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# BRITISH GYPSUM SITE SHERBURN IN ELMET NORTH YORKSHIRE

A Report on an  
Archaeological  
Watching Brief

by Gareth Dean

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# BRITISH GYPSUM SITE SHERBURN IN ELMET NORTH YORKSHIRE

A REPORT ON AN ARCHAEOLOGICAL  
WATCHING BRIEF

by

**Gareth Dean**

December 2005

*Cover Illustration:  
Looking east across the DSG site*

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**SUMMARY**

Between April and November 2005, York Archaeological Trust carried out an archaeological watching brief on the extensions to the existing British Gypsum factory at Sherburn in Elmet, North Yorkshire. The work involved the monitoring of a 30m x 30m area in the north-west corner of the new DSG Store that exposed a haul road associated with the earlier factory and a redundant field boundary ditch. Monitoring was also carried out on the excavation of the new balancing pond and the construction of a new access road on the south side.

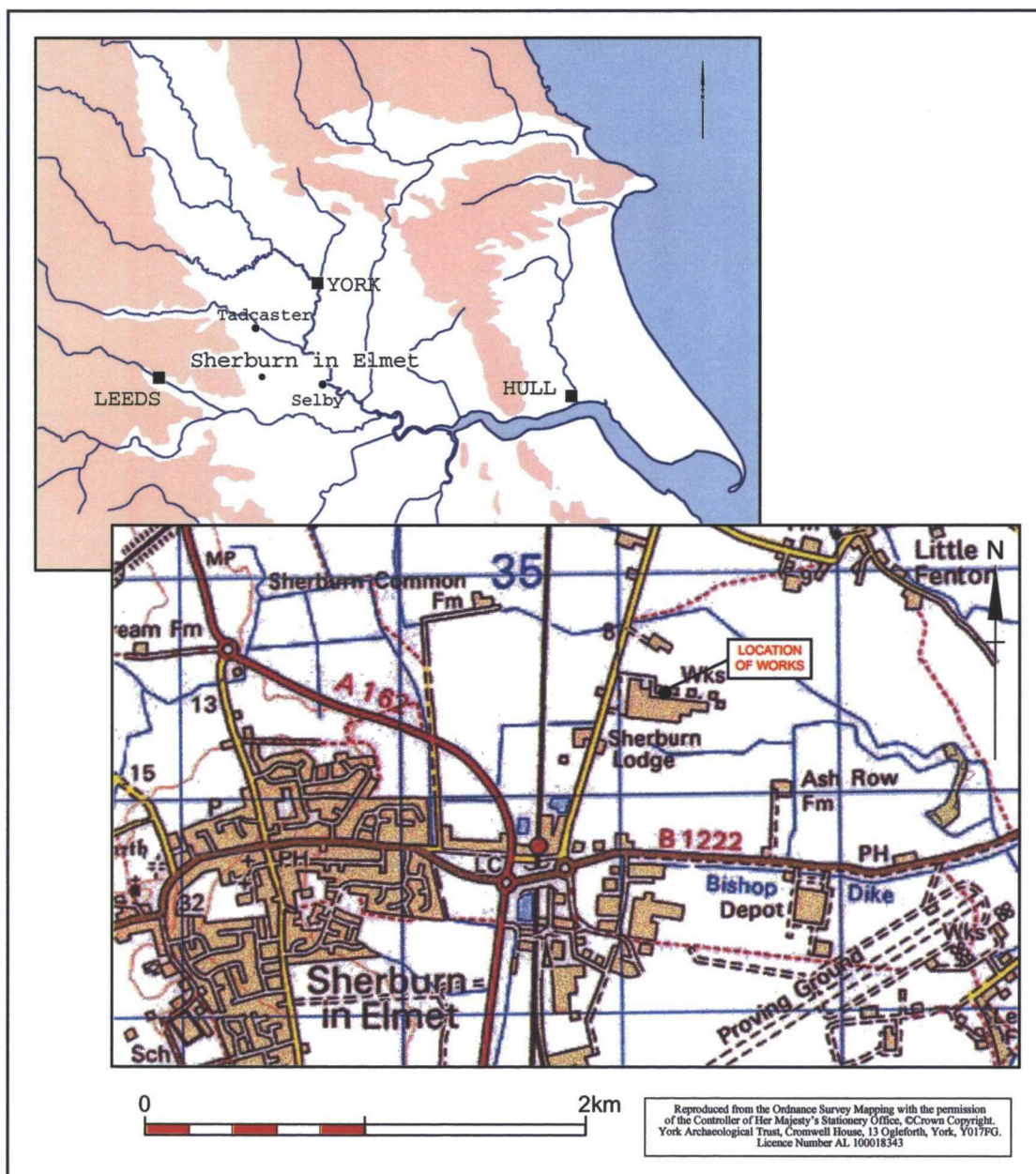


Fig.1 Site Location



## 1. INTRODUCTION

Between April and November 2005, York Archaeological Trust carried out a watching brief at the British Gypsum Factory, Sherburn in Elmet, North Yorkshire (NGR: SE 511354; Fig. 1). The watching brief involved monitoring the works associated with the construction of extensions to the existing factory building, a new balancing pond and access road

The work was carried out because the site is located close to the historic town of Sherburn in Elmet and the North Yorkshire SMR has identified a number of potential sites from analysis of aerial photographs. A detailed study of the archaeology and history, geology of the development was covered in a desktop study by WSP Environmental (Appendix 1)

The work was carried out on behalf of British Gypsum according to a planning condition issued by Selby District Council according to a standard Written Scheme of Investigation issued by North Yorkshire County Council. The archive is currently held by York Archaeological Trust under the museum accession code YORYM: 2005.512.

## 2. METHOD STATEMENT

The removal of overburden, usually gypsum and plaster board waste from the existing factory, was removed by mechanical excavator with either a toothed or bladed bucket. A area 30m x 30m in the north-west corner of the new DSG was excavated under archaeological supervision to the level of the natural subsoils. Monitoring of areas associated with the balancing pond and new access road was undertaken if natural subsoils were exposed during the course of the work. Decisions on which areas to monitor were based on information in the desk top study written by WSP Environmental (Appendix 1). Recording on site was by measured sketches in a site note book, and digital and print photographs.



