

Our Ref: 4990,EC,AR,DS/001Ltr/AT,TP/06-07-20/V1
Your Ref: 4990,EC,AR,DS

M Scott Properties Limited
Suite 5
Oyster House
Severalls Lane
Colchester
Essex
CO4 9PD

Date: 06 July 2020

For the attention of Graham McCormick

Dear Graham,

Letter Addendum to Desk Study Referenced 1696,DS/DB,JD/28-06-16/V2.

1. Introduction

This Addendum Letter Report has been prepared by Geosphere Environmental Limited for M Scott Properties and relates to the proposed residential development of the site at Landermere Road, Thorpe Le Soken, CO16 0LW.

A former phase 1 desk study report and preliminary risk assessment was undertaken by GEL in 2016 for a wider site area (7.52 hectares (ha)), part of which has since been developed by Bellways. This letter provides details of an updated site walkover and preliminary risk assessment for a smaller portion of the site (2 hectares (ha)), as shown in Drawing 4990/EC,AR,DS/001/Rev0 within Appendix 2.

The site may be located by National Grid reference TL TM18642245.

1.1 Background Information

A Phase 1 Preliminary Risk Assessment was originally undertaken by Geosphere Environmental in 2016 (ref. **R.1**). At the time of the 2016 walkover, the site largely comprised three arable fields. Key features included hardstanding in the northeast, a make-shift exercise course and overhead cables in the south, fly tipping along the western boundary, and a service inspection chamber towards the centre of the site. There were two onsite tertiary rivers (drains), as well as a pond which was located in the southwest.

1.2 Aims

The purpose of this addendum letter report is to confirm whether the conditions onsite have changed since the original report and provide an updated assessment of environmental sensitivity at the development site and the surrounding area in relation to any suspected or known contamination which may significantly affect the site and the proposed development.

2. Methods

2.1 Site Walkover

The updated site walkover was conducted on 02 June 2020 in accordance with CLR 2, (ref.**R.2**). Selected photos are included within Appendix 3.

2.2 Conceptual Model

The risk assessment methodology is based on current guidelines (refs. **R.3**, **R.4** and **R.5**), and legislation (refs. **R.6** and **R.7**).

The current guidance requires that a conceptual model be formulated, based upon the findings of the research. The conceptual model is limited at this stage to the identification and assessment of potential 'hazards', identified or suspected from the results of the research; the potential 'receptors' that may be affected and the anticipated 'pathways' to those receptors. The findings are summarised in the following subsections.

The guidance proposes a four-stage approach for the assessment of contamination and the associated risks. The four stages are listed below:

- Hazard Identification;
- Hazard Assessment;
- Risk Estimation;
- Risk Evaluation.

In accordance with the guidance, (ref. **R.4**), only the first two stages are addressed in a preliminary risk assessment.

3. Results

3.1 Updated Site Walkover – Onsite

The survey area comprised cut grassland to the south and a ploughed field to the north, separated by a hedgerow running west-east. The southeast and southern site boundaries comprised hedging and matures trees. The western boundary comprised heras fencing.

3.2 Updated Site Walkover – Offsite

The surrounding land use generally comprised residential to the west and south, and rural / agricultural to the north and east. The west of site was adjoined by the Bellways construction site / residential development. The construction site was secured with heras fencing.

3.3 Geology and Hydrogeological

It is anticipated that the site is underlain by bedrock comprising Thames Group. There were no recorded superficial deposits at the site, but Cover Sands are indicated within the larger surrounding area.

The hydrogeological data provided within the 2016 Envirocheck report indicates the site to be underlain by Unproductive Strata.

The groundwater vulnerability map and the Envirocheck report indicate the soils to be of negligible permeability, and the site to not be located within a Source Protection Zone.

There are two tertiary rivers (drains) in close proximity to the site; one to the north and one to the west. These may be in continuity with Hamford Water, located approximately 1km north of the site.

3.4 Summary of Site History

The review of historical maps included within the 2016 report (ref. **R.1**) provided information about changes to the site and its surroundings between 1874 and 2016. Based upon the available historical information it may be concluded that the site remained undeveloped from the earliest available map until the present time.

The general surrounding area of the site has undergone development since 1938. The area immediately west of the site, which was encompassed by the larger survey area of the 2016 report (ref. **R.1**), has undergone residential development since 2016.

4. Updated Conceptual Model

4.1 Hazard Identification – Onsite

The desk-based research and historical review did not identify any potential onsite sources of contamination.

4.2 Hazard Identification – Offsite

The desk-based research and historical review did not identify any potential offsite sources of contamination considered to pose a risk to the site.

The following potential sources were identified but considered to pose a negligible risk:

- Recent construction activities immediately west of the site. The associated impact is considered to be negligible due to the contained nature of the development (i.e. site secure fencing) and the impermeable nature of the underlying geology;

4.3 Hazard Assessment

The preliminary risk assessment identified no potential sources of contamination that may pose a risk to human health and / or Controlled Waters at the site.

