**Archaeology South-East** 

# ASE

# Results from a Geoarchaeological Test Pit Survey for Midhurst Academy, Midhurst, West Sussex

Site code: MAM 10

NGR: 48865 12215 ASE Project No: 4377

ASE Report No: 2011006

**Dr Matthew Pope** 

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### Abstract

Following an archaeological and geoarchaeological watching brief undertaken by Archaeology South-East at Midhurst Rother College, West Sussex during May/June 2010, a further phase of targeted test pitting was undertaken in December 2010 to recover samples and further develop understanding of the sedimentary framework for the site. The work was commissioned by Gifford on behalf of their client, Balfour Beatty Construction Ltd, and was designed and undertaken in order to discharge a planning condition relating to redevelopment of the school campus.

The results indicate a complex sedimentary sequence incorporating Pleistocene valley fills at the confluence between three fluvial channels. The modelling indicates relatively shallow made ground depths across the site, overlying a deposit of sandy colluvium relating to slope processes. No archaeological material or significant palaeoenvironmental deposits were encountered from undisturbed contexts.

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# 1.0 INTRODUCTION

- 1.1 Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology at the UCL Institute of Archaeology, were commissioned by Gifford on behalf of their client, Balfour Beatty Construction Ltd, to undertake geoarchaeological test pits at Midhurst Rother College, Midhurst, West Sussex (centred at NGR 48865 12215, Figures 1 and 2). The work, undertaken on 7<sup>th</sup> and 8<sup>th</sup> December 2010, formed the last part of a programme of archaeological work designed by Gifford to mitigate the impacts of comprehensive redevelopment of the school campus. It also formed the work required to discharge Planning Condition 15 of West Sussex Countv Council's planning permission. reference WSCC/082/MI/SDNP.
- **1.2** This work was undertaken to consolidate modelling of the sedimentary sequence of the site, which was based on two phases of geotechnical investigations carried out at the site: an archaeological watching brief during geotechnical trial works and a geoarchaeological watching brief undertaken during boreholes (Pope 2010). Further test pitting was deemed necessary in order to
  - 1. Resolve unclear stratigraphic relationships in the first order sedimentary model.
  - 2. To recover OSL dating samples of fluvial gravels and colluvial sands
  - 3. To test the deposits which the geotechnical work suggested may contain organics materials, and
  - 4. To systematically sieve fluvial gravels for Palaeolithic artefacts.

# 2.0 LANDSCAPE AND GEOLGICAL CONTEXT

- **2.1** The Midhurst Rother College site falls within the drainage of the Arun and Western Rother Rivers, the catchment of which lies largely within West Sussex, with a small part in Eastern Hampshire. The valleys cut through the varying Cretaceous and Quaternary Geologies of the West Sussex Coastal Plain, Chalk Downlands and the low lying Sussex Weald. The northern boundary falls along the line of Tunbridge Wells Sandstone outcrops lying at the western end of the High Weald, while the southern boundary is set by the present day coastline. The Arun and Western Rother together make up one single, indivisible river system, the Rother, having its confluence with the Arun some 15km inland from the modern coast. While the Rother is considered to be a subordinate system to the Arun, it has an extensive drainage area comparable to that of the pre-confluence Arun. The combined system drains the Western Weald and Chalklands from the flanks of the Surrey Hills, to the watersheds of the Adur, Lavant and Wey Rivers.
- **2.2** The lower reaches of the Western Rother cut a relatively straight and restricted valley through Lower Greensand and Gault geologies between the respective cretaceous escarpments of the South Downs, Folkstone Beds and Hythe Beds. To the north, the dip slope of the Lower Greensand (Hythe Beds) rises steeply to a 100m escarpment and preserves a number of well-defined terrace gravel deposits which have produced a good collection of Palaeolithic flint work and, at Duncton, faunal remains.
- **2.3** The Midhurst Rother College site is situated on the south bank of the River Rother between 35 and 20m OD. It occupies a topographic position at the foot of the Lower Greensand (Folkstone Beds) escarpment straddling a break in slope (at 25m OD) between the steep flank of the escarpment and more level ground flanking the

floodplain of the main river valley. It also occupies the effective confluence between a tributary dry valley of Rother, entering the flood plain from the south where it can be traced back to a major gap in the chalk which carries through to Singleton and the Lavant Valley and yet is separated from this system by a watershed to the north of Singleton near Cocking. The tributary valley will from here on be referred to as the Cocking Valley.