Plate 1 Looking east across trial trench

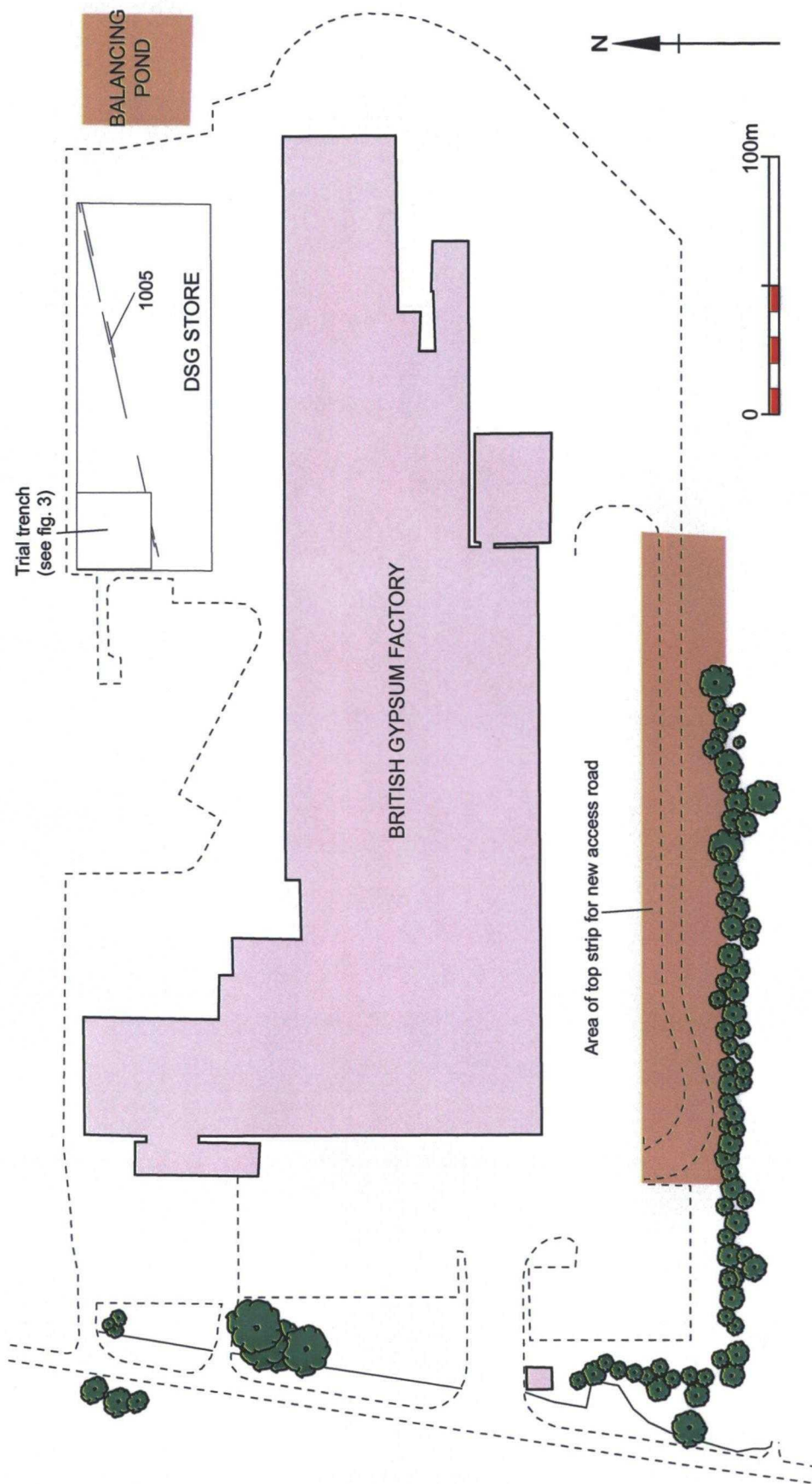


Fig. 2 Location of works



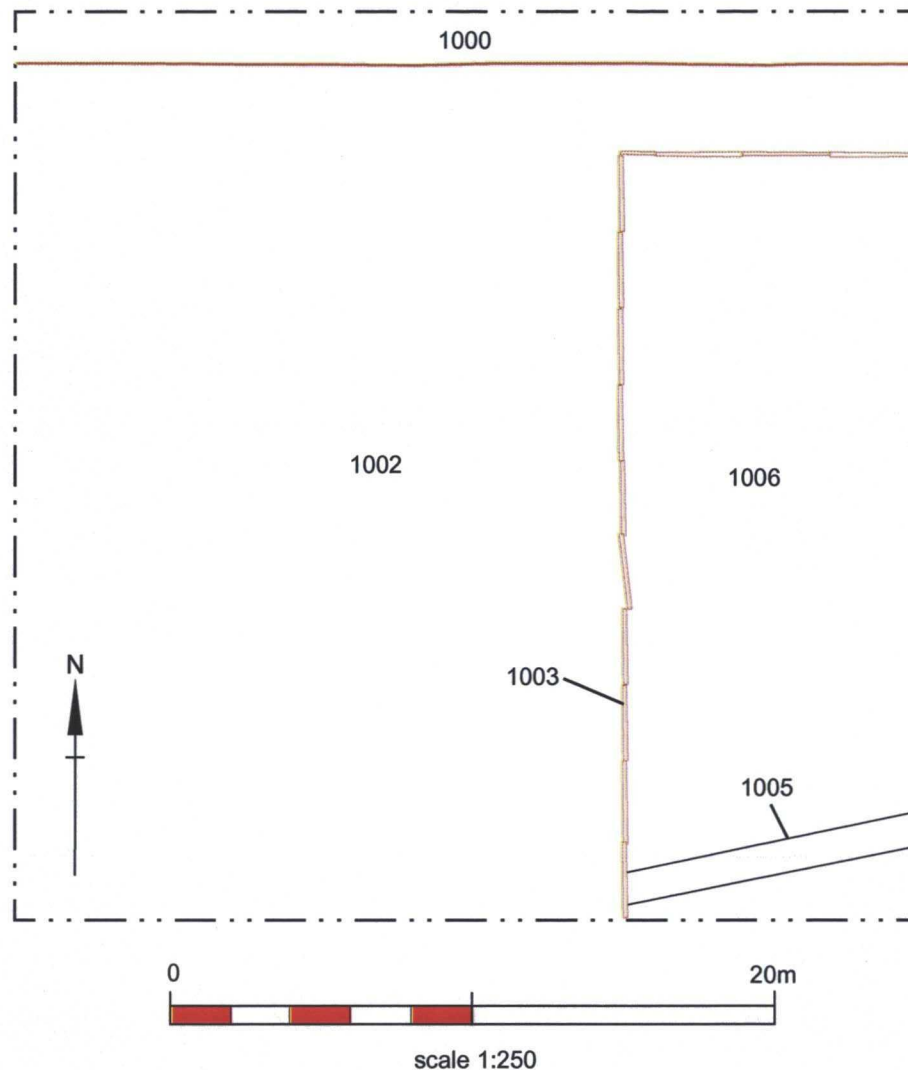


Fig.3 Plan of 30m x 30m trial trench

### 3. THE WATCHING BRIEF

#### 3.1 DSG STORE

Within the 30m x 30m area, the earliest deposit was the natural plastic clay (1006). Cut into this was a ditch (1005) between 1-1.4m wide that was filled with a firm dark grey silt with occasional charcoal flecks (1004) that produced fragments of 19<sup>th</sup> century pottery. The ditch was aligned roughly east-west and was probably associated with an old field boundary.

Overlying this ditch and the natural topsoil was the former topsoil (1000) which consisted of a firm, dark grey silt sand. Into this had been cut a haul road (1001) which was associated with the original layout of the factory. The haul road existed as a series of timber planks (1003), set on edge to form a kerb for a road way and possible turning circle. The surface of the road and compound had been filled with a mix of crushed stone and gypsum waste (1002).

Sealing these features and covering the area for the new DSG Store, was a 1.4-1.6m spread of different layers of gypsum waste which made the then existing ground level. In the subsequent monitoring of the DSG Store area similar deposits were observed with the Ditch 1005 seen to continue for approximately 40m before passing beyond the northern boundary of the stripped area. Further timbers, and crushed stone and gypsum waste associated with the haul road were also observed.

### **3.2 BALANCING POND**

In the area for the relocated balancing pond the natural clay (1006) was observed with no archaeological features observed cut into it. The overlying gypsum waste (1001) and any other overlying material was removed before the site visit was made.

