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WASTE RESOURCE MANAGEMENT



BLOOR HOMES SOUTHERN

LAND SOUTH OF MORTIMERS LANE, EASTLEIGH

MINERAL RESOURCE ASSESSMENT

NOVEMBER 2024

DATE ISSUED: November 2024
JOB NUMBER: ST20664
REPORT NUMBER: 001
VERSION: V2.0
STATUS: Final

BLOOR HOMES SOUTHERN

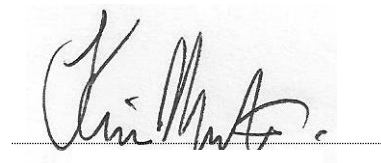
LAND SOUTH OF MORTIMERS LANE, EASTLEIGH

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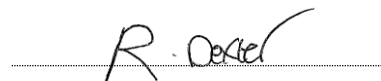
NOVEMBER 2024

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EXECUTIVE SUMMARY

This report has been prepared in support of a planning application for residential development of Land south of Mortimers Lane, Eastleigh, Hampshire. The site boundary is located within a Minerals and Waste Consultation Area (MWCA), a geographic region based on a Mineral Safeguarding Area (MSA) for Soft Sand, identified on the Hampshire Minerals and Waste Plan.

In response to the requirements of Planning Policy 15 of the adopted Hampshire Minerals and Waste Plan (2013), Chapter 17 of the National Planning Policy Framework, and the Hampshire Local Aggregate Assessment, this report has reviewed the available information regarding the mineral potential of the site.

The analysis of the records show that the safeguarded mineral, the Whitecliff formation of soft sand and gravel, covers a small part of the site. The mapped deposit ends within the site boundary.

It is the size of the inferred mineral deposit, when taken into consideration with development constraints on any potential mineral extraction, that render the sand and gravel deposit too small to be of commercial viability. Prior extraction is therefore not considered to be commercially practicable.

However, in considering the potential for the presence of a certain quantity of sand and gravel on the site, we recommend that a Mineral Management Plan (MMP) be implemented as part of the construction design. The MMP will enable such minerals as may be recovered during construction to be utilised in a manner that complements the aims of the Local Aggregate Assessment, and the overall sustainability aims of the development.

1 INTRODUCTION

- 1.1 This report has been prepared in accordance with instructions from Bloor Homes Southern to prepare a mineral resource assessment report in support of a planning application for a proposed residential development on land South of Mortimers Lane, Eastleigh, Hampshire. This report outlines the policies detailed in the Hampshire Minerals and Waste Plan (HMWP), to ensure the residential development is compliant with the relevant mineral safeguarding policies in the HMWP.
- 1.2 Hampshire County Council, as the Mineral Planning Authority for the site, have issued a letter, reference CONS/2023/0721 and dated 14th December 2023 with specific reference to the mineral potential of the site.
- 1.3 Chapter 17 of the National Planning Policy Framework (NPPF) and the Local Aggregate Assessment for Hampshire require that the mineral potential of the site be addressed in detail, and that any recovered minerals resulting from commercial or incidental extraction are managed in such a way as to contribute towards the local aggregate requirement, thereby reducing the need for imported construction material, and reduce the amount of waste generated through excavation.
- 1.4 The proposed development site is located to the east of the village of Fair Oak, approximately 10km northeast of Southampton City Centre. The site is bounded by the B3037 (Mortimers Lane) to the North, residential housing on the Pembers Hill estate to the west, and the East Horton Golf Club located 150m South of the site boundary. The site covers an area of approximately 10.8 hectares. The title plan for the site is included as **appendix 1**.
- 1.5 As identified in the Hampshire Minerals and Waste plan, the site is located within a Minerals and Waste Consultation Area (MWCA) for Soft Sand. The extent of the MWCA within the site boundary is illustrated in **appendix 2**.
- 1.6 The inferred extent of the sand mineral deposit, as recorded by the British Geological Society (BGS) has been analysed using a topographic survey of the site. The extent of the BGS inferred deposit within the site boundary is illustrated in **appendix 3**.

2 GEOLOGY

- 2.1 A distinction is made between the ‘superficial geology’ at or near-surface and the ‘bedrock geology’ lying below. ‘Superficial geology’ here refers to the unconsolidated quaternary aged deposits. ‘Solid geology’ refers to the consolidated sediments grouped together in geological formations. The sediment deposited in each formation reflects a similar depositional environment and depositional time period.

