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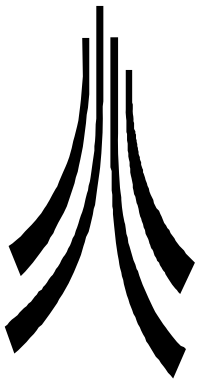

March 2001

UPLANDS FARM
NORTHWICH
CHESHIRE

Archaeological Assessment

Commissioned by: the Environment Partnership

Uplands Farm, Northwich
Cheshire

Archaeological Assessment Report

Report no 2000-01/061/AUA8105

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SUMMARY

An archaeological assessment was undertaken in February 2001 of the area surrounding Uplands Farm, Northwich, Cheshire (centred at NGR SJ 6543 7541) by Lancaster University Archaeological Unit (LUAU), on behalf of the Environment Partnership. The assessment comprised a desk-based assessment and a surface inspection of the site ahead of proposed woodland development plans.

The desk-based study involved a search of records held by the Cheshire Sites and Monuments Record, the Cheshire County Record Office in Chester, the Salt Museum in Northwich, Barnton and Northwich Libraries and examined both published and unpublished records.

Uplands Farm lies north of Northwich, in an area to the north of the River Weaver, which historically has been subject to extensive exploitation for salt extraction. During the Roman period there was a major salt industry centred on the Roman Fort of *Condate* at Northwich, although the exact area in which extraction took place is unknown. This industry was important in the medieval period, as Domesday Book refers to salt houses in the three Cheshire 'Wiches' of Northwich, Middlewich and Nantwich. Northwich thrived as an important local salt producing centre and, by the end of the sixteenth century, it had exceeded Nantwich in productivity. This was further enhanced by the discovery of the 'Northwich Halite Formation' (rock salt) by William Marbury in 1670.

Salt extraction sites identified on the northern bank of the River Weaver relate principally to eighteenth and nineteenth century works, and within the vicinity of the study area two rock salt mines dating from the eighteenth century are known and a saltworks, owned by Mr Jeffries and Sir John Stanley referred to in 1807 as being situated in the same area. In 1882, this area had developed into 'flash' (flooded extraction) basins, which were later used by the alkali producing industries in the area as limebeds, resulting in the eradication of all flora within them. By 1910 the land had been reclaimed and was subject to landfill in order to reinstate flora and fauna in the area.

A walk-over survey was undertaken of the study area, which enhanced the desk-based survey. Surface inspection of the site revealed evidence of salt mining activities still visible at ground level; the surface evidence of these mines were noted as small pools of standing water, within the undulating field systems. Other evidence remains as 'flashes', such as the Witton Flash, whose subsequent use as a limebed resulted in the destruction of all vegetation in the bed itself.

The archaeological monuments in the study area are predominantly concerned with the salt industry and are of local importance only; the proposed woodland development will not adversely impact the identified resource.

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ACKNOWLEDGEMENTS

Lancaster University Archaeological Unit (LUAU) would like to thank the staff of the Cheshire County Record Office in Chester, Jill Collens and Mark Leah of Cheshire County Council and the staff of the Salt Museum for their invaluable assistance.

The assessment was undertaken by Andrea Scott, who wrote the report and produced the illustrations. The report was edited by Jamie Quartermaine and Rachel Newman, the project being managed by Jamie Quartermaine.

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1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 An archaeological assessment was undertaken in February 2001 of an area centred on Uplands Farm, Northwich (centred at NGR SJ 6543 7541), by Lancaster University Archaeological Unit (LUAU), on behalf of the Environment Partnership. The assessment comprised a desk-based study and an identification survey of the site, ahead of proposed woodland development plans. These involve the establishment of a community forest over 60% of the study area. The work was carried out in accordance with a project design (*Appendix 1*) prepared by LUAU, following on from a verbal brief issued by the Archaeological Officer, Cheshire County Council. The work was intended to appraise the likely archaeological value of the defined area, and to locate and record potentially interesting or important features in the landscape, whether or not they were visible as surface remains.

1.1.2 The desk-based study consisted of a search of both published and unpublished records held by the Cheshire Sites and Monuments Record (SMR), the Cheshire County Record Offices in Chester (CRO), the Salt Museum in Northwich, and Barnton and Northwich Libraries. Available documentary and map sources were scanned. An identification survey examined the extent of the survey area for surface features. The results are presented in conjunction with a gazetteer of sites (*Appendix 2*), which are both new to the record and formerly known.

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2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design (*Appendix 1)* was submitted in December 2000 by LUAU in response to a request from the Environment Partnership, for an archaeological assessment in accordance with a verbal brief given by the Archaeological Officer at Cheshire County Council. This project design was written in order to provide an accurate archaeological assessment of the study area.

2.1.2 The project design provided for an archaeological assessment involving a desk-based study, an identification survey, and a written report, in order to interpret the data discovered in advance of a proposed woodland development programme. The assessment has been carried out in accordance with the project design.

2.2 DESK-BASED STUDY

2.2.1 Existing archaeological information was obtained from the Cheshire Sites and Monuments Record (CSMR), held by Cheshire County Council, along with the aerial photographic data held there. The SMR also retained copies of maps that were held in the County Record Office. Manuscript maps and selected other antiquarian documents were studied in the Cheshire County Record office (CRO, Chester). There were also a few other documents relevant to the area and a list of those consulted is given in the bibliography.

2.2.2 Copies of the SMR entries for an area of approximately 1km radius from the centre of the study area were obtained.

2.2.3 The area has previously been the subject of two studies undertaken by LUAU. One was a study of the salt industry on the north side of the River Weaver, the *Cheshire Weaver Valley Rolling Programme*, which was undertaken in 1992 (LUAU 1992). The other was a major study of the *Wetlands of Cheshire* (Leah *et al* 1997), as part of the English Heritage funded North-West Wetlands Survey, which examined the area and nearby Arley Moss in particular. Both archives have been studyes in the course of the project.

2.2.4 ***Aerial Photographic Study:*** 1973, 1985 and 1993 RAF vertical photographs were located and studied in the Cheshire SMR Offices (CSMR). Aerial photographs held by the SMR, which refer to the study area, were also examined but did not reveal any features of archaeological interest.

2.2.5 It was agreed that at this stage it was unnecessary to carry out in-depth analysis on the documentary sources with regard to individual salt mines within the study area. Laser prints of aerial photographs were not requested from National Monuments Record, since the coverage already seen indicated the limited potential for this particular site.

2.3 FIELD INSPECTION

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2.3.1 The site was walked in its entirety and visually inspected for any significant archaeological features in as systematic a manner as was feasible in the circumstances. The walk-over survey was undertaken during the 'Foot and Mouth Epidemic' sweeping the country. Although the landowner did not operate a working farm, access to areas of the site was severely restricted due to the closure of all public right of ways and tow paths by the local authority around the site itself. This meant that in limited areas, around the south-west side of the site, the examination was slightly less intensive than in others.

2.3.2 Identified features were described, photographed and located with respect to the field boundaries. Where possible, the extent of the sites is shown on Figures 2 and 3 and their descriptions are incorporated within the site gazetteer (*Appendix 2*).

2.4 GAZETTEER OF SITES

2.4.1 All of the information concerning archaeological sites in the study 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 and documentary), with references as appropriate, and an assessment has been given of the interpretation and archaeological potential of the site. Figures 2 and 3 demonstrate the spatial distribution of the sites.

2.5 ARCHIVE

2.5.1 A full archive of the desk-based study has been produced to a professional standard in accordance with current English Heritage guidelines (English Heritage 1991). The archive will be deposited in the County Record Office with a copy of the report given to the Cheshire Sites and Monuments Record. An archaeological fieldwork record form, as recommended by SCAUM, will be forwarded for deposition to the National Monuments Record.

3. BACKGROUND

3.1 LOCATION

3.1.1 The site of Uplands Farm lies at *c*30m AOD to the north of Northwich, centred on SJ 6543 7541. The study area itself extends over an area of 0.6sqkm immediately to the north of the Witton Brook and is bisected by the Trent and Mersey Canal.

3.2 GEOLOGY

3.2.1 The underlying solid geology of the area dates from the Triassic (225-190 million years BP) period when thick deposits of Keuper Marls (Mercia Mudstone) and shales were laid down. It is within these deposits that the salt beds of Cheshire were formed. The two salt-bearing horizons are the Upper and Lower Keuper Saliferous beds known as the Northwich and Wilkelsey Halite formations (or Top and Bottom Rocks respectively) (LUAU 1992, Wharmby 1987). The Keuper Marls lie within a shallow but subsiding marine basin, the axis of which dips slightly in a south by south-west direction towards Wem in Shropshire. Following the deposition of the Keuper rocks, the area was subject to uplifting and erosion resulting in an unconformity between the Triassic Rocks and the extensive drift material of fluvio-glacial deposits, mainly boulder clays, during the retreat of the glaciers of the Pleistocene. It is from these deposits that the natural soils of the area developed which are predominantly high in alkaline and salt. The soils around Northwich are known as the Salop type (Geological Survey 1978, LUAU 1992) which comprise slowly permeable, seasonally waterlogged reddish fine loam over clayey fine loamy clay soils and a fine loamy clay subsoil (*ibid*).

3.2.2 Because it is soluble in water, rock salt does not form outcrops at the surface, the beds of rock salt are eroded by naturally circulating ground water which form a solution below the base of the glacial drift deposits. The rock-salt is separated from this base by brecciated marls which, prior to solution, were embedded in the rock-salt itself (Wharmby 1987, 14). This condition is known as 'Wet Rock Head' and is present where the underground water has dissolved away the salt to form natural brine pools, which can be seen around the lower salt beds of Northwich (Rochester 1975, 7).

3.3 TOPOGRAPHY

3.3.1 The site is situated within the Weaver Basin and is bound on the west by the Mid-Cheshire Ridge, to the north by the Knutsford Plateau, and on the south and east by the Pennines. After the Dee Basin, it is the most extensive lowland area in the county and is derived largely from the extensive fluvio-glacial deposits that are today characterised by heaths and light woodland. The floor of the valley is mostly formed of heavy soils principally resulting in dense woodland (Varley 1964, 14). The study area lies to the immediate north-east of Northwich on an area of originally flat or gently sloping ground. This has been subject to much alteration through subsidence, industrial working and landfill. It is in this area and in the centre of the basin that the valley is dotted with 'flashes'. These are the

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result of post-glacial drainage, or in areas of salt-working the result of subsidence from collapsing seams (Witton Flash, Neumann Flash).

3.3.2 As with other industrial areas, the site is situated adjacent to the water transport system, in this case, the Weaver Navigation, Witton Brook and the Trent and Mersey Canal. It is this location, at the confluence of two rivers, the Weaver and its tributary, the Dane, that encouraged the development of Northwich as one of the oldest salt producing localities in the country (Thompson 1965, 18).