### **3.3 ACCESS ROAD**

On the south side of the original factory the strip for the realignment of the access road to accommodate the new warehouse building exposed extensive dumps of gypsum waste (1001) up to 2m thick, especially along the southern boundary of the site.

## **4. CONCLUSION**

The watching brief at the British Gypsum did not produce any significant archaeological features or deposits. As indicated in the borehole survey (Appendix 1) there were extensive dumps of gypsum waste across the site between 1.4m-2m in thickness that had been laid directly over the original ground surface. The ditch (1005) observed in the area of the new DSG Store is part of the enclosure field system in existence prior to the construction of the British Gypsum Factory. The field system is clearly shown on the 1<sup>st</sup> Edition Ordnance Survey map of the area. The haul road and timbers exposed in the area of the DSG Store probably relate to the early phases of the factory.

## **5. ACKNOWLEDGEMENTS**

Illustrations and Report production	Russell Marwood
Editor	Dr Patrick Ottaway



## **APPENDIX 1 Part of the British Gypsum Environmental Statement referring to this site.**

N.B This is reproduced from the original document supplied by WSP Environmental. It was scanned and converted to a word document for the purpose of this report. Its content has not been edited by York Archaeological Trust.

### **11 CULTURAL HERITAGE AND ARCHAEOLOGY**

#### ***Introduction***

11.1 This component of the EIA provides baseline data on the archaeological and cultural heritage resource of the redevelopment site and its immediate vicinity and assesses the potential impacts of the development proposals on this resource, together with mitigation and residual impacts.

