

GLA 37 Mark's Warren Farm Quarry Complex

Grid Reference: TQ 488 895

Site Type: aggregate quarry site

Site Area (hectares): 31.06

Current use: potential land fill

Site ownership: Brett Lafarge

Borough: London Borough of Barking & Dagenham

Field surveyors: Diana Clements / Peter Collins / Bill George

Date: July 2011 (ceased operation soon after)

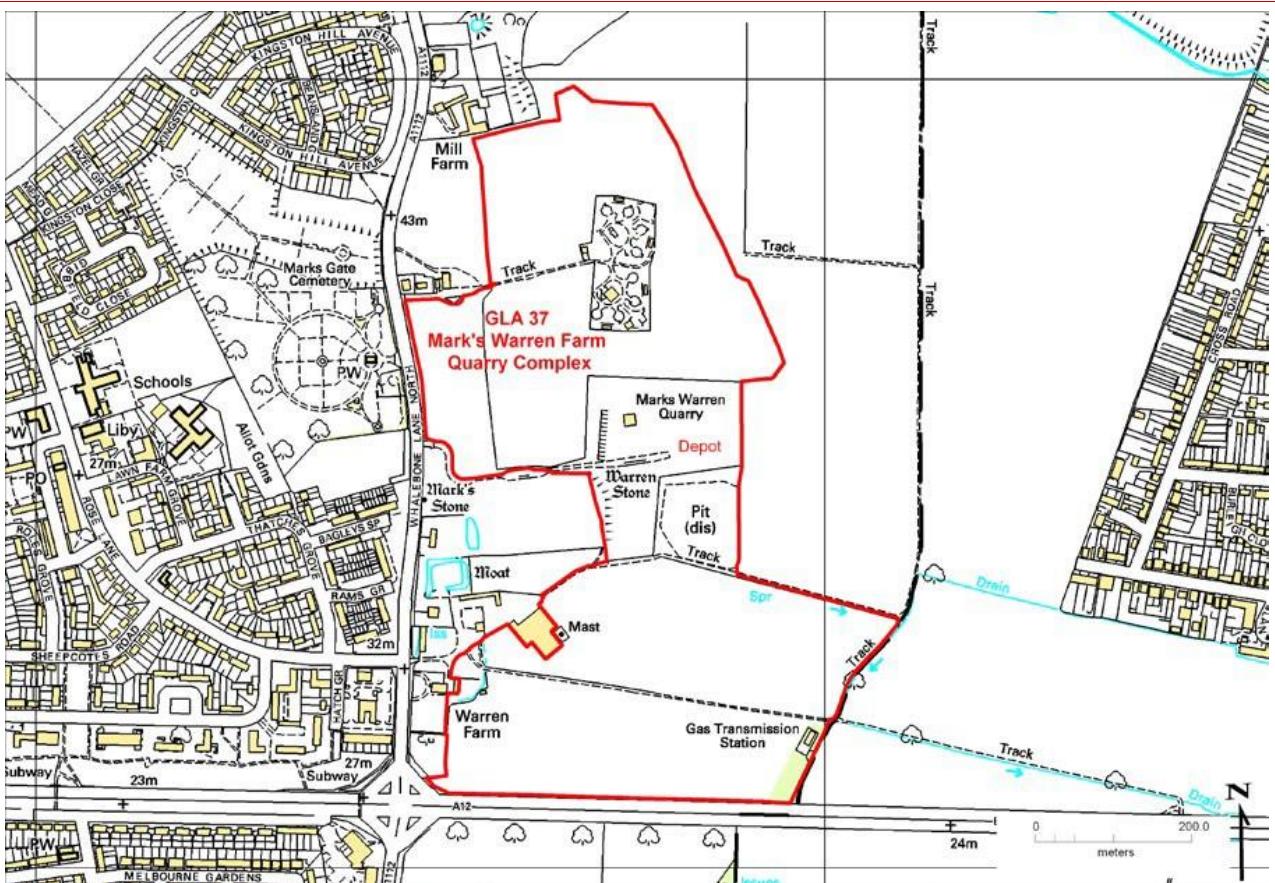
Current geological designation: LIGS (Originally RIGS, but now backfilled and landscaped with nothing to be seen.)

Other designation: Borough Grade I SINC (Marks Hedge and Hainault Road Allotments Wood)

Site Map

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Map shows former area of workings, now restored to agricultural land



Stratigraphy and Rock Types

Time Unit: Pleistocene

Rock Unit: Black Park Gravel Member, Maidenhead Formation

Rock Type: Sand and gravel

Details: Sand and pebbles (mostly flint),

Site Description

The quarry was on its last days of extraction of Thames Terrace Black Park Gravel (MIS12-11) in July 2011 and landfill had already commenced on the west side of the quarry. It has subsequently been backfilled and returned to agricultural use but as it is the only area of Black Park Gravel in the area it was thought to be worth retaining as a LIGS (demoted from the original RIGS status. Information from Brett is that it will not be developed further. A glacial erratic boulder was found within the gravels. It is reported to be dolerite, originating from the Carboniferous Whin Sill in Northumbria, and, if confirmed, will be the furthest south boulders of this nature have travelled. Original transportation was by ice within the Anglian ice sheet with subsequent emplacement within the earliest of the Thames Gravels as the ice melted. Brett Lafarge kindly moved this boulder to Bedfords Park Visitor Centre for display purposes. Other former quarries from the Mark's Warren complex were being used for processing but they have also been landfilled and re-established as agricultural land.

Assessment of Site Value

Geodiversity topic: Lithostratigraphy; sedimentology, glaciotectonics

Access and Safety		
Aspect	Description	
Safety of access	The quarry can only no longer be visited and is now restored to agricultural land.	
Safety of exposure	No longer visible	
Permission to visit	Brett Tarmac have taken over from Brett Lafarge and are now operating the Fairlop Site (GLA 49)	
Current condition	The site finished operations in 2011 and is now landfilled and restored to agricultural use (as per planning permission)	
Current conflicting activities	Landfill and land reclamation.	
Restricting conditions	Nothing to be seen.	
Nature of exposure	Former quarry for Black Park Gravel (only exposure in area).	
Culture, Heritage & Economic		
Aspect	Description	Rati
Historic, archaeological & literary associations	The area has been quarried from c.1898-1921 but literature has not been researched. The glacial erratic boulder is an important find, scientifically.	4
Aesthetic landscape	Private land	0
History of Earth Sciences	Other gravel pits in East London have been important for Archaeological remains but none have been reported from the Mark's Warren complex as far as can be ascertained	2
Economic geology	Gravel extraction has been an important industry in east London	8
GeoScientific Merit		
Geomorphology	Flat terrace at 35-40m above OD	2
Sedimentology	Further research into far-travelled clasts recommended	6
Palaeontology	None known	0
Igneous/mineral/ Metamorphic Geology	Inclusion of igneous boulder within predominantly flint gravel	6
Structural Geology	None.	0
Lithostratigraphy	The boulder provides added interest to the study of the Black Park Gravel	6
Potential use	Research into boulder; (off-site education on Thames Terraces and Anglian ice sheet)	
Fragility	landfill	
Current Site Value		
Community	.	2
Education		8
Geodiversity value		
LIGS:	Should any adjacent pits be opened in future, it is important for Barking & Dagenham to consider designating a face within the complex a RIGS for the Black Park Gravel as there are no other exposures in east London, and in particular because of the importance of the discovery of the glacial erratic boulder within the gravel. In the meantime, as there is nothing to be seen it should be demoted to LIGS.	4

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Very red nature of the Black Park Gravel when operating in 2011.
Photo: Diana Clements