Superficial Geology

- 2.2 The British Geological Survey (BGS) online map indicates that there are no superficial deposits within the site boundary.

Solid Geology

- 2.3 The BGS online geological map shows that the site is underlain by the London Clay Formation and the Whitecliff Sand Member. The solid geology is shown on the attached drawing ST20664-001. The London Clay Formation covers approximately 60-70% of the site boundary. London Clay is not safeguarded by the 2013 Hampshire Minerals and Waste Plan.
- 2.4 The Whitecliff Sand Member is safeguarded as a soft sand mineral resource, due to the comparative scarcity of the resource both within and outside of Hampshire, being less available than sharp sand and gravel.
- 2.5 BGS mapping indicates that the deposit only covers a small part of the centre of the site.
- 2.6 The safeguarded area within the red line boundary has not been identified by Hampshire County Council as a potential site for soft sand extraction. In addition, it is not clear if the Whitecliff Sand Member is present within the site boundary as there are no overlying boreholes records.

Borehole records

- 2.7 The BGS Geoindex shows the presence of three borehole logs, which were drilled in close proximity to the east of the site at a distance of between 100 and 150 metres. The borehole locations are within the mapped area of the Whitecliff sand deposit, which extends further west and away from the site.

Borehole log SU51NW8 – 9.5m depth

- 2.8 Borehole SU51NW8 is located approximately 150m West of the site boundary, at an elevation of 58.02m AOD. The borehole log shows that the topsoil consists of drift deposits containing sand, silt, clay and flint fragments, up to a depth of 1.5m. The remaining 8m consists of yellow-yellow brown fine to medium grained sand with some silty clay laminae in places – indicated to be the Whitecliff Sand Member formation.

Borehole log SU51NW9 – 4.4m depth

- 2.9 Borehole SU51NW9 is located approximately 60m South West of the site boundary, at an elevation of 49.86m AOD. The borehole log shows that the topsoil consists of drift deposits containing clayey sand with flint fragments, up to a depth of 1.7m. The remaining 2.7m consists of yellow brown fine to coarse grained sand with some iron oxide bands present – indicated to be the Whitecliff Sand Member formation.

Borehole log SU51NW10 – 4.7m depth

- 2.10 Borehole SU51NW10 is located approximately 150m South West of the site boundary, at an elevation of 57.14m AOD. The borehole log shows that the topsoil consists of drift deposits containing clayey sand with flint pebbles and fragments, up to a depth of 0.5m. The remaining 4.2m consists of yellow brown fine to medium grained sand with thin seams of beige clay & flint fragments- indicated to be the Whitecliff Sand Member formation.
- 2.11 The borehole records indicate that the Whitecliff Sand Member deposit starts to thin out towards the east, and into the site boundary.

3 NATIONAL AND COUNTY COUNCIL MINERAL SAFEGUARDING POLICY

National policy

- 3.1 The National Planning Policy Framework aims to ensure that mineral planning authorities use a systematic approach to identify and safeguard mineral resources which may have future potential economic value. This should be achieved through defining safeguarded areas based on British Geological Survey geology data, or other appropriate sources, to ensure county councils have a steady supply of mineral resources for future infrastructure. Whilst also not creating a presumption that resources defined will be worked.

Hampshire County Council policy

- 3.2 The Hampshire Minerals and Waste plan, adopted in 2013, aims to secure a sufficient supply of minerals to support economic growth and enough waste management sites until 2030, whilst preserving the landscape of Hampshire.