#### ***Methodology***

11.2 The report is guided by the 'Standard and Guidance for Desk-based Assessments' issued by the Institute of Field Archaeologists (IFA, 1999). The major sources of information consulted comprised the following:

- North Yorkshire Sites and Monuments Record (SMR);
- North Yorkshire Record Office (historic maps and documents);
- National Monuments Record (historic aerial photographs); and geotechnical data.

11.3 In addition a site visit was carried out on 3 June 2004. Consultation on the archaeological potential of the site was also carried out with Gail Falkingham, Heritage Unit, North Yorkshire County Council.

#### ***Existing Conditions***

##### ***Designated Sites***

11.4 No World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas, English Heritage designated Parks or Gardens of Special Historic Interest or Battlefields are located within the redevelopment site or its immediate vicinity. The nearest Scheduled Monument (King Athelstan's Palace) lies 2.2km to the south-west while five listed buildings lie within the village of Sherburn In Elmet. The nearest historic battlefield (Battle of Towton) lies 3.76km to the north-west.

11.5 The redevelopment site does not lie within a locally designated area of archaeological significance. However, there are records of archaeological sites and findspots within the vicinity of the redevelopment site on the North Yorkshire SMR.

11.6 The redevelopment site lies on level ground lying at about 8m AOD to the east of Fenton Lane, although the southern boundary of the site has been landscaped with the addition of a bund approximately 4m in height. In addition the eastern part of the site is dominated by an extensive artificial mound up to 7m in height. This mound lies in an area formerly used for the storage of plasterboard waste and has recently been planted with mixed species of trees. An extensive stockpile of raw materials also covers much of the northern part of the site. A small lagoon measuring approximately 40m x 20m also lies within the northern part of the site. The surrounding fields are under arable cultivation.

11.7 The natural geology of the site consists of Quaternary glacio-lacustrine clays and silts which overlie Permian Roxby Formation mudstones. There are no surface watercourses flowing through the site although an unnamed field drain, which flows into the Bishops Dike, lies along the eastern boundary. No deposits of palaeo-environmental significance are recorded within the redevelopment site or its immediate vicinity on the North Yorkshire SMR, although irregular marks to the north-west seen on an aerial photograph of 1993 may represent a former drainage pattern (although these may be geological in origin).

11.8 A geotechnical investigation of the redevelopment site was carried out in 2004. This investigation revealed that ground conditions generally comprise a variable depth of made ground overlying firm to stiff clays with sandstone encountered at depth.

#### ***Prehistoric (10,000 BC -AD 43) and Romano-British (AD 43 -400)***

11.9 No sites or finds of prehistoric or Romano-British date are recorded within the redevelopment site on the North Yorkshire SMR, although vague crop or soilmarks can be seen within the site on an aerial photograph of 1967. Just to the south of the site are a set of cropmarks which also may be of archaeological potential (SMR ref. NYM 10339). An aerial photograph of these taken in 1997 shows a series of east-west marks which probably relate to former field boundaries. However, two vague rectangular marks may represent earlier enclosures although the validity of these crop marks is (according to the SMR) open to doubt. However, if real they may be associated with several known cropmarks, including linear ditches and enclosures, recorded to the south of the B1222 (Figure 11.1). One of these cropmarks lies approximately 1 km to the south-west of the redevelopment site and consists of a north-south aligned linear ditch with an associated small enclosure. Further to the south geophysical survey and trial trenching has confirmed the presence of Late Iron Age and Romano-British enclosures and trackways. These cropmarks probably represent agricultural settlements on the light well-drained soils of a magnesian limestone ridge which runs across the Sherburn area (MAP 1998).

11.10 In addition burials of Romano-British date have been found in Garden Lane in the town



of Sherburn in Elmet also implying the existence of a settlement and an associated road system in the general area (MAP 1997). Also in the town archaeological trial trenches in Low Street encountered ditches which may be of Roman or later origin (MAP 2000).

