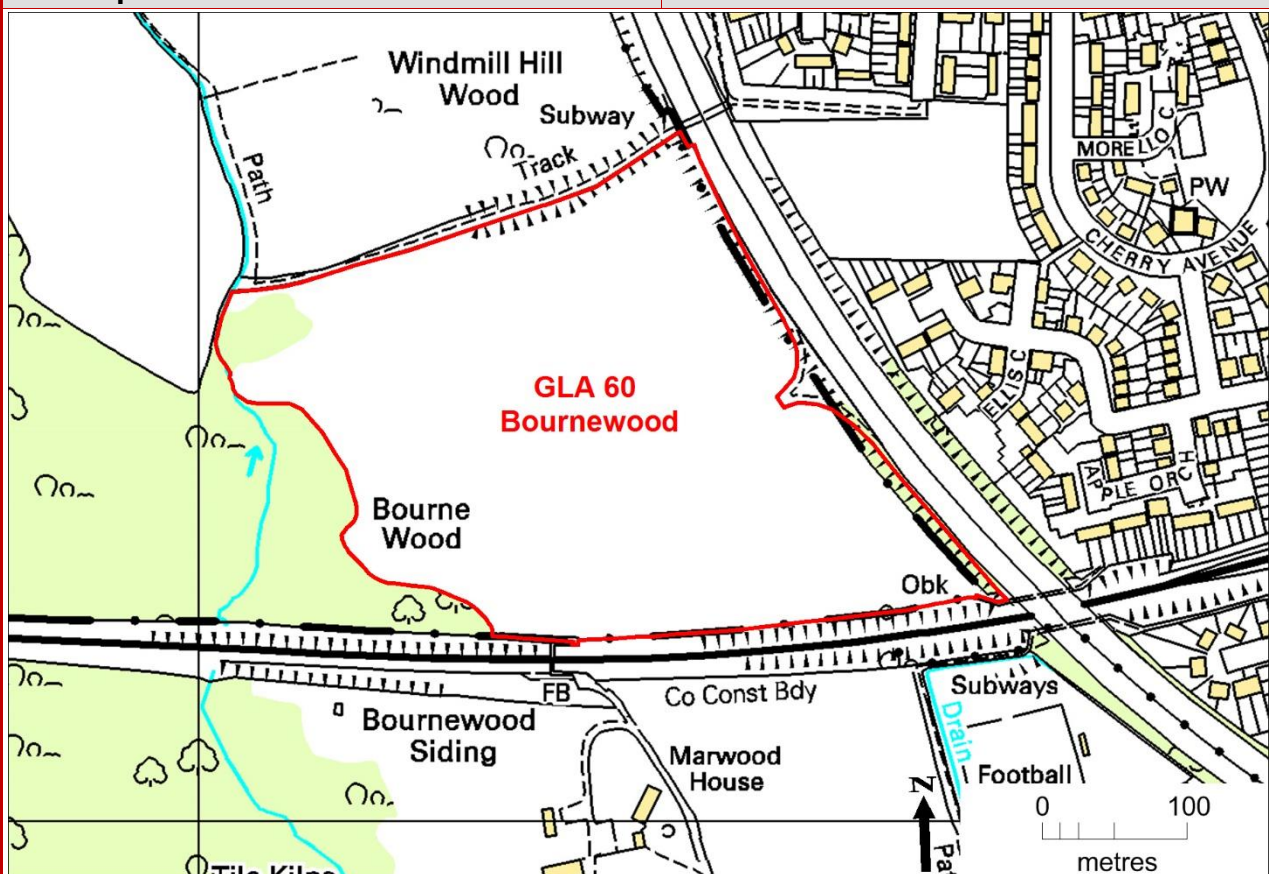


GLA 60 Bourne Wood Quarry

Grid Reference: TQ 503 683 (access)	Site Type: Working Thanet Sand pit
Site Area (hectares): 10.46	Current use: aggregates
Site ownership: Bourne Wood Sand & Gravel	Borough: London Borough of Bromley
Field surveyor: Diana Clements	Date: May 2013
Revisited: Steve Tracey	Date: 2019
Current geological designation: Recommended by Partnership as a RIGS	Other designation: Metropolitan SINC (Bourne Wood)

