

NON-TECHNICAL SUMMARY

Edgehill Quarry, Edgehill, Banbury, Oxon, OX15 6DH

Boddington Demolition Limited

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1 Introduction

- 1.1.1 Oaktree Environmental was commissioned by Boddington Demolition Limited (the operator) to prepare this Non-Technical Summary (NTS) which accompanies an Bespoke Environmental Permit (EP) application for the use of waste in a deposit recovery operation on the land at Edgehill Quarry, Banbury, Oxon, OX15 6DH. It is proposed that approximately 350,000m³ of suitable material is imported to the site to infill the redundant quarry with inert soils and clays for the land to place 10 recreational Ecopods.
- 1.1.2 The site will be situated at Edgehill Quarry, Edgehill, Banbury, Oxon, OX15 6DH and the National Grid Reference for the site is SP 37128 46922.
- 1.1.3 The application site is located on part of the former Edgehill Quarry off the B4086 road. The site consists of a former limestone quarry. Prior to the commencement of the quarrying activities in the 1950s the site was underdeveloped; the quarrying activities have since ceased and the quarry waste has been screened since 2017.
- 1.1.4 Access to the site is gained off the B4086. The site is bounded to the east and south by agricultural land, to the east of which also contains residential properties such as Edgecombe House and White Bottoms Farm. The north of the site consists of more residential properties and the west of the site consists of the B486 and an industrial truck exporter business.
- 1.1.5 A full description of the site history, geology, hydrology and hydrogeology is presented in the ESSD report.

2 Application proposals

2.1.1 Boddington Demolition Limited will hold and operate a Bespoke Environmental Permit (EP) for the following activities:

- Landfill for inert waste (referenced as 1.17.9 of the EPR 2019 charging tables).

2.2 The Environmental Permit is required for the storage (keeping) and processing prior to the infill of the land. It is anticipated that the throughput of the site will not exceed 60,000 tonnes per annum of the following waste feedstocks:

2.3 Specified waste management activities and associated limits (including waste disposal and waste recovery operations) are listed in the table below:

Activities	
Description of activities for waste operations	Limits of activities
<p>R13: Storage of waste pending any of the operations numbered R1 to R12</p> <p>R5: Recycling/reclamation of other inorganic materials</p> <p>R10: Land treatment resulting in benefit to agriculture or ecological improvement</p>	<p>The use of a maximum of 350,000m³ of wastes listed in section 3 of this document- for the purposes of the construction work and/or restoration, reclamation or improvement of land as detailed in the approved waste recovery plan</p> <p>In any event the total quantity of waste used shall not exceed the amount needed to complete the recovery operation to the final levels in the approved waste recovery plan.</p> <p>Only the waste types specified in section 3 of this document and are specified in the approved waste recovery plan shall be accepted. Such wastes shall only be used as specified in the approved waste recovery plan.</p> <p>Restoration, reclamation, and land improvement activities must only be carried out on land that has been previously subject to industrial or other man-made development.</p> <p>No waste shall be deposited into a water body or sub-water table.</p> <p>Waste types coded 17 05 04 and 20 02 02 that are top soils or peat and waste coded 02 04 01 that is soil from cleaning and washing beet shall only be used for R10 activities</p> <p>Storage of waste prior to use in the recovery activity shall be limited to 12 months.</p>

3 Proposed EWC codes

3.1 The table below details the proposed EWC codes which the site will accept, store and process:

Table 3.1 – Proposed EWC Codes

Permitted waste types and quantities	
Maximum Quantities	The total quantity of waste accepted for activity shall be less than 60,000 tonnes a year.
Waste Code	Description
01	Waste resulting from exploration, mining, quarrying and physical and chemical treatment of minerals.
01 01	01 01 wastes from mineral excavation
01 01 02	Wastes from mineral non-metalliferous excavation
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 06
01 04 09	Waste sand and clays
02	Waste from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 04	wastes from sugar processing
02 04 01	Soil from cleaning and washing beet
10	Wastes from thermal processes
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)
10 13	waste from manufacture of cement, lime and plaster and articles and products made from them
10 13 14	Waste concrete
17	Construction and demolition wastes
17 01	concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 03	Bituminous materials
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01
17 05	Soil stones and dredging spoil
17 05 04	Soil and stones other than those mentioned in 17 05 03
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 09	Minerals (for example sand, stones) only

Permitted waste types and quantities	
Maximum Quantities	The total quantity of waste accepted for activity shall be less than 60,000 tonnes a year.
Waste Code	Description
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 02	garden and park wastes (including cemetery waste)
20 02 02	Soil and stones

4 Summary of operations

- 4.1.1 The site currently comprises a quarry void where mineral extraction has ceased. To fill the void approximately 350,000m³ of inert waste material will be imported to facilitate the infill of the quarry. It is proposed that the material will comprise of locally sourced inert wastes which will be deposited onsite and compacted to necessary limits.
- 4.1.2 It is intended to restore the quarry in response to the Section 106 agreement and for the construction of 10 Ecopods.
- 4.1.3 The materials accepted at the site will contain no discernible concentrations of hazardous substances and that the leachable concentrations of any non-hazardous substances in the waste will pose no significant risk to groundwater.

5 Documentation and fees

5.1 This application constitutes a Bespoke Environmental Permit as per table 1.17 of the charging guide table reference 1.17.9.

Table 5.1 – Base Application Fee Table

EPR Charging Scheme Ref	EPR Charging Scheme Ref & Description	Type of application (Ref)	Fee
1.17.9	Deposit of waste for recovery	Bespoke Permit	£9,207.00
		TOTAL	£9,207.00

Table 5.2 – Additional Application Fees Table - Charges for plans and assessments

General	Consideration	Document & Ref	Fee
Environmental Management System	Required due to permitted activities	043-007-A	
Non-Technical Summary	As Above	043-007-C	
Environmental setting and site design report (ESSD) including Environmental Risk Assessment	As above	043-007-E	
		TOTAL	£0

5.2 Based on the above, the total fee payable to the Environment Agency on submission will be **£9,207.00**

NOISE ASSESSMENT

RESTORATION OF EDGEHILL QUARRY, WARWICKSHIRE

MR A BAUGHAN

OCTOBER 2019

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NOISE ASSESSMENT

RESTORATION OF EDGEHILL QUARRY, WARWICKSHIRE

MR A BAUGHAN

OCTOBER 2019

Status	Prepared By	Date
1.1	L Jephson BEng (Hons) MIOA	21/10/19

This report has been prepared using all reasonable skill and care within the resources and brief agreed with the client. LF Acoustics Ltd accept no responsibility for matters outside the terms of the brief or for use of this report, wholly or in part, by third parties.

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1. Introduction

LF Acoustics Limited have been appointed by Mr A Baughan to undertake a noise assessment in support of a planning application to restore Edgehill Quarry, Warwickshire.

At present, an operation to recover secondary aggregates within the quarry is ongoing. The works involve the screening of the quarry overburden removed during previous quarrying operations in order to extract stone. The process involves the digging of the overburden using a loading shovel and screening it through a three-way screen to separate the various grades of stone.

Once the present operations are completed, it is proposed to commence the restoration of the quarry. The proposals are to fill the quarry with inert materials, which would be carried out over four main stages, with the quarry restored near to original ground levels. To facilitate the restoration, it is proposed to install a recycling area at the base of the quarry, where the imported materials will be screened, to provide either recycled materials or for fill for the quarry restoration.

This report presents an assessment of the likely noise levels generated at surrounding noise sensitive receptors during the remaining screening operations carried out within the site. Section 2 provides a summary of the applicable standards and guidelines. Section 3 provides information on the surrounding noise sensitive properties, with Section 4 providing details of a baseline noise monitoring exercise. Section 5 provides details of the proposed recycling and restoration operations with an assessment the noise from the proposed operations provided within Section 6. Section 7 proposes additional control measures to be adopted on site to minimise noise levels. Finally, Section 8 presents a summary of this report.

2. Applicable Standards and Guidance

A description of the noise units referred to within this report is provided in Appendix A.

2.1. National Planning Policy Framework

The principal planning guidance in the UK is presented within the National Planning Policy Framework [1]. At the heart of the NPPF is a presumption in favour of sustainable development, although environmental criteria should be set out to ensure that the permitted operations do not have unacceptable adverse impacts, with appropriate noise limits adopted to control noise.

The current technical planning practice guidance attached to the NPPF relating to noise was published in March 2014 [2], which covers mineral extraction and related processes, including aggregate recycling and the disposal of construction waste, provides guidance and advises upon acceptable levels of noise from minerals operations. It is considered that this is the most appropriate guidance to consider in relation proposed operations.

For normal daytime works the guidance seeks to ensure that the operations do not result in significant adverse effects and advises for normal daytime operations that the following limits should not exceed:

- 10 dB above the background (L_{A90}) noise level; subject to
- a maximum value of 55 dB $L_{Aeq, 1 \text{ hour}}$ (free field).

Where background noise levels are low, the guidance accepts that it may be very difficult to achieve a limit based upon background + 10 dB(A) without imposing unreasonable burdens on the mineral operator. In such cases, the limit set should be as near that level as practicable during normal working hours and should not exceed 55 dB $L_{Aeq, 1 \text{ hour}}$ (free field).

The guidance suggests that in the evening (19:00 – 22:00) $L_{Aeq, 1 \text{ hour}}$ noise levels should not exceed the background (L_{A90}) noise level by more than 10 dB and during the night-time a limit of 42 dB $L_{Aeq, 1 \text{ hour}}$ should be adopted.

In addition to the general daytime works, the guidance advises that all mineral operations will have some particularly noisy short-term activities that cannot meet the limits set for normal operations. These include soil-stripping, construction or removal of bunding or spoil heaps and construction of new permanent landforms. A level of 70 dB $L_{Aeq, 1 \text{ hour}}$ is suggested as a limit for these activities for periods of up to eight weeks in any one year. Where the duration of temporary works may exceed eight weeks it can be appropriate to apply a lower limit for a longer period. The guidance also recognises that, in wholly exceptional cases, where there is no viable alternative, a limit of more than 70 dB $L_{Aeq, 1 \text{ hour}}$ may be appropriate in order to obtain other environmental benefits.

2.2. World Health Organisation Guidelines

Consideration has also been given to the World Health Organisation (WHO) guidance for community noise [3], which advises:

- To protect the majority of people from being seriously annoyed by noise during the daytime period, external noise levels should not exceed 55 dB $L_{Aeq,T}$; and
- To protect the majority of people from being moderately annoyed by noise during the daytime period, external noise levels should not exceed 50 dB $L_{Aeq,T}$.

On this basis, an external level of 55 dB $L_{Aeq,T}$ would represent the potential for a significant adverse noise effect and relates to the upper limit specified within the PPG.

3. Identification of Noise Sensitive Receptors

There are a small number of residential properties surrounding the quarry which have been considered within this report, identified below and on Figure 1:

- White Bottoms Farm, located to the south east;
- Edgecombe House to the north east;
- Romanys Rest, The Vicarage and Stable House to the north; and
- Grove End to the north west.

4. Baseline Noise Assessment

Baseline noise monitoring was carried out by LF Acoustics in January 2018, as part of the noise assessment prepared to assess noise from the present overburden screening operations.

Noise measurements were made at three positions, representative of the properties potentially most affected by noise from the operation of the quarry during a period when the plant operating within the quarry were stood. These measurements provided representative background noise levels, which are considered appropriate to adopt for the purposes of the current assessment.

A description of the measurements made at each position is provided below.

4.1. Results and Assessment of Noise Monitoring at White Bottom Farm

The measurements at this location were taken on the roadside in front of the farm buildings. From this location there was a clear line of sight into the southern half of the quarry. The monitoring location is indicated on Figure 1.

The property is effectively screened from the quarry, as it is set back from the road, with stables along the boundary with the road acting as an effective barrier.

The results of the noise monitoring carried out at this location are provided in Table 4.1 below.

Time	Measured Noise Levels [dB]			Comments
	L _{Aeq}	L _{Amax,F}	L _{A90}	
13:52 – 14:10	39.7	58.6	34.1	12 Cars Paused out of Measurement
15:00 – 15:18	40.7	52.3	34.6	11 Cars Paused out of Measurement

Table 4.1 Results of Noise Monitoring at White Bottom Farm

During the periods when the site was stood, noise levels were observed to be low, with the main influences associated with distant road traffic from vehicles travelling along the M40 to the east, distant road traffic on surrounding roads and birdsong.

The noise measurements taken when the site was stood indicated typical background noise levels at this location of 34 – 35 dB L_{A90}. Based upon the PPG guidance, the operator should aim to ensure that noise levels associated with the operation of the site do not exceed this level +10dB(A), which would result in a site noise level of 45 dB L_{Aeq, 1 hour} at this location.

4.1.1. Results and Assessment of Noise Monitoring at Edgecombe House

The noise measurements at this location were taken from the public footpath which runs in the field alongside the property. This location was representative of the adjacent property.

The results of the noise monitoring carried out at this location are provided in Table 4.2 below.

Time	Measured Noise Levels [dB]			Comments
	L _{Aeq}	L _{Amax,F}	L _{A90}	
14:15 – 14:32	40.0	52.4	31.4	11 Cars Paused out of Measurement
15:22 – 15:40	36.4	48.0	30.4	10 Cars Paused out of Measurement

Table 4.2 Results of Noise Monitoring at Edgecombe House

Noise levels when the quarry plant was not operational were observed to be low and again principally influenced by distant road traffic. Background noise levels were very low and typically 31 dB L_{A90} at this location. On the basis of the PPG guidance, this would indicate a site noise limit of 41 dB L_{Aeq, 1 hour} at this property, which whilst 10 dB(A) above background is considered to be very low for daytime operations. Whilst the operator should aim to achieve this limit, it is considered unlikely that there would be any significant adverse noise impacts below a level of 50 dB L_{Aeq, 1 hour}.

4.1.2. Results and Assessment of Noise Monitoring at Grove End

This property is located close to the entrance of the quarry and is effectively screened from the present operations by the quarry faces and buildings on the land adjacent to the quarry.

The monitoring at location was made within the entrance to the quarry, and representative of the property and is indicated on Figure 1.

The results of the noise monitoring carried out at this location are provided in Table 4.3.

Time	Measured Noise Levels [dB]			Comments
	L _{Aeq}	L _{Amax,F}	L _{A90}	
13:30 – 13:47	42.8	63.5	31.4	18 Cars Paused out of Measurement
14:37 – 14:54	44.2	63.3	33.7	28 Cars Paused out of Measurement

Table 4.3 Results of Noise Monitoring at Grove End

Background noise levels at this location were observed to be low and again principally influenced by distant road traffic. The measured levels were typically 32 dB L_{A90} at this location. On the basis of the PPG guidance, this would indicate a site noise limit of 42 dB L_{Aeq, 1 hour} at this property, which whilst 10 dB(A) above background is considered to be very low for daytime operations. Whilst the operator should aim to achieve this limit, it is considered unlikely that there would be any significant adverse noise impacts below a level of 50 dB L_{Aeq, 1 hour}, particularly given the relatively high volumes of traffic passing on the road adjacent to the property.

5. Proposed Operations

At present the quarry operates between 08:00 – 18:00 hours Mondays to Fridays and 08:00 – 13:00 hours on Saturdays, with no working on Sundays or bank / public holidays. These hours of operation are not anticipated to change during the restoration.

At the commencement of restoration operations, a recycling area would be created within the western area of the quarry. The floor level of this area would be at the base of the quarry and thus ~5 metres below the surrounding ground levels. A screening bund would be constructed around the northern, eastern and southern boundaries of the recycling area. The bunding would be constructed to a height of 7 metres above the quarry floor to ensure it provided effective noise mitigation for the plant operating within this area.

The majority of the plant would operate within the recycling area. This is anticipated to include two screens, a manual picking line and the periodic use of a crusher, which would be used to process any oversized materials. There would additionally be two loading shovels operating in this area, used to load vehicles and to service the plant. To ensure noise levels from the operation of the screening plant is minimised, it is proposed to locate them as close to the northern bund as possible, to ensure the mitigation provided by the bunding is maximised.

The provision of the bunding and positioning of the plant seeks to ensure that noise levels from the plant operating within the recycling area were reduced at the surrounding properties as far as practically possible.

The infilling and restoration of the quarry would be carried out in four main stages as indicated on Figure 2.

Materials would be transported to the infilling area, either by HGV or potentially utilising an ADT to transport material from the recycling area. Materials would be spread periodically utilising an excavator, to create the final land formation.

Infilling would commence along the southern quarry boundary to stabilise this embankment. Works would then progress into the second stage, within the northern part of the quarry and progress into Stage 3 within the central area. The final stage would be the infilling and restoration of the recycling area. The recycling plant would be removed prior to works commencing in this stage, with materials imported at this stage placed directly onto the restoration area.

6. Calculation and Assessment of Noise from Proposed Operations

6.1. Calculation Methodology

Calculations of the noise levels associated with the operations within the recycling area and restoration of the quarry have been made for each main stage of the development.

The calculations have been made using the SoundPlan computer modelling software. This software implements the calculation methodology from ISO 9613 [4].

The calculations have assumed the plant associated with the infilling operating near the final restoration levels. This approach provides a worst case approach, as the plant would be operating at near to existing ground levels and thus would not be screened by the quarry faces. During the initial operations within each stage, the plant would be operating at the base of the quarry and thus effectively screened, resulting in lower noise levels than predicted.

To provide a reasonable worst case assessment, it has been assumed that the plant would be fully operational.

The calculations have not taken account of any additional storage bunds, which would provide a further reduction in noise levels to those calculated.

6.2. Noise Source Terms

Noise source terms for the plant anticipated to be used within the quarry have been based upon measurements taken by LF Acoustics of similar plant operating in other quarries, which were considered representative of the plant likely to operate on site.

The assumed source terms are as follows.

Source	Source Height [m]	Source Level @ 10m [dB L _{Aeq}]	Equivalent SWL [dB(A)]	Usage
<i>Recycling Area</i>				
Screening Plant & Loaders x 2	2	79.3	107.3	100%
Crusher	2	79.4	107.4	100%
HGV Movement	2	-	104.0	20 Movements / hour
<i>Restoration Plant</i>				
Excavator	2	75.7	103.7	100%
HGV / Dump truck movement	2	-	104.0	12 Movements / hour

Table 6.1: Source Term Noise Levels

6.3. Calculation Results

The results of the calculations for the daytime operations carried out during normal working hours are provided graphically on Figures 3 – 6 and tabulated in Appendix B. The results for each stage are summarised in Table 6.2 below.

Location	Calculated Noise Levels [dB L _{Aeq, 1 hour}]			
	Stage 1	Stage 2	Stage 3	Stage 4
Edgecombe House	37	42	38	33
Grove End	45	45	46	42
The Vicarage	39	41	40	36
White Bottoms Farm	47	38	43	30

Table 6.2 Calculated Noise Levels

6.4. Assessment of Noise Levels at Edgecombe House

Edgecombe House is located to the north east of the quarry.

Operations within the recycling area would generate the highest noise levels. The recycling area would be located within the area of the quarry furthest from the property. As discussed previously, to ensure noise levels from the recycling operations are minimised, the plant would be located at the base of the quarry, with a 7 metre high bund constructed around the boundary of the recycling area. The bund would be constructed from the base of the quarry and would ~2 metres above the surrounding ground level. These measures seek to ensure that noise from these operations are reduced as far as practical.

Noise levels would be at a maximum during the infilling and restoration of Phase 2, whilst the restoration plant is closest to the property. Noise levels during this stage are anticipated to be 42 dB L_{Aeq, 1 hour}. Whilst the noise levels would be marginally above a limit of 42 dB L_{Aeq, 1 hour}, based upon a level of L_{A90} + 10dB(A), the overall noise levels from the operation would remain very low and below a level which would result in a significant adverse impact, when assessed against the WHO guidance. On this basis, noise levels during this stage would be acceptable.

Noise levels would be lower during operations within the other three stages, with noise levels anticipated to remain below 40 dB L_{Aeq, 1 hour} at the property. No adverse noise impacts have been identified during works in these stages.

6.5. Assessment of Noise Levels at Grove End

Grove End is located to the north of the quarry entrance and is the closest property to the proposed recycling area.

Noise levels attributable to the operations within the quarry would be principally attributable to the plant operating within this area, which is anticipated to generate a level of 45 dB L_{Aeq, 1 hour} at the property, with the proposed mitigation measures implemented. The infilling operations would have minimal influence on the overall site noise levels at this property, with works within Stage 3, the closest stage, anticipated to increase overall site noise levels to 46 dB L_{Aeq, 1 hour}.

Noise levels attributable to the operation of the quarry would be above a limit of 42 dB L_{Aeq, 1 hour} based upon the background noise levels at this location.

The mitigation and control measures proposed, which include the provision of 7 metre high bunding around the recycling area (which would be constructed at the base of the quarry and thus ~2 metres above the surrounding ground level), seek to reduce noise levels at the property as far as practically possible.

Furthermore, the overall site noise levels would remain 5 dB(A) below a level considered by the WHO set to protect the majority of people from being moderately annoyed and on this basis, the overall noise levels attributable to the operation of the plant would be unlikely to result in any significant adverse noise impacts upon the occupants of this property

6.6. Assessment of Noise Levels at The Vicarage

The Vicarage is located within the village and is representative of other dwellings to the north of the quarry.

Noise levels calculated at this property indicate very low levels of noise attributable to the operation of the plant within the quarry.

Noise levels at this property would be unlikely to exceed a limit of 42 dB $L_{Aeq, 1 \text{ hour}}$, based upon the noise levels monitored at Edgcombe House, which is considered to be a representative position upon which to base the baseline levels at this location.

Furthermore, overall noise levels would remain at least 10 dB(A) below the limits recommended by the WHO. Noise levels at this property attributable to the operation of the plant would therefore not result in any adverse noise impacts.

6.7. Assessment of Noise Levels at White Bottoms Farm

This property is located to the east of the quarry. The farm house is set back within the farm yard and screened from the road and quarry by a number of barns, which provide effective mitigation.

Noise levels at this property would be at a maximum during the final stages of restoration within Phases 1 and 3, with noise levels of up to 47 dB $L_{Aeq, 1 \text{ hour}}$ predicted. This level of noise would be marginally above the proposed normal working limit of 45 dB $L_{Aeq, 1 \text{ hour}}$ at this property, based upon a limit 10 dB(A) above the background noise levels. Noise levels would, however, remain below a limit defined by WHO as representing a limit where people would be moderately annoyed.

The noise levels would only be high during the final stages of restoration, whilst the plant is operating close to the surface and property, which is only anticipated to be for a matter of a few weeks. During the periods whilst the plant is working below the surface, the noise levels are would be lower.

Noise levels during operations within Stages 2 and 4, whilst the plant is working further from the dwellings would be lower and not anticipated to exceed a level of 45 dB $L_{Aeq, 1 \text{ hour}}$.

Given that the overall noise levels attributable to the plant operating within the quarry would remain below the WHO limits, with higher noise levels only anticipate for a period of a few weeks during Stages 1 and 3, it is not considered that the noise attributable to the operations would result in any significant adverse noise impacts and therefore considered to be acceptable.

7. Recommended Noise Control Measures

The assessment within Section 6 indicates that noise levels associated with the working of the site would be acceptable with appropriate working methods and the bunding provided around the recycling area.

In addition to the mitigation measures incorporated into the working methods for the site, appropriate noise control measures would be adopted to ensure noise associated with the operation of the site was minimised and would include:

- Ensuring all plant is kept well maintained, with any defects rectified promptly;
- Ensuring silencers on plant are effective;
- Minimising drop heights; and
- Turning off plant when not in use.

The current planning guidance advises that noise monitoring should be carried out periodically to ensure that noise levels associated with site operations remain within acceptable limits.

It is recommended that noise monitoring should be carried out upon the commencement of operations within the recycling area and at during the final restoration of each stage thereafter, whilst the restoration plant is working close to the surface. Noise monitoring should additionally be carried out following receipt of a justified complaint.

For any measurements made, a meter conforming to at least Class 2 standards should be used, which should be calibrated before and after the exercise. The meter should be positioned at a height of 1.2 metres above the ground and at a free-field location (i.e. at least 3.5 metres from a building facade or other reflecting surface other than the ground). At each location, it is recommended that two 15 minute measurements are made, whilst the site is fully operational, which is normally a sufficient time period to demonstrate compliance with the limits, with further measurements taken whilst the site is stood for comparative purposes.

The results of the monitoring / calculation exercise should be compared to the proposed operating limits described within this report. Should the results indicate that the limits are being exceeded or noise levels considered to be unacceptable, further mitigation / control measures should be considered and implemented, as appropriate.

8. Summary

LF Acoustics Limited were appointed by Mr A Baughan to undertake a noise assessment in support of a planning application to restore Edgehill Quarry, Warwickshire.

At present, an operation to recover secondary aggregates within the quarry is ongoing. The works involve the screening of the quarry overburden removed during previous quarrying operations in order to extract stone. The process involves the digging of the overburden using a loading shovel and screening it through a three-way screen to separate the various grades of stone.

Once the present operations are completed, it is proposed to commence the restoration of the quarry. The proposals are to fill the quarry with inert materials, which would be carried out over four main stages, with the quarry restored near to original ground levels. To facilitate the restoration, it is proposed to install a recycling area where the imported materials will be screened, to provide either recycled materials or for fill for the quarry restoration.

To ensure noise levels from the proposed operations are minimised, the main plant required would be sited within the proposed recycling area, with the plant set at the base of the quarry and effectively screened by the provision of a 7 metre high screening bund above the existing ground level at the base of the quarry (~2m above the surrounding ground level) around the perimeter of the recycling area. The proposed mitigation and control measures seek to ensure that noise levels attributable to the operation of the plant are reduced as far as practically possible.

Calculations and an assessment of the noise levels associated with the proposed recycling and restoration operations has been made. The assessment indicates that the noise levels would remain within acceptable limits for daytime noise, which seek to minimise any significant adverse noise impacts and thus ensuring full compliance with the requirements of the NPPF. The operator should, however, continue to ensure best practice is employed to minimise noise, through good maintenance and appropriate on-site controls.

References

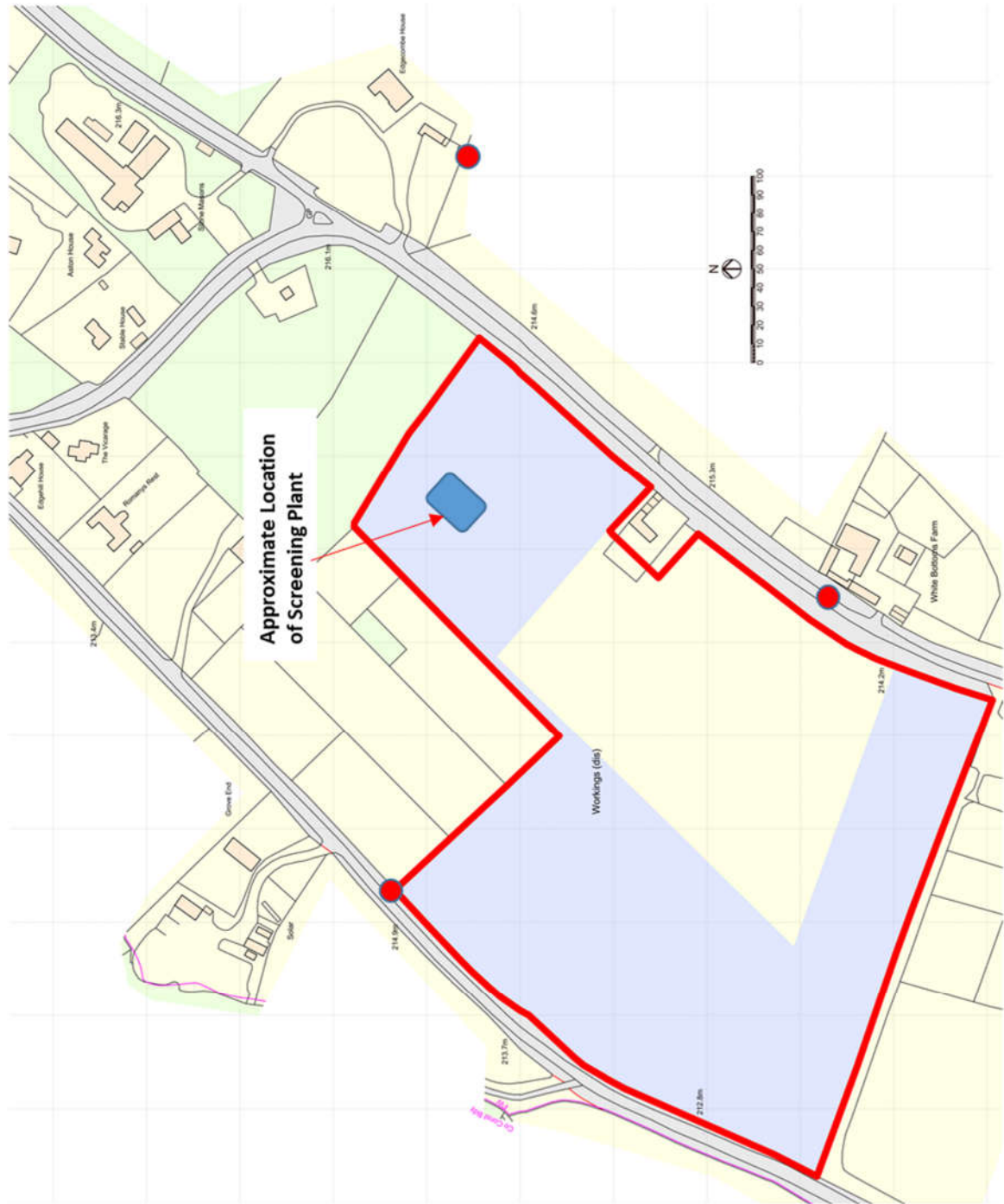
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3. World Health Organisation. Guidelines for Community Noise. Geneva. 1999.
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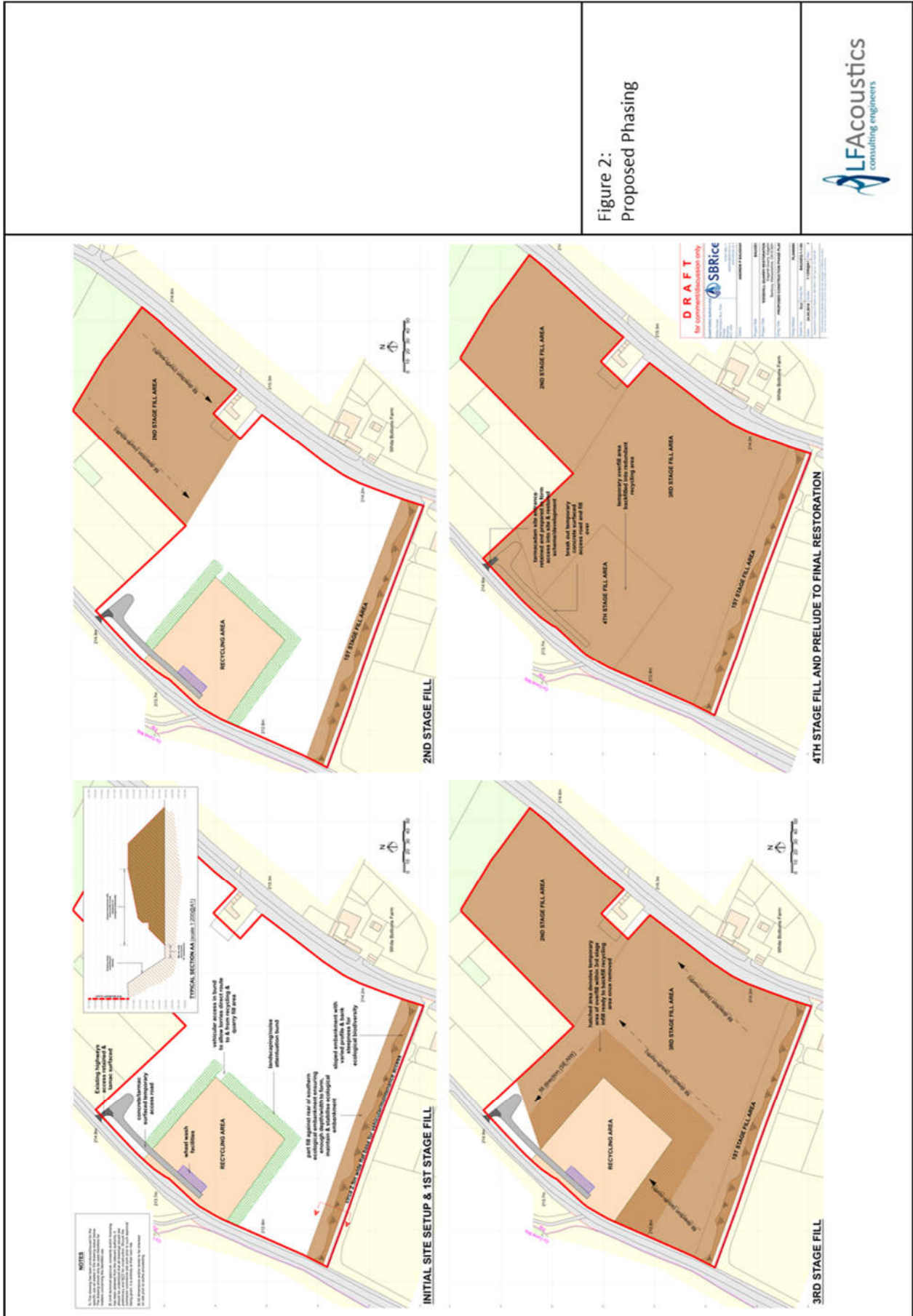
Figures

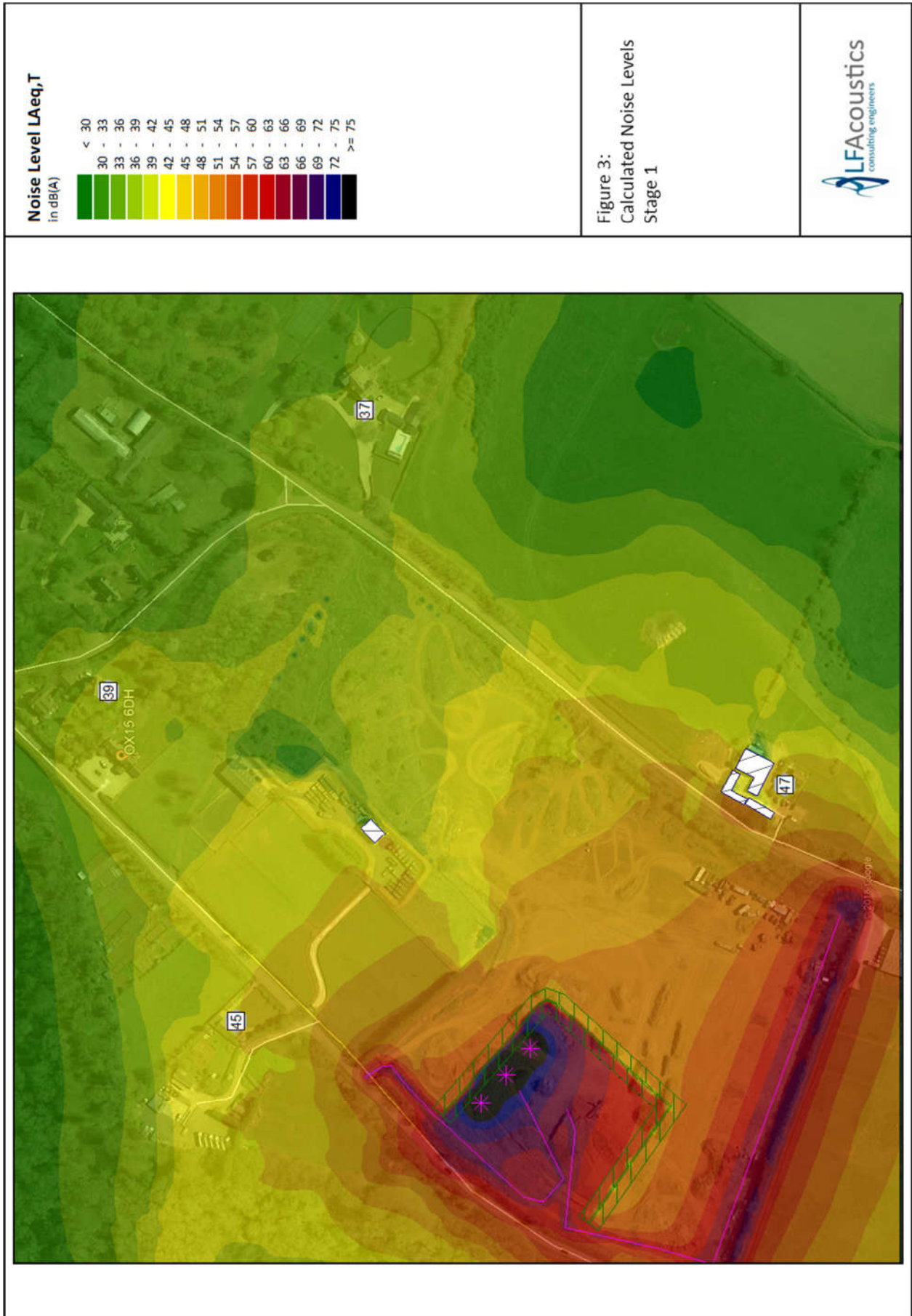
Key

● Noise Monitoring Position

Figure 1:
Site Plan and Noise Monitoring Locations



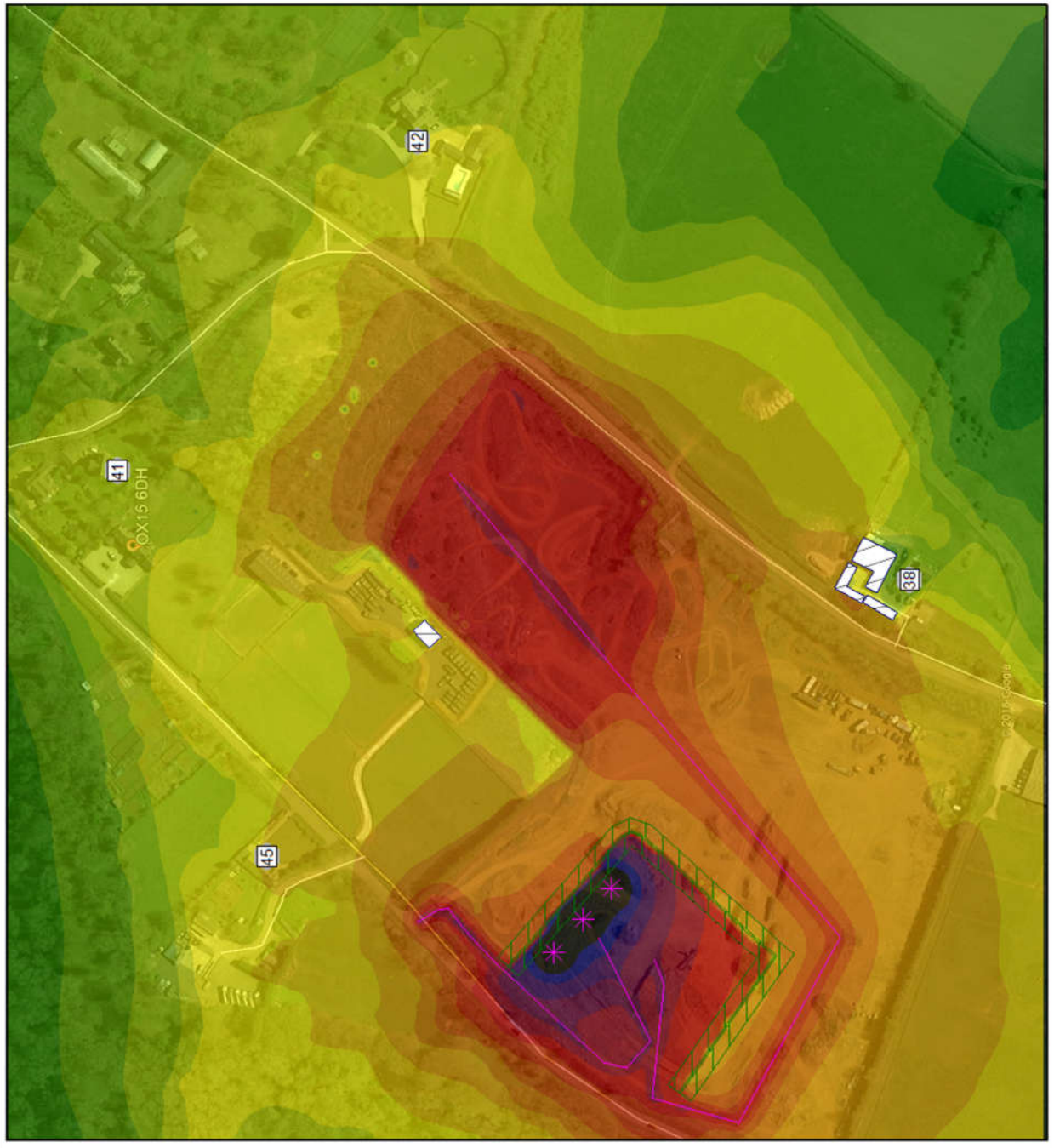


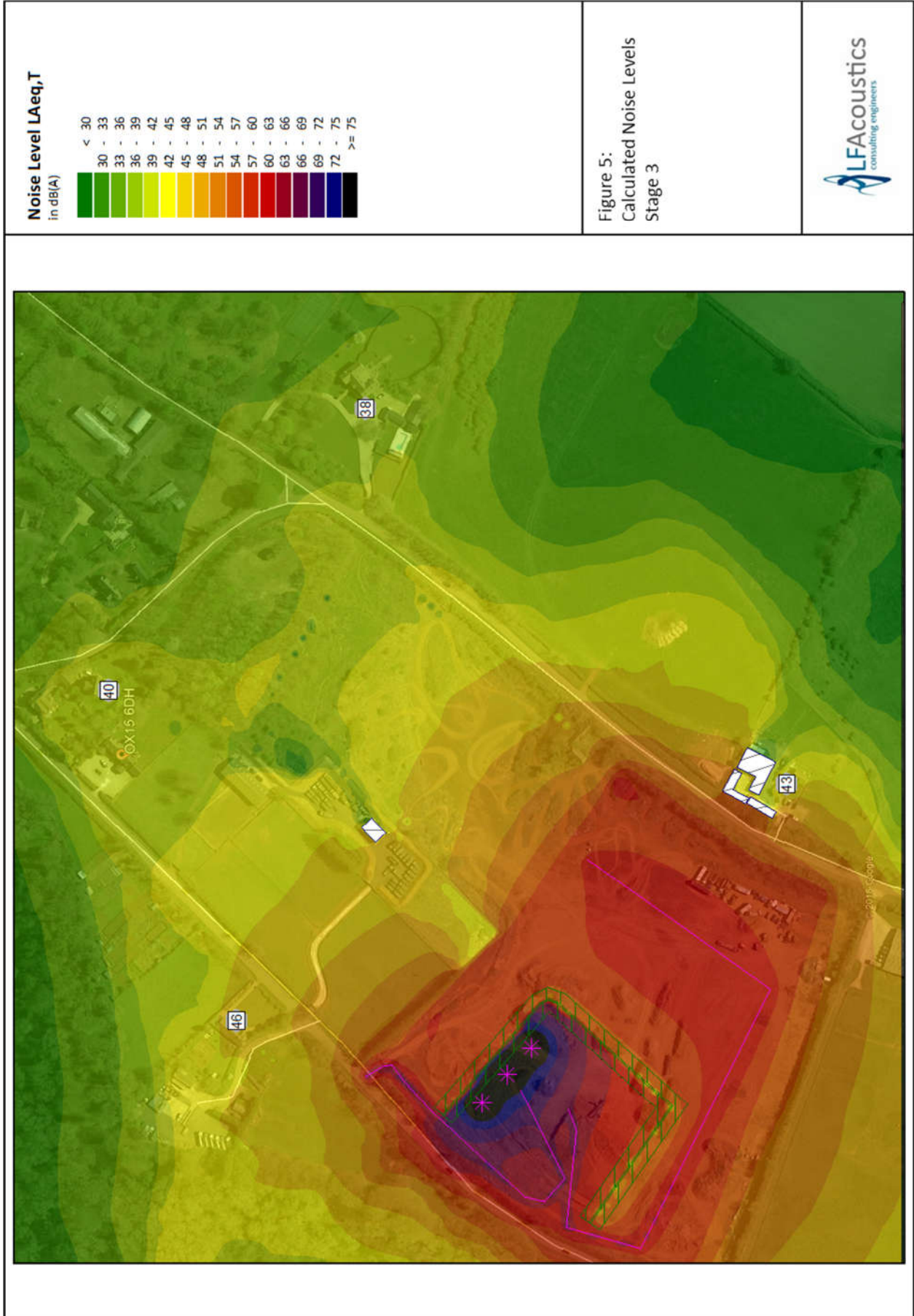


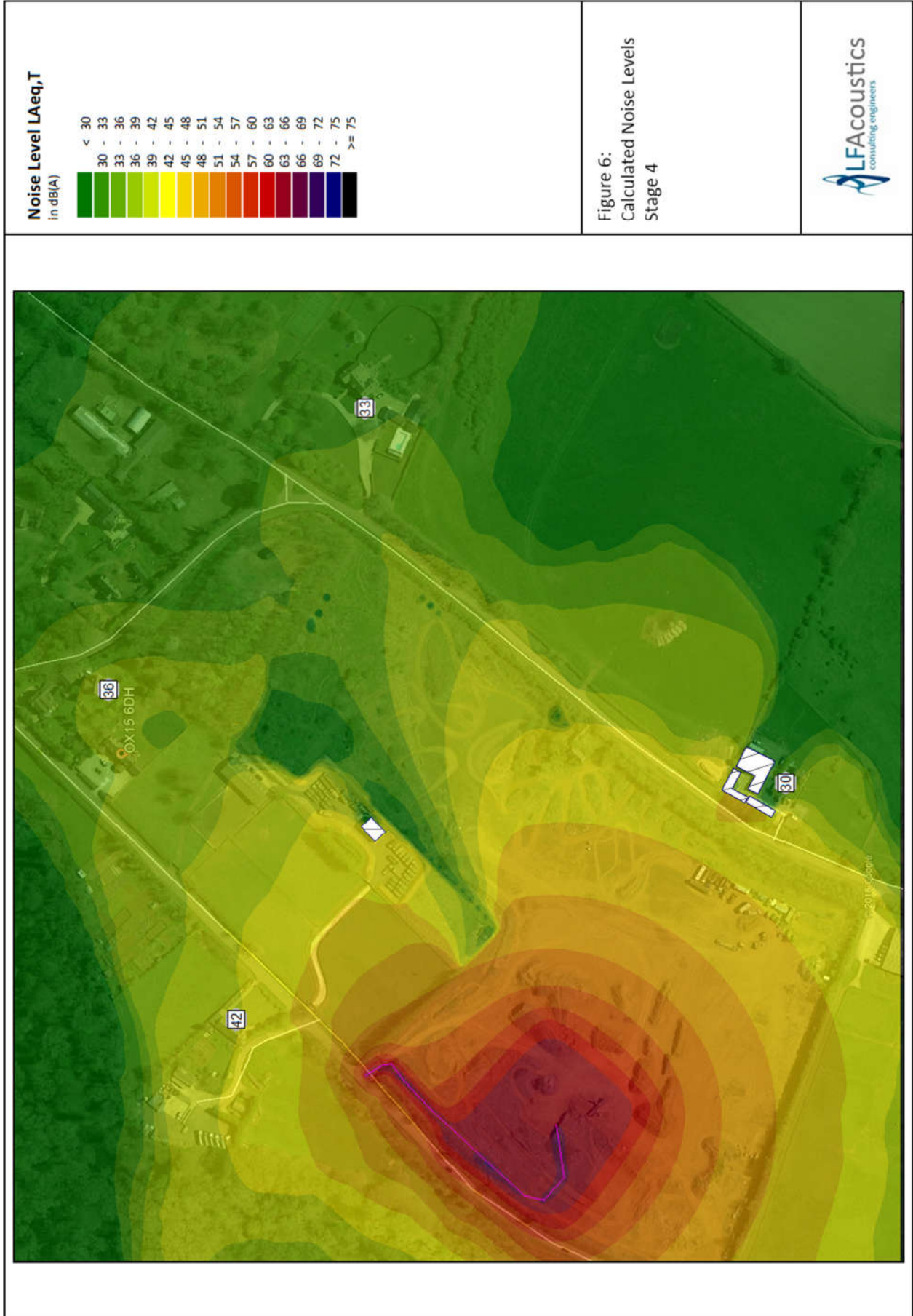
Noise Level LAeq,T
in dB(A)



Figure 4:
Calculated Noise Levels
Stage 2







Appendix A Noise Units

Decibels (dB)

Noise can be considered as 'unwanted sound'. Sound in air can be considered as the propagation of energy through the air in the form of oscillatory changes in pressure. The size of the pressure changes in acoustic waves is quantified on a logarithmic decibel (dB) scale firstly because the range of audible sound pressures is very great, and secondly because the loudness function of the human auditory system is approximately logarithmic.

The dynamic range of the auditory system is generally taken to be 0 dB to 140 dB. Generally, the addition of noise from two sources producing the same sound pressure level will lead to an increase in sound pressure level of 3 dB. A 3 dB noise change is generally considered to be just noticeable, a 5 dB change is generally considered to be clearly discernible and a 10 dB change is generally accepted as leading to the subjective impression of a doubling or halving of loudness.

A-Weighting

The bandwidth of the frequency response of the ear is usually taken to be from about 18 Hz to 18,000 Hz. The auditory system is not equally sensitive throughout this frequency range. This is taken into account when making acoustic measurements by the use of A-weighting, a filter circuit that has a frequency response similar to the human auditory system. All the measurement results referred to in this report are A-weighted.

Units Used to Describe Time-Varying Noise Sources (L_{Aeq} , L_{Amax} , L_{A10} , and L_{A90})

Instantaneous A-weighted sound pressure level is not generally considered as an adequate indicator of subjective response to noise because levels of noise usually vary with time.

For many types of noise the Equivalent Continuous A-Weighted Sound Pressure Level ($L_{Aeq,T}$) is used as the basis of determining community response. The $L_{Aeq,T}$ is defined as the A-weighted sound pressure level of the steady sound which contains the same acoustic energy as the noise being assessed over a specific time period, T.

The L_{Amax} is the maximum value that the A-weighted sound pressure level reaches during a measurement period. $L_{Amax F}$, or Fast, is averaged over 0.125 of a second and $L_{Amax S}$, or Slow, is averaged over 1 second. All L_{Amax} values referred to in this report are Fast.

The L_{A90} is the noise level exceeded for 90% of the measurement period. It is generally used to quantify the background noise level, the underlying level of noise that is present even during the quieter parts of measurement period.

Appendix B
Calculation Details

**Edgehill Quarry Restoration
Mean propagation Leq - Stage 1**

10

Legend

Source		Source name
Source type		Type of source (point, line, area)
Time slice		Name of time slice
Lw	dB(A)	Sound power level per m, m ²
Lw	dB(A)	Sound power level per unit
l or A	m, m ²	Size of source (Length or area)
S	m	Distance source - receiver
Adiv	dB	Mean attenuation due to geometrical spreading
Agr	dB	Mean attenuation due to ground effect
Abar	dB	Mean attenuation due to screening
Aatm	dB	Mean attenuation due to air absorption
dLrefl	dB	Level increase due to reflections
Ls	dB(A)	Unassessed sound pressure level at receiver $L_s = L_w + K_o + ADI + Adiv + Agr + Abar + Aatm + Afol_site_house + Awind + dLrefl$
dLw	dB	Correction due to source operation time
Lr	dB(A)	Assessed level of time slice

Edgehill Quarry Restoration Mean propagation Leq - Stage 1

10

Source	Source type	Time slice	Lw	Lw	I or A	S	Adiv	Agr	Abar	Aatm	dLrefl	Ls	dLw	Lr
			dB(A)	dB(A)	m, m²	m	dB	dB	dB	dB	dB	dB(A)	dB	dB(A)
Receiver Edgecombe House FI GF LAeq,1hr dB(A) LAeq,1hr 37.3 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	461.92	-64.3	-1.9	-5.7	-1.9	0.0	9.4	13.0	22.4
Crusher	Point	LAeq,1hr	107.4	107.4		427.69	-63.6	-1.5	-16.8	-1.3	0.0	24.2	0.0	24.2
Excavator(Close to Surface)	Area	LAeq,1hr	66.1	103.8	5806.9	501.00	-65.0	-1.3	-2.9	-3.1	0.0	31.5	0.0	31.5
HGV ADT Movement	Line	LAeq,1hr	59.5	85.5	404.7	508.31	-65.1	-1.7	-3.3	-2.5	0.0	12.9	10.8	23.7
Screen and Loader	Point	LAeq,1hr	107.3	107.3		442.41	-63.9	-2.0	-11.0	-0.4	0.0	30.0	0.0	30.0
Screen and Loader	Point	LAeq,1hr	107.3	107.3		414.76	-63.3	-2.0	-8.0	-0.4	0.0	33.5	0.0	33.5
Receiver Grove End FI GF LAeq,1hr dB(A) LAeq,1hr 45.0 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	152.74	-54.7	-1.7	-3.1	-0.8	0.0	22.8	13.0	35.8
Crusher	Point	LAeq,1hr	107.4	107.4		173.13	-55.8	-1.5	-13.7	-0.7	0.0	35.8	0.0	35.8
Excavator(Close to Surface)	Area	LAeq,1hr	66.1	103.8	5806.9	351.54	-61.9	-1.3	-3.2	-2.3	0.0	35.1	0.0	35.1
HGV ADT Movement	Line	LAeq,1hr	59.5	85.5	404.7	298.98	-60.5	-1.7	-4.0	-1.6	0.0	17.9	10.8	28.6
Screen and Loader	Point	LAeq,1hr	107.3	107.3		162.57	-55.2	-2.2	-9.4	-0.2	0.0	40.3	0.0	40.3
Screen and Loader	Point	LAeq,1hr	107.3	107.3		185.70	-56.4	-2.1	-8.7	-0.2	0.0	39.8	0.0	39.8
Receiver The Vicarage FI GF LAeq,1hr dB(A) LAeq,1hr 39.3 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	359.81	-62.1	-1.8	-2.7	-2.0	0.0	14.5	13.0	27.5
Crusher	Point	LAeq,1hr	107.4	107.4		347.12	-61.8	-1.5	-13.6	-1.2	0.0	29.3	0.0	29.3
Excavator(Close to Surface)	Area	LAeq,1hr	66.1	103.8	5806.9	497.36	-64.9	-1.3	-3.7	-2.7	0.0	31.2	0.0	31.2
HGV ADT Movement	Line	LAeq,1hr	59.5	85.5	404.7	472.53	-64.5	-1.7	-4.0	-2.1	0.0	13.2	10.8	24.0
Screen and Loader	Point	LAeq,1hr	107.3	107.3		349.10	-61.9	-2.0	-8.7	-0.4	0.0	34.3	0.0	34.3
Screen and Loader	Point	LAeq,1hr	107.3	107.3		347.06	-61.8	-2.0	-8.7	-0.4	0.0	34.4	0.0	34.4
Receiver White Bottoms Farm FI GF LAeq,1hr dB(A) LAeq,1hr 46.7 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	292.75	-60.3	-2.2	-13.3	-0.6	0.2	6.8	13.0	19.9
Crusher	Point	LAeq,1hr	107.4	107.4		253.12	-59.1	-1.9	-17.4	-0.8	0.0	28.2	0.0	28.2
Excavator(Close to Surface)	Area	LAeq,1hr	66.1	103.8	5806.9	156.39	-54.9	-1.6	-0.6	-1.3	0.4	45.7	0.0	45.7
HGV ADT Movement	Line	LAeq,1hr	59.5	85.5	404.7	190.79	-56.6	-1.9	-1.4	-1.0	0.3	24.9	10.8	35.7
Screen and Loader	Point	LAeq,1hr	107.3	107.3		276.95	-59.8	-2.4	-11.2	-0.3	0.0	33.6	0.0	33.6
Screen and Loader	Point	LAeq,1hr	107.3	107.3		230.49	-58.2	-2.5	-12.8	-0.2	0.0	33.6	0.0	33.6

LF Acoustics	1
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SoundPLAN 8.1

Edgehill Quarry Restoration Mean propagation Leq - Stage 2

10

Source	Source type	Time slice	Lw	Lw	I or A	S	Adiv	Agr	Abar	Aatm	dLrefl	Ls	dLw	Lr
			dB(A)	dB(A)	m, m²	m	dB	dB	dB	dB	dB	dB(A)	dB	dB(A)
Receiver Edgecombe House FI GF LAeq,1hr dB(A) LAeq,1hr 41.9 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	461.92	-64.3	-1.9	-5.7	-1.9	0.0	9.4	13.0	22.4
Crusher	Point	LAeq,1hr	107.4	107.4		427.69	-63.6	-1.5	-16.8	-1.3	0.0	24.2	0.0	24.2
Excavator(Close to Surface)	Area	LAeq,1hr	61.6	103.8	16243.4	217.04	-57.7	-1.3	-2.7	-1.6	0.0	40.4	0.0	40.4
HGV / ADT Movement	Line	LAeq,1hr	59.5	87.0	562.7	344.58	-61.7	-1.6	-3.3	-1.6	0.0	18.7	10.8	29.5
Screen and Loader	Point	LAeq,1hr	107.3	107.3		442.41	-63.9	-2.0	-11.0	-0.4	0.0	30.0	0.0	30.0
Screen and Loader	Point	LAeq,1hr	107.3	107.3		414.76	-63.3	-2.0	-8.0	-0.4	0.0	33.5	0.0	33.5
Receiver Grove End FI GF LAeq,1hr dB(A) LAeq,1hr 45.2 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	152.74	-54.7	-1.7	-3.1	-0.8	0.0	22.8	13.0	35.8
Crusher	Point	LAeq,1hr	107.4	107.4		173.13	-55.8	-1.5	-13.7	-0.7	0.0	35.8	0.0	35.8
Excavator(Close to Surface)	Area	LAeq,1hr	61.6	103.8	16243.4	215.39	-57.7	-1.3	-7.6	-1.1	0.0	36.1	0.0	36.1
HGV / ADT Movement	Line	LAeq,1hr	59.5	87.0	562.7	243.48	-58.7	-1.6	-5.5	-1.1	0.0	20.0	10.8	30.8
Screen and Loader	Point	LAeq,1hr	107.3	107.3		162.57	-55.2	-2.2	-9.4	-0.2	0.0	40.3	0.0	40.3
Screen and Loader	Point	LAeq,1hr	107.3	107.3		185.70	-56.4	-2.1	-8.7	-0.2	0.0	39.8	0.0	39.8
Receiver The Vicarage FI GF LAeq,1hr dB(A) LAeq,1hr 41.0 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	359.81	-62.1	-1.8	-2.7	-2.0	0.0	14.5	13.0	27.5
Crusher	Point	LAeq,1hr	107.4	107.4		347.12	-61.8	-1.5	-13.6	-1.2	0.0	29.3	0.0	29.3
Excavator(Close to Surface)	Area	LAeq,1hr	61.6	103.8	16243.4	222.39	-57.9	-1.3	-6.4	-1.2	0.0	36.9	0.0	36.9
HGV / ADT Movement	Line	LAeq,1hr	59.5	87.0	562.7	324.42	-61.2	-1.6	-5.2	-1.3	0.0	17.7	10.8	28.4
Screen and Loader	Point	LAeq,1hr	107.3	107.3		349.10	-61.9	-2.0	-8.7	-0.4	0.0	34.3	0.0	34.3
Screen and Loader	Point	LAeq,1hr	107.3	107.3		347.06	-61.8	-2.0	-8.7	-0.4	0.0	34.4	0.0	34.4
Receiver White Bottoms Farm FI GF LAeq,1hr dB(A) LAeq,1hr 38.2 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	292.75	-60.3	-2.2	-13.3	-0.6	0.2	6.8	13.0	19.9
Crusher	Point	LAeq,1hr	107.4	107.4		253.12	-59.1	-1.9	-17.4	-0.8	0.0	28.2	0.0	28.2
Excavator(Close to Surface)	Area	LAeq,1hr	61.6	103.8	16243.4	198.37	-56.9	-1.7	-18.3	-0.6	0.0	26.3	0.0	26.3
HGV / ADT Movement	Line	LAeq,1hr	59.5	87.0	562.7	200.50	-57.0	-2.0	-8.6	-1.0	0.0	18.4	10.8	29.2
Screen and Loader	Point	LAeq,1hr	107.3	107.3		276.95	-59.8	-2.4	-11.2	-0.3	0.0	33.6	0.0	33.6
Screen and Loader	Point	LAeq,1hr	107.3	107.3		230.49	-58.2	-2.5	-12.8	-0.2	0.0	33.6	0.0	33.6

LF Acoustics	1
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SoundPLAN 8.1

**Edgehill Quarry Restoration
Mean propagation Leq - Stage 3** **10**

Source	Source type	Time slice	L'w	Lw	I or A	S	Adiv	Agr	Abar	Aatm	dLrefl	Ls	dLw	Lr
			dB(A)	dB(A)	m,m ²	m	dB	dB	dB	dB	dB	dB(A)	dB	dB(A)
Receiver Edgecombe House FI GF LAeq,1hr dB(A) LAeq,1hr 38.2 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	461.92	-64.3	-1.9	-5.7	-1.9	0.0	9.4	13.0	22.4
Crusher	Point	LAeq,1hr	107.4	107.4		427.69	-63.6	-1.5	-16.8	-1.3	0.0	24.2	0.0	24.2
Excavator(Close to Surface)	Area	LAeq,1hr	58.8	103.8	31103.7	392.60	-62.9	-1.3	-2.8	-2.7	0.0	34.1	0.0	34.1
HGV / ADT Movement	Line	LAeq,1hr	59.5	86.0	446.2	447.54	-64.0	-1.7	-3.7	-2.1	0.0	14.5	10.8	25.3
Screen and Loader	Point	LAeq,1hr	107.3	107.3		442.41	-63.9	-2.0	-11.0	-0.4	0.0	30.0	0.0	30.0
Screen and Loader	Point	LAeq,1hr	107.3	107.3		414.76	-63.3	-2.0	-8.0	-0.4	0.0	33.5	0.0	33.5
Receiver Grove End FI GF LAeq,1hr dB(A) LAeq,1hr 45.6 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	152.74	-54.7	-1.7	-3.1	-0.8	0.0	22.8	13.0	35.8
Crusher	Point	LAeq,1hr	107.4	107.4		173.13	-55.8	-1.5	-13.7	-0.7	0.0	35.8	0.0	35.8
Excavator(Close to Surface)	Area	LAeq,1hr	58.8	103.8	31103.7	242.22	-58.7	-1.3	-3.3	-1.7	0.0	38.9	0.0	38.9
HGV / ADT Movement	Line	LAeq,1hr	59.5	86.0	446.2	276.25	-59.8	-1.7	-4.5	-1.4	0.0	18.6	10.8	29.4
Screen and Loader	Point	LAeq,1hr	107.3	107.3		162.57	-55.2	-2.2	-9.4	-0.2	0.0	40.3	0.0	40.3
Screen and Loader	Point	LAeq,1hr	107.3	107.3		185.70	-56.4	-2.1	-8.7	-0.2	0.0	39.8	0.0	39.8
Receiver The Vicarage FI GF LAeq,1hr dB(A) LAeq,1hr 39.9 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	359.81	-62.1	-1.8	-2.7	-2.0	0.0	14.5	13.0	27.5
Crusher	Point	LAeq,1hr	107.4	107.4		347.12	-61.8	-1.5	-13.6	-1.2	0.0	29.3	0.0	29.3
Excavator(Close to Surface)	Area	LAeq,1hr	58.8	103.8	31103.7	378.42	-62.6	-1.3	-3.8	-2.2	0.0	33.9	0.0	33.9
HGV / ADT Movement	Line	LAeq,1hr	59.5	86.0	446.2	424.16	-63.5	-1.7	-4.3	-1.9	0.0	14.5	10.8	25.3
Screen and Loader	Point	LAeq,1hr	107.3	107.3		349.10	-61.9	-2.0	-8.7	-0.4	0.0	34.3	0.0	34.3
Screen and Loader	Point	LAeq,1hr	107.3	107.3		347.06	-61.8	-2.0	-8.7	-0.4	0.0	34.4	0.0	34.4
Receiver White Bottoms Farm FI GF LAeq,1hr dB(A) LAeq,1hr 43.4 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	83.1	231.1	292.75	-60.3	-2.2	-13.3	-0.6	0.2	6.8	13.0	19.9
Crusher	Point	LAeq,1hr	107.4	107.4		253.12	-59.1	-1.9	-17.4	-0.8	0.0	29.2	0.0	29.2
Excavator(Close to Surface)	Area	LAeq,1hr	58.8	103.8	31103.7	125.59	-53.0	-1.6	-6.6	-0.9	0.1	41.8	0.0	41.8
HGV / ADT Movement	Line	LAeq,1hr	59.5	86.0	446.2	165.38	-55.4	-1.9	-6.2	-0.9	0.0	21.6	10.8	32.4
Screen and Loader	Point	LAeq,1hr	107.3	107.3		276.95	-59.8	-2.4	-11.2	-0.3	0.0	33.6	0.0	33.6
Screen and Loader	Point	LAeq,1hr	107.3	107.3		230.49	-58.2	-2.5	-12.8	-0.2	0.0	33.6	0.0	33.6

LF Acoustics 1

SoundPLAN 8.1

**Edgehill Quarry Restoration
Mean propagation Leq - Stage 4** **10**

Source	Source type	Time slice	L'w	Lw	I or A	S	Adiv	Agr	Abar	Aatm	dLrefl	Ls	dLw	Lr
			dB(A)	dB(A)	m,m ²	m	dB	dB	dB	dB	dB	dB(A)	dB	dB(A)
Receiver Edgecombe House FI GF LAeq,1hr dB(A) LAeq,1hr 32.6 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	82.5	202.6	463.56	-64.3	-1.9	-4.2	-2.2	0.0	9.9	13.0	22.9
Excavator(Close to Surface)	Area	LAeq,1hr	64.3	103.8	8911.1	462.27	-64.3	-1.3	-3.4	-2.6	0.0	32.1	0.0	32.1
Receiver Grove End FI GF LAeq,1hr dB(A) LAeq,1hr 41.9 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	82.5	202.6	149.24	-54.5	-1.7	-2.6	-0.8	0.0	22.9	13.0	35.9
Excavator(Close to Surface)	Area	LAeq,1hr	64.3	103.8	8911.1	204.20	-57.2	-1.3	-3.1	-1.6	0.0	40.6	0.0	40.6
Receiver The Vicarage FI GF LAeq,1hr dB(A) LAeq,1hr 36.4 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	82.5	202.6	359.51	-62.1	-1.8	-2.2	-2.1	0.0	14.4	13.0	27.4
Excavator(Close to Surface)	Area	LAeq,1hr	64.3	103.8	8911.1	387.40	-62.8	-1.3	-0.9	-2.9	0.0	35.8	0.0	35.8
Receiver White Bottoms Farm FI GF LAeq,1hr dB(A) LAeq,1hr 29.9 dB(A)														
ADT / HGV Movement	Line	LAeq,1hr	59.5	82.5	202.6	296.75	-60.4	-2.2	-11.8	-0.6	0.2	7.7	13.0	20.7
Excavator(Close to Surface)	Area	LAeq,1hr	64.3	103.8	8911.1	256.95	-59.2	-1.7	-12.8	-0.7	0.0	29.4	0.0	29.4

LF Acoustics 1

SoundPLAN 8.1

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Boundary Post or Stone **Police Call Box**
B.R. Bridle Road **Pump**
E.P. Electricity Pylon **S.P. Signal Post**
F.B. Foot Bridge **Sluice**
F.P. Foot Path **Spring**
G.P. Guide Post or Board **T.C.B. Telephone Call Box**
M.S. Mile Stone **Trough**
M.P.M.R. Mooring Post or Ring **Well**

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
Beer House **Pillar, Pole or Post**
Boundary Post or Stone **Post Office**
Capstan, Crane **Public Convenience**
Chimney **Public House**
Drinking Fountain **Pump**
Electricity Pillar or Post **Signal Box or Bridge**
Fire Alarm Pillar **Signal Post or Light**
Foot Bridge **Spring**
Guide Post **Tank or Track**
Hydrant or Hydraulic **Telephone Call Box**
Level Crossing **Telephone Call Post**
Manhole **Trough**
Mile Post or Mooring Post **Water Point, Water Tap**
Mile Stone **Well**
Normal Tidal Limit **Wind Pump**

Large-Scale National Grid Data 1:2,500 and 1:1,250

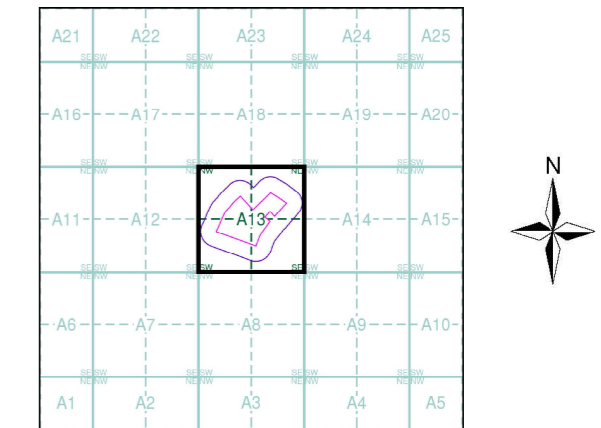
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Barracks **Pillar, Pole or Post**
Battery **Post Office**
Cemetery **Public Convenience**
Chimney **Pump**
Cistern **Pumping Station**
Dismtd Rly **Place of Worship**
Electricity Generating Station **Sewage Pumping Station**
Electricity Pole, Pillar **Signal Box or Bridge**
Electricity Sub Station **Signal Post or Light**
Filter Bed **Spring**
Fountain / Drinking Ftn. **Tank or Track**
Gas Valve Compound **Trough**
Gas Governor **Wind Pump**
Guide Post **Water Point, Water Tap**
Manhole **Works (building or area)**
Mile Post or Mile Stone **Well**



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Oxfordshire	1:2,500	1882	2
Warwickshire	1:2,500	1886	3
Oxfordshire	1:2,500	1905	4
Oxfordshire	1:2,500	1922	5
Ordnance Survey Plan	1:2,500	1972	6
Large-Scale National Grid Data	1:2,500	1993	7
Large-Scale National Grid Data	1:2,500	1996	8
Historical Aerial Photography	1:2,500	1999	9

Historical Map - Segment A13



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 100

Site Details

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Oxfordshire

Published 1882

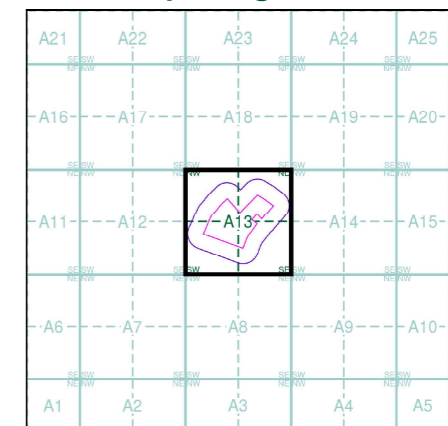
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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

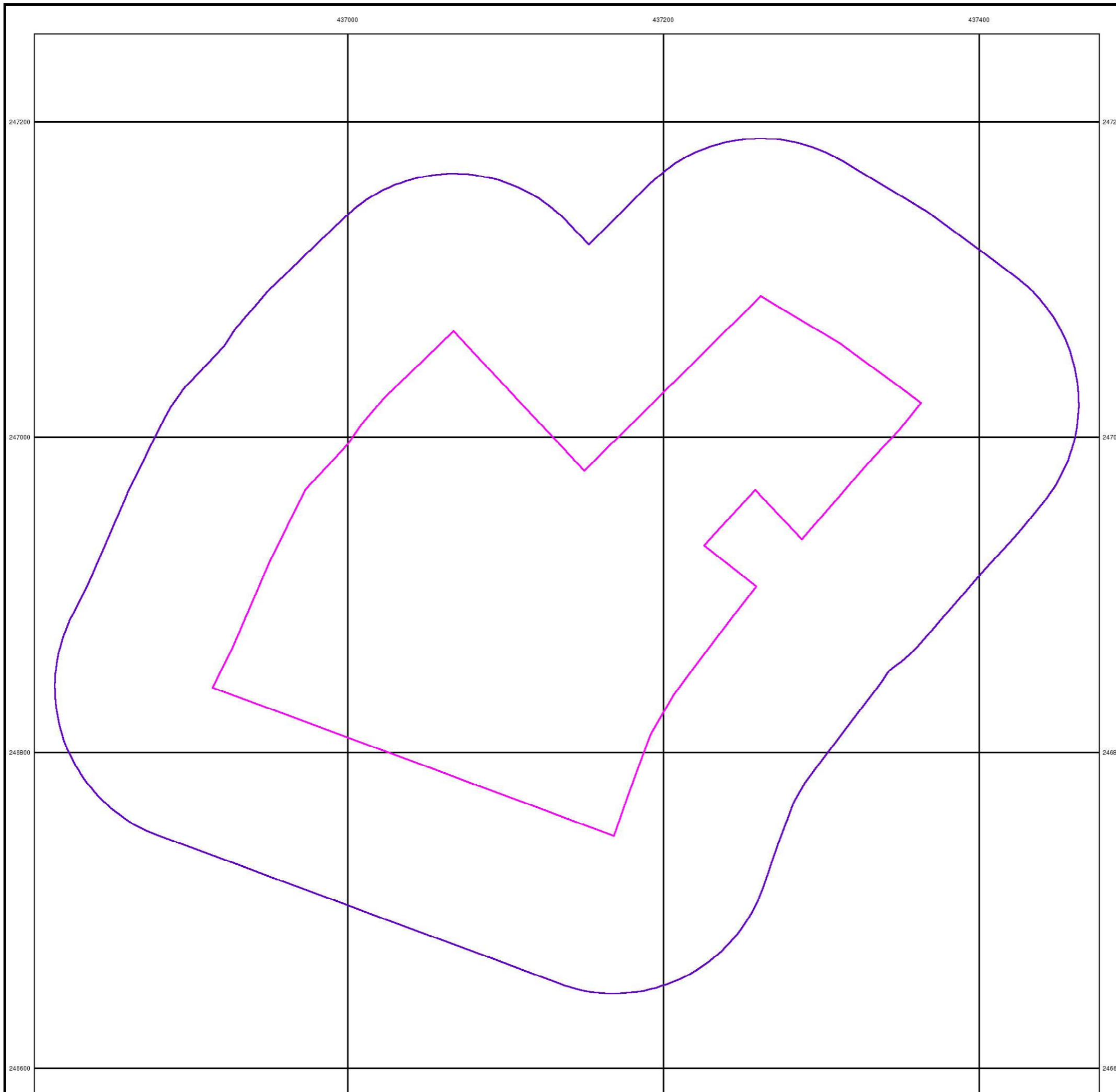
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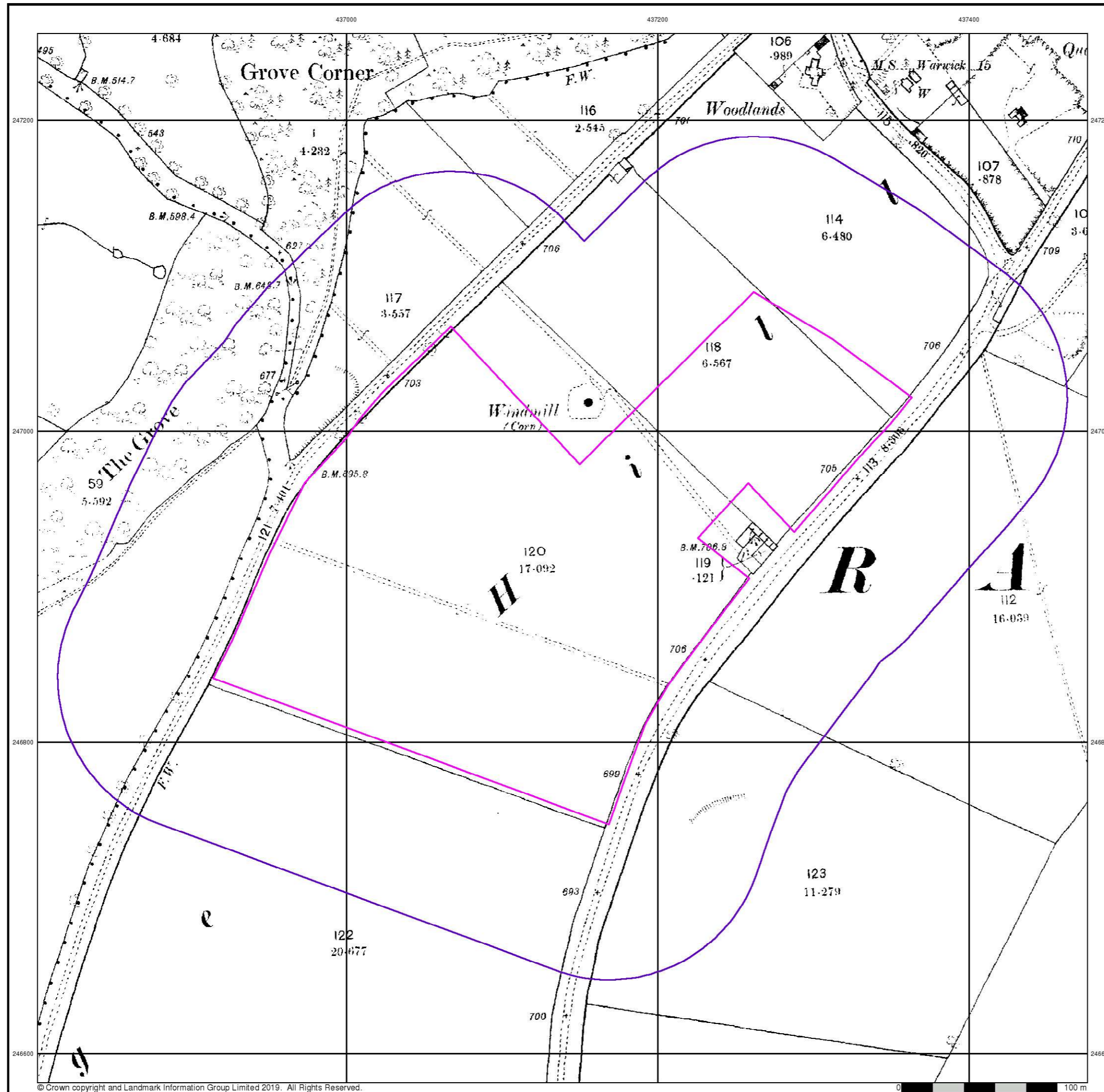
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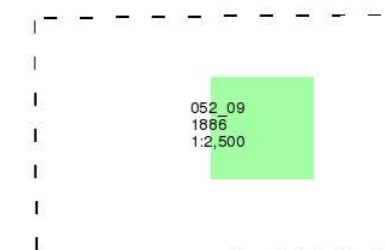
Warwickshire

Published 1886

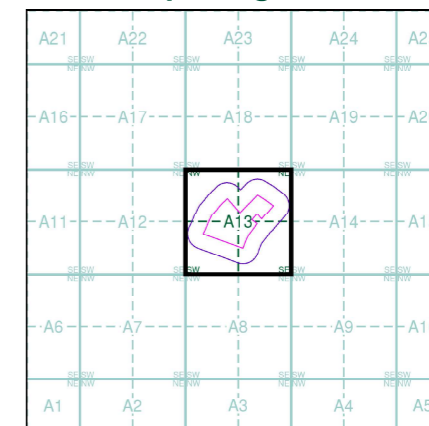
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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