3.4 HISTORICAL BACKGROUND

3.4.1 ***Prehistoric****:* the geological and topographical nature of the area in the form of freely drained sand and gravels has been considered favourable for settlement and agriculture. Like many other regions in Britain in early prehistory, Cheshire was covered with areas of dense woodland, particularly during the Neolithic period. Short-term clearance (landnam) was superseded by long-term cultivation, such as that identified by pollen analysis carried out at Hatchmere to the north of Oakmere situated to the west of Northwich in the Mid-Cheshire Ridge (Leah *et al* 1997). Prehistoric sites within the Weaver Basin seem to have been located along sandy ridges beside through-ways created by the river valleys. There is no evidence within the actual study area itself that points to any prehistoric settlement; the only find is a single stone axe found to the south of Northwich (Elrington 1987).

3.4.2 There is no evidence to support the exploitation of salt prior to the Roman occupation in any of the three 'Wiches'. The salt that was produced during the Iron Age was known to have been extracted at Droitwich and traded across southern Cheshire and the Welsh Marshes (Elrington 1987, 222).

3.4.3 ***Roman****:* following the Roman invasion, the main evidence of activity in the area centred on the fort which is thought to be situated on Chester Road, to the west of the River Weaver (Thompson 1965, 88). Northwich is was known as *Condate*, known from the Antonine Itinerary and the Ravenna Cosmography (*ibid*), and this can be directly translated as 'confluence', referring to the junction of the River Weaver and its tributary, the Dane. The fort is thought to have dated from the first century AD and was rebuilt several times on differing alignments, in order to defend the route of the Roman road from York to Chester as it crossed the Weaver (*ibid*). The Roman road is thought to run '*straight again to the north-east through a great industrial area of salt-works which now completely obscure an important road junction at the former hamlet of Over Street 1½ miles east of Northwich*' (Margary 1957, 34).

3.4.4 During this period the exploitation of salt, by boiling water from the natural brine springs in leaden pans, was first noted (Thompson 1965, 21). This initially seems to have been held as a monopoly by the emperor, but there is evidence to suggest that the rights to salt manufacture were subsequently leased out (*ibid*). At some time during the third century, the civilian settlement of Northwich was relocated to the junction of King Street and Watling Street, but the early civilian and industrial settlement does not appear to have outlasted the withdrawal of the garrison (Elrington 1987, 114-7; Thompson 1965, 18).

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3.4.5 ***Medieval:*** there is little direct evidence for early medieval activity, which is, for the most part, derived from place-names. Although Northwich, along with Middlewich and Nantwich, were not classed as 'real' towns prior to the Norman Conquest, by 1066 they each were at the centre of a small cluster of manors. These '*little manufacturing enclaves were neither reckoned as manors nor as appurtenant to manors*' although Nantwich and Middlewich both functioned as Hundred centres (Bu'Lock 1972). Ormerod (1882) described '*two mounds of unequal height*' at Castle Hill, Northwich, that bore the '*strong resemblance to the keep of a Norman fortress*' and there is little doubt that a motte and bailey castle once occupied this site (Thompson 1965, 89).

3.4.6 Each of these Wiches contained one brinepit (*puteus*) from which the brine was transported via wooden conduits to the salt house holding-butts (Bu'Lock 1972). These salt houses were controlled by various manors in the area or as a joint demesne by the 'king and earl' (*ibid*). The Domesday record states that: *'Also in the Northwich Hundred was a third* Wich*, Called Northwich. It was at a revenue of £8. The same laws and customs were (kept) there as in the other two* Wiches*, and the King and the Earl shared the returns similarly'* (Morgan 1978, 27-S3).

3.4.7 The extracted brine was poured into a series of troughs that fed into the 'wich houses' where the brine was boiled off in lead pans heated by wood fires. The duration of the boiling process ('Walling') and size and number of pans ('leads') was strictly monitored and a variety of salt taxes were incurred by the salters and those removing the salt from the town, as stated in Domesday Book:

> *'None of the thanes who had salthouses in this* Wich *paid the Friday salt-boilings at any time of the year. Anyone from another shire who brought a cart with 2 or more oxen paid 4d toll; a man from the same shire paid 2d a cart, by the third night after his return home; if the third night passed, he paid a fine of 40s. A man from another shire paid 1d for a packhorse load; but a man from the same shire paid 1 farthing by the third night, as stated.*
>
> *If a man dwelling in this Hundred carted salt through the same county for sale, he paid 1d for each cart each time he loaded it; if he carried salt on a horse for sale, he paid 1d at Martinmas; anyone who did not pay by that date was fined 40s. All the other [customs] in these* Wiches *are similar.*
>
> *This* [Wich] *was derelict when Earl Hugh acquired it; value now 35s'.* (*ibid*).

3.4.8 Communication and transportation was all important during the medieval period, particularly in areas of industry, and most of the main road and river transportation passed through or directly served the salt towns of Northwich, Middlewich and Nantwich (Crump 1939, 93). Consequently, this affected the geographical distribution of both the monastic and manor houses that owned the salt houses in the wiches, and many of these, including Vale Royal, Combermere, Birkenhead Priory and Stanlaw in the Wirral, are comparatively close to Northwich (*ibid*).

3.4.9 It is due to social, economic and technological advancements that there was a steady increase in the development of the salt industry. After the discovery of rock salt in 1670, the concentration of sites pertaining to salt manufacture spread outside the immediate boundaries of Northwich. Salt remained a vital element in any economy from Roman times onwards. Its uses ranged from the preservation of meats, the curing of hides for leather and the glazing of ceramics to the manufacture of glass and soap products.

3.4.10 ***Post-medieval*:** by contrast with the medieval period, when the regulation of salt manufacture was under Crown Control, the fifteenth century saw the manufacture devolved to individual boroughs. From the sixteenth century onwards it is known that most of the salt or 'wich' houses were still erected in wood and were situated in the vicinity of the River Weaver or associated springs. In the case of Northwich, these were located 'within a good but (*sic*) shott' from where the Dane joins the Weaver (Beck 1969, 54). The salt production originally involved boiling down the natural brine with wood fires and lead pans, but these were steadily replaced by iron pans with fires of coal imported by sea, river navigation (the Weaver) or by canal (Trent and Mersey) from Lancashire and North Staffordshire. The changing techniques also affected the fortunes of the 'wich' towns; by the end of the sixteenth century, Northwich had begun to eclipse Nantwich as the salt producing centre of Cheshire, in part as a result of the looser regulations on trade but more importantly because of the ease with which Northwich could gain access to a regular coal supply. In 1643, however, Parliament imposed taxes on various commodities, including salt (Hughes 1943).

3.4.11 ***Rock Salt:*** in 1670, during boring operations for coal in Marbury by Jackson (Chaloner 1960, 122), rock salt was discovered (to be called the Northwich Halite beds). Rock salt has a distinct red/brown hue due to the mud trapped within it; the salt forms beds or 'domes', which are large masses several kilometres in diameter and 1000m thick, which have been squeezed upwards towards the surface through overlying rock (Rochester 1975, 8). In 1694 the first mines were set up and the serious exploitation of rock salt began. This resulted in the exportation of rock salt to areas such as Merseyside and beyond, where the fuel for its purification was substantially cheaper (Chaloner 1961, Rochester 1975).

3.4.12 ***Communications:*** the exportation of salt, mainly by the River Weaver (Site 70), resulted in the navigation being improved from Winsford Bridge to the Mersey estuary at Weston Point, near Frodsham, following an Act of Parliament in 1721. This involved the widening of the channel and the addition of locks, and took thirteen years to complete (Rochester, nd (1)). Further improvements came in 1777 when the Trent and Mersey Canal (Site 71) opened, which was finally connected to the Weaver Navigation with the construction of the Anderton Boat Lift (Site 32) between 1872 and 1875. Further improvements in communication occurred by 1863 with the construction of the railroad to Northwich (*ibid*).

3.4.13 The nineteenth century saw a dramatic increase in the production of salt from the 'wich' towns as a result of a number of factors. The improved communications as a result of the advent of the Weaver Navigation and the construction of the Trent and Mersey Canal broadened the market. The abolition of the Salt Tax in 1825 relaxed the regulation on the industry, and made it more profitable. At the same

time there was an increased demand for salt by the glass, soap and other chemical industries; in particular the Leblanc process was introduced into Liverpool by William Loch in 1814, in which salt could be converted into soda (sodium carbonate), which meant that by 1870 500,000 tonnes of salt were being used annually just for this Leblanc process (*Chaloner 1961*). In 1887, British salt output consisted of 2,206,951 tonnes, 1,769,719 tonnes of which was produced by the Cheshire towns (Chaloner 1960, 123).

3.4.14 ***Salt Extraction:*** during the nineteenth century, the Cheshire salt industry was 'strongly localised in the Valley of the River Weaver, mainly in an area 12 miles north to south and two miles east to west which included the townships of Anderton, Winnington, Marbury, Marston, Wincham, Witton…Northwich' (Chaloner 1960, 122). The area surrounding Northwich had become pitted with mines but their numbers are uncertain as official records were not kept until 1873. These mines were subject to closure, amalgamation and frequently changed names (Vale Royal District Council nd), making the recording of the location of such mines difficult. All this exploitation of the land surrounding the salt mines led to large-scale subsidence occurring throughout the Northwich area. The collapse of mines was caused by the influx of groundwater and the pumping of 'wild' brine from flooded mines. The result of this was seen in the 'Great Subsidence' of 1880 in which the centre of Northwich collapsed (Rochester, nd (2)). By 1881, 892 buildings were damaged (*ibid*) and substantial acreages of agricultural land were lost with the development of 'flashes'; in Winsford alone, 100 acres was lost by 1880 (*ibid*). This resulted in a reduction of the amount of agricultural land. '*What had once been green and pleasant meadows was submerged by water whose depth varied from a few feet to forty or fifty*' (Didsbury 1977, 140). The ground around Witton Brook was particularly affected and resulted in the flashes (Witton, Neumann and Ashton) that are still visible today.

3.4.15 ***The Demise of an Industry:*** the consolidation of the industry by the Salt Union (established 1888), and the introduction of controlled brine pumping methods led to the closure and abandonment of many of the works in the Northwich area (Rochester 1975). The more efficient vacuum evaporation process was introduced for the production of white salt by 1901, which heralded the subsequent demise of the open pan method of production and by 1971 the last open pan works had closed (LUAU 1992, 8).

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4. DESK-BASED STUDY

4.1 SITES AND MONUMENTS RECORD (SMR)

4.1.1 Of the 78 known archaeological sites noted in the locality during the course of this assessment, only one is recorded on the Cheshire SMR as within the study area, Uplands Farm (Site 23, Plate 1). All sites are listed in detail in the gazetteer (*Appendix 2*). There is a bias towards post-medieval sites with only four Roman sites (Sites 25, 27-8, 48), and seven medieval sites (Sites 24, 29, 33-4, 45, 47) identified in the vicinity of the study area, and no prehistoric sites whatsoever. The Roman activity is centred on Northwich itself and are limited to findspots (Sites 25, 27-8 and 48). Site 25, a leaden salt pan, located within the Ashton Flash, does pertain to salt production and may indicate that the Roman salt industry extended further than originally thought beyond the area of Northwich.