**2.4** This dry valley system would have been last active at the end of the last glacial period c. 100,000 years ago when it would have discharged melt water from snow fields on the South Downs. It may have continued to be active during the early Holocene as a spring-fed channel but today is devoid of active drainage and is currently occupied to the south of the site by the main settlement of Midhurst.

# 2.5 Solid Geology

2.5.1 According to British Geological Survey mapping (BGS, Sheet 317), the site is underlain by a solid geology comprising elements of the cretaceous Lower Greensand Formation (LGS). At the site this comprises almost entirely the Selham Ironshot Sand Member (SIS) although the Rogate Member (RGTB) and Upper Fittleworth Member (UFIB) also outcrop close to the site. These solid geologies comprise glauconitic sands and sandy clays containing beds of both phosphatic nodules and calcareous sand stones (Gallois 1965).

# 2.6 Superficial (Pleistocene and Holocene) Geology

- 2.6.1 The immediate subsurface geology, as mapped by the BGS, comprises fluvial sands and gravels of the 1<sup>st</sup> Terrace of the Rother. The outcrop at the site forms part of a more extensive surface deposit of river terrace gravels appearing to cover a crescentic landform indicative on an original Pleistocene meander curve, the ancient floodplain of the river swinging south here against the escarpment of the Folkstone Beds. The low position of this gravel spread in the terrace sequence suggests a Late Pleistocene date, however, no specific dating programme has yet been carried out in the Rother Valley to provide an accurate guide to exact ages. An MIS 7-6-5 (250K-125K BP) age is forwarded here as a possible date range for the deposits on the basis of altitude.
- 2.6.2 Further outcrops of river gravel to the south of this meander curve may relate to earlier terraces of the River Rother, however it is also possible these relate directly to the drainage of the Cocking Valley during periods of melt water discharge. It is possible that some of the terrace gravels underlying the site also relate to drainage of this valley system during the Late Pleistocene and not exclusively to the River Rother itself. Detailed consideration of topography, fluvial structures and clast composition may help to disentangle the degrees to which both fluvial systems were contributing to gravel aggradations at the site during the Late Pleistocene.
- 2.6.3 No deposits relating to Head or Colluvium were mapped by the BGS at the site, but proximity to the steep escarpment of the Folkstone Beds suggested from the start of the investigation that the presence of these deposits was likely. To the immediate east and north of the site are the alluvial deposits of the current Rother floodplain. These outcrop at lower altitudes than the school site (c. 20m OD) and it is not thought, on the basis of current mapping that the proposed development would impact on these deposits. However, due to their close proximity this could be

confirmed through further consideration of both geotechnical reports and topographic survey.

