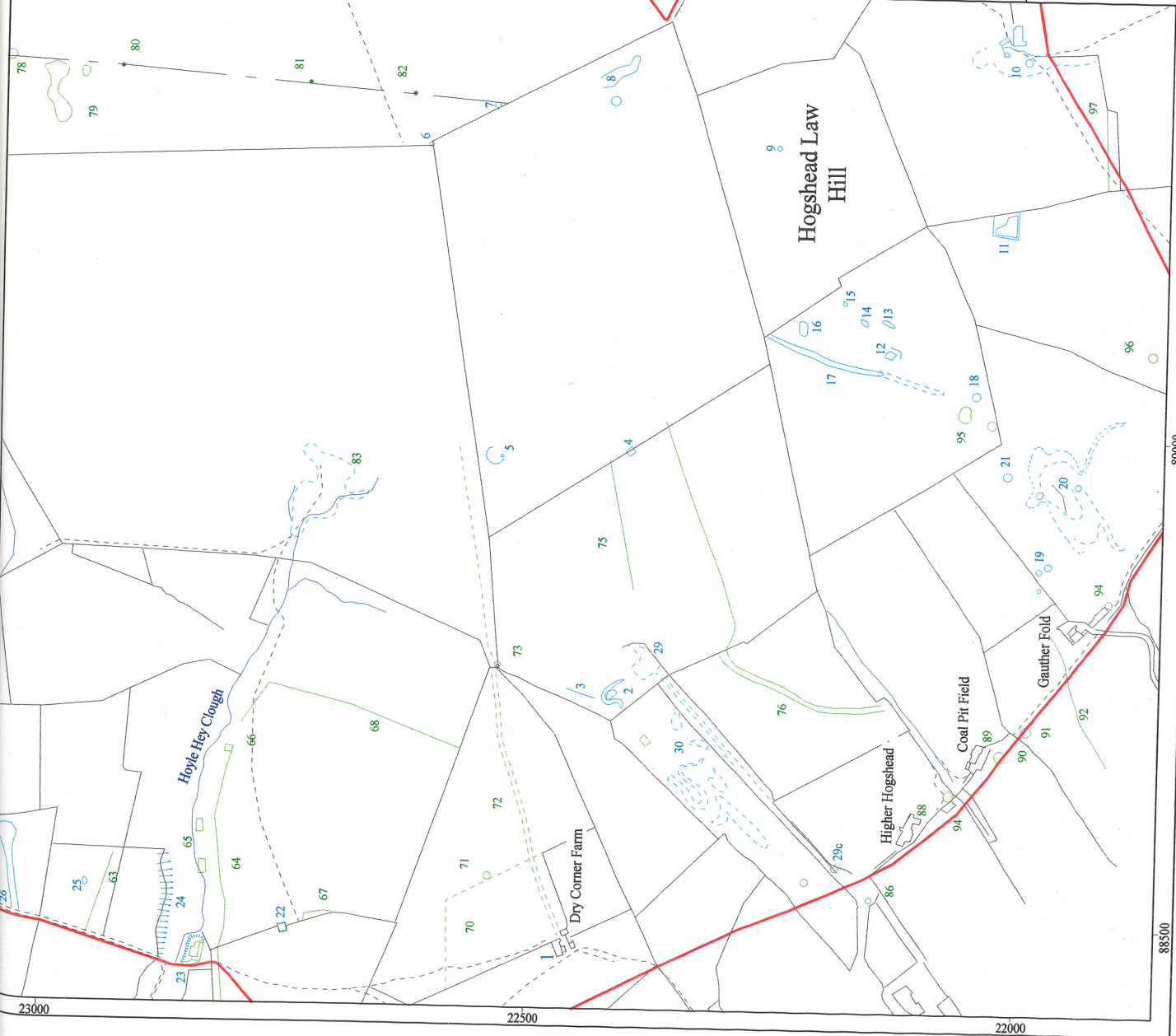


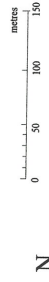
Fig 3 Hogshead South-West Sector Detail Plan

**HOGSHEAD WIND
FARM SITE
Archaeological
Assessment**

**Northern Sector
Detail Map**

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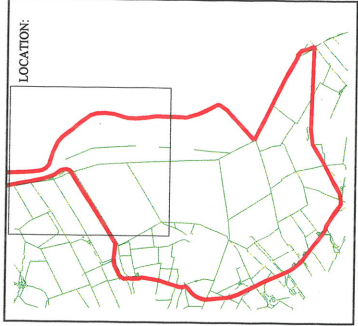
FIGURE 4