4.1.2 There is little evidence to suggest much medieval activity and salt production outside the present town limits. Of the sites identified, three are mills (Sites 24 and 33-4), one is a fishery (Site 47) and only one is a mine (Site 29). It appears, therefore, that the area surrounding the present study area was dedicated to agriculture.

4.1.3 Most of the SMR sites relate to features noted on the Ordnance Survey first edition maps, which include one well (Site 55), one public house (Site 52), three farms (Sites 23, 61 and 67), a fishery (Site 47), two halls (Sites 30 and 45), and a marina (Site 51).

4.2. DOCUMENTARY AND CARTOGRAPHIC SOURCES

4.2.1 A study of the information available on the Weaver Valley predominantly concerns the salt industry and yet there is little site-specific data available to enlighten the history of salt between the Roman period and the Industrial Revolution. The area around Northwich has been subject to large scale development for brine extraction from the eighteenth century onwards and this has dramatically affected the landscape, removing evidence of earlier activity; for instance there is little surviving evidence of any mosses or pasture. The Marston tithe deeds for the Lion Salt Works (1676) include a 'common of pasture and turbary on land at 'syme field'' (Leah *et al* 1997, 105) although the exact location of this site is unknown. The present landscape is dominated by salt works and flashes, farming landscapes and parkland.

4.2.2 ***Uplands Farm (Site 23):*** Uplands Farm is first recorded in around 1700 and is shown as a grouping of structures on Burdett's map (1777). The site consisted of two rectangular structures that appear on subsequent maps (Greenwood's map (1819); Cary's map (1823) and Swire and Hutching's map (1830)). The farm house is the only listed building within the study area and was built of rendered sandstone with a steep-pitched grey slate roof that was originally thatched.

4.2.3 The landscape covered by the study area comprises mainly agricultural land that was enclosed prior to the enclosure acts of the late eighteenth and early nineteenth centuries, evidenced by the irregular sub-radial shape of the fields on

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the OS first edition mapping (1898), the fact that the settlement is first recorded around 1700, and place names such as hey, croft and fold, which all mean enclosure. On the modern map, the field pattern has changed to some degree, and the fields to the north of the site have, in some cases, been enlarged with the loss of field boundaries (Sites 38-40), while others have been split by the addition of boundaries. There is also a small area of woodland, directly to the south of Uplands Farm, which follows the course of the Marbury Brook and was extant in 1874 when it was depicted on the OS first edition map.

4.2.4 ***Marbury Hall and Park (Sites 45 and 41):*** this is situated just north of the study area and is important as it was whilst searching for coal reserves on this estate that rock salt was found, leading to the subsequent extraction sites noted on the gazetteer (Sites 1-4 and 13). It is not known precisely when the hall was first built but was in existence as a large structure on Burdett's map of 1777, and was the Seat of the Marbury family during the medieval period (de Figueredo and Treuherz 1988, 31-34). It was acquired by Earl Rivers in 1684 whose daughter married James, Fourth Earl of Barrymore, and the estate subsequently came to the Barrys. Lord Barrymore added a vernacular brick house, wings and a portico to the Hall; James Hugh Smith Barry remodelled the irregular brick building into a French chateau in 1856. The house was sold in 1932 for a residential club but requisitioned during World War 2 as an army camp (*ibid*). It was bought and demolished in 1968 by ICI. The foundations of the house and gate piers remain.

4.2.6 ***Brick Works (Site 64):*** the site of a brick works is situated immediately to the north of the study area. It appears on the OS 1st edition map (1898) but was subsequently demolished and the site is now occupied by the Anderton marina (Site 51).

4.2.7 ***Mine Shafts (Sites 01-04, 13):*** There are five known top bed mines within the study area. The first is Warburtons (Site 01) which is a collapsed mine shaft located under the Anderton limebed. Site 02 belonged to the British Salt Company (Wharmby 1987 ref: 2-3-082, OS map 1876) and was a natural brine well last pumped in 1908; it is now probably filled in. Bancroft and Cos No.1 (Site 03, Wharmby 1987, Debes 1957, Ward 1887) was also known as Mrs Jeffreys and was last worked in 1786 and abandoned due to flooding; it is now buried under the realigned Witton Brook. Site 04, known as Anon 3 (Wharmby 1987 ref: 2-3-023; OS map of 1910), is a natural brine shaft which could possibly still be open. It is marked on the OS map of 1910 (sheet 39.1).

4.2.8 The Mersey Salt and Brine Company (Site 13, Wharmby 1987, Debes 1957) is a natural brine well lined with a cast iron tube. It is possibly still open but lies beneath a standing pool on the surface.

4.2.9 Documentary research revealed a large quantity of mine shafts within the general environs of the site. It is possible that many more are in the area of the site but have not been recorded. Small pools of water identified on the ground during the field inspection could be indicators of other mines in the area or could be attributable to localised subsidence. The appearance of 'flashes' at ground level are also an indicator of the vast mining activity in the area.

4.2.10 ***Salt Works:*** the Cheshire salt industry during the early part of the nineteenth century was localised in areas within the Weaver Valley, principally to the north

within the townships of Anderton, Winnington, Marbury and Witton. During this time a vast amount of rock salt mining was undertaken at the convergence of the Weaver and the Dane. One of the principal salt proprietors of the early nineteenth century was William Furnival, who, in 1824, leased the brine-bearing lands identified on both Swire and Hutchings map (1830) and the OS first edition map (Fig 6) as salt works (Sites 02 and 49), within and adjacent to the study area. These works comprised a series of brine cisterns and mines connected to the salt processing centre which was itself linked by an inclined plane to the Trent and Mersey canal (Chaloner 1960, 128). The natural brine well (Site 02) was last pumped in 1908, and the associated cisterns (Sites 57, 59 and 60) were certainly in operation when these lands were sold to the British Rock and Salt Company in April 1825. The salt works developed under the management of the British Rock and Salt company, a large complex of salt pans and salt processing buildings being shown on the OS 1st edition map (1898). These have subsequently been demolished and now the only indication of these works are the brine cisterns which are still visible on the ground surface immediately beyond the proposed development area.

4.2.11 Adjacent to the British Salt Company works (Site 49) is a further salt works complex (Site 26) on the northern bank of the River Weaver, as shown on the OS 1st edition map (1898). It was not shown on the Swire and Hutchings map (1830) and was evidently operational later than, and for a shorter period than the British Salt Company works. This short life of the works became increasingly common during the latter part of the nineteenth century as the escalation in the demand for salt products led to wide scale mining operations which in turn led to an increase in extraction sites. Consequently, these mines were prone to frequent collapse and flooding, resulting in a short life span for these operations.

4.3 FIELD INSPECTION

4.3.1 Despite intensive investigation, the field walking revealed no archaeological remains beyond those identified during the documentary research (Fig 4), but it was able to record the surface expression of the documented monuments. The topography of the land to the north of the Anderton marina consisted of predominantly flat field systems that had largely been left to pasture (Area 1, Plate 2). There are some small scrub patches concentrated in the area directly to the north of the marina and patches of trees growing in old brine pools (Sites 72-4; OS 1st edition, OS 1972, Field Survey, Plate 3) where water has accumulated due to the lie of the land. These features are roughly circular in plan and average 5-10m in diameter, although the depths vary depending on the amount of subsidence from the mining operations in the area.

4.3.2 The southern aspect of the site comprised a gradually sloping landscape to a height of 30m OD, and, in the case of the southern extent of the site, it has been reclaimed and developed into a park (Area 2, Plate 4). This area is also under pasture and is relatively flat.

4.3.3 Area 3 (Plate 5) extends across the southern limit of the site. The landscape slopes from west to east, descending from *c*35m to 15m OD along the Marbury

Brook. There is a gradual slope in the field system behind Uplands Farm towards the course of the Marbury Brook. The watercourse itself is banked by trees on both sides. The area surrounding the pools and Marbury Brook is flanked by small patches of trees (Plate 1). The ground level rises again to the north-east towards the reservoir and the Witton Flashes (Area 4). All of the fields at the time of the site visit were under pasture. The topography of the land was undulating, and it was divided into fields, which are currently under pasture with some small scrub patches concentrated in the areas where water accumulates due to the lie of the land.

4.3.4 The undulating nature of the topography can be directly related to the mining operations in the area. It is not unusual for subsidence to occur away from the actual mine shafts as a result of the extensive fanning out of the mines themselves beneath the ground surface. This, coupled with the underground streams, erode the overlying salt beds and cause the ground surface to become increasingly affected by subsidence features that are clearly visible on the ground surface.

4.3.5 Sites identified on the OS 1st edition, such as Sites 13 and Sites 76-7 (Plate 6), were clearly discernible on the ground surface during the field survey. Site 13 is a known mining operation and appears as a circular brine pool, probably associated with Site 78, on the existing ground surface. Similarly, Sites 76-7 only appear as shallow pools with small patches of trees within this area.

4.3.6 Several of the field boundaries noted on the OS current edition have been reduced to slight rises in the ground level, the hedges having been removed, notably the north/south boundary extending directly west of Sites 76-7. In addition, there are low banks reflecting boundaries that are shown on the OS first edition map (1898), but which are no longer in use (Sites 38-40).

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5. DISCUSSION

5.1 IDENTIFIED RESOURCE

5.1.1 Despite the relative paucity of archaeology within the study area, there is considerable documentary evidence for archaeological sites around the wider assessment area. Away from the site itself, Roman activity appears to have been limited to the fort in Northwich and the network of road systems which fan out across the region, some of which pass within the proximity of the site. Despite the obvious exploitation of salt in the Roman period there is no evidence of Roman activity within the study area itself.

5.1.3 Little evidence of medieval activity remains other than mills around the study area. The field name evidence reinforces the physical picture suggesting that the area was predominantly common or marginal land throughout the medieval period and that the Uplands Farm probably reflects a post-medieval intake.

5.1.4 The area both within and immediately to the south of the study area has been subject to considerable disturbance, either directly as a result of salt extraction and processing or indirectly as a result of subsidence resulting in the flashes. It is probable that most activity in the vicinity pre-dating the Industrial Revolution has been subject to disturbance to some extent. There is considerable evidence of mines within the study area and some extensive salt processing works immediately to the south, comprising numerous salt pans and works. Although the study area is now primarily agricultural, historically it was part of an important and extensive saline industrial landscape.

5.2 IMPACT

5.2.1 Although the study area is part of an important archaeological landscape, there are relatively few physical remains surviving within the area; individually these are of only local importance. The proposed woodland development will potentially have a considerable impact upon the terrain, but will not have an undue impact upon the overall archaeological resource.

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APPENDIX 1
PROJECT DESIGN

Lancaster University Archaeological Unit

December 2000

UPLANDS FARM
NORTHWICH

CHESHIRE

ARCHAEOLOGICAL ASSESSMENT

Proposals

The following project design is offered in response to a request from the Environment Partnership for an archaeological assessment at Uplands Farm, Northwich, Cheshire.

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1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 Lancaster University Archaeological Unit (LUAU) has been invited by the Environment partnership to submit a project design and costs for an archaeological assessment at Uplands Farm, Northwich, Cheshire in advance of a proposed woodland development, which will involve the establishment of a community forest over 60% of the study area. The archaeological work is undertaken in accordance with Planning Policy Guidance Note 16; the project design has been prepared in accordance with a verbal brief prepared by the Archaeological Officer, Cheshire County Council.