Compliance with policy 15- Safeguarding mineral resources

- 3.3 Under policy 15 of the HMWP, Hampshire's sand and gravel (including soft sand), is safeguarded against needless sterilisation by non-mineral development, unless 'prior extraction' takes place.
- 3.4 Policy 15 states that Hampshire County Council may permit development without prior extraction of mineral resources in the safeguarding areas, if one of the following requirements are addressed:
- 'a. it can be demonstrated that the sterilisation of mineral resources will not occur'.*
- 'b. it would be inappropriate to extract mineral resources at that location, with regards to the other policies in the Plan'.*
- 'c. the development would not pose a serious hindrance to mineral development in the Vicinity'.*
- 'd. the merits of the development outweigh the safeguarding of the mineral.'*
- 3.5 This assessment will address point b and discuss the unfeasibility of prior extraction with regards to policy 7, 10, and 26 in the HMWP.
- 3.6 Policy 7 states: 'Minerals and waste development should protect and, wherever possible, enhance Hampshire's historic environment and heritage assets, both designated and non-designated, including the settings of these sites'.
- 3.7 This policy includes listed buildings, one of which is present approximately 100m from the red line boundary. As listed buildings are defined as a designated assets, they are given statutory protection.
- 3.8 Policy 10 states: 'Minerals and waste development should not cause adverse public health and safety impacts, and unacceptable adverse amenity impacts'. Minerals and waste development should not:
- Cause unacceptable noise, dust, lighting, vibration or odour.
 - Have an unacceptable visual impact.

- Cause an unacceptable cumulative impact arising from the interactions between minerals and waste developments, and between mineral, waste and other forms of development.
- 3.9 Prior extraction of the soft sand would result in significant visual impact for the surrounding residential areas. It is standard practice in Hampshire for mineral extraction sites to have a buffer zone of 100m from the nearest human sensitive receptors, to prevent mineral extraction impacting public health and safety. By applying this buffer from the adjacent residential site, it is clear that the remaining quantity of sand is too small to be a commercially viable mineral resource. Appendix 3 shows the spatial analysis of the area of the inferred mineral deposit that would remain outside of the 100m buffer zone.
- 3.10 The remaining area of the deposit is around 1 ha, which is too small to be worked as a standalone deposit. It is highly unlikely that the mineral will ever be worked and therefore has little to no commercial value.
- 3.11 Policy 26 states that “Non-waste developments can impact the operation of existing sites or viability of planned sites.” A Household Waste Recycling Centre (HWRC) operated by Hopkins Recycling Ltd is located within 100m of the site boundary.
- 3.12 It would not be practicable to prior extract the sand deposit on the proposed development site due to the quantity of mineral present, and its location to residential development. Should prior extraction take place it would result in significant engineering reworking and restoration of the site in order to return it to the optimum condition for future development. It would also result in additional traffic interactions with nearby existing waste infrastructure.

4 CONCLUSION

- 4.1 The BGS online mapping indicates that there is soft sand present on the site. However, due to the small quantity of sand present on the site, it is highly unlikely that it would ever be worked as a standalone mineral site. The mineral therefore has little to no commercial value.
- 4.2 In addition, the main constraints preventing prior extraction of the mineral resource include the close proximity of the deposit to existing residential developments and infrastructure for household waste recycling.

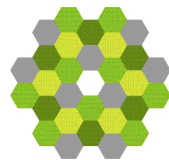
- 4.3 After consulting the Hampshire County Council Minerals Local Plan for regulations surrounding mineral deposit extraction, it was suggested that extraction sites must have a minimum buffer of 100m from residential and waste sites. The remaining area of the deposit, after applying the 100m buffer from adjacent residential and waste sites, was calculated to be 1 ha which is too small to be a commercially viable mineral resource.
- 4.4 The site would not add to Hampshire's land bank.
- 4.5 However, there are opportunities to make good use of the soft sand. We would recommend that a Minerals Management Plan (MMP) be implemented as part of any development.

