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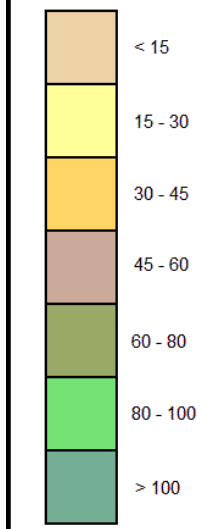
General

Specified Site Specified Buffer(s) Bearing Reference Point

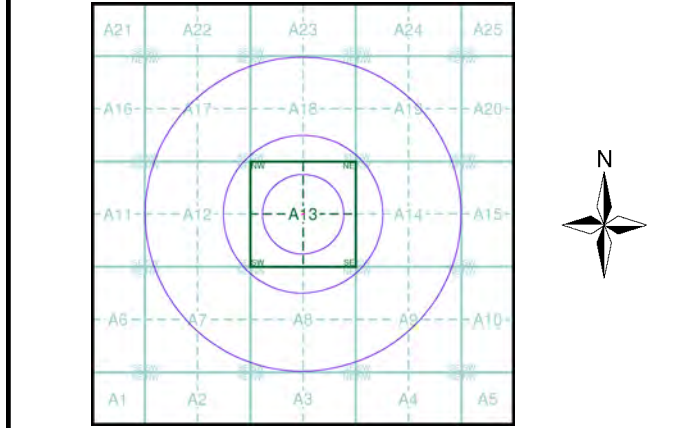
Urban Soil Chemistry Nickel

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Nickel Concentrations mg/kg



Urban Soil Chemistry Nickel - Slice A



Order Details

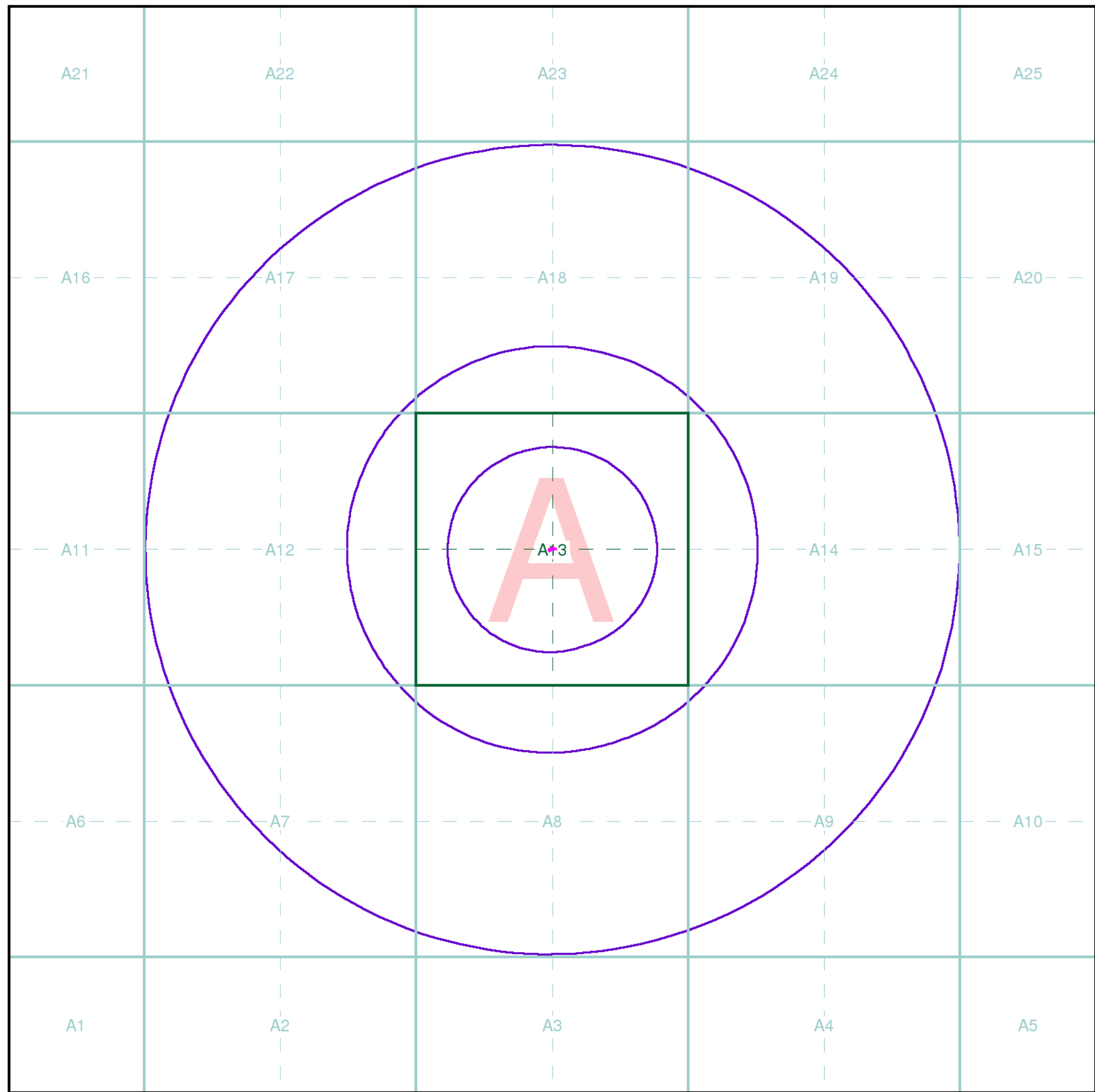
Order Details: 232037188_1_1
Customer Ref: 1921113
National Grid Reference: 529230, 184170
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