1.1.2 ***Archaeological Background:*** the study area is centred on Uplands Farm to the north of Northwich. This general area to the north of the River Weaver has historically been extensively exploited for salt extraction. In the Roman period there was a major salt industry centred on the Northwich Roman fort (*Condate*) (LUAU 1992), although it is not known precisely where the salt was extracted. There is evidence of continuity of the industry into the medieval period as there are references in the Domesday book (Morgan 1978) to salt houses in the three Cheshire 'Wiches' (Northwich, Middlewich and Nantwich). In the medieval period salt production continued to be a important local industry but became under crown control. At the end of the sixteenth century Northwich was taking over from Nantwich as the more productive centre. The industry was provided new impetus with the discovery of the 'Northwich Halite Formation' (rock salt) by William Marbury in 1670 (LUAU 1992). The expansion of the salt industry resulted in progressive improvements to the transport system, the River Weaver was improved for navigation and the Trent and Mersey Canal, which runs through the study area, was opened in 1777. In 1863 the railways were connected to Northwich (LUAU 1992).

1.1.3 In general the salt extraction identified on the northern side of the River Weaver relates to eighteenth and nineteenth century salt extraction. Within the area immediately to the south-west of the study area two rock mines were recorded in the eighteenth century (LUAU 1992), and there was a saltworks belonging to Mr Jeffries and Sir John Stanley referred to in 1807 from the same area (*ibid*). This area then subsequently had become flash (flooded extraction basins) by 1882, but by 1910 had been reclaimed. The area to the south-east of the study area has been partially flashed since 1797 (Witton Flashes), possibly as a result of a top rock mine shown on a plan of 1790 (*ibid*).

1.2 LANCASTER UNIVERSITY ARCHAEOLOGICAL UNIT

1.2.1 LUAU has considerable experience of the evaluation and assessment of sites of all periods, having undertaken a great number of small and large scale projects during the past 18 years. Evaluations and assessments have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. LUAU has undertaken a major archaeological assessment of this part of the Cheshire Weaver valley on behalf of Cheshire County Council (LUAU 1992) which extended up to the southern boundary of the present study area. LUAU has undertaken numerous archaeological assessments within Cheshire and the Northwich area in particular. 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, and LUAU is a registered organisation with the IFA (No 27).

2. OBJECTIVES

2.1 The following programme has been designed in accordance with a verbal brief by Mark Leah of Cheshire County Council to provide an accurate archaeological assessment of the designated area, within its broader context. The principal purpose of the assessment is to collate information about the archaeology of the site and its environs. This will enable an

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assessment of the significance of the identified archaeological resource. The required stages to achieve these ends are as follows:

2.2 ***Desk Top Survey***

To accrue an organised body of data to inform a walk-over survey and assessment report.

2.3 ***Walk-over Survey***

A general identification survey of the study area to investigate surface survival of archaeological remains within the study area.

2.3 ***Assessment Report***

A written assessment report will assess the significance of the data generated by this programme within a local and regional context in order to inform the management of the landscape. It will advise on the impact of the proposed development.

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-BASED STUDY

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 timescale 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 Cheshire Sites and Monuments Record, 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 emphasis will be upon the early cartographic evidence which has the potential to inform post-medieval occupation and land-use of the area. Any photographic material lodged in either the County Sites and Monuments Record or the County Record Offices will also be studied. Published documentary sources will also be examined and assessed. The work will examine the archival records of the earlier Cheshire Weaver Valley Rolling Programme (LUAU 1992) which examined the adjacent area (held by LUAU). This work will involve visits and or correspondence searches of the following repositories: Cheshire Sites and Monuments Record, the Cheshire Record Office in Chester, and the Northwich Salt Museum.

3.2.3 The study will examine place and field name evidence for the site and its environs. Any engineering or bore-hole data made available by the client will be examined.

3.2.4 ***Aerial photography:*** a brief survey of the extant air photographic cover will be undertaken. This would provide an indication of recent land-use, but is not likely to significantly inform the archaeological potential of the site. The Cheshire Sites and Monuments Record and Cheshire County Council has a valuable aerial photographic collection. Aerial photographic work will entail liaison with the Royal Commission on the Historical Monuments (England) (NMR), although, within the timescale 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. It will be based on published geological mapping and any local geological surveys in the possession of the county council or the client. 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 WALK-OVER SURVEY

3.3.1 ***Access:*** liaison for basic site access will be undertaken through the Environment Partnership.

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3.3.2 It is proposed to undertake a level 1 survey of the study area which extends over an area of *c*0.6sqkm. This is a rapid survey undertaken alongside a desk top study as part of a site assessment. It is an initial site inspection which helps the local planning authority to consider fully the archaeological implications of a development and 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 should record type and period and would not normally exceed *c*50 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, which can achieve 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 1:2,500 or any other 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 (1991) 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.

3.3.2 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 National Monuments Record (RCHM(E)), as appropriate. LUAU practice is to deposit the original record archive of projects (paper, magnetic, and plastic media) with the Cheshire Record Office.

3.3.3 ***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.

3.3.4 ***Assessment Report:*** one bound and one unbound copy of the report will be submitted to the Client, and a further copy submitted to the Cheshire Sites and Monuments Record. The report

will include a copy of this project design, and indications of any agreed departure from that design. It 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. It 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. It will include a copy of the brief and project design. It will provide an assessment of past and present land use.

3.3.5 The report 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).

3.3.6 ***Proposals:*** the report will make a clear statement of the impact of the proposed development upon the identified archaeological resource.

3.3.7 ***Confidentiality:*** the assessment report is 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.

4. WORK TIMETABLE

4.1 It is envisaged that the various stages of the project outlined above would follow on consecutively, where appropriate. The phases of work would comprise:

i ***Desk-Based Assessment***

5 days (on site)

ii ***Walk-over Survey***

1 day

iii ***Assessment Report***

6 days (desk-based).

4.2 LUAU can execute projects at very short notice once an agreement has been signed with the client. The desk-based study is scheduled for completion within three weeks from the completion of the field work.

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

APPENDIX 2
GAZETTEER OF SITES

Site number **01**
Site name Anon 2
NGR SJ 65400 74900
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957, OS map 1876, Ward 1887

A top bed mine, possibly Warburtons, located under the Anderton limebed. It was not associated with any other mine. The date and reason for abandonment is unknown and it is now collapsed.

Assessment

The site lies within the study area.

Site number **02**
Site name British Salt Company
NGR SJ 65078 75448
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987 ref: 2-3-082, OS map 1876

A natural brine well that was last pumped in 1908. It is also known as the Steenstrands, Kirkhams and Anderton no. 1. It was originally owned by Furnival and lies close to the convergence of the River Weaver and the River Dane and was connected by an inclined plane with the Trent and Mersey Canal. He sold these lands to the British Rock and Salt Company in April 1825. There are few surviving remains on the site.

Assessment

The site lies within the study area.

Site number **03**
Site name Bancroft and Cos No.1
NGR SJ 65248 75383
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957, Ward 1887

A top bed mine also known as Mrs Jeffreys. It was not connected to any other mines in the area. It was last worked in 1786 and abandoned due to flooding. It is now buried under the realigned Witton Brook.

Assessment

The site lies within the study area.

Site number **04**
Site name Anon 3
NGR SJ 65251 75386
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987 ref: 2-3-023; OS map of 1910

A natural brine shaft which could possibly still be open although buried. It is located on the OS map of 1910 (sheet 39.1).

Assessment

The site lies within the study area.

Site number **05**
Site name Anon AN10 (Debes)
NGR SJ 65300 74900
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957

A top bed mine also known as Anon AN10 (Debes). It is not associated with any other mine, and is now located under the Anderton limebed. The date and reason for abandonment unknown.

Assessment

The site lies to the south of the study area.

Site number **06**
Site name Anon 11
NGR SJ 65180 74790
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987 ref: 2-3-020

A natural brine shaft located on the Winnington Works site. It is thought to be collapsed and buried under the later development. The date and reason for the abandonment is unknown.

Assessment

The site lies to the south of the study area.

Site number **07**
Site name Anon 12
NGR SJ 65150 74760
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987

A natural brine shaft buried under a later development. The date and reason for the abandonment is unknown.

Assessment

The site lies to the south of the study area.

Site number **08**
Site name Hunts No.1
NGR SJ 65200 74700
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987

An unassociated top bed mine, of which the date and reason for the abandonment is unknown. It is collapsed and buried under the present course of the Weaver.

Assessment

The site lies to the south of the study area.

Site number **09**
Site name Barker and Filkens
NGR SJ 65400 74600

SMR No -
Site type Mine
Period Post-Medieval
Source Wharmby 1987
A top bed mine located under the Furey limebed. It was not connected to any other mine, and was abandoned because it collapsed and flooded. The date of abandonment is unknown. It is now buried under a limebed.
Assessment
The site lies to the south of the study area.

Site number **10**
Site name Swifen Jervis
NGR SJ 65700 74700
SMR No -
Site type Mine
Period Post-Medieval
Source Wharmby 1987, OS map of 1876
A top bed mine abandoned in 1783. It is now buried under limebeds.
Assessment
The site lies to the south of the study area.

Site number **11**
Site name Cheshires
NGR SJ 65370 74940
SMR No -
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957
A top bed mine located under the Anderton limebeds. It was sunk during the eighteenth century. It collapsed and was then later buried, but the date for its abandonment is unknown.
Assessment
The site lies to the south of the study area.

Site number **12**
Site name Marshalls Brine Pit
NGR SJ 65300 74930
SMR No -
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957
A natural brine shaft buried under the Anderton limebed. The date and reason for abandonment is unknown.
Assessment
The site lies to the south of the study area.

Site number **13**
Site name Mersey Salt and Brine Company
NGR SJ 65630 75380
SMR No -
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957; Field Survey 2001

A natural brine well lined with a cast iron tube. The date and reason for its abandonment is unknown. It is, however, possibly still open.

Assessment

The site lies to the south of the study area.

Site number **14**
Site name Bridges Brine Pit
NGR SJ 65590 74800
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957

A natural brine shaft which collapsed and was buried. It is now under the Weaver Navigation.

Assessment

The site lies to the south of the study area.

Site number **15**
Site name Roylances Further Intake
NGR SJ 65710 74740
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, OS map of 1876

An top bed mine drowned out by 'Roaring Meg' in 1776. It collapsed and is now buried under the Witton limebeds.

Assessment

The site lies to the south of the study area.

Site number **16**
Site name Fureys Old
NGR SJ 65600 74500
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, OS map of 1876

An independent top bed mine located between the Weaver Navigation and the Furey limebed. It existed from 1797. The date and reason for its abandonment is unknown.

Assessment

The site lies to the south of the study area.

Site number **17**
Site name Fureys
NGR SJ 65700 74500
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, OS map of 1876

An independent top bed mine alias the Furey and Bradburnes or Big Azzey. It existed from 1797 and its date and reason for abandonment is unknown. It is now under the realigned Weaver Navigation.