SCALE 1:5000 AT A3

DRAWN BY: JQ
DATE: 07/98

- KEY:
- Documentary Site
 - Identification Survey Site
 - Study Area



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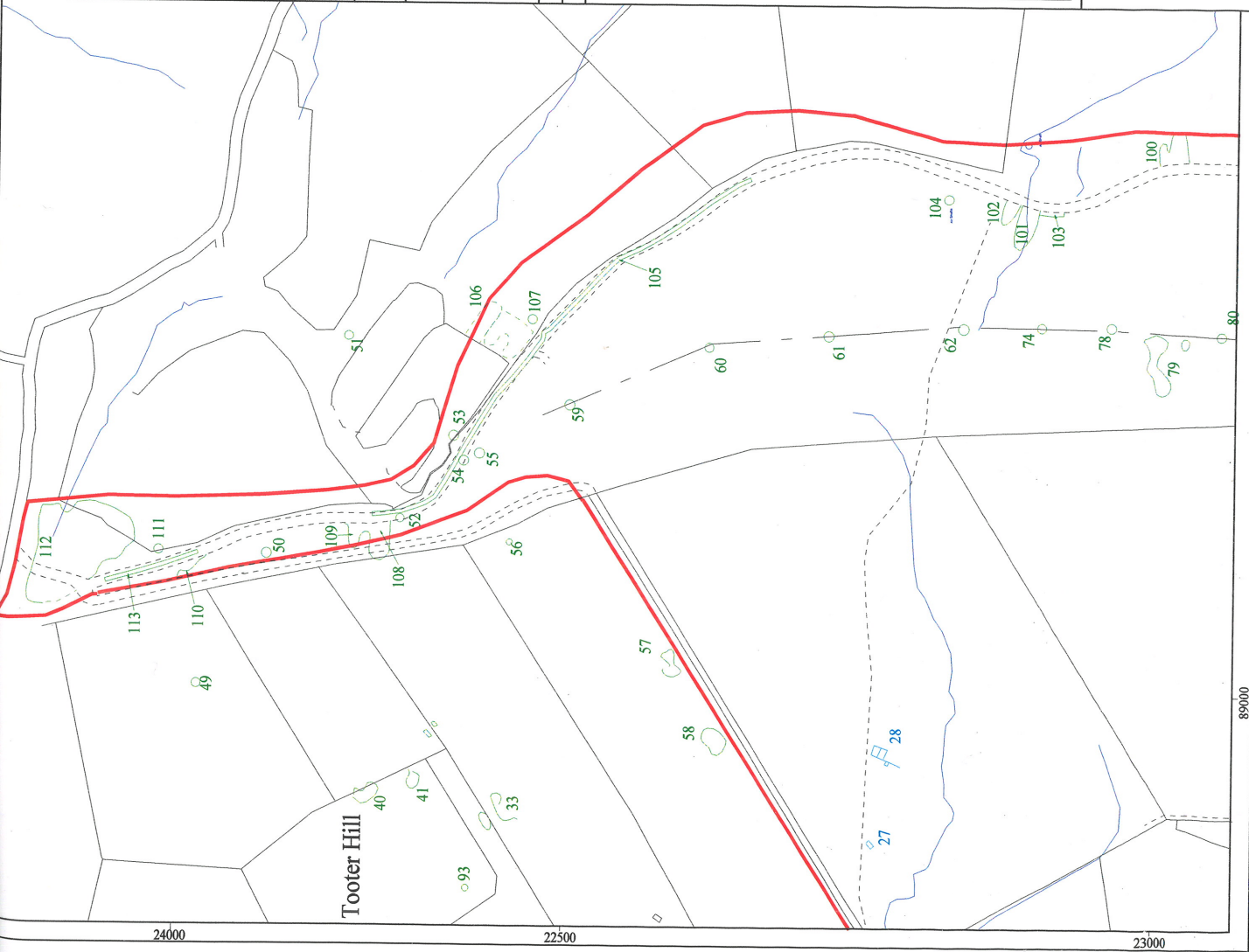


Fig 4 Hogshead Northern Sector Detail Plan



Fig 5 Photograph of building/pound – Site 4



Fig 6 Photograph of field barn – Site 28