APPENDICIES

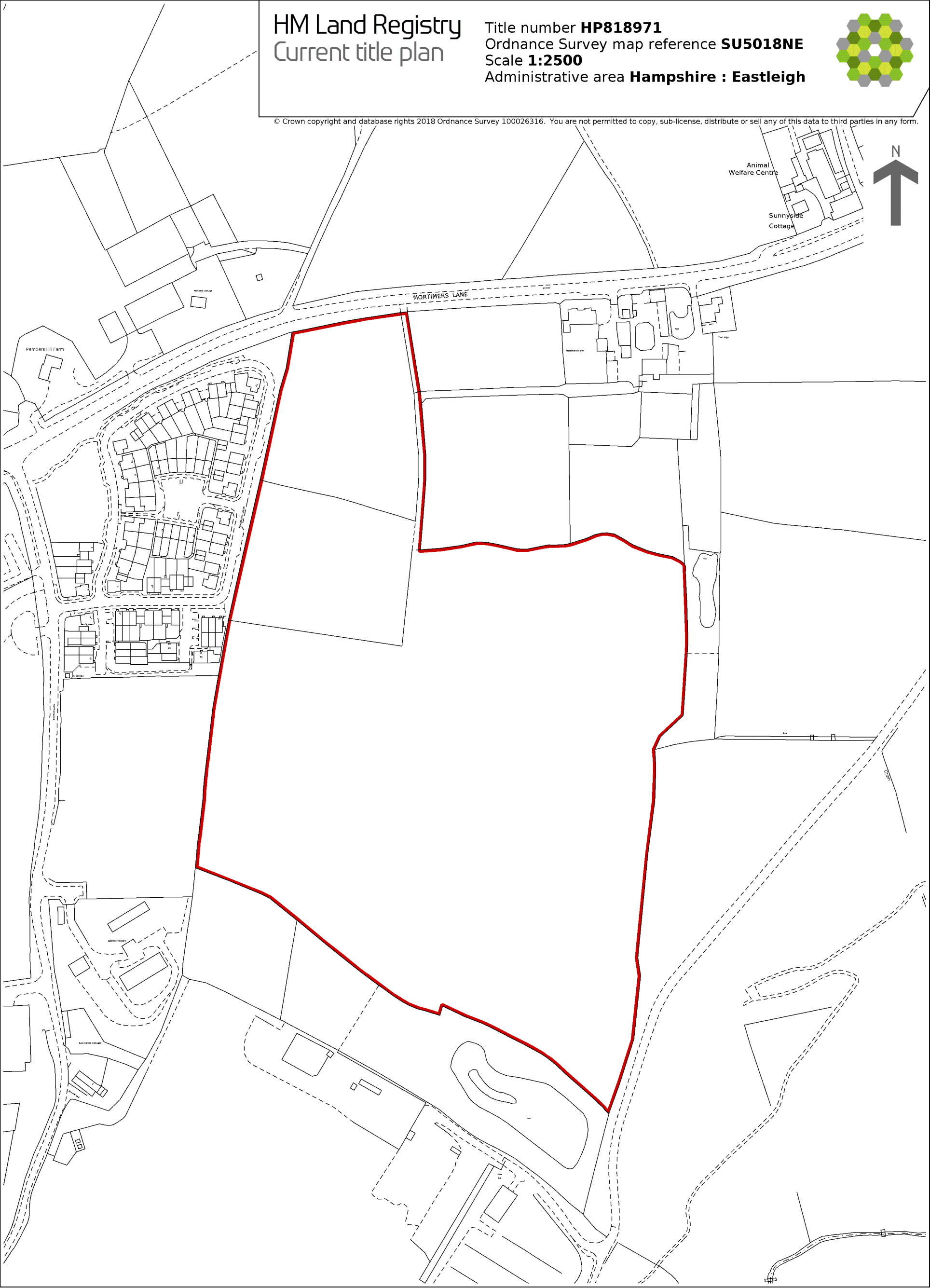
Appendix 1 – Title Plan

HM Land Registry
Current title plan

Title number **HP818971**
Ordnance Survey map reference **SU5018NE**
Scale **1:2500**
Administrative area **Hampshire : Eastleigh**