### 3.0 EARLY PREHISTORIC ARCHAEOLOGY IN THE ROTHER VALLEY

- **3.1** The Arun-Rother valley system came to the awareness of the archaeological community from the mid-nineteenth century onwards (Prestwich 1859) and has continued to produce artefactual material, usually associated with aggregate extraction or development to the present day. By the turn of the 20<sup>th</sup> century the Rother was established as an area with good potential for the preservation of Palaeolithic finds, a potential which has yet to be followed up by direct research prospection for sites (Garraway-Rice 1905; Roe 1968; Woodcock 1981, Roberts and Pope 2004). A general review of past work in the area is given in the Woodcock volume (Woodcock 1981) with an update of recent finds covered by the Boxgrove Project (Pope 2004). A review of all known find-spots and relevant outcrops of terrace deposits within the area was undertaken by Wymer as part of the Southern Rivers Project (Wessex Archaeology 1993; Wymer 1999).
- **3.2** Previous survey work by the Boxgrove Project/ASE in the vicinity of the Coates and Horncroft Common aggregate pits near Fittleworth have begun to determine precise rock-head heights for the major mapped terraces. This work is now being expanded by the UCL research team to establish the complete sequence of deposits and provide contextual information for previously recovered material. At Selham, exposures of terrace gravel in the railway cutting revealed patinated debitage within the body of sands and gravels. Two bifaces have been recovered from deposits above the Rother valley at Midhurst (SU887207, SU885215). At Chithurst (SU 842239) Fowler records an abraded ovate biface from fields above the Rother Valley. This may well indicate the continued presence of Lower Palaeolithic (c. 500,000 250,000 BC) material from the terraces of the Rother far into the western Weald and in the vicinity of the site.
- 3.3 Little previous work has been undertaken to the west of Midhurst. Palaeolithic finds are rare and terrace deposits poorly mapped. Midhurst is therefore an area of interest for understanding the relationship of the upper reaches of the Rother system with the better known eastern parts of the valley. By establishing the true range of terrace deposits in this region, it can be tied in with the mapped sequences of the Lower Rother and work can then proceed to make a direct correlation between the Rother sequence and the better-known and archaeologically important staircase sequence of the Wey valley, which shares a water-shed with the Rother in this area. The Farnham terrace sequence has produced abundant artefacts from 150ft terrace deposits (Farnham Terrace A). These artefacts are crude and contrast with finer, soft-hammer finished tools from the lower 120ft Terrace B (Roe 1968; Wymer 1999). These artefact-bearing deposits should have equivalents within the Western Rother, given the shared watershed. Both the high level plateaus and lower valley flanks of the valley should be considered areas of archaeological potential given the demonstrable presence of artefacts across all terraces in the Rother-Arun systems.

# 4.0 PREVIOUS GEOTECHNICAL INVESTIGATIONS AT THE SITE

### 4.1 Geotechnical investigations

4.1.1 Two phases of geotechnical investigations have been carried out at the site. These results were modelled (Figures 3-5) and this model formed the basis of the geoarchaeological test pit evaluation reported on here.

### 4.2 Geotechnical test-pits

- 4.2.1 The first phase, (carried out on the 10/5/2010) comprised 12 geotechnical test pits excavated to depth of between 1.5m and 2.5m (Figure 2). All test pits showed sequences capped by between 0.3m and 1.1m of made ground resting on underlying sands. It would appear likely that the original Holocene landsurface here has been truncated, partially in an attempt to create a flat, stable and dry playing field although a number of pits lay outside the existing school campus boundaries.
- 4.2.2 Sands and gravel deposits make up the rest of the observable sequences during the work undertaken in May 2010. Generally, to depths of around 1.2m- 1.5m these comprise Yellowish Brown to Orange Brown fine to medium sands with fine to coarse medium flint and siltstone gravels. Below 1.5m, in TP212, TP207 and TP205 gravels become more prevalent, perhaps indicating a general coarsening on the bed-load reflecting initial high-velocity flow. Of note is the clay with sand bed recorded at 1.2m in TP208 which contained rootlets despite being sealed by sands. The possibility of surviving palaeoenvironmental evidence from this location should be considered.
- 4.2.3 None of these test pits made contact with the underlying Folkstone Beds Solid. Water strikes were encountered at between 2m and 2.5m in TP212, TP210, TP211 and TP201.

### 4.3 Geotechnical boreholes

- 4.3.1 A second phase of geotechnical work was carried out on the 2/06/10. This comprised five boreholes (BH201 205, Figure 2) taken to depths of in excess of 20m. These provided an indication of basal depths for the river terrace deposits, interpreted here as being the maximum depth of gravel elements in the lithological make up of the sediments and consequently the platform height of the terrace itself. Caution should be taken in accepting this interpretation as it rests on the assumption that the earliest phase of fluvial aggradations of the terrace was high energy and consequently will contain the coarse clast components. Discerning the difference between reported sands which may comprise basal parts of the fluvial sequence and the upper, weathered parts of the solid Folkstone Beds is difficult in the field and impossible to call on the basis of examination of sediment log records alone.
- 4.3.2 In all boreholes the indisputable solid (Folkstone Beds) was encountered at between 4m and 7.5m depth. In BH202 and BH205 the fluvial gravels were underlain by 3m of stiff dark glauconitic clay. These may be a facies of the Lower Greensand Formation.