178, Royal College Street, LONDON, NW1 0SP

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mr W Cook, RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT

Order Details

Order Number: 232037188_1_1
Customer Ref: 1921113
National Grid Reference: 529220, 184170
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

178, Royal College Street, LONDON, NW1 0SP

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



APPENDIX E

SUPPORTING DESK STUDY INFORMATION



**NGRC
BOREHOLE RECORDS
ADJUSTMENT FORM**

QUARTER SHEET

TQ 28SE

BH REGISTRATION NUMBER

1426 — 1598.

RECORDS ENTERED AND HELD BY WALLINGFORD

BH REGISTRATION NUMBER(S)

RECORD of WELL or BORE

Survey No. 256

1" N.S. 256

1" O.S.

London Road

134.101

256 1398

London Road

London

Six-inch map N.S.W.

Topographic Sheet

One-inch map

1928/50

Surface level of ground \pm 65 ft. above Ordnance Datum. Well or Bore commenced at \pm ft. below surface level of ground.

Sunk \pm 4 ft. diameter \pm 12 in. Bored \pm ft.; diameter of borings at top \pm in. at bottom \pm in.

Details of lining tubes (internal diameters preferred) \pm 34' 2" of 16 in. Top \pm 5' 4" of 12 in. \pm 2' 6" of 12 in.

Water struck at depths of (feet) 301, 315, 333, NGR TO 2902 8412

Rest-level of water below top of well or bore \pm 278 ft. Pumping level \pm 278 ft. Time of recovery \pm hours.

Section at \pm 298 ft. depth. Yield: (i) on test \pm 7000/8000 galls. per hour, (ii) normal \pm galls. per hour.

Quality (attach copy of analysis if available) Hardness \pm 0. Temp \pm 4. Total \pm 4.

Made by LE GRAND, SUTCLIFF & GELL, LD. for Mr. ~~Confidential~~ Bored Co. Ltd. Date of boring ~~Confidential~~ 1934

Information from LE GRAND, SUTCLIFF & GELL, LD. ~~Confidential~~ 8134/p. 673.

(For Survey use only.)
GEOLOGICAL
CLASSIFICATION.

NATURE OF STRATA.
(and any additional remarks)

THICKNESS.

Feet. Inches.

DEPTH.

Feet. Inches.

made

L.C.

196

W.R.S.

50

T.S.

30

C.K.