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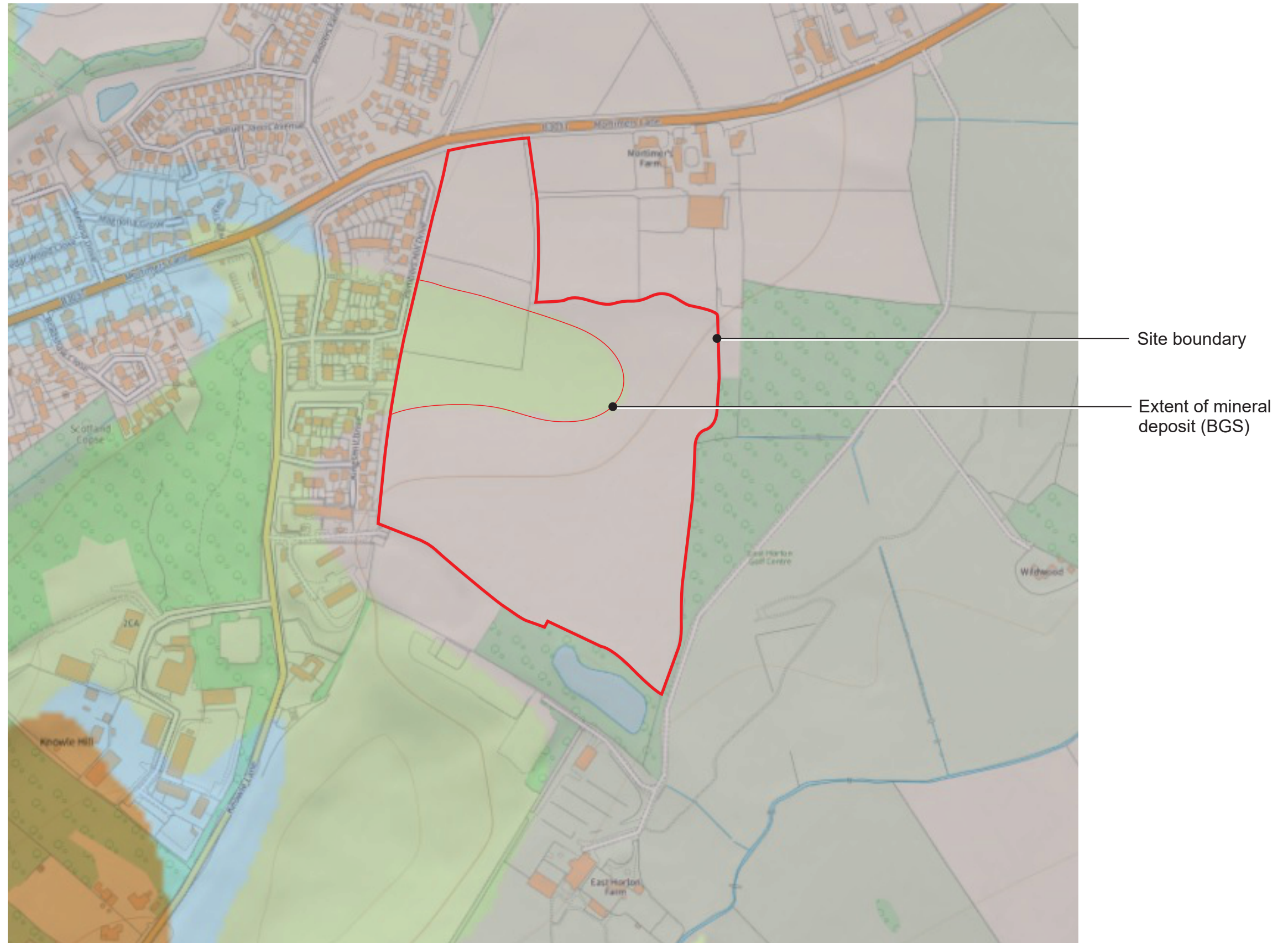
This is a print of the view of the title plan obtained from HM Land Registry showing the state of the title plan on 09 August 2022 at 11:11:03. This title plan shows the general position, not the exact line, of the boundaries. It may be subject to distortions in scale. Measurements scaled from this plan may not match measurements between the same points on the ground.

This title is dealt with by HM Land Registry, Weymouth Office.

APPENDIX 2 – MWCA with Site Boundary Overlay

ST 20664
Mortimers Lane
Mineral Resource
Assessment

Mineral deposit extents - Mortimer's Lane site boundary with BGS mapping of Whitecliff Sand Member



Appendix 3 – Masterplan with Site Boundary Overlay

Mineral deposit extents - Mortimer's Lane concept masterplan site



Site boundary
Extent of mineral deposit (BGS)