5. Conclusions

Based upon the findings of the preliminary risk assessment and site walkover, no potential sources to potential receptors have been identified at the site.

The following constraints to the development should also be taken into consideration during redevelopment of the site:

- There is a moderate hazard associated with the shrink-swell of clay at the site.

6. Recommendations

Should redevelopment of the site take place it would be prudent to undertake a geotechnical investigation of the site to enable a suitable foundation solution to be designed. Any ground

investigation should be designed in general accordance with CLR 4, (refs. **R.8** and **R.9**) undertaken in compliance with BS10175, (ref. **R.9**) and BS5930, (ref. **R.10**).

It is recommended that this report be submitted to the Local Authority as part of the planning submission for the site.

Yours sincerely



Ashleigh Thorneycroft
Geoenvironmental Consultant
Geosphere Environmental Ltd

References:

- R.1. Geosphere Environmental (2016) Preliminary Risk Assessment, 1696,DS,DB,TP,28-06-16,V2
- R.2. CLR 2, 'Guidance on preliminary site inspection of contaminated land', Report by Applied Environmental, DoE 1994.
- R.3. CLR 1, 'A framework for assessing the impact of contaminated land on groundwater and surface water', Report by Aspinwall & Co., DoE 1994.
- R.4. CLR 11, 'Model procedures for the management of contaminated land: Risk assessment procedure', DoE 2011.
- R.5. CLR 6, 'Prioritisation & categorisation procedure for sites which may be contaminated', Report by M J Carter Associates, DoE 1995.
- R.6. The Environmental Protection Act, Part IIA, Section 78, 1990.
- R.7. Environment Act 1995, Section 57, DoE 1995.
- R.8. CLR 4, 'Sampling strategies for contaminated land'. Report by The Centre for Research into the Built Environment, the Nottingham Trent University, DoE, 1994.
- R.9. British Standards Institute: BS 10175 'Code of practice for the investigation of potentially contaminated sites', BSI 2011.
- R.10. British Standards Institute: BS 5930 'Code of practice for site investigations', BSI 1999.
- R.11. National House-Building Council, Standards, Chapter 4.2, 2003 'Building Near Trees'.

Appendices:

- Appendix 1 – Report Limitations & Conditions
- Appendix 2 – Drawings
- Appendix 3 – Selected Photographs



APPENDICES



Appendix 1 – Report Limitations and Conditions

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the site.

This report has been prepared for the sole use of the Client for the purposes described and no extended duty of care to any third party is implied or offered. Third parties using any information contained within this report do so at their own risk.

This report is prepared and written for the use stated herein; it should not be used for any other purposes without reference to Geosphere Environmental Limited. The report has been prepared in relation to the proposed end-use should another end-use be intended a further re-assessment may be required. It is likely that over time practises will improve and the relevant guidance and legislation be amended or superseded, which may necessitate a re-assessment of the site.

The report is limited to those aspects of land contamination specifically reported on and is necessarily qualified accordingly, no liability shall be accepted for other aspects which may be the result of gradual or sudden pollution incidents, past or present unrecorded land uses both on and offsite and the potential for associated contaminant migration. The opinions expressed cannot be absolute, due to the limitations of time and resources imposed by the agreed brief.

The accuracy of any map extracts cannot be guaranteed. It is possible that different conditions existed onsite, between and subsequent to the various map surveys appended.

Whilst the report may express an opinion on possible configurations of strata between or beyond exploratory holes discussed or on the possible presence of features based upon visual, verbal or published evidence, this is for guidance only and no liability can be accepted for its accuracy.

The conceptual model is based upon the information available at the time of conducting this assessment and is an interpretative assessment of the conditions at the site. It should be noted that the redevelopment and/or further investigation of the site may reveal additional information and therefore alter the conceptual model and the conclusion of this report.



Appendix 2 – Drawings

Site Location Plan – Drawing ref. 4506,EC,AR,DS/001/Rev0



GEOSPHERE ENVIRONMENTAL

LEGEND

— Site boundary

SOURCE

Based on image provided by the Client

PROJECT

Landermere Road, Thorpe Le Soken, CO16 0LW

TITLE

Site Location Plan

DRAWING NUMBER

4990,EC,AR,DS/001/Rev0

SCALE

NTS

DATE

29/06/2020

DRAWN BY

AT

CHECKED BY

KL





Appendix 3 – Selected Photos

Photograph 1



Photograph 2



Photograph 3



Photograph 4



DESCRIPTION

Photograph 1

Photo looking south along western boundary

Photograph 2

View from east to west

Photograph 3

View of southern boundary looking west

Photograph 4

View of western boundary and neighbouring Bellways development

PROJECT

Landmere Road, Thorpe Le Soken, CO16 0LW

PROJECT NUMBER

4990,EC,AR,DS

TITLE

Selected Photographs Relating To Site Walkover Survey

DATE

06/07/2020

PAGE NO.

1 of 1



GEOSPHERE ENVIRONMENTAL

Ec

Ecology.

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Flood Risk.

Ge

Geotechnical.

En

Environmental.

Kw

Knotweed.

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