

LOCAL GEOLOGICAL SITES

THURROCK DISTRICT



ThG11 One Tree Hill Brick Pit

Site location: One Tree Hill Brick Pit (part of Langdon Hills Country Park)

Grid reference: TQ 6959 8610

Status: Publicly accessible (pit is fenced for safety reasons)

Summary of the geological interest:

One Tree Hill is one of the high points of the Langdon Hills. The hill is capped with Claygate Beds and an isolated patch (an outlier) of Bagshot Sand on the very highest ground.

The brick pit was worked by the former Corringham Brick and Tile Company. The pit still exists in a fenced off area although it is much overgrown. The Bagshot Sand is sometimes visible in heaps thrown out from animal burrows. It would be possible to create a section in one of the steep banks.

The Country Park is run by Thurrock Council's Ranger Service.



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Site Assessment. *Local Geological Sites (LoGS) in Essex are assessed using criteria based on DEFRA guidance. An assessment form is used which asks key questions under four value categories: scientific, educational, historical and aesthetic. This site has been assessed and qualifies under these criteria.*

The geology of One Tree Hill

The geology is straightforward and consists of London Clay overlain by Claygate Beds which in turn is overlain by Bagshot Sand. These rocks were laid down in a warm, subtropical sea that covered much of south-east England during the Eocene period some 50 million years ago. The Bagshot Sand is a very fine-grained yellow sand although in this pit it contains a certain amount of clay.

The geological succession of London Clay, Claygate Beds and Bagshot Sand is similar to Westley Heights nearby, and that of other high points in south Essex such as Rayleigh. The succession tells a story spanning several million years. As the sea became shallower, the clay became mixed with sand and London Clay was replaced with the sandy clay of the Claygate Beds. Sea level continued to fall and, as the coastline approached, Bagshot Sand was laid down across the county.

The brick and tile works were operating in the late 19th century and there were two tile kilns where the present toilets stand, and a light railway to take the brick earth down to the brickworks at the foot of One Tree Hill. The industry is last mentioned in 1906 and all that remains today is the large enclosed sand pit together with ponds and spoil heaps.



*The former pit on **One Tree Hill** in 1907, showing what was then a fine section through the Bagshot Sand with its resident sand martins. The Bagshot Sand was formed on the floor of a sub-tropical sea some 50 million years ago.*

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References:

COLE, W. 1908. **Visit to the Laindon Hills, Essex in conjunction with the Geologists' Association.** *Essex Naturalist*. Vol. 15. Pages 144-146.

RYAN, P. 1999. **Brick in Essex: The clayworking craftsmen and gazetteer of sites.** Privately published.

WOOLDRIDGE, S.W and BERDINNER, H.C. 1922, **Notes on the geology of the Langdon Hills, Essex.** *Proceedings of the Geologists' Association*. Vol. 33. Pages 320-323.