KEY

- Site Boundary
- Gross Development Area: Including Residential, Mobility Hub, Multi-functional Space, Incidental Public Open Space, Play Facilities, Drainage Features, Landscaping & Ancillary Infrastructure
- Strategic Public Open Space: Including Play Facilities, Drainage Features, Pedestrian/Cycle Links, Landscaping, Retained Vegetation (inc. Root Protection Areas) & Ancillary Infrastructure
- Access Infrastructure & Roads Through Open Space
- Vehicular, Pedestrian & Cycle Access Point
- Agricultural, Pedestrian & Cycle Access Point
- Pedestrian & Cycle Access Point
- Pedestrian Connections to Site Boundary
- Existing Trees & Hedgerows to be retained
- Root Protection Areas (for the retained trees & hedgerows)
- Existing Trees & Hedgerows to be removed
- New Site Boundary Planting
- ✱ Indicative Locations of Play
- ✱ Indicative Location of Mobility Hub & Multi-functional Space

Notes:

- All Features & Areas Subject to a tolerance of +/-5m
- Utility and/or access infrastructure may need to be located in POS areas

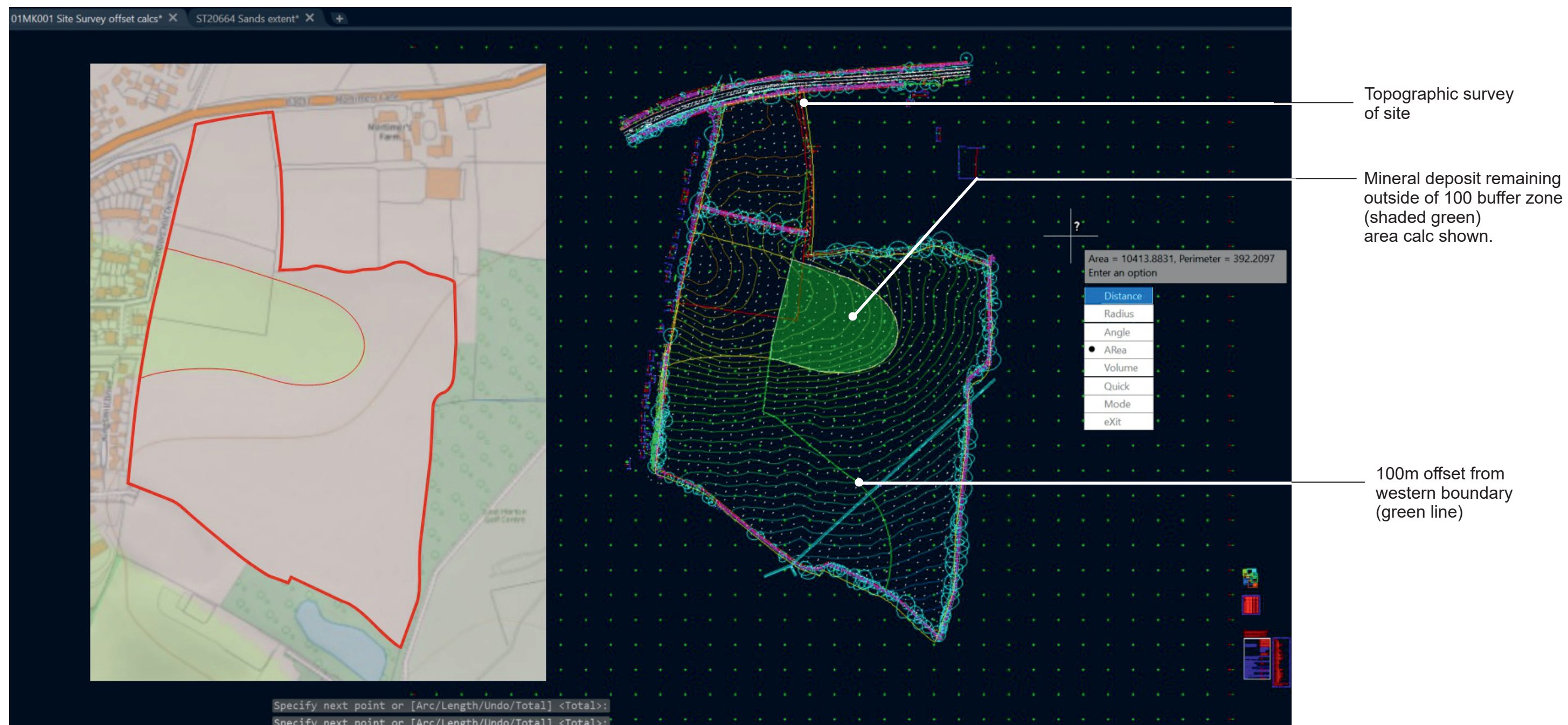


LAND SOUTH OF MORTIMERS LANE, FAIR OAK – DEVELOPMENT FRAMEWORK

PEGASUSGROUP.CO.UK | TEAM/DRAWN BY: TB | APPROVED BY: PM: TB | DATE: 15.10.24 | SCALE: 1:250@A1 | DRWG: P23-2261_DE_007_01_C | CLIENT: BLOOR HOMES

