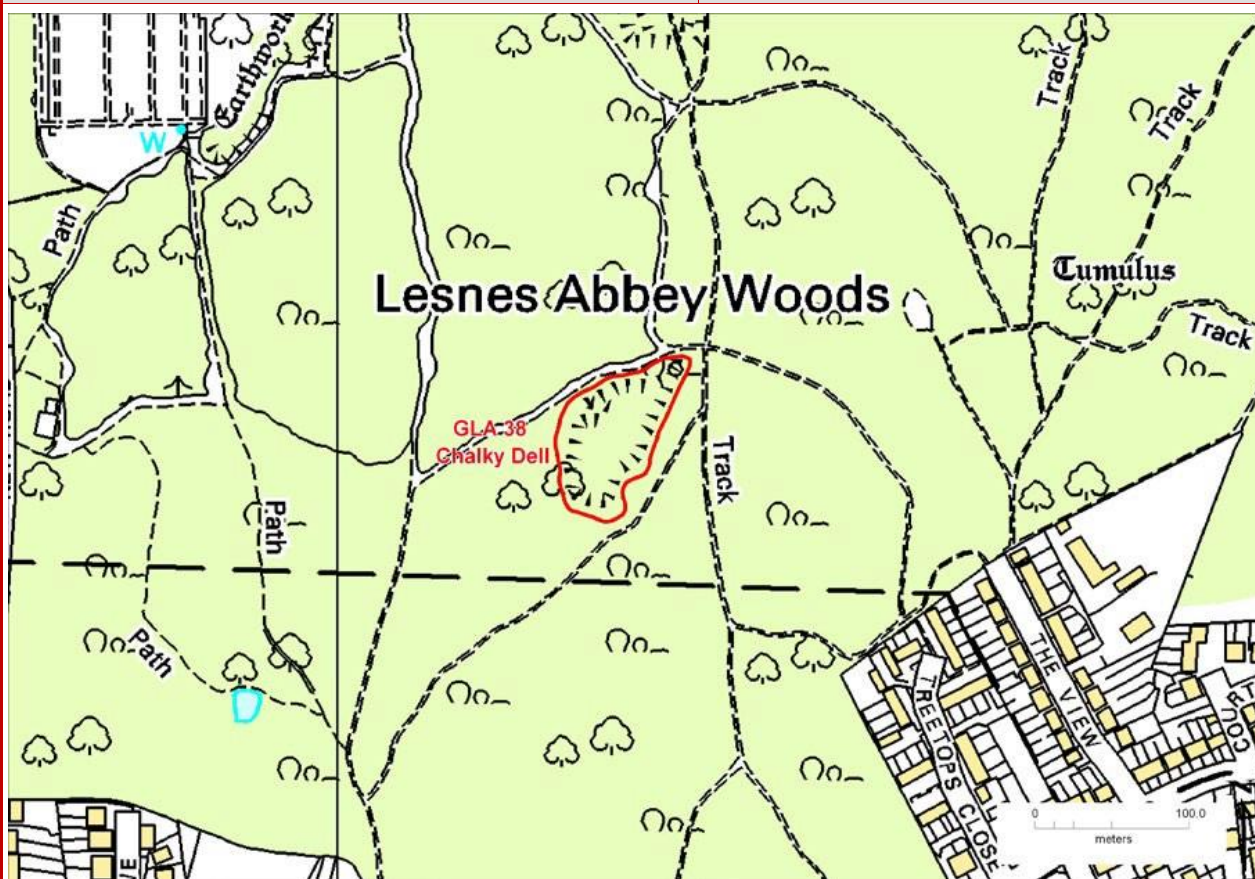


GLA 38 Chalky Dell, Lesnes Abbey Woods

Grid Reference: TQ 48147846	Site Type: Former Chalk Pit with Thanet Sand at top
Site Area (hectares): 0.54	Current use: within recreational land of Lesnes Abbey Woods
Site ownership: L.B. of Bexley	Borough: London Borough of Bexley
Field surveyor: Diana Clements	Date: October 2010
Re-visited: Diana Clements, Laurie Baker	Date: March 2020
Current geological designation: RIGS	Other designation: Metropolitan SINC (Lesnes Abbey Woods and Bostall Woods)
Site Map	OS Topography © Crown Copyright