Assessment

The site lies to the south of the study area.

Site number **18**
Site name Marshalls In Heywood
NGR SJ 66140 75010
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957
A top bed mine which was drowned out, collapsed and buried in 1783.
Assessment
The site lies to the south of the study area.

Site number **19**
Site name Barton's Bridge
NGR SJ 65800 74500
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987
A top bed mine known as Barton's Rock Mine. It is now buried under Witton limebeds landfill site.
Assessment
The site lies to the south of the study area.

Site number **20**
Site name Barton's Rock Pit
NGR SJ 65700 74500
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987
A top bed mine which collapsed and is now buried under the Witton limebeds landfill site.
Assessment
The site lies to the south of the study area.

Site number **21**
Site name Roylances Broyningshaw
NGR SJ 65800 75000
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957
An independent top bed mine which flooded and collapsed. It is now buried under the Witton limebed.
Assessment
The site lies to the south of the study area.

Site number **22**
Site name Blackburn's Rock Pit
NGR SJ 65830 75080
SMR No **-**
Site type Mine
Period Post-Medieval
Source Wharmby 1987, Debes 1957

An independent top bed mine called the Blackburnes or Blackburne's Well. It was sunk during the eighteenth century and was used for brine pumping. It flooded and collapsed and is now buried under Witton Brook.

Assessment

The site lies to the south of the study area.

Site number **23**
Site name Uplands Farmhouse
NGR SJ 6543 7541
SMR No 681/1
Site type Monument
Period Post-Medieval
Source SMR Record

A farmhouse and associated buildings that date from *c*1700. It is constructed of rendered sandstone with a steep-pitched grey slate roof (this was originally thatched).

Assessment

The site lies within the study area.

Site number **24** (not depicted on Fig 2)
Site name Witton Mill
NGR SJ 6680 7450
SMR No 726/1
Site type Mill
Period Medieval
Source SMR Record, Burdett's map 1777 (Fig 4); Swire and Hutchings 1830; Bryant 1831; Tithe Award for Witton-cum-Twambrook (1845)

A watermill now lost under the Ashton Flashes, mentioned in Domesday Book. In 1228 the '*Molendia de Witton*' are mentioned, suggesting that there were at least two mills.

Assessment

The site lies to the south-east of the study area.

Site number **25**
Site name -
NGR SJ 6655 7440
SMR No 720
Site type Saltern
Period Roman-Medieval
Source SMR Record

A leaden salt pan found in 1880 at Messrs N Aston and Sons works. It is 0.9m x 0.6m x 0.75m in size. It is now preserved by ICI Ltd at Brunner House, Winnington. Analysis of the silver content indicates that it was more probably Roman than medieval in date.

Assessment

The site lies to the south-east of the study area.

Site number **26**
Site name Witton
NGR SJ 651 750
SMR No **-**
Site type Salt Works
Period Post-medieval
Source OS 1st edition 25" map (1898)

A salt works complex on the northern bank of the River Weaver, and adjacent to the British Salt Company works (Site 49).

Assessment
The site lies to the south of the study area.

Site number **27**
Site name *Condate*
NGR SJ 6500 7400
SMR No 726/1
Site type Finds
Period Roman
Source SMR Record
A quern stone, small bronze spoon and small light red fabric cinerary urn (second to third century AD). It was found during the construction of a house at the foot of Winnington Hill during 1882, and may represent the site of the civilian settlement associated with the Roman fort of *Condate*.
Assessment
The site lies to the south-west of the study area.

Site number **28**
Site name -
NGR SJ 6400 7400
SMR No 706
Site type Finds
Period Roman/medieval
Source SMR Record
Three unidentified ceramic objects found at Winnington dating from AD 43-1539, AD 43-409 and AD 1066-1539.
Assessment
The site lies to the south-west of the study area.

Site number **29**
Site name -
NGR SJ 6400 7400
SMR No 696/1
Site type Mine
Period Medieval
Source SMR Record
The reported location of salt pits dating from AD 1066-1539.
Assessment
The site lies to the south-west of the study area.

Site number **30**
Site name Winnington Hall
NGR SJ 6450 7474
SMR No 697/1
Site type Domestic Building
Period Post-Medieval
Source SMR Record, DOE 1986
A building located within the ICI Works. It was a timber-framed building dating from *c*1600 restored by Darcy Braddell *c*1920.
Assessment
The site lies to the south-west of the study area.

Site number **31**
Site name -
NGR SJ 6430 7500
SMR No 2847
Site type Mound
Period Post-Medieval
Source SMR Record

An oval feature identified on Burdett's map of 1777 labelled 'mount' but it does not appear on the OS 1st edition maps. The site is now covered by the Brunner Mond works. It possibly relates to the Winnington Bridge battle of 1659.

Assessment

The site lies to the south-west of the study area.

Site number **32**
Site name Anderton Boat Lift
NGR SJ 6471 7522
SMR No 666/1
Site type Boat Lift
Period Post-Medieval
Source SMR Record

A boat lift constructed during 1872-75 in order to transport canal boats 50ft from the Weaver Navigation onto the Trent and Mersey Canal as an alternative to the traditional series of locks. It was designed by Edwin Clark of Clark Stansfield and Clark, Westminster. It is the only one of its kind in the country and the prototype for those developed in Belgium. It was operated hydraulically with two wrought iron caissons working side by side within an iron framework. The caissons supported by iron rams moved vertically in hydraulic presses weighing 240 tonnes when full of water. The lift operated by removing the water from the lower caisson. It was converted to electricity in 1903-08 and is currently undergoing restoration.

Assessment

The site lies to the immediate south-west of the study area.

Site number **33**
Site name Marbury Mill
NGR SJ 6480 7620
SMR No 2146/1
Site type Mill and House
Period Medieval/Post-Medieval
Source SMR Record, Burdett's map 1777 (Fig 4), Swire and Hutchings 1830, Bryant 1831, Tithe Award (1844), DOE 1986

A water-powered corn mill, the lower two storeys date from *c*1700 with the third storey and loft added during the nineteenth century. It was largely plastered with some oak framing and diagonal braces exposed in the lower two storeys. It has a grey slate roof and brick outshut to the right and an open fronted lean-to loading bay to the front on timber posts. It has a cast iron breast wheel and full train machinery dating from the nineteenth century.

A miller's house associated with the watermill dates from the mid-nineteenth century and comprises Flemish brown-band brick with a grey slate roof. It is a two storey building with a timber-framed gable porch.

Assessment

The site lies to the north-west of the study area.

Site number **34** (not depicted on Fig 2)
Site name Park Mill
NGR SJ 6430 7670

SMR No 677/1
Site type Mill
Period Post-Medieval
Source SMR Record, Tithe Award (1844)
A mill further along the Cogshall Brook than Site 33. It was mentioned in a plea during 1499. The Tithe map refers to 'Mill Ridding Brow' and 'Mill Riddings Rough' at the approximate location of Park Mill.
Assessment
The site lies to the north-west of the study area.

Site number **35**
Site name Winnington Bridge
NGR SJ 6419 7483
SMR No 695/1
Site type Battlefield
Period Post-Medieval
Source SMR Record
The site of the Battle of Winnington Bridge on 19th August 1659. The Royalists under the command of Sir George Booth met General Lambert's Parliamentarian force amongst the 'enclosures' at Hartford. The Royalists were routed twice before dispersing. Sir George Booth escaped but was later captured and imprisoned in the Tower. It has been called the last battle of the Civil War.
Assessment
The site lies to the south-west of the study area.

Site number **36**
Site name Pool Mine
NGR SJ 6650 7590
SMR No 2647/1
Site type Mine
Period Post-Medieval
Source SMR Record
A small salt mine sunk between 1846-73 covering approximately 1ha. It was first owned by J Thompson and Sons and was closed in 1888. It was later used to store explosives during World War 1 before being sealed in 1929.
Assessment
The site lies to the east of the study area.

Site number **37**
Site name Pool Mine
NGR SJ 6650 7590
SMR No 2647/1/1
Site type Mine – associated buildings
Period Post-Medieval
Source SMR Record
A group of four buildings associated with Site 36. It includes the remains of the gardens for miners cottages, a possible stone engine base, a canal arm, drainage furrows and the remains of a pool.
Assessment
The site lies to the east of the study area.

Site number **38**
Site name Uplands Farm
NGR SJ 6549 7569
SMR No -
Site type Field Boundary

Period Post-Medieval
Source OS 1st edition 25" (1898); Identification Survey
A field boundary is shown on the OS first edition map, but which is no longer in use. A faint earthwork is evident on the ground.
Assessment
The site lies within the study area.

Site number **39**
Site name Uplands Farm
NGR SJ 6559 7548
SMR No -
Site type Field Boundary
Period Post-Medieval
Source OS 1st edition 25" (1898); Identification Survey
A field boundary is shown on the OS first edition map, but which is no longer in use. A faint earthwork is evident on the ground.
Assessment
The site lies within the study area.

Site number **40**
Site name Uplands Farm
NGR SJ 6522 7544
SMR No -
Site type Field Boundary
Period Post-Medieval
Source OS 1st edition 25" (1898); Identification Survey
A field boundary is shown on the OS first edition map, but which is no longer in use. A faint earthwork is evident on the ground which is the relict survival of the monument.
Assessment
The site lies within the study area.

Site number **41**
Site name Marbury Park
NGR SJ 656 762
SMR No 2274/1/1
Site type Park
Period Post-Medieval
Source SMR Record; OS 1st edition 25" map (1898)
The extent of Marbury Park as shown on the OS 1st edition map.
Assessment
The site lies to the north of the study area.

Site number **42**
Site name Marston Hall Mine
NGR SJ 6620 7610
SMR No 2646/1
Site type Mine
Period Post-Medieval
Source SMR Record
A large mine works (*c*5.5ha). A bottom bed mine was sunk in 1850 and comprises two shafts – the Old Brine Shaft and the Air Shaft. By 1881, 28 acres were supported by pillars. It was closed in 1905 following a flood.
Assessment

The site lies to the north-east of the study area.

Site number **43**
Site name Marston Hall Mine
NGR SJ 6620 7610
SMR No 2646/1/1
Site type Mine – associated buildings
Period Post-Medieval
Source SMR Record, OS 1st edition (Fig 6)

The remains of a sandstone engine base and reservoir. Associated buildings comprise three large and seven small earthworks, a canal bridge and a stone-built retaining canal wall.

Assessment

The site lies to the north-east of the study area.

Site number **44**
Site name -
NGR SJ 6603 7615
SMR No 1036/1
Site type Mine
Period Post-Medieval
Source SMR Record

The approximate site of the first discovery of rock salt in 1670 by John Jackson of Halton whilst searching for coal on the land of William Marbury. Celia Fiennes retained the mortgage for this mine. Brine springs ran from the rock in a small 'rindle or gutter'.

Assessment

The site lies to the north-east of the study area.

