

GLA 35 Wansunt Pit (in Braeburn Park)

Grid Reference: TQ 515 738	Site Type: Free public access
Site Area (hectares): 1.95	Current use: Free public access
Site ownership: The Land Trust; managed by London Wildlife Trust for the Land Trust	Borough: London Borough of Bexley
Field surveyor: Natural England Revisited: Diana Clements (with QRA Field Trip)	Date: October 2001 Date: July 2019
Current geological designation: SSSI Citation: 1003328.pdf (naturalengland.org.uk)	Other designation: MOL; Borough Grade I SINC (Braeburn Park)

Site Map

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Stratigraphy and Rock Types



Time Unit: Pleistocene	Rock Unit: Dartford Heath Gravel (a local term for the Boyn Hill Gravel Member of the Thames Valley Formation). The local 'Wansunt Loam' overlies the gravel in the north edge of the former pit.
Rock Type:	Details: Dartford Heath Gravel is a predominantly layered flint gravel of small rounded pebbles in a sandy matrix of red colouration. Occasional clasts of rounded vein quartz were observed.

Site Description

This site provides exposures in the Dartford Heath Gravel, a deposit which has been the subject of considerable controversy since the turn of the century. It has been variously attributed to the Boyn Hill Terrace, part of the Swanscombe sequence or to an older, higher terrace.

The presence or absence of archaeological material in the gravel itself is questionable, but a working floor of Acheulian age has been discovered in the Wansunt Loam overlying the gravel in Wansunt Pit. The question of whether or not the Dartford Heath gravel is equivalent to any part of the Swanscombe sequence, and what its relationship is to the Thames Terraces, has long been debated in the Thames Pleistocene studies, and therefore the exposures here are of considerable importance. It is now considered to be a local variation of the Boyn Hill Gravel (Bridgland et al., 2019).

Assessment of Site Value		
Geodiversity topic: Sedimentology and lithostratigraphy.		
Access and Safety		
Aspect	Description	
Safety of access	Publicly accessible site via Galloway Drive	
Safety of exposure	Possibility of slumping and likelihood of overgrowth if not conserved	
Permission to visit	It is on publicly accessible land but permission required for any detailed work through Natural England: ProtectedSites@naturalengland.org.uk	
Current condition	Part filled former gravel pit. Part developed for local industrial units with access roads. Enclosed by housing and mainly over grown. Recent development of land within the pit has resulted in land raising up to the base of the SSSI and construction of a new access road into the development site. Several exposures have been created on the northern face of the SSSI as part of the planning conditions which are refreshed by the Quaternary Research Association when they make periodic visits. The main exposure in the SE face of the former quarry is less accessible but can be reached by a rudimentary path along the edge of the woodland. It is refreshed from time to time.	
Current conflicting activities	Possible future animal/plant conservation issues as managed by London Wildlife Trust (LWT mention importance of the geology in their site information).	
Restricting conditions	Vegetation and fly-tipping	
Nature of exposure	Overgrown in southern part of the site when not recently exposed. Managed exposures in northern part of the site	
Culture, Heritage & Economic		
Aspect	Description	Rating
Historic, archaeological & literary associations	Source of palaeolithic artefacts	7
Aesthetic landscape	Part of Braeburn Park managed by London Wildlife Trust	
History of Earth Sciences	Significant history of research and a critical (and controversial) site in the interpretation of the Thames Gravel sequence. Site is described in Field Excursion Guides of the Quaternary Research Association (see Bridgland et al, 2019)	7
Economic geology	Former gravel pit – local interest	4
GeoScientific Merit		
Geomorphology	Not rated.	
Sedimentology	Not rated.	
Palaeontology	Mammalian remains and flint artefacts	7
Igneous/mineral/ Metamorphic Geology	None.	
Structural Geology	None.	
Lithostratigraphy	Critical site for the interpretation of the Thames Gravel sequence and for correlation across Europe (esp. development of the Rhine River system). Presence of Palaeolithic artefacts adds significant value.	8
Potential use	High research interest, potential local and regional educational value	
Fragility	Vegetation management necessary, critical sections in northern part of site	
Current Site Value		
Community	Publicly accessible site but exposures may not be visible unless conserved	2
Education	Important educational locality especially university level and research, possible regional and local interest in collaboration with London Wildlife Trust	10

Geodiversity value	
SSSI: High scientific value for its Thames Terrace sequence, critical site for interpreting Thames Terraces and for comparison across Europe	9
GLA 35 Wansunt Pit	
Recently conserved exposures at Quaternary Research Association Field Excursion, July 2019	
	
South-east face: Dartford Heath Gravel	North-east face: Wansunt Loam
Photos: Diana Clements	