Appendix 4 – Mineral Deposit & Buffer Analysis

Mineral deposit extents - 100m buffer zone analysis



Appendix 5 – BGS Borehole Logs



DETAILS OF SELECTED BOREHOLES AND
SECTIONS ON THE FACE OF THE MAP

GENERALIZED VERTICAL SECTION

Scale 1:500 (1cm to 5m)

SELECTED BOREHOLES

3 5242 1860
SL+c53
LONDON CLAY FORMATION 33.5
READING FORMATION 56.4
UPPER CHALK TO 71.6

4 5024 1894
SL+c 61
DRIFT(SOIL HEAD AND WASH) 3.8
LONDON CLAY FORMATION 73.5
READING FORMATION 103.3
UPPER CHALK TO 161.8

5 5182 1995
SL+c44
DRIFT(SOIL AND HEAD) 1.8
LONDON CLAY FORMATION 2.7
READING FORMATION 19.5
UPPER CHALK TO 48.8

6 5038 1960
SL+c58
LONDON CLAY FORMATION
YELLOW BROWN, PASSING DOWNWARDS INTO OLIVE-GREY
AND GREY, SILTY AND SANDY CLAY. EXTREMELY SANDY
CLAY AND CLAYEY SAND IN PLACES 7.38

7 5082 1777
SL+c63
WITTERING FORMATION
ORANGE-BROWN, BUFF-GREY AND PALE GREENISH GREY
CLAYEY SAND AND SAND WITH IRREGULAR
SILTY CLAY LAMINAE 5.02
YELLOW AND PALE BROWN, FINE TO MEDIUM-GRAINED
CLEAN SAND 8.01
BROWNISH GREY AND GREYISH GREEN SILTY CLAY,
WITH LAMINAE OF ORANGE-BROWN SAND 11.38

SELECTED SECTIONS

A 5037 1861
SL+c52
DRIFT(HEAD AND WASH)
SAND, SILTY AND CLAY WITH FLINT FRAGMENTS 1.5
WHITECLIFF SAND MEMBER
YELLOW AND YELLOW-BROWN CLEAN FINE TO MEDIUM-
GRAINED SAND, WITH SOME COARSER HORIZONS. HERRING
-BONE CROSS-BEDDING IS PRESENT. GREY AND BUFF GREY
SILTY CLAY LAMINAE ARE PRESENT IN PLACES 8.0 (9.5)

B 5049 1848
SL+c51
DRIFT(HEAD AND WASH)
CLAYEY SAND WITH SMALL ROUNDED FLINT PEBBLES
AND ANGULAR AND SUBANGULAR FRAGMENTS OF
BLEACHED FLINT 1.7
WHITECLIFF SAND MEMBER
BEIGE AND YELLOW-BROWN CLEAN COARSE SAND, WITH
FINE AND MEDIUM-GRAINED BANDS, SHOWING CURRENT
BEDDING. INDIVIDUAL BANDS COMMONLY FINE UPWARDS
SOME YELLOW-BROWN AND ORANGE
FERRUGINOUS CEMENTED BANDS ARE PRESENT 2.7 (4.4)

C 5048 1837
SL+c60
DRIFT(HEAD AND WASH)
CLAYEY SAND WITH FLINT PEBBLES AND FRAGMENTS 0.5
WHITECLIFF SAND MEMBER
BEIGE AND YELLOW BROWN FINE AND MEDIUM-
GRAINED CLEAN SAND, SHOWING CURRENT BEDDING
AND THIN SEAMS OF BEIGE CLAY WITH CARBONACEOUS
SPECKS. SEVERAL SEAMS OF SCATTERED ROUND FLINT
PEBBLES ARE PRESENT 4.2 (4.7)