270

88

26:10:28

Meda ground
Brown clay
Blue clay
Blue clay & stone
Blue clay
Mottled clay
Conglomerate
Green loamy sand
Shale sand
Green flints
Chalk & flints
Hard grey Chalk

2

30

28

25

33

39

6

5

19

1

332

242

2

22

50

75

108

147

153

158

171

178

440

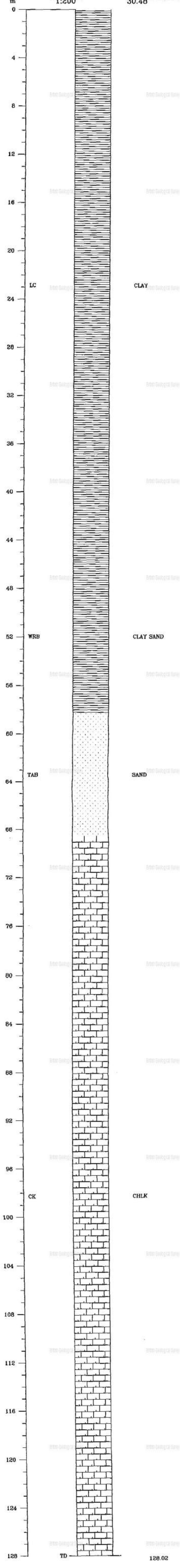
652

Site visited 30th July 1946.
Pumping controlled by demand \times .
Well top - basement 10' below ground level.
Confidential Water very soft. - hard to handle.

~~2~~ July 1946
~~P.W.L.~~ P.W.L. 300 yield 10,328 Nos. 1937

N-WITCHER PLACE

Grid Reference: 29326 84525

Scale: Ordnance Datum:
1:200 30.48

RECORD OF SHAFT OR BORE FOR MINERALS

TQ28SE/4

Name of Shaft or Bore given by Geological Survey:

Name and Number given by owner:

Idris and Co. Witcher Place

For whom made

Town or Village St Pancras

County London

Exact site

Attach a tracing from
a map, or a sketch-
map, if possible.

Purpose for which made Water

Ground Level at shaft
bore relative to O.D.If not ground level give O.D. of beginning of shaft
bore

Made by

Date of sinking 1905

Information from

Date received

Examined by

SPECIMEN NUMBERS AND ADDITIONAL NOTES

(For Survey use only)

GEOLOGICAL
CLASSIFICATION

DESCRIPTION OF STRATA

THICKNESS

DEPTH

Ft.

In.

Ft.

In.

London Wells p. 142. 2. full.

420 128.02

2. ROCHESTER ROAD, Witcher Place. Messrs. Idris & Co.
100 feet above Ordnance Datum. (30.48 m.)

Made by the Firm in 1905, and communicated by Mr. T. H. W. Idris.

Diameter of bore 13 inches. Water-level 100 feet below O.D. Yield 300
gallons an hour. (30.48 m.)

London Map 7, N.W. (b. 4).

Thickness. Depth.
Feet. Feet.

| | | | |
|-----------------|-----------------------|-----|----------|
| [London Clay.] | { Yellow clay (12.80) | 42 | (12.80) |
| | { Blue clay (32.00) | 147 | (44.80) |
| | { Green sand (9.41) | 150 | (46.72) |
| | { Yellow clay (18.20) | 41 | (28.72) |
| [Reading Beds.] | { Green sand (10.30) | 84 | (28.72) |
| | { Chalk (27.44) | 136 | (128.02) |

256/425
TQ 28/49

256/425

142

2. Rochester Road, Wichester Place. Messrs. Liria & Co.

100 feet above Ordnance Datum.

Made by the Firm in 1905, and communicated by Mr. T. H. W. Ison, M.P.

Diameter of bore 13 inches. Water-level 100 feet below O.D. Yield 3,000 gallons an hour.

London Map 7, N.W. (b. 4).

| | | Thickness Feet. | Depth. Feet. |
|-----------------|-----------------|--------------------|-----------------|
| [London Clay.] | Yellow clay ... | 42 | 42 |
| | Blue clay ... | 105 | 147 |
| | Green sand ... | 3 | 150 |
| [Reading Beds.] | Yellow clay ... | 41 | 191 |
| | Green sand ... | 34 | 225 |
| | Chalk ... | 152 | 420 |

London Clay

Woolwich & Reading Beds (? Reading Type)

Thames Sand

Upper Chalk

| ft. | m |
|-----|---|
| 150 | 0 |
| 75 | 0 |
| 195 | 0 |

Swindon 1976

TQ 28/49

6250/33 425 C83

Salis Ltd., Whilcher Place, Rochester
Rochester Road.