### 5.0 GEOARCHAEOLOGICAL TEST PITS DECEMBER 2010

### 5.1 Methodology

- 5.1.1 Nine geoarchaeological test pits (GTP 1-9) were excavated across the site (Figure 2).
- 5.1.2 The trial pits were excavated under constant archaeological supervision. The trenches were dug by an 8 ton 360° tracked excavator fitted with a 1.5m wide toothless ditching bucket.
- 5.1.3 Pleistocene Sediments were recorded in the following manner:

Beneath the modern horizons, the sections were recorded at 0.25m vertical intervals to allow the development of a series of detailed sediment logs. These observations comprised detailed sediment descriptions at 0.25m intervals or at the junction of major stratigraphic or lithological boundaries. The descriptions comprised matrix lithology, coarse components, sediment cohesion and well as characterisation of superficial structures and likelihood of decalcification. Given the presence of depositional contexts likely to preserve either artefactual or macrofaunal material at depths which are below the possibility of direct in-situ inspection, the arisings were placed in stratigraphical order to enable description and recording. The spoil was constantly checked for artefacts as the trench was dug.

- 5.1.4 Where considered appropriate, sealed OSL samples were taken from blocks of solid, undisturbed fluvial and colluvial sediment.
- 5.1.5 Representative 40lt bulk samples were taken from sediments for palaeoenvironmental assessment.

### 5.2 Results

5.2.1 The following targeted geoarchaeological test pits were observed in December 2010.

GTP	1
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Grid co-ordinates:		
North	East	Level
488798.912	112035.082	22.912mOD.

Depth	Stratigraphy	Lithology	Colour	Coarse Component	Sample	Notes
0	Made	Clay	Dark	Modern CBM	-	-
	Ground		Grey			
0.4	Colluvium	Fine sand	Orange	None	-	Flecks of
		with Clay	Brown			manganese
						mineralisation,
						heavily disturbed
						through modern
						rooting.
1.1	Disturbed	Fine sand	Light	None	Bulk	Structureless and
	Alluvium?	with clay	yellow		Sample	loose
			brown		1.1	
1.7	Fluvial gravel	Medium	Light	20% sub-angular to	Bulk	Water strike at
		sand	yellow	subrounded flint	Sample	1.9m
			brown	gravel 10-30mm	1.2	
2.5	Fluvial gravel	Medium	Light	20% sub-angular to		Hole Collapse

	sand	yellow	subrounded flint	
		brown	gravel 10-30mm	

### GTP 2

Grid co-ordinates:		
North	East	Level
488702.841	122025.882	24.939mOD

Depth	Stratigraphy	Lithology	Colour	Coarse Component	Sample	Notes
0	Made	Clay	Dark	Modern CBM	-	Waterstrike at
	Ground		Grey			0.75
1.1	Colluvium	Fine sand with Clay	Orange Brown	None	_	Flecks of manganese mineralisation, heavily disturbed through modern rooting.
1.8	Fluvial gravel	Medium sand	Light yellow brown	20% sub-angular to subrounded flint gravel 10-20mm	Bulk Sample 2.1	Hole Čollapse

# GTP 3

Grid co-ordinates:		
North	East	Level
488655.417	122020.188	25.342mOD

Depth	Stratigraphy	Lithology	Colour	Coarse Component	Sample	Notes
0	Topsoil	Clay with	Dark	Modern CBM	-	-
		sand	Yellow			
			Brown			
0.4	Colluvium	Fine sand	Orange	None	-	Structureless
		with Clay	Brown			Water strike at
						1.1m
1.8	Fluvial gravel	Medium	Light	30% sub-angular to	Bulk	
		sand	yellow	subrounded flint	Sample	
			brown	gravel 10-30mm	3.1	
2.0	Fluvial gravel	Medium	Light	30% sub-angular to		Hole Collapse
		sand	yellow	subrounded flint		
			brown	gravel 10-40mm		

GTP 4

Grid co-ordinates:		
North	East	Level
488663.379	122151.049	25.676mOD.

