

GLA 72 Monken Hadley Common

West end TQ 252 973; East end TQ 270 968	Site Type: large public common
Site Area (hectares): 74.98	Current use: Wooded recreational land on London Loop
Site ownership: Trustees of Hadley Common, a Statutory Corporation established under the Enfield Chase Act 1777	Borough: London Borough of Barnet
Field surveyors: Diana Clements, Peter Collins, Theresa Ball	Date: 2015
Current geological designation: Recommended by Partnership as a LIGS	Other designation: Borough Grade I SINC (Monken Hadley Common)

Site Map OS Topography © Crown Copyright



The Site Map shown edged in red is indicative only of the general location and not to be taken as accurately representing the entirety of Monken Hadley Common

Stratigraphy and Rock Types

Time Unit: Quaternary	Rock unit: Stanmore Gravel Formation, Crag Group
Rock Type:	Details: Gravel and sand, clayey near base. Gravel mostly composed of flints, up to 150mm in diameter, with a little quartz, quartzite and Lower Greensand chert in the fine fractions. Matrix of orange-brown, pale grey, red mottled clay and sandy clay, with pockets of coarse sand. Locally with layers of silt, clay or peat. Interpreted as offshore or beach gravels (Ellison, 2004) or possibly fluvial (Bridgland 1994)
Time Unit: Quaternary	Rock unit: Dollis Hill Gravel Member Sudbury Formation, Kesgrave Catchment Subgroup
Rock Type:	Details: Gravel, sandy and clayey in part, with some laminated silty beds. Sand and gravel, locally with lenses of silt, clay or peat and organic material
Time Unit: Eocene	Rock Unit: London Clay Formation with Claygate Member at top, Thames Group
Rock Type: Clay, silt, sand	Details: Fine, sandy, silty clay/ clayey silt, clay.

Site Description

Along the length of Monken Hadley Common four different lithologies have been recognised but only two can readily be examined without excavating. Stanmore Gravel overlies London Clay at the west end of the common. It can be seen in small erosion exposures within a pit on the open area of the Common. There is a spring line at approximately the junction with the London Clay which has carved a gully. There is a question of why the gravel is not underlain by Claygate Member at this point (120-125m). At the east end of the Common the Claygate Member is shown between 85-95m and further west along the Stanmore Gravel Ridge around Arkley it is shown to underlie the gravel at about 125m. This would bear further investigation.

At the east end of the Common the Junction of the London Clay and the Claygate Member is shown at

c.85-90m and above that the junction with the Dollis Hill Gravel, at c.95m. Ponds at the low point and the stream 'cliffs' from bottom pond (Jack's Lake) provide exposures of London Clay but exposures of the other lithologies are difficult to see. At the top of the hill the ground levels out and feels more spongy. Sponginess and pebbles encountered by digging suggest presence of Dollis Hill Gravel. The Claygate/London Clay junction may be inferred by the break of slope. The bridge over the Pymmes Brook is made of contorted bricks implying the Claygate Member was exploited locally for brick making. All three of these lithologies are encountered in the adjacent Trent Park (LB Enfield).

Assessment of Site Value

Geodiversity topic: lithostratigraphy, sedimentology; geomorphology.

Access and Safety

Aspect	Description
Safety of access	At the western end the nearest station is High Barnet (Northern Line). Walk north c.1½km to enter via the open space between Camlet Way and Hadley Common Road. From the eastern end the nearest station is Cockfosters (Piccadilly Line), c.600m from the Common. There is a car park on Baker's Hill. London Loop Section 16 passes through the Common.
Safety of exposure	There are well-marked footpaths throughout the Common but actual exposures are limited to temporary exposures and erosion around the small disused gravel pit (west end) and fish ponds (east end)
Permission to visit	Open access.
Current condition	The Common is well maintained with a range of habitats including Jack's Lake at the head of the Pymms Brook trail
Current conflicting activities	none
Restricting conditions	Vegetation, limited exposures
Nature of exposure	Natural habitat containing four different rock units.

Culture, Heritage & Economic

Aspect	Description	Rating
Historic, archaeological & literary associations	The Monken Hadley Common website www.monkenhadleycommon.net gives details of the history of the Common. It is the only part of the former Enfield Chase which remains as common land to this day.	5
Aesthetic landscape	Footpaths through woods and around lake used by local community.	6
History of Earth Sciences	None known	0
Economic geology	Small pit in Stanmore Gravel (west end). Overburnt bricks at the east end imply local brickmaking from the Claygate Member	6

GeoScientific Merit

Geomorphology	Ridges and valleys provide potential for identifying the different lithologies from clues in the landscape – spring lines, vegetation, break of slope and small exposures. The absence of Claygate Member at the west end needs investigation.	4
Sedimentology	Exposures of London Clay beneath Jack's Lake and eroded surface revealing Stanmore pebbles at west end but other lithologies are a bit difficult to find unless excavations are made.	3
Palaeontology	None recorded	
Igneous/mineral/ Metamorphic Geology	none	
Structural Geology	The possibility of a fault between Arkley and Hadley and the west and east ends of the common need investigating to explain the absence of Claygate Member at the west end	2
Lithostratigraphy	Designated as the area contains four distinct rock units	4
Potential use	Education; Geological points of interest could be added to the London Loop and the Pymms Brook trail.	
Fragility	Natural overgrowth	

Current Site Value

Community	Valuable woodland and green space.	8
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Education	The common is on the London Loop and Pymms Brook Trail	6
Geodiversity value		
Recommended by Partnership as a LIGS: The different lithologies at either end of the common provide geological interest both for walkers on the London Loop and Pymms Brook Trail and education possibilities for local schools. Research opportunities to explain the lack of Claygate Member at the west end.		4

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West end: Stanmore gravels beneath the acid-loving gorse surrounding old pit



East end: London Clay beneath the weir from Jack's Lake; over-burnt bricks on the bridge over Pymms Brook coming from Jack's Lake – an indication of local brickmaking probably from the silty Claygate Member.

Photos: Diana Clements