#### ***Anglo-Saxon (AD 400 -1066) and Medieval (AD 1066 -1500)***

11.10 No sites or finds of Anglo-Saxon or Medieval date are recorded within the redevelopment site on the North Yorkshire SMR. However, the site lies just to the north-east of the town of Sherburn in Elmet which was an important Anglo-Saxon settlement. Indeed, a pre Norman Conquest charter shows that Sherburn was part (and probably the capital) of the kingdom of Elmet. The settlement is thought to date from at least the 9th century AD. In the early 10th century a palace was built here by King Athelstan, and the remains of this site are designated as a Scheduled Monument. The settlement is also recorded as Scireburne in the Domesday Survey of 1086. By the 13th century the town of Sherburn in Elmet appears to have been quite prosperous although the Battle of Towton was fought to the north of the town in 1461 during the Wars of The Roses .

11.11 There is no known information regarding the history of the redevelopment site during these periods although it is likely that the site was under an agricultural regime associated with Sherburn in Elmet for much of this time.

#### ***Post Medieval (AD 1500 -present)***

11.12 No sites or finds of Post-Medieval date are recorded within the redevelopment site on the North Yorkshire SMR, although the best source of information regarding the later history of the site comes from historic maps. The redevelopment site lies just to the east of land shown on the Enclosure Award of 1775 and there is also no tithe map for Sherburn in Elmet. As such the first available map of the redevelopment site is the Ordnance Survey map of 1850 (Figure 11.2). This shows the redevelopment site as lying within Sherburn Common, and included parts of eight fields. To the west and south of the site the fields are rectangular in shape suggesting Parliamentary Enclosure of a former medieval open field system. Sherburn Lodge is also marked on the opposite side of Fenton Lane. Fenton Common Farm lies to the north and Ash Row Farm lies just to the south-east.

11.13 The redevelopment site is mostly unchanged on later Ordnance Survey maps with the exception of the removal on one field boundary by 1908. To the south of the redevelopment site Sherburn in Elmet airfield was established in World War I and was also in operation during World War II (Barrymore Halpenny 1982). Fenton Common Farm had been renamed Little Fenton Dene by 1953 and Lodge Farm Cottages (now Sherburn Lodge Cottages) had been built opposite Sherburn Lodge Gust outside of the redevelopment site) by 1961. All of the remaining



field boundaries within the site had been removed by 1967 and an aerial photograph of the same date shows ground disturbance along most of the northern boundary of the site (possibly in preparation for the construction of the present factory). A further aerial photograph taken in 1974 shows a large stockpile on the southern part of the site and another taken in 1988 shows the present factory surrounded on its northern, eastern and most of its southern side by further stockpiles, probably of gypsum or raw materials.

11.14 WSPE understands from discussions with the client that drift mining for gypsum has been carried out in the area to the east of the redevelopment site. Mining apparently ceased around 1987.

### ***Geotechnical Works***

11.15 Eleven boreholes (V1-V11) were sunk in the landscaped areas to the south and east of the site (Figure 10.1). The natural geology (silts and clays) was encountered in boreholes V1 (at a depth of 2.8m), V2 (at a depth of 3.3m), V3 (at a depth of 2.8m), V4 (at a depth of 2.2m), V9 (at a depth of 1.7m) and V11 (at a depth of 7.5m). However, the natural geology was not encountered at all in boreholes V5 (6m deep), V6 (3m deep), V7 (6m deep), or V10 (3m deep). The made ground in these boreholes consisted mostly of plasterboard waste.

11.16 In addition a further six boreholes (81-86) were drilled elsewhere on the site. The natural geology (a sandy clay) was encountered in borehole 81 (at a depth of 1.9m); 82 (at a depth of 0.6m); 83 (at a depth of 2.4m); 84 (at a depth of 0.2m); 85 (at a depth of 2m) and 86 (at a depth of 2.10m). The made ground in these boreholes generally consisted of gravel sized fragments of limestone and gypsum with the exception of a 0.2m thick topsoil in 84.