Site of well received from Salis Platt St.
Well top thought to be ground level.
Well disused for Aug. 1946

NGR TQ 2932 8455.

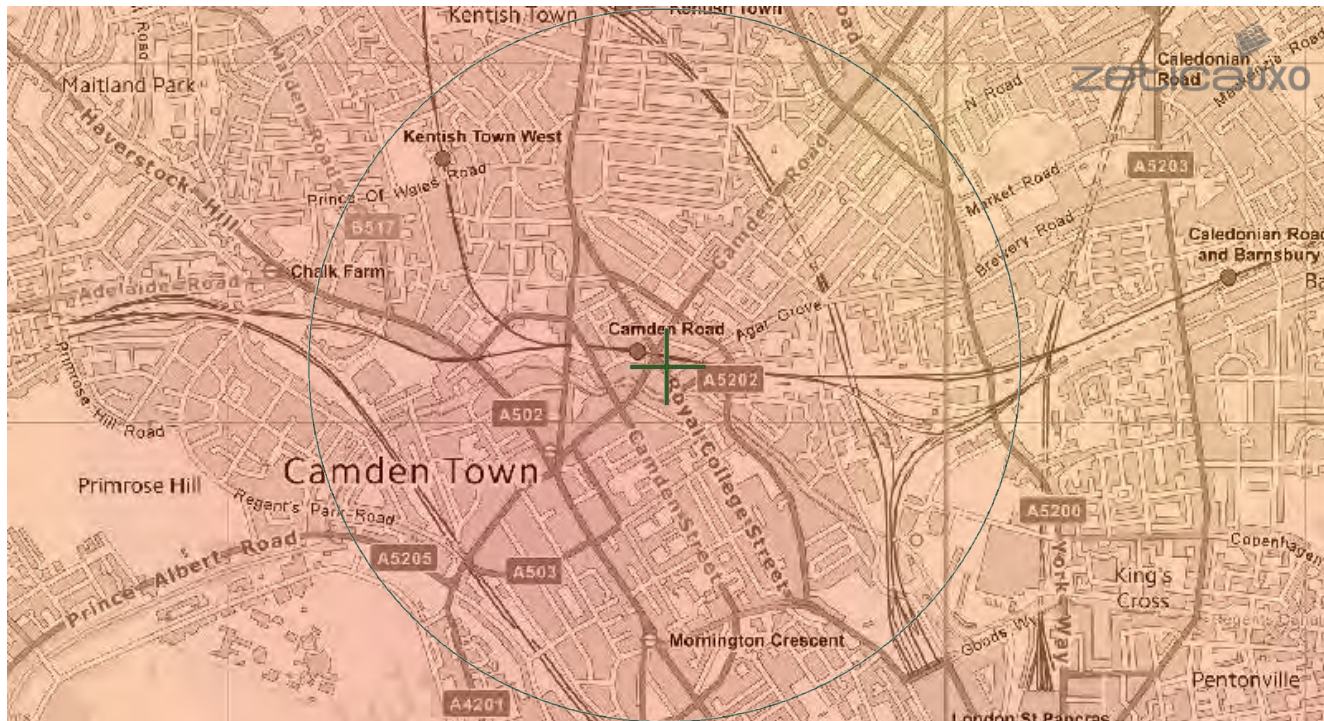
Ref. R.I.W. p. 142.

UNEXPLODED BOMB RISK MAP



SITE LOCATION

Location: NW1 OSP,
Map Centre: 529229,184159



LEGEND

London Bomb Risk



| | | | | | | | |
|--|-----------|--|-----------------|--|-------------------|--|-------|
| | military | | industry | | UXO find | | Other |
| | transport | | dock | | Luftwaffe targets | | |
| | utilities | | abandoned bombs | | Bombing decoy | | |

How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

Relative UXB risk across London

The relative risk for the London area is established by plotting the recorded bombing densities.

These are represented as counts of high explosive bombs in km2 area. The areas coloured green represent a record of less than 10 bombs per km2.