Stratigraphy and Rock Types

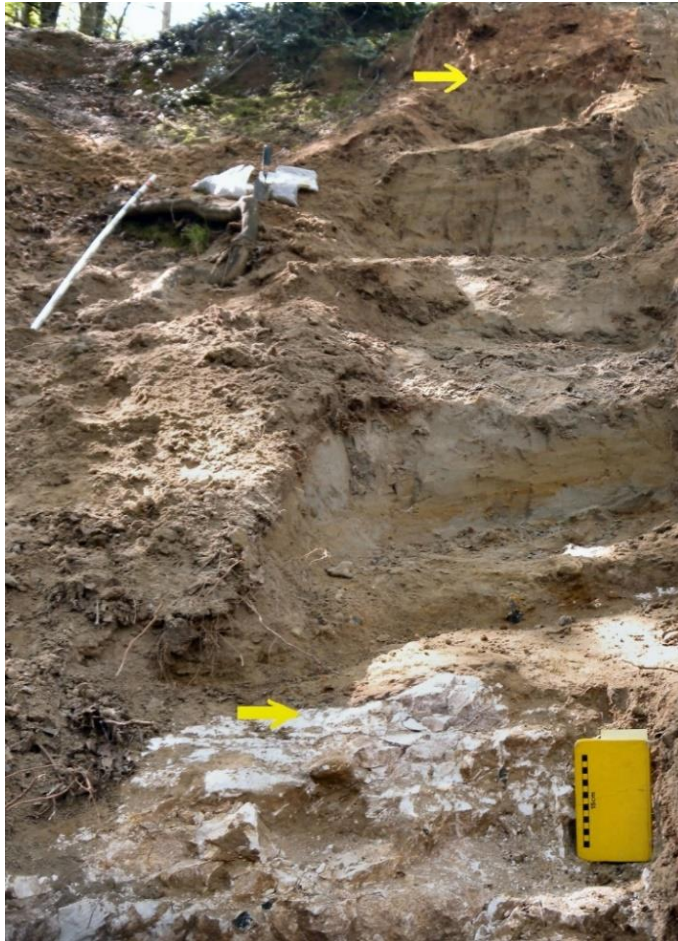
Time Unit: Paleocene	Rock Unit: Thanet Formation with Blackheath Formation above
Rock Type: Clay, silt, sand	Details: Pale yellow-brown fine-grained sand that can be clayey and glauconitic. Bullhead Bed of nodular green glauconite-covered flints at base.
Time Unit: Late Cretaceous	Rock Unit: Probably Seaford Chalk Formation, White Chalk Subgroup
Rock Type: Chalk	Details (Seaford Chalk): Firm white chalk with conspicuous semi-continuous nodular and tabular flint seams. Hardgrounds and thin marls are known from the lowest beds. Some flint nodules are large to very large.

Site Description

Small, partially-overgrown Chalk pit that formerly exposed the junction with the Thanet Formation above including the un-weathered glauconite-covered flints of the Bullhead Beds at the base. The quarry is included as Stop 10 on the Green Chain Walk Geotrail but at present only small exposures of Chalk are visible close to the floor of the pit, the rest is covered in scree. A small section was exposed near the top of the section to reveal the top of the Chalk, the Bullhead Bed at the base of the Thanet Sand with the Blackheath Formation sand above (the BGS map marks this as Head). There is potential for re-excavating steps up the scree slope still just visible to make the exposure a more permanent feature. More research required to confirm that the top of the Chalk is within the Seaford Chalk Formation (the norm for the London region).

Reference: Marriott, St J. 1925. <i>British Woodlands as illustrated by Lessness Abbey Woods</i> . George Routledge & Sons Ltd. London.		
Assessment of Site Value		
Geodiversity topic: Lithostratigraphy; sedimentology; geomorphology; palaeontology.		
Access and Safety		
Aspect	Description	
Safety of access	Fenced off and gated area within Lesnes Abbey Woods.	
Safety of exposure	It is not safe to climb the scree slope to access the top of the quarry.	
Permission to visit	All individuals or groups wishing to visit should contact the Council, email: lesnesabbey@bexley.gov.uk	
Current condition	Thanet Sand scree covers the vegetation-bare area of the quarry. Elsewhere vegetation obscures the faces. A small patch of chalk with large flints is kept cleared on the low cliff on the slope down to the quarry floor.	
Current conflicting activities	Fly-tipping.	
Restricting conditions	Present non-visibility of face, except for the small Chalk exposure e	
Nature of exposure	The quarry was cleared of rubbish in 1992 and a section cut in 2014. It is currently inaccessible but simple steps could be created to the top if the fly-tipping problem could be overcome.	
Culture, Heritage & Economic		
Aspect	Description	Rating
Historic, archaeological & literary associations	Described by Marriott, 1925 with a photograph of the Bullhead Bed junction	6
Aesthetic landscape	Distinct quarry on Green Chain Walk Geotrail	4
History of Earth Sciences		0
Economic geology	Chalk used for agricultural purposes and in construction of the road through the woods. Possibly used sparingly in the walls of Lesnes Abbey	4
GeoScientific Merit		
Geomorphology	Research potential in establishing the thickness of the overlying Thanet Formation and the true nature of the overlying sand at this point. At the SSSI the Blackheath Beds channel down through the Lambeth Group and the sub-surface geology can provide useful evidence to the palaeo-structures. It is likely to be part of the Blackheath Beds but is labelled 'Head' by the BGS.	4
Sedimentology	Details not known but the site offers an opportunity to examine the Chalk, Bullhead Bed and Thanet Sand.	5
Palaeontology	None known about	
Igneous/mineral / Metamorphic Geology	None.	0
Structural Geology	Local sub-surface structure needs resolving	4
Lithostratigraphy	Junction between Thanet Formation (Bullhead Bed) and Chalk is main lithology of interest. Only Chalk exposure in Bexley.	6
Potential use	Research; education;	
Fragility	natural overgrowing; weathering/erosion;	
Current Site Value		
Community	On Green Chain Walk Geotrail: www.londongeopartnership.org.uk/geotrails	7
Education	There is an interpretation board at the entrance to the quarry. It will be included in a proposed leaflet on the geology of Lesnes Abbey Wood.	8
Geodiversity value		
RIGS:	worth conserving for an introduction to the geology of the area and specifically for the Bullhead Beds. Controlled public access.	6

GLA 38 Chalky Dell



Full section – top and base of Thanet sand arrowed.
Photo: Steve Tracey, April 2014



Cross-bedded base of Thanet sand on
bullhead bed. Photo: Steve Tracey, April 2014



Chalk exposure with flints.
Photo: Laurie Baker, February 2016