Site Map

OS Topography © Crown Copyright



Stratigraphy and Rock Types

Time Unit: Paleocene	Rock Unit: Thanet Formation	
Rock Type: Sand	Details: well-bedded fine yellow sand	

Site Description

The Thanet Sand within the pit is fine-grained and it is not easy to see any stratigraphy within it. One sample showed evidence of burrowing and probably the c.9m face had been thoroughly bioturbated. No glauconite was evident in samples studied with the hand lens and for the most part it was a pale yellow.

BWS&G had formerly extracted Thanet Sand to the south of the present excavation, adjacent to the railway. That pit went deeper than the present one and although Thanet Sand has been proven at depth here they are worried about the water table as one area of the quarry was prone to flooding.

Trials have taken place in an adjacent field to the north where a greater thickness of sand has been proven and the 'grade' is more suitable for construction. It is possible that this includes Upnor Formation. The maximum depth of Thanet Sand in this area is between 20 and 25m (BGS Memoir, Fig. 9). In 2020 planning permission has not yet been sought for extraction from the adjacent site.

The current pit in 2013 was 14 acres and we were told that they began excavations in 1997 with permission for extraction until 2018 after which it will be used as landfill with an obligation to return for use as agricultural land. There seems little likelihood of being able to conserve a face in the current pit but Bromley Council has been alerted to the fact that a Potential RIGS exists in their borough with the aim to

include an element of conservation on future planning permissions. A visit in 2019 confirmed that the extraction was completed but no information on future plans was gathered.		
Assessment of Site Value		
Geodiversity topic: Lithostratigraphy; sedimentology;		
Access and Safety		
Aspect	Description	
Safety of access	Small slip road off the northbound A20. Hard hats, visi vest and boots essential.	
Safety of exposure	Minimal danger of falling sand.	
Permission to visit	Bourne Wood Sand & Gravel, Quarry Drive, A20 Swanley Bypass, Swanley, Kent, BR8 7QH.	
Current condition	Temporary exposure scheduled for landfill and then returned to agricultural use after 2018 It is not known if an extension will be sought.	
Current conflicting activities	Need to be aware of moving machinery; piles of landfill already on floor of pit. Obligation to backfill so RIGS should be sought in next round of planning permission with a requirement to leave a viewable face.	
Restricting conditions	Anxiety of water table impeding deeper quarrying	
Nature of exposure	In 2013 this was a working quarry with full 9m face visible and accessible. It was entirely Thanet Formation although BGS map implies it is overlain by Harwich Formation. The face was not revisited in 2019, although it was understood to be still visible.	
Culture, Heritage & Economic		
Aspect	Description	Rating
Historic, archaeological & literary associations	None known about	0
Aesthetic landscape	Small rural area remaining close to urban conurbations	2
History of Earth Sciences	None known	0
Economic geology	Sand quarrying	8
GeoScientific Merit		
Geomorphology	None	0
Sedimentology	There is an ambiguity about the top few metres in this quarry that warrant research, otherwise it is fine-grained Thanet Sand	6
Palaeontology	None seen	0
Igneous/mineral/ Metamorphic Geology	None	0
Structural Geology	At southern edge of the London Basin Syncline	2
Lithostratigraphy	Until it was worked out in (c.2018) this was the only working Thanet Formation quarry in GLA. There is a possibility that planning permission will be sought to extend the area.	6
Potential use	Research; working quarries are difficult for school-age education	
Fragility	Landfill.	
Current Site Value		
Community	Future planning permission should include an element of conservation for future generations	6
Education	Quarry owners would give permission for researchers and probably students	6
Geodiversity value		
Recommended by Partnership as a RIGS:	The only Thanet Sand quarry in GLA	6

GLA 60 Bourne Wood



Main face of Bourne Wood in May 2013.
Photo: Diana Clements