Compared to other areas of the UK, this still represents a significant density. However, this is much lower than parts of Central London, where the red colouration indicates in excess of 150 bombs falling per km2, representing a very significant bombing density.

What do I do if my site is in a moderate or high density area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites with a moderate or high bombing density.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirms that there is a low probability for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

tel: +44 (0) 1993 886682
email: uxo@zetica.com
web: www.zeticauxo.com

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: (<https://zeticauxo.com/downloads-and-resources/risk-maps/>)

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgment. The copyright remains with Zetica Ltd.

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.

APPENDIX F

TECHNICAL BACKGROUND

Aquifer designation and Source protection zones

Principal aquifer: layers of rock or drift deposit that have high intergranular and/or fracture permeability (usually providing a high level of water storage). They may support water supply and/or river base flow on a strategic scale.

Secondary A aquifer: permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

Secondary B aquifer: predominantly lower permeability layers that may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

Secondary undifferentiated aquifer: it has not been possible to attribute either a category A or B to a rock type. In most cases this means that it was previously designated as both a minor and non-aquifer in different locations owing to the variable characteristics.

Unproductive' strata: low permeability with negligible significance for water supply or river base flow.

The EA generally adopts a three-fold classification of source protection zones (SPZ) surround abstractions for public water supply. The Site is situated in an area defined as follows:

- Zone 1 or the 'inner protection zone' is located immediately adjacent to the groundwater source and is based on a 50-day travel time from any point below the water table to the source. It is designed to protect against the effects of human activity and biological/chemical contaminants that may have an immediate effect on the source
- Zone 2 or the 'outer protection zone' is defined by a 400-day travel time from a point below the water table to the source. The travel time is designed to provide delay and attenuation of slowly degrading pollutants
- Zone 3 or the 'total catchment' is the area around the source within which all groundwater recharge is presumed to be discharged at the source.

Preliminary risk assessment methodology

CLR11 outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. Under CLR11, three stages of risk assessment exist: preliminary, generic quantitative and detailed quantitative. An outline conceptual model should be formed at the preliminary risk assessment stage that collates all the existing information pertaining to a site in text, tabular or diagrammatic form. The outline conceptual model identifies potentially complete (termed possible) contaminant linkages (contaminant–pathway–receptor) and is used as the basis for the design of the site investigation. The outline conceptual model is updated as further information becomes available, for example as a result of the site investigation.

Production of a conceptual model requires an assessment of risk to be made. Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the

likelihood and the consequences of an event must be taken into account when assessing risk. RSK has adopted guidance provided in CIRIA C552 for use in the production of conceptual models.

The likelihood of an event can be classified on a four-point system using the following terms and definitions based on CIRIA C552:

- highly likely: the event appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution
- likely: it is probable that an event will occur or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term
- low likelihood: circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term
- unlikely: circumstances are such that it is improbable the event would occur even in the long term.

The severity can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- severe: short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short-term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000)
- medium: chronic damage to human health ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem
- mild: pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment
- minor: harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the probability of an event occurring and its consequences have been classified, a risk category can be assigned according to the table below.

| | | Consequences | | | |
|-------------|----------------|--------------|--------------|--------------|--------------|
| | | Severe | Medium | Mild | Minor |
| Probability | Highly likely | Very high | High | Moderate | Moderate/low |
| | Likely | High | Moderate | Moderate/low | Low |
| | Low likelihood | Moderate | Moderate/low | Low | Very low |
| | Unlikely | Moderate/low | Low | Very low | Very low |

Definitions of these risk categories are as follows together with an assessment of the further work that may be required:

- very high: there is a high probability that severe harm could occur or there is evidence that severe harm is currently happening. This risk, if realised, could result in substantial liability; urgent investigation and remediation are likely to be required
- high: harm is likely to occur. Realisation of the risk is likely to present a substantial liability. Urgent investigation is required. Remedial works may be necessary in the short term and are likely over the long term
- moderate: it is possible that harm could arise, but it is unlikely that the harm would be severe and it is more likely that the harm would be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term
- low: it is possible that harm could occur, but it is likely that if realised this harm would at worst normally be mild
- very low: there is a low possibility that harm could occur and if realised the harm is unlikely to be severe.