

GLA 74 Springwell Farm, Candidate LIGS

London Borough of Hillingdon, TQ 0446 9223

Ownership: Springwell Farm but is on the Hillingdon Trail

This site features small exposures of Winter Hill Gravel of Pleistocene (Anglian) age laid down by the River Thames before its diversion by ice during that stage¹. Patches of sand and gravel can be seen on both sides of the Hillingdon Trail which here is cut into a slope, once the side of a gravel pit. The pit was one of several which had opened for sand and gravel extraction during the first three decades of the 20th century. Situated on the upper slopes of the Colne Valley, the pits were between GLA 67 Summerhouse Lane Chalk pit to the south and the Springwell Chalk Pits to the north. The gravel pits were substantially worked out by 1960 and were mostly gone by the late 1980s. Although exposure is now poor, it is the best located for the Winter Hill Gravel.

The geology

The Winter Hill Gravel (and the higher and older Gerrards Cross Gravel) crops out on the plateau on which Harefield stands. It was deposited c.450,000 years ago during the Anglian cold stage (marine oxygen isotope stage 12) of the middle Pleistocene by the ancestral Thames when it flowed through the Vale of St Albans and northern Essex via Chelmsford and Colchester. The advancing Anglian ice sheet later blocked and diverted the river towards its present course; it is the most extensive glaciation known in the British Isles when ice reached north and north-east London.

The gravel consists mainly of flint pebbles, but some quartzite and vein quartz pebbles also occur which is characteristic of most pre-Anglian Thames terrace gravels. Before diversion, the Thames' upper catchment extended beyond the Cotswolds (where its headwaters now are) into the West Midlands and possibly beyond. In the Midlands, outcrops of quartzite pebble beds within the Triassic Chester Formation occur, which is recognised as the source of such pebbles in the Winter Hill Gravel. The quartz pebbles may also have come from other outcrops in the Midlands and North Wales.

The Winter Hill Gravel is the last Thames gravel aggradation to be laid down before the Anglian ice advance and the resultant diversion of the river. It is the only known outcrop within the GLA and as such is represented here.

Access

This is more convenient from the village. Follow Rickmansworth Road from the centre of Harefield then soon take the next left into Hill End Road. After ~750m park on a gravel layby on the left ahead of a children's play area. Walk past this and the road becomes Springwell Lane. About 50-60m beyond the end of the houses on the right, pass a 20mph sign and turn left into a tarmac drive which is signed as a public footpath and 'Hillingdon Trail'. Very soon fork right at gates onto a field path. In ~350m, and after a stile, this meets Springwell Lane again, where turn left. Take care as it is a single-track road with no footway and limited visibility. In 110m enter a wide drive to Springwell Farm (again signed 'Hillingdon Trail') and pass through a pedestrian gate on the right of the main one. Pass farm buildings and house. The site is round the next bend where the track begins to descend; there is a vegetated bank on the right with small patches of sand and gravel. They are more visible in the winter and early spring.

References

Bridgland, D.R., (1994), *Quaternary of the Thames*, Geological Conservation Review Series, No. 7, Chapman & Hall, London; Springer, Netherlands



Upper bank, taken December 2013. 14cm pen for scale.



Looking uphill towards site from north (June 2018). Backfilled gravel pit at right. Exposures are near the top of the hill

Pebbles from lower bank arranged for photo (June 2018). Top two are 'quartzite' (quartz-arenite) pebbles and lower two are flint; 13cm pen for scale.

Photos: Allan Wheeler

Site Map

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