	Depth	Stratigraphy	Lithology	Colour	Coarse Component	Sample	Notes
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0	Topsoil	Clay with sand	Dark Yellow Brown	Modern CBM	-	-
0.4	Colluvium	Fine sand with Clay	Orange Brown	None	OSL 4/1.4	Structureless Water strike at 1.1m
1.5	Fluvial gravel	Medium sand	Light yellow brown	40% sub-angular to subrounded flint gravel 10-80mm	Bulk Sample 4.1	
2.6	Fluvial gravel	Medium sand	Light yellow brown	30% sub-angular to subrounded flint gravel 10-90mm		Waterstrike and hole Collapse

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Grid co-ordinates:								
North	East	Level						
488622.171	122168.501	27.601mOD.						

Depth	Stratigraphy	Lithology	Colour	Coarse Component	Sample	Notes
0	Topsoil	Clay with sand	Dark Yellow Brown	-	-	-
0.4	Colluvium	Fine sand with Clay	Orange Brown	None	Bulk sample 5.1	
1.5	Lower Colluvium	Medium sand with clay	Orange Brown	5% sub-angular to subrounded flint gravel 10-15mm	Bulk Sample 5.2	
3.1	Lower Colluvium	Medium sand with clay	Orange Brown	5% sub-angular to subrounded flint gravel 10-15mm		Waterstrike and hole collapse

# GTP 6

Grid co-ordinates:			
North	East	Level	
488459.816	122079.615	26.98mOD.	

Depth	Stratigraphy	Lithology	Colour	Coarse Component	Sample	Notes
0	Made	-	-	Tarmac	-	-
	Ground					
0.17	Made	-	-	Modenr CBM and	-	-
	Ground			concrete rubble		
1.1	Colluvium	Medium	Orange	-	Bulk	
		sand with	Brown		Sample	
		clay			6.1	
3.3	Colluvium	Medium	Orange	5% sub-angular to		Waterstrike and
	(Lower ?)	sand with	Brown	subrounded flint		hole collapse
		clay		gravel 10-15mm		

# GTP 7

Grid co-ordinates:		
North	East	Level
488476.61	122055.178	28.488mOD.

Depth	Stratigraphy	Lithology	Colour	Coarse Component	Sample	Notes
0	Topsoil	Clay with	Dark	-	-	-
		sand	Yellow			
			Brown			
0.4	Colluvium	Medium	Orange	-	Bulk	-
		sand with	Brown		Sample	

					-	
		clay			7.1 OSL 7/0.7	
0.8	Fluvial gravel	Medium sand	Light yellow brown	40% sub-angular to subrounded flint and iron stone gravel 20-60mm	Bulk Sample 7.2	
3.2	Fluvial gravel	Medium sand	Light yellow brown	25% sub-angular to subrounded flint and iron stone gravel 20-250mm	OSL 7/3.0	Waterstrike and hole collapse

# GTP 8

Grid co-ordinates:		
North	East	Level
488374.188	122006.366	33.642mOD.

Depth	Stratigraphy	Lithology	Colour	Coarse Component	Sample	Notes
0	Topsoil	Clay with	Dark	-	-	-
		sand	Yellow			
			Brown			
0.4	Colluvium	Medium	Orange	-	Bulk	-
		sand with	Brown		Sample	
		clay			8.1	
0.8	Folkstone	Medium	Light	-		Compact Solid
	Beds	Sand	yellow			Geology
			brown			
1.5	Folkstone	Medium	Light	-		Compact Solid
	Beds	Sand	yellow			Geology
			brown			

### GTP 9

Grid co-ordinates:			
North	East	Level	
488474.346	121965.162	26.824mOD.	