D 5137 1712
SL+c37
DRIFT HEAD AND WASH
BROWN CLAYEY SAND WITH WELL-ROUNDED FLINT
PEBBLES AND ANGULAR FLINT FRAGMENTS 1.2
WHITECLIFF SAND MEMBER(PASSES LATERALLY
INTO DURLEY SAND MEMBER OVER 15m)
BUFF-YELLOW TO YELLOW CLEAN
MEDIUM-GRAINED SAND UP TO 0.8
DURLEY SAND
BUFF CLAYEY SAND UP TO 1.5 (3.5)

E 5143 1704
SL+c33
DRIFT(HEAD AND WASH)
ORANGE-BROWN STIFF CLAYEY SAND WITH FLINT
PEBBLES AND FRAGMENTS 0.6
DURLEY SAND MEMBER
BUFF CLAYEY SAND 1.5
LONDON CLAY FORMATION
YELLOW BROWN AND GREY EXTREMELY SANDY CLAY 0.3 (2.4)

EOCENE

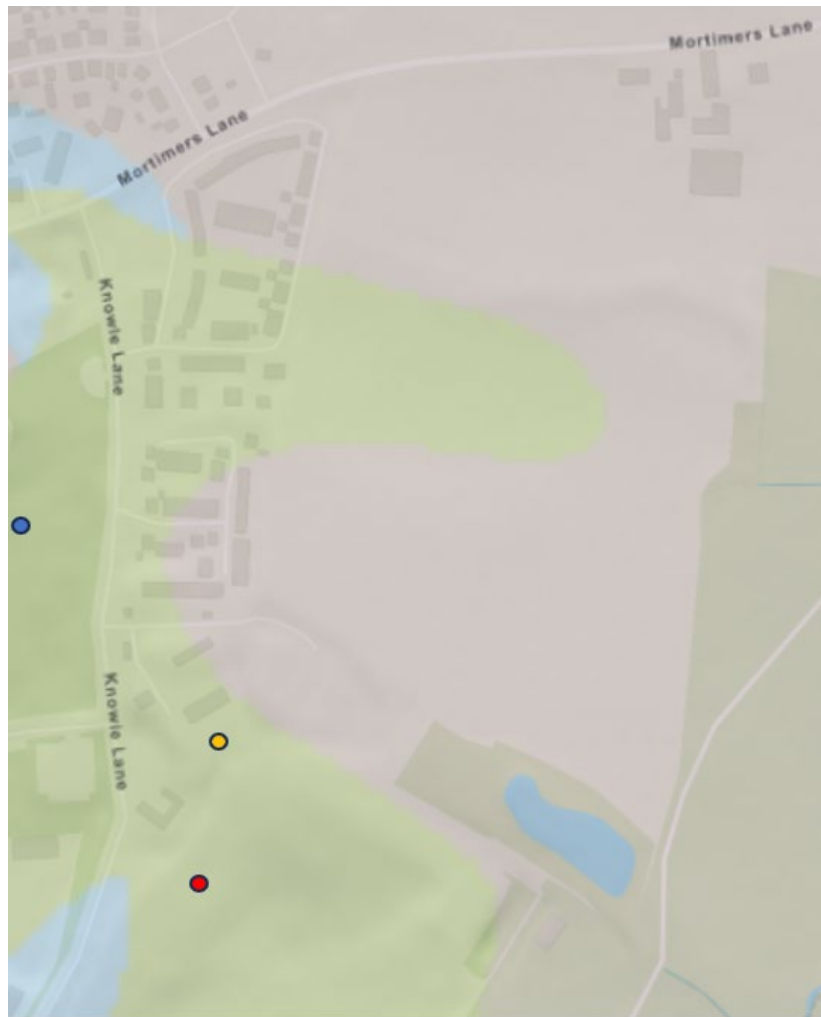
PALEOGENE

LC 95 to 110m Olive grey silty and sandy clays

BRACKLESHAM GROUP

LONDON CLAY FORMATION

Appendix 6 – Location of the BGS Boreholes



- | | |
|--|---|
|  London Clay formation |  Borehole ID- SU51NW8 |
|  Durley Sand Member |  Borehole ID- SU51NW9 |
|  Whitecliff Sand member |  Borehole ID- SU51NW10 |

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