

LOCAL GEOLOGICAL SITES

THURROCK DISTRICT



ThG5 Buckingham Hill Sand Quarry

Site location: Buckingham Hill Sand Quarry (Tarmac Quarry),
Buckingham Hill Road, Orsett

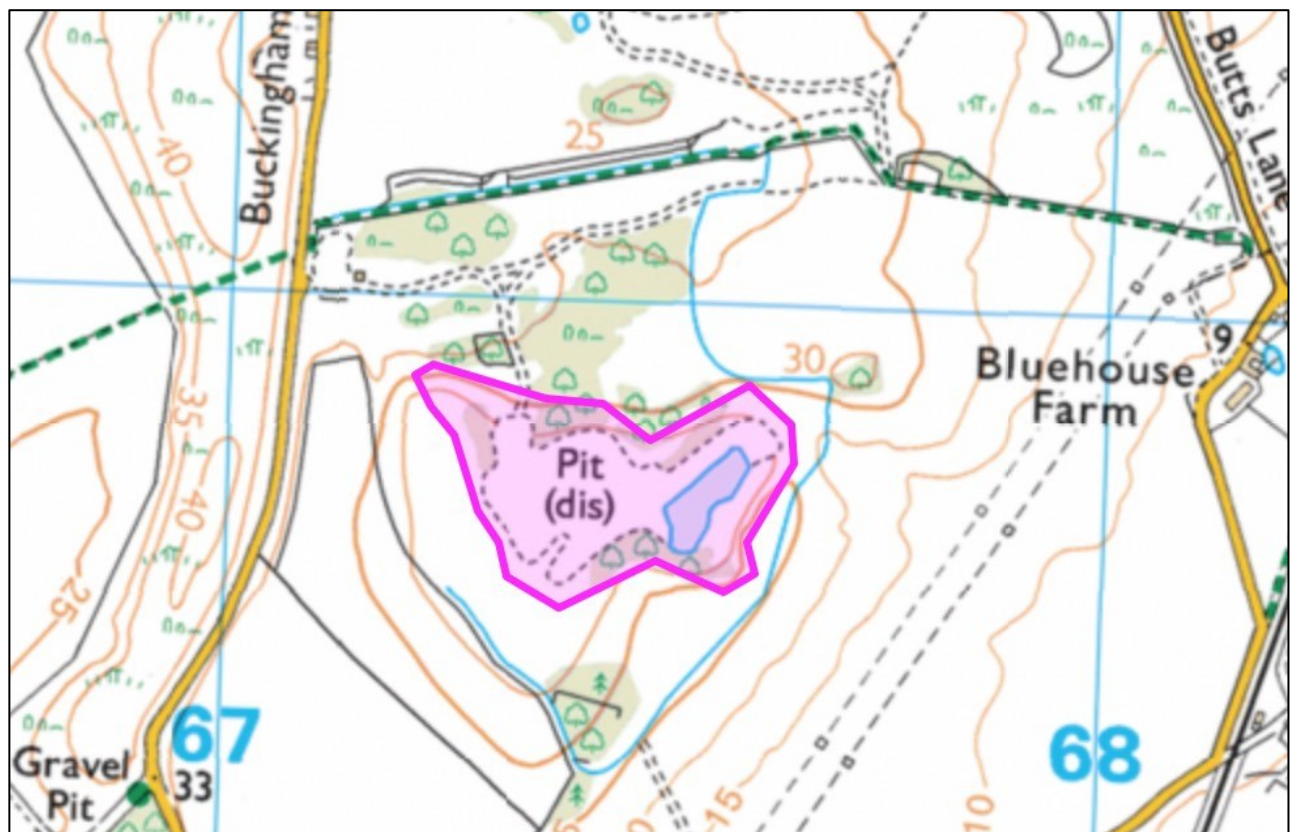
Grid reference: TQ 673 803

Status: Private land

Summary of the geological interest:

The disused Buckingham Hill Pit, north-west of Walton's Hall, was formerly operated by Tarmac and is often referred to as the Orsett Tarmac Pit. It provides very fine exposures of the Woolwich Beds sands of Palaeocene age. They were deposited in a shallow, subtropical sea some 55 million years ago.

The cliff face profiles should be retained as far as possible in any future development scheme.



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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.*

Scientific interest and site importance

The Woolwich Beds is part of the Lambeth Group, a set of geological rock strata on top of the Thanet Sand that was deposited in subtropical seas and estuaries that covered parts of the London and Hampshire basins soon after the extinction of the dinosaurs. It is about 55 million years old (Palaeocene epoch) and precedes the London Clay which was deposited slightly later, under a deeper sea.

At Buckingham Hill Quarry the strata consists mostly of sands. The exposures are magnificent and are one of the few places left in the Thames valley where they can be studied. Of particular interest is the preservation in the cliff faces of burrows of crustaceans that lived on the sandy sea floor.

This site gives the impression of a wild and remote corner of Essex and the towering cliffs of sand add to the grandeur of the scene. It is important that the cliff profiles are retained for the benefit of geology and wildlife. Part of the site is a Local Wildlife Site for the benefit of invertebrates and the development of heathland.

The exposures at Buckingham Hill have been specifically referred to in the geological survey memoir for the London region (Ellison 2004)



Exposures of 55 million year old marine sands called the Woolwich Beds at Buckingham Hill Quarry.

Photo: © G. Lucy

References:

ELLISON, R.A. 1979. **Report of a field excursion to south Essex, 1st March 1975.** *Tertiary Research*. Vol. 2. Pages 51-55.

ELLISON, R.A. 2004. **Geology of London.** Special Memoir for 1:50,000 Geological sheets 256 (North London), 257 (Romford), 270 (South London) & 271 (Dartford). British Geological Survey. Pages 26-27)