Depth	Stratigraphy	Lithology	Colour	Coarse Component	Sample	Notes
0	Topsoil	Clay with sand	Dark Yellow Brown	-	-	-
0.4	Colluvium	Medium sand with clay	Orange Brown	-	Bulk Sample 9.1	-
1.3	Fluvial gravel	Medium sand	Light yellow brown	5% sub-angular to subrounded flint and iron stone gravel 20-40mm	Bulk Sample 9.2 OSL 9/3.0	
3.2	Fluvial gravel	Medium sand	Light yellow brown	10% sub-angular to subrounded flint and iron stone		Waterstrike and hole collapse

			7.02	110,000,100. 2011000
		gravel 20-40mm		

## 6.0 DISUSSION OF GEOARCHAEOLOGICAL OBSERVATIONS

- 6.1.1 The targeted geoarchaeological survey has allowed the first order sedimentary modelled to be effectively tested and demonstrated the following observable facts for each of the modelled stratigraphic units. The following units, all identified during the original assessment can now be more confidently described and interpreted.
  - 1. Made Ground: Made ground was encountered across much of the site, especially close to the original school buildings. Outside of the school compound (GTPs 7, 8, 9) made ground was absent. It only attained significant depths in GTP6 where a tennis court was constructed on a substantial raft of dumped CBM and concrete (Figure 6).
  - 2. Colluvial Orange Sands: Whilst originally interpreted as comprising an alluvial deposit, possibly relating to terrace deposits, modelling and ground investigation has now clearly resolved this deposit as a colluvial Head Deposit. Below made ground, it covers the entire site and has a basal underlying contact which cuts across a number of underlying sedimentary units suggesting a degree of unconformity which most probably relates to erosional slope processes. The fine grained, sandy nature of the deposits and the occasional presence of fine white patinated flint of a plateau deposit character, suggests that this deposit relates to the sub-aerial erosion of the local solid geology and the western valley. Similar plateau gravels cap most low hills in the vicinity of the site. They are possibly the remnant of early Pleistocene fluvial terrace and head deposits relating to the retreat of the chalk escarpment.

OSL samples were taken of the base of Colluvial sands in GTP 4 and GTP7. These could be processed to determine the initiation of colluviation within the local valley system but would be of little academic value and is not recommended.

- **3.** Clay with sand: During the original assessments two locations, TP208 and TP211 showed mottled clays, underneath the Orange Cover sands. At TP208 these were associated with a record of rooting. The current investigation failed to locate these deposits, no alluvial clays or organics were encountered in any of the nine test pits.
- 4. Fluvial Sands and Gravels: Medium to Coarse flint and sandstone gravels in a grey sand matrix were observed at depths between 1m and 4m below ground surface in all the borehole sequences and at two of the mid-slope test pits (TP205 and TP212). The model shows this deposit to be consistent with a fluvial terrace deposits as previously suspected, with neither the upper or lower surface of these gravels respecting the ground surface slope geometry and having a contact in the majority of cases with the underlying solid.

OSL samples were taken of the fluvial sands and gravels in GTP 4 and GTP7. These could be processed to determine the initiation of colluviation within the local valley system but would be of little academic value and is not recommended.

5. Glauconic Clay: In two boreholes (BH205 and BH202) a stiff, dark green Glauconic clay was encountered between the fluvial sands and gravels and the surface of the Solid Geology. At BH202 this occurred between 3.1m and 6.1m while at BH205 it was between 4.75m and 6.2m. In BH204 a thin seam of Glauconic Clay was found at the same stratigraphic position but was too thin to properly model. No Glauconic clay was encountered in any of the nine test pits

- 6. Lower Greensand: The interpretation of basal sandstones as being the solid Lower Greensand geology is upheld by the ground investigation which encountered solid Folkstone Beds in GTP8.
- 6.1.2 No artefacts were recovered from the fluvial gravels. The gravels constituted both rounded and sub-rounded flint gravels but also contained a hitherto undetermined component of iron stone derived from the immediate Folkstone Beds geology underlying the site and to the immediate west.

### 7.0 CONCLUSIONS

- 7.1 The site was thought to hold moderate potential for the recovery of Pleistocene archaeology in the form of stone artefacts and palaeoenvironmental data in the form of faunal remains, and environmental indicators such as molluscs, pollen and microfauna. Further targeted test pitting at the site did not recover any artefactual evidence. No organic or faunal remains were recovered. Bulk samples of colluvium and terrace gravels could now be assessed. However, in the absence of evidence of human activity and the oxidised structureless nature of the sediments potential for meaningful analysis is low and is therefore not recommended.
- 7.2 OSL dating samples have been taken which could now be processed. However, in the absence of artefact or palaeoenvironmental evidence processing of the OSL samples would be of little academic value and is therefore not recommended.
- 7.3 The site of the Midhurst Rother College appears to preserve sedimentation relating to three major sedimentary processes:
  - 1. Initial incision of the Folkstone Beds has occurred in the Pleistocene with the formation of the main east-west channel of the River Rother, controlled by the position of the Folkstone beds scarp slope.
  - 2. Secondary channel incision relating to the south-north Cocking Valley and the subsidiary west-east valley dissecting the Folkstone Beds Plateau to the west creates a complex confluence zone of fluvial sands and gravels immediately under the Midhurst Rother College site. Fluvial deposits were too deep and waterlogged to determine whether the three valleys profiles were independently represented by separate gravel facies but this possibility remains.
  - 3. The entire site is covered by significant depths of colluvium derived from the Folkstone Beds Plateau to the west of the site. These sands are loose and unconsolidated, they are disturbed through both recent human activity and bioturbation towards the top and variably waterlogged at depth. No bedding structures or associated traces of human activity were encountered within then. It is reasonable to assume they are wholly Holocene in date and relate to slope processes exacerbated by human impacts such as clearance. Such processes are known to be initiated in the early Holocene (Keef and Dimbleby 1965).
- 7.4 The geoarchaeological survey has provided a valuable opportunity, through a measured targeted approach, to consolidate understanding of the site developed through previous watching briefs. It has also allowed the formation of an archive of palaeoenvironmental and dating samples, although it is not recommended that these be processed at this time.

7.5 The work has clearly demonstrated the complex interrelationship between Pleistocene and Holocene valley formation processes within the Weald, indicating complex phasing of valley incision and development over long time scales. Contexts suitable for the preservation of Palaeolithic artefacts and ecofacts are widespread in the Weald and extend laterally from mapped floodplains into dry valley contexts shown through BGS survey to be devoid of fluvial gravels. Consideration should therefore be given to the overall sedimentary framework as early as possible in the investigation of large low lying sites in the weald. Through a combination of sedimentary modelling and targeted fieldwork exercises such as this, potential and mitigation approaches can then be quickly determined.

#### Acknowledgements

The author would like to thank the following for their help in producing this report: Gifford (Andy Shelley), Giles Dawkes, Chris Russell, Justin Russell, Rob Cole, Andy Leonard, Balfour Beatty Construction Limited (Daniel Culkin).

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Project Ref: 4377	Jan 2011	3D well log model 1	Tig. 5a
Report Ref:	Drawn by: MP		



© Archaeology South-East		Midhurst Academy, Midhurst	Fig. 3b
Project Ref: 4377	Jan 2011	3D well log model 1 (Solid)	1 ig. 55
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Project Ref: 4377	Jan 2011	3D well log model 2	1 ly. 4a
Report Ref:	Drawn by: MP		



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Project Ref: 4377	Jan 2011	2D well log model 2 (Solid)	1 lg. 40
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Cross-Section A-A'



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Project Ref: 4377 Jan 2011	Excavation of Test Pit 6 in tennis court showing	- Fig. 0
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