11.17 The results of the geotechnical work show that much of the ground below the existing yard surfaces around the existing factory buildings is disturbed and that the natural geology in the landscaped areas to the south and east is deeply buried. This accords with the aerial photographs of the site which record the presence of stockpiles around the present factory.

### ***Consultation***

11.18 Consultation with Gail Falkingham of the Heritage Unit of North Yorkshire County Council has confirmed that the redevelopment site lies within an area of archaeological potential, noting the presence of the potential cropmark enclosures just to the south.

## **Assessment of Impacts, Mitigation and Residual Effects**

### ***Introduction***

11.19 The redevelopment site lies in an area of archaeological potential. Any archaeological sites are likely to be associated with cropmarks known to the south of the site which lie on a ridge of limestone favoured for past agriculture and settlement.

### ***Construction***

11.20 The redevelopment of the site can be summarised as follows:

- construction of a mill extension measuring 45m x 24.4m. A borehole (81) in this area demonstrated the presence of 1.9m of made ground overlying the natural sandy clay. The thickness of this made ground indicates that the natural ground has been deeply disturbed. As a result it is unlikely that any archaeological resource survives within this area
- construction of a portal reclaimer. Three boreholes in this area demonstrated the presence of 0.6m of made ground (82); 2.4m of made ground (83); and 0.2m of made ground (84). This suggests that the natural ground in this area has been disturbed to some extent. However, given the shallow depth of the natural geology in 82 and 84 it is possible that some archaeological deposits may still survive. However, extensive archaeological evaluation which could establish this is not currently possible because of the presence of a large stockpile (also used as a large nesting site by sand martins).
- construction of a warehouse extension measuring 228.6m x 45m. Two boreholes in this area demonstrated the presence of 2m and 2.10m of made ground (85 and 86 respectively). The thickness of this made ground indicates that the natural ground has been deeply disturbed. As a result it is unlikely that any archaeological resource survives within this area.
- construction of a new road in the eastern and southern parts of the site. Most of this road cuts through the landscaped area covering former plasterboard waste. If any archaeological resource has survived this activity it is likely to be at a considerable depth.

11.21 In summary it is highly likely that any archaeological resource within the development site has been damaged by the construction of the present factory and associated stockpiles. However, it is possible that the area under the present stockpile (in the proposed location of the portal reclaimer) could have the potential to contain an archaeological resource (possibly associated with known and suspected archaeological sites to the south). The potential for any



archaeological sites to exist within the landscaped area to the east is unknown, although on balance it is considered unlikely (if any archaeological features do survive here they will lie at a considerable depth).

**Mitigation**

11.22 In order to record any archaeological resource within the site which is discovered during construction work it is proposed that an archaeological watching brief is carried out during the groundworks for the portal reclaimer. This watching brief can be extended to the road construction once the plasterboard overburden has been removed. Should initial observation suggest that no archaeological resource has survived the watching brief can be cancelled providing agreement is reached with the Heritage Unit of North Yorkshire County Council. This work can be carried out as a PPG16 condition on the planning application. Any archaeological work will only be carried out after full consultation with the Heritage Unit of North Yorkshire County Council.

**Residual effects**

11.23 Archaeological remains are a finite resource and once disturbed or destroyed can never be replaced. Furthermore, in areas where such archaeological deposits may be destroyed and others left in place the information value of those remaining is also irrevocably reduced, as much of their value lies in their context and associations. However, any archaeological remains which have survived the past intense development of the site will be recorded in advance of construction. Therefore there should be no significant residual effects on any buried archaeological resource.

**Operation**

11.24 Once the redevelopment is complete and all mitigation measures implemented no additional effect on the archaeological or cultural heritage resource is anticipated.

**Table 11.1 Summary Impact Table for Cultural Heritage and Archaeology Issues**

<b>Potential Impact</b>	<b>Nature of Impact</b> (permanent or Temporary)	<b>Significance</b> (Major, Moderate or Minor) (Positive or negative)	<b>Mitigation/ Enhancement Measures</b>	<b>Residual Effects</b> (Major, Moderate or Minor) (Positive or negative)
Damage to a potential archaeological resource	Permanent.	Minor Negative	Archaeological watching brief during construction	Neutral