Site number **45**
Site name Marbury Hall
NGR SJ 6505 7650
SMR No 2274/1/1
Site type Manor House
Period Medieval
Source SMR Record, Burdett 1777 (Fig 4), Greenwood 1819 (Fig 5), Swire and Hutchings 1830; OS 1st edition

The seat of the Marbury family during the medieval period. It was acquired by Earl Rivers in 1684; his daughter married James, Fourth Earl of Barrymore, and the estate subsequently came to the Barrys. Lord Barrymore added a vernacular brick house, wings and a portico to the Hall. James Hugh Smith Barry remodelled the irregular brick building into a French chateau in 1856. The house was sold in 1932 for a residential club but was requisitioned during World War 2 as an army camp. It was bought and demolished in 1968 by ICI. The foundations of the house and gate piers remain.

Assessment

The site lies to the north of the study area.

Site number **46**
Site name Marbury Hall
NGR SJ 6558 7662
SMR No 2274/1/2
Site type Ice House
Period Post-Medieval
Source SMR Record

An ice house located 5m south of Budworth Mere in the Marbury Country Park. Only the bottom hemispherical half of the chamber remains.

Assessment
The site lies to the north of the study area.

Site number **47** (not depicted on Fig 2)
Site name -
NGR SJ 6550 7680
SMR No 678
Site type Fishery
Period Medieval
Source SMR Record, Burdett 1777 (Fig 4), Greenwood 1819 (Fig 5), Swire and Hutchings 1830, OS 1st edition map (Fig 6)

Possibly the remains of the '*piscaria de Bodeworhe*' medieval fishery, which was held by the de Lacy family in 1295.

Assessment
The site lies to the north of the study area.

Site number **48**
Site name -
NGR SJ 6658 7666
SMR No 674
Site type Find Spot
Period Roman
Source SMR Record

Two Roman coins found in 1925 whilst ploughing a field. One has been identified as a coin of Nero.

Assessment
The site lies to the north-east of the study area.

Site number **49**
Site name British Salt Company
NGR SJ 649 753
SMR No -
Site type Salt Works
Period Post-Medieval
Source OS 1st edition (1898) map; Hutchinson's Map (1830)

An extensive saltworks belonging to the British Salt Company. It is shown on the OS 1st edition map and also Hutchinson's map as on the northern bank of the River Weaver. Apart from a limited number of brine pits there is little surviving of the works as shown on the modern OS map.

Assessment
The site lies to the immediate south of the study area.

Site number **50**
Site name -
NGR SJ 65593 75249
SMR No -
Site type Weir
Period Post-Medieval
Source OS 1st edition

A weir located on the Marbury Brook, immediately to the south-east of Uplands Farm.

Assessment
The site lies within the study area.

Site number **51**
Site name -
NGR SJ 65072 75681
SMR No -
Site type Marina
Period Post-Medieval
Source Current OS map
A marina built post-1972 on the site of the old brick works (Site 64).
Assessment
The site lies within the study area.

Site number **52**
Site name Stanley Arms
NGR SJ 64710 75220
SMR No -
Site type Public House
Period Post-Medieval
Source OS 1st edition 25" map (1898)
A public house depicted on the OS 1st edition map.
Assessment
The site lies to the west of the study area.

Site number **53**
Site name -
NGR SJ 64427 74879
SMR No -
Site type Weir/Sluice
Period Post-Medieval
Source OS 1st edition 25" map (1898)
A weir located within the Brunner Mond works to the south of the Weaver Navigation. It was probably associated with the salt works.
Assessment
The site lies to the south-east of the study area.

Site number **54**
Site name Brunner Mond
NGR SJ 64815 74931
SMR No -
Site type Industrial Works
Period Post-Medieval
Source OS 1st edition 25" map (1898)
The site of the Brunner Mond alkali works built in 1822 by Sir John Brunner and Ludwig Mond. John Brunner later went on to become the MP for Northwich and was instrumental in the development of the region, giving the first free library to Northwich in 1885 and new schools in Barnton in 1898. He was a fundamental force in implementing the Brine Subsidence Compensation Act of 1891.
Assessment
The site lies to the south of the study area.

Site number **55**
Site name -
NGR SJ 64834 75054
SMR No -
Site type Well

Period Post-Medieval
Source OS 1st edition 25" map (1898)
A well identified on the OS 1st edition map, but on the current map it is hidden under the factory works.
Assessment
The site lies to the south of the study area.

Site number **56**
Site name -
NGR SJ 65115 75127
SMR No -
Site type Brine Cistern/Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map
A brine pool/cistern which is roughly circular in plan.
Assessment
The site lies immediately to the south-west of the study area.

Site number **57**
Site name -
NGR SJ 65135 75257
SMR No -
Site type Brine Cistern/Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map
A brine pool/cistern which is roughly circular in plan.
Assessment
The site lies immediately to the south-west of the study area.

Site number **58**
Site name -
NGR SJ 65142 75365
SMR No -
Site type Brine Cistern/Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map
A brine pool/cistern which is roughly circular in plan.
Assessment
The site lies immediately to the south-west of the study area.

Site number **59**
Site name -
NGR SJ 64911 75414
SMR No -
Site type Brine Cistern/Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map
A brine pool/cistern which is roughly circular in plan.
Assessment
The site lies immediately to the south-west of the study area.

Site number **60**
Site name -
NGR SJ 64944 75478
SMR No -
Site type Brine Cistern/Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map
A brine pool/cistern which is roughly circular in plan.
Assessment
The site lies immediately to the south-west of the study area.

Site number **61**
Site name Bridge Farm
NGR SJ 64822 75390
SMR No -
Site type Farm
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map
A farmhouse comprising a series of red brick buildings with grey slate roof.
Assessment
The site lies immediately to the west of the study area.

Site number **62**
Site name -
NGR SJ 64920 75630
SMR No -
Site type Milestone
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map
A Trent and Mersey canal marker dating from the early nineteenth century. It is cast iron with a circular plate inscribed: Shardlow 85 miles: Preston Brook 7 miles.
Assessment
The site lies immediately to the west of the study area.

Site number **63**
Site name -
NGR SJ 65143 75598
SMR No -
Site type Brine Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map
A rectangular brine pool.
Assessment
The site lies immediately to the north of the study area.

Site number **64**
Site name -
NGR SJ 65024 75704
SMR No -
Site type Brick Works
Period Post-Medieval
Source OS 1st edition 25" map (1898)

A brick works that appears on the OS 1st edition. It was demolished and the site has been used for the marina (Site 51).

Assessment

The site lies immediately to the north of the study area.

Site number **65**
Site name Witton Flash
NGR SJ 65945 75328
SMR No -
Site type Limebed
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map

A limebed which appeared during the nineteenth century as a result of rock mining in the area. It was later used by the chemical works in the vicinity to pump lime waste. It has been marked on the current OS maps as 'limebeds'.

Assessment

The site lies immediately to the south of the study area.

Site number **66**
Site name -
NGR SJ 65959 75520
SMR No -
Site type Weir
Period Post-Medieval
Source OS 1st edition 25" map (1898)

A weir located to the north-east of the Witton Flash but does not appear on the current edition map.

Assessment

The site lies within the study area.

Site number **67**
Site name Claycroft Farm
NGR SJ 64337 76328
SMR No -
Site type Farm
Period Post-Medieval
Source OS 1st edition 25" map (1898)

A series of farm buildings that first appear on the OS 1st edition, and are still visible on the current map.

Assessment

The site lies to the north-west of the study area.

Site number **68**
Site name -
NGR SJ 64623 76420
SMR No -
Site type Footbridge
Period Post-Medieval
Source OS 1st edition 25" map (1898)

A footbridge located on the Marbury Brook, immediately to the south of Site 69.

Assessment

The site lies to the north-west of the study area.

Site number **69**
Site name -
NGR SJ 64593 76471
SMR No -
Site type Kennels
Period Post-Medieval
Source OS 1st edition 25" map (1898)

The site of a kennel located on the Marbury Brook within an area denoted as 'Kennel Wood', immediately to the north of Site 69. The wood is still in existence today although the kennels are no longer marked.

Assessment

The site lies to the north-west of the study area.

Site number **70**
Site name Weaver Navigation
NGR SJ 6400 74761-65599 72984
SMR No -
Site type Waterway
Period Post-Medieval
Source OS 1st edition 25" map (1898)

The expansion and widening of the existing river system in order to facilitate the transportation of salt to the salt refineries on Merseyside. An Act of Parliament was obtained in 1721 to authorise the improvements that took thirteen years to complete. The work undertaken comprised the widening of the channel by the addition of locks.

Assessment

The site lies to the south of the study area.

Site number **71**
Site name Trent and Mersey Canal
NGR SJ 64394 75272-68033 74893
SMR No -
Site type Waterway
Period Post-Medieval
Source Greenwood 1819 (Fig 5), Swire and Hutchings 1830; OS 1st edition map (1898).

A canal constructed in 1777 (Fig 4) in order to facilitate the transportation of salt to the salt refineries on Merseyside and the shipping of pottery and raw materials to the manufacturers led by Josiah Wedgewood.

Assessment

The site lies to the south of the study area.

Site number **72**
Site name -
NGR SJ 65186 75997
SMR No -
Site type Brine Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map; Field Survey

A circular brine pool which survives as a water filled pond.

Assessment

The site lies within the study area.

Site number **73**
Site name -
NGR SJ 65176 75812
SMR No -
Site type Brine Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map; Field Survey
A circular brine pool which survives as a water-filled pond.
Assessment
The site lies within the study area.

Site number **74**
Site name -
NGR SJ 65106 75806
SMR No -
Site type Brine Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map; Field Survey
A circular brine pool which survives as a water filled pond.
Assessment
The site lies within the study area.

Site number **75**
Site name -
NGR SJ 65365 75496
SMR No -
Site type Brine Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map; Field Survey
A circular brine pool which survives as a water-filled pond.
Assessment
The site lies within the study area.

Site number **76**
Site name -
NGR SJ 65601 75637
SMR No -
Site type Brine Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map; Field Survey
A circular brine pool which survives as a water-filled pond.
Assessment
The site lies within the study area.

Site number **77**
Site name -
NGR SJ 65626 75552
SMR No -
Site type Brine Pool
Period Post-Medieval
Source OS 1st edition 25" map (1898); OS 1972 map; Field Survey
A circular brine pool which survives as a water-filled pond.

Assessment
The site lies within the study area.

Site number	**78**
Site name	-
NGR	SJ 65671 75997
SMR No	-
Site type	Brine Pool
Period	Post-Medieval
Source	OS 1st edition 25" map (1898); OS 1972 map; Field Survey

Circular brine pool probably relating to mining operations (Site 13).
Assessment
The site lies immediately to the east of the study area.

ILLUSTRATIONS

 © LUAU March 2001

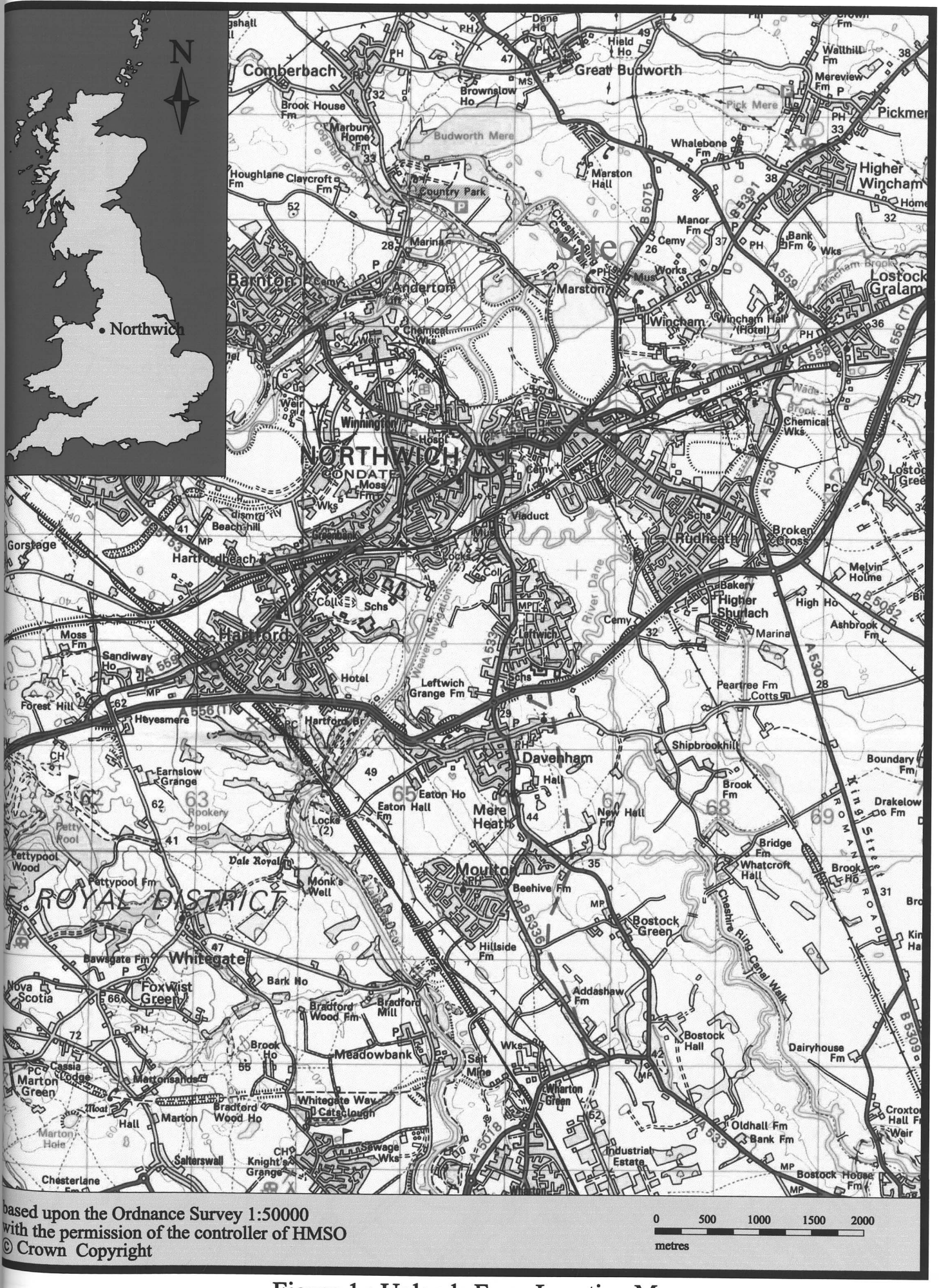


Figure 1 : Uplands Farm Location Map

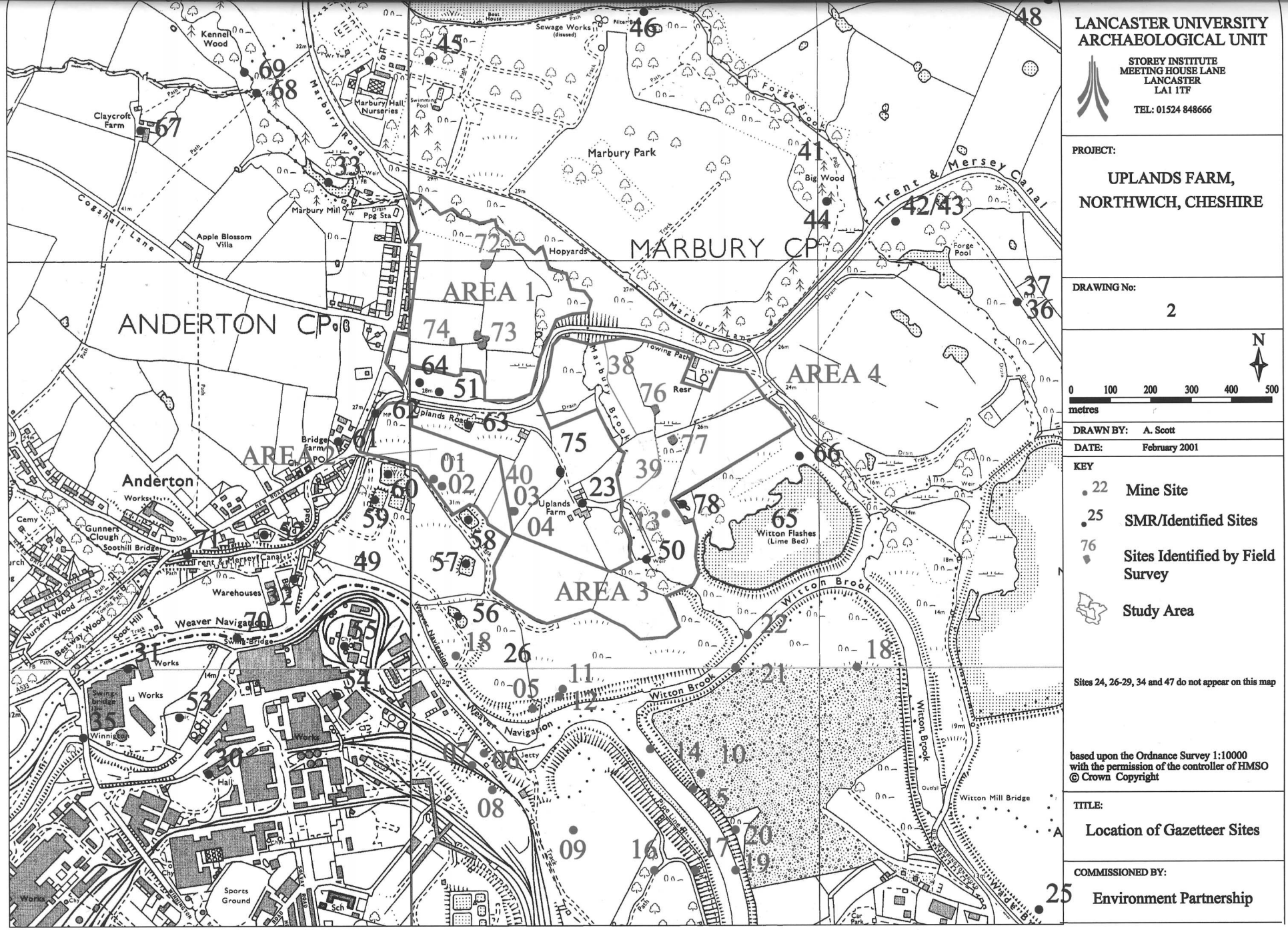
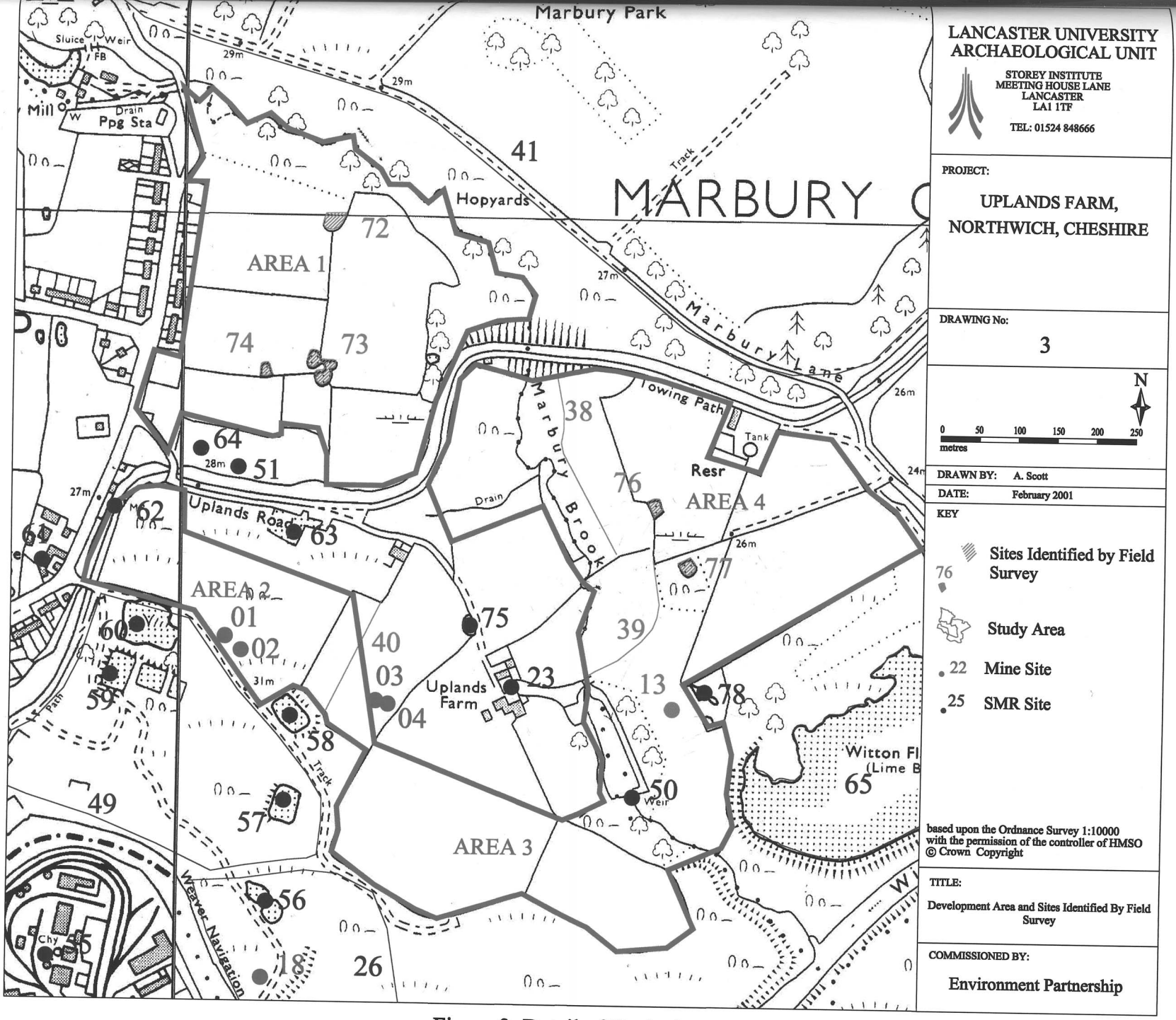


Figure 2: General Site Map



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PROJECT:

UPLANDS FARM,
NORTHWICH, CHESHIRE

DRAWING No:

3

N

0 50 100 150 200 250
metres

DRAWN BY: A. Scott

DATE: February 2001

KEY

76 Sites Identified by Field Survey

Study Area

22 Mine Site

25 SMR Site

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TITLE:

Development Area and Sites Identified By Field Survey

COMMISSIONED BY:

Environment Partnership

Figure 3: Detail of Study Area

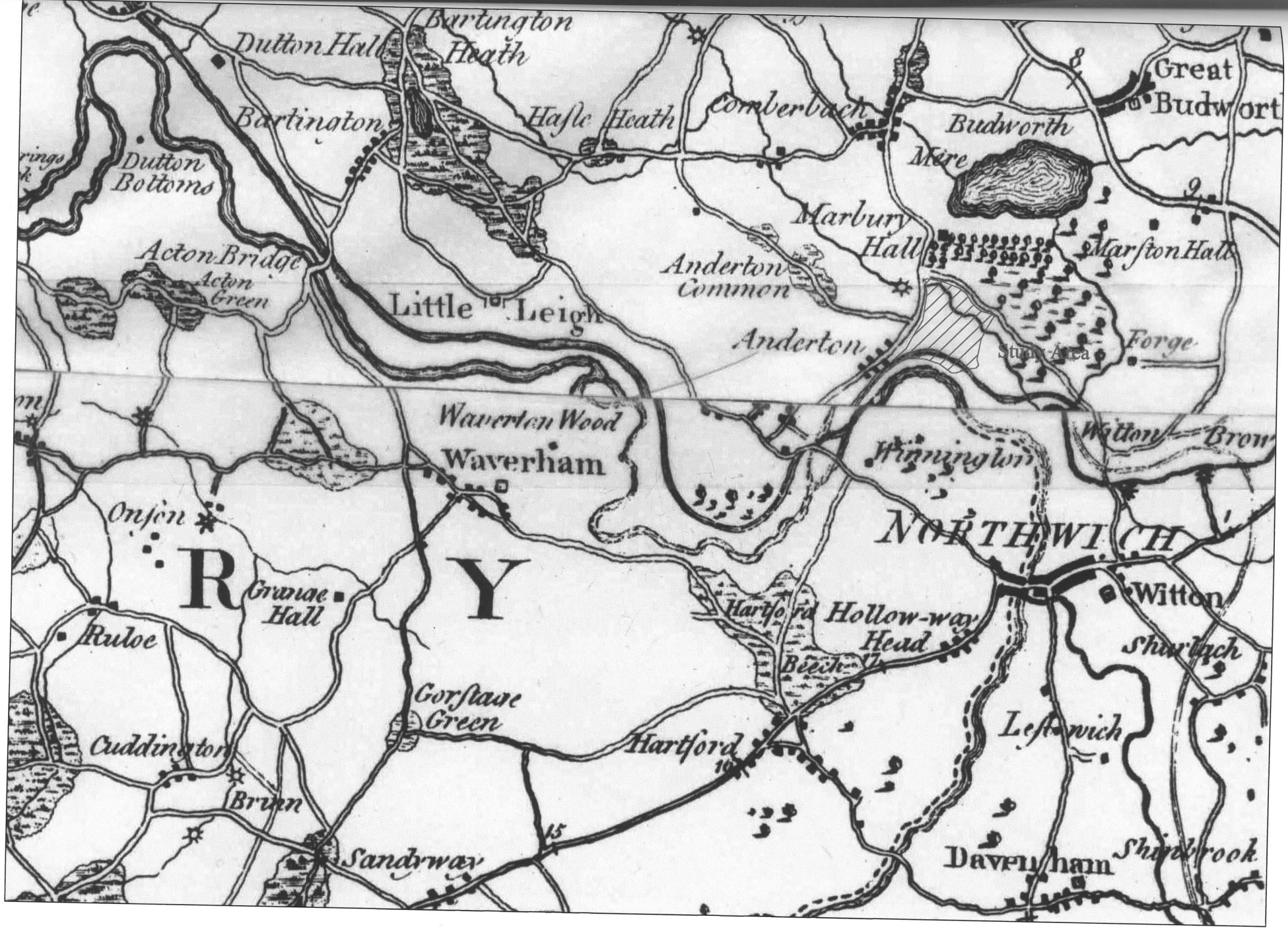

Figure 4: Extract of Burdett Map of 1777

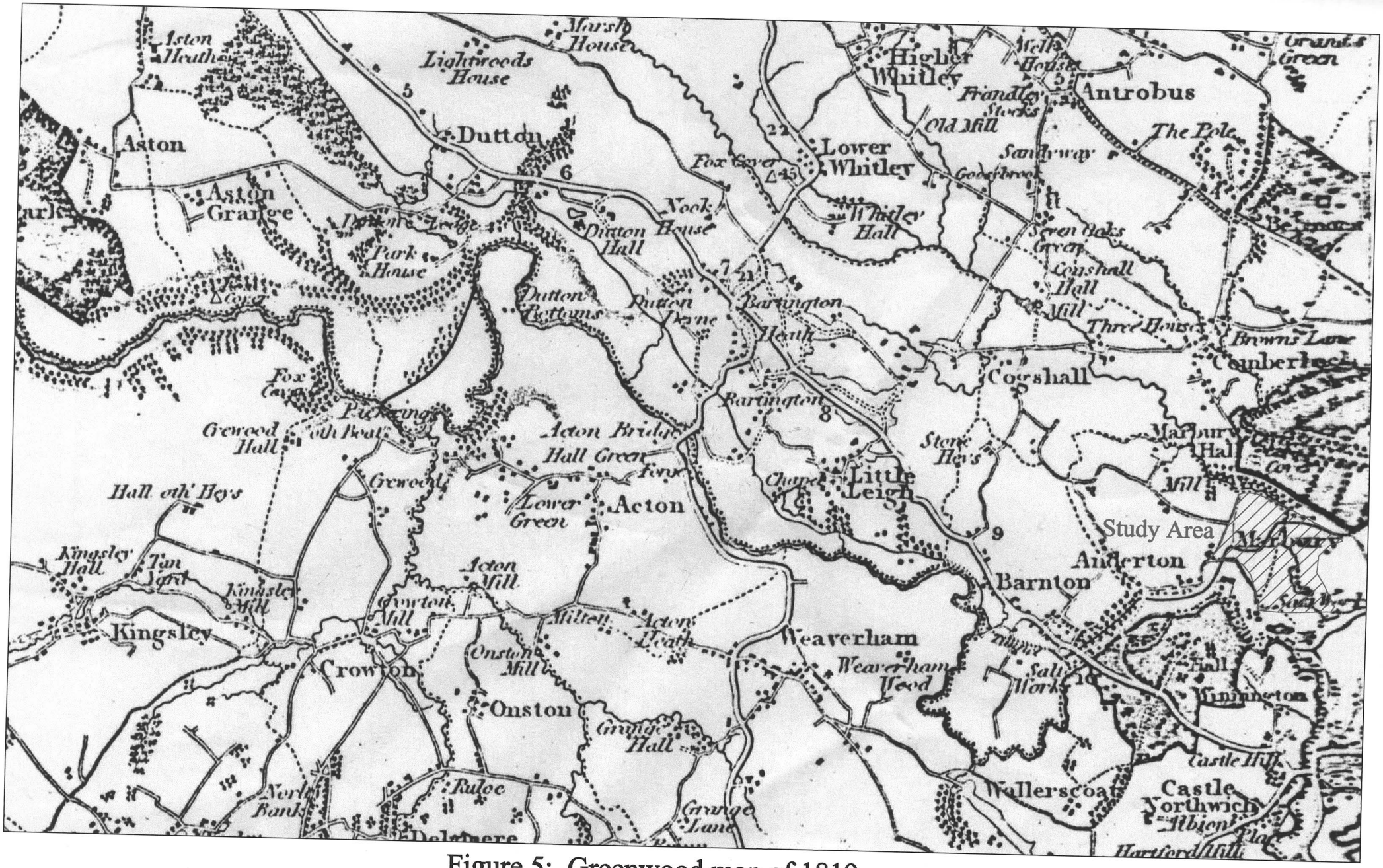

Figure 5: Greenwood map of 1819

Figure 6: Extract from OS 25": 1 mile map, first edition (1898)

PLATES

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Plate 1: Uplands Farm Viewed from Area 4

Plate 2: General View of Area 1

Plate 3: Brine Pool (Site 72)

Plate 4: General View of Area 2

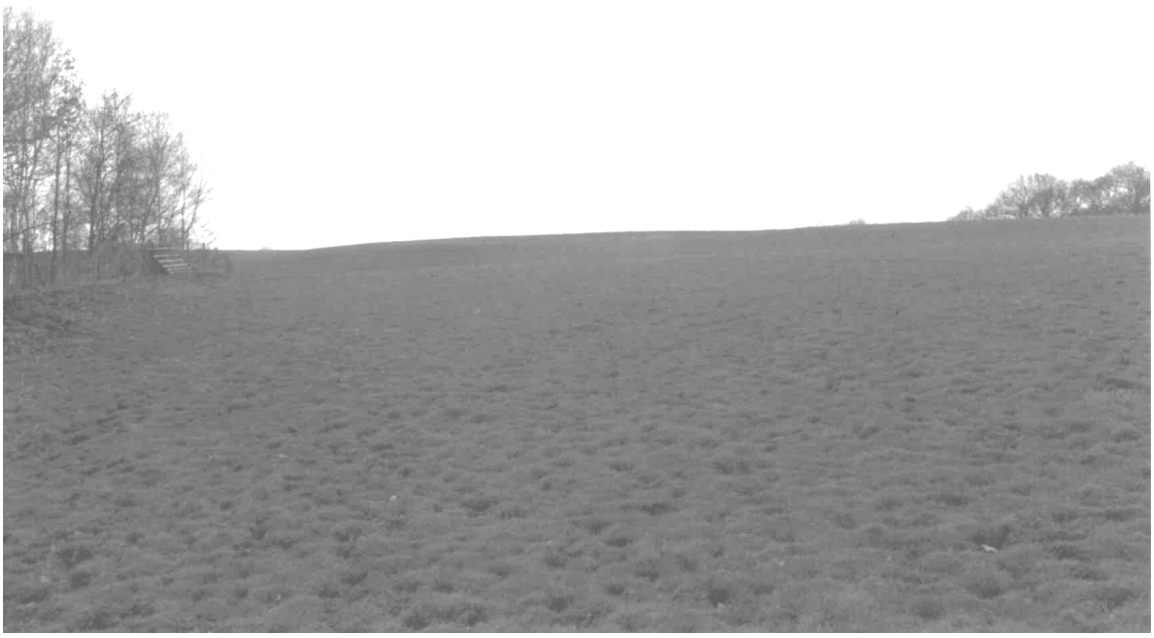

Plate 5: General View of Area 3

Plate 6: Possible Location of Mine (Site 77) Visible as Brine Pool on Ground