

Site Name**Cainhoe Quarry, near Clophill****BEDFORDSHIRE LOCAL GEOLOGICAL SITE DESIGNATION FORM****SITE LOCATION, ACCESS, OWNERSHIP, STATUS & SUITABILITY**(1) **Name of site:** Cainhoe Quarry, near Clophill, Bedfordshire(2) **National grid reference:** TL 102 375(3) **Unitary authority:** Central Bedfordshire(4) **Site access and local amenities**

The site is located on the southern side of the A507, 2km east of Clophill. Visits must be pre-arranged and accompanied. There is parking for cars inside the gate and there is a toilet in the site office. Local amenities are available in Clophill.

(5) **Site ownership:** Thomas Brothers Excavations (Luton) Ltd.(6) **Mineral rights ownership:** Thomas Brothers Excavations (Luton) Ltd.(7) **Is permission needed to access the site?**

a. No

b. Yes ✓

If yes, from whom?

Quarry Manager
Andrew Burton
Cainhoe Road
Beadlow
Bedfordshire
MK45 4HH

Tel: 01582 594 111

(8) **Site status:** Active ✓ Disused Historical Managed Restored New Other(9) **Suitable for visits by:**

a. General public

b. Small parties ✓

c. Large parties

d. Primary school

e. National Curriculum

f. AS/A-Level

g. Adult ✓

h. Undergraduate teaching ✓

i. Research ✓

(10) **Site suitable for frequent visits by parties?**

a. No

b. Yes ✓

(11) **Should collecting and hammering be encouraged at the site?**

a. No

b. Yes ✓

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SITE DESCRIPTION		
(12) Exposure type:	a. Inland natural outcrop	b. Road cutting
c. Railway cutting	d. Active quarry/pit ✓	e. Disused quarry/pit
f. Old mine workings	g. Mine dump	h. Active mine
(13) Dimensions of exposure of interest: 100m of good face, more concealed beneath slumped areas.		
(14) Main interest(s):	a. Structural	b. Geomorphological
	c. Mineralogical	
d. Palaeontological	e. Petrological ✓	f. Stratigraphical
g. Other: Sedimentological ✓		
<p>(15) Summary description and reason for designation Good section through part of the Woburn Sands Formation, showing excellent sedimentary structures. Cainhoe Quarry is in an area that shows transitional facies between typical Woburn Sand successions in SW Bedfordshire and areas to the northeast.</p>		
<p>(16) What threats exist for the site? Large areas of standing water form quicksand in certain parts of the site, making it unsuitable for visits outside the summer months. Active quarrying and the recycling operation (converting demolition waste to aggregate) generate much activity here, making site visits difficult. When extraction is complete in 2042 this site will be backfilled and the exposure will be lost.</p>		
<p>(17) What additional work is required to enhance the site? A B&LGG work party could record the full details of this site as currently exposed.</p>		
<p>(18) Published/unpublished references to the site and wider area Allen, J. R. L. 1981. Lower Cretaceous tides revealed by cross-bedding with mud-drapes. <i>Nature</i>, 289, 579-581. Evers, J. 1991. The influence of tectonics on early Cretaceous sedimentation in Bedfordshire, England. <i>Journal of the Geological Society of London</i>, 49, 405-414. Evers, J. 1995. Correlation of the Lower Greensand (Woburn Sands and Carstone) of the Bedfordshire Province, England. <i>Cretaceous Research</i> 16, 385-413. Shephard-Thorn, E. R. <i>et al.</i> 1986. An outline study of the Lower Greensand of parts of south-east England. <i>Technical Report of the British Geological Survey</i>, WF/MN/86/1. Shephard-Thorn, E. R. <i>et al.</i> 1994. <i>Geology of the country around Leighton Buzzard</i>. Memoir for the 1:50 000 geological sheet 220 (England and Wales), London, HMSO. <i>The Lower Greensand – for geologists</i>. B&LGG information leaflet. www.bedsrigs.org.uk</p>		

SCIENTIFIC SIGNIFICANCE		
(19) Does the site exhibit features of local/regional importance?	a. No	b. Yes ✓
(20) Is the site already a designated SSSI?	a. No ✓	b. Yes
(21) Collector interest:	a. Rare species	b. Common species
	c. Local significance	
d. Regional significance	e. National significance	
(22) List of confirmed fossils, minerals, etc: N/A		

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HISTORICAL/AESTHETIC VALUE		
(23) Does the site have important historical associations?	a. No ✓	b. Yes
(24) Does the site form a key part of an attractive or evocative landscape?	a. No ✓	b. Yes
<p>(25) Full description of site and its significance The 8m section displays a series of sands and sandstones from the Woburn Sands Formation. The basal 2m resemble the 'Brown Sands' of the Leighton Buzzard area, with fine-grained sandstones in thin (20cm) beds. Sedimentary structures include clay-draped ripple horizons, bi-directional (N-S) cross-bedding, tidal bundles, flaser bedding, channeling, iron pans and iron nodules. The overlying 6m comprise coarse-grained, brick-red sandstones with numerous pebble horizons. They become more thinly bedded and less well cemented towards the top and show predominantly unidirectional (S-SSW) cross-bedding. This unit may be a correlative of the 'Silver Sands' unit in the Leighton Buzzard area.</p>		

RECORDER'S DETAILS	
(26) Name: Dr Jill Eyers	(27) Organisation: Consultant geologist working on behalf of B&LGG
(28) Date of designation: January 2007	

CURRENT SITE CONDITION
(29) Site condition at February 2009 is GOOD DECLINING; assessed by Martin Whiteley.

NOTES
(30) Form revised and updated by Dr Martin Whiteley, B&LGG Local Geological Site Manager, November 2009. For further details contact Anne Williams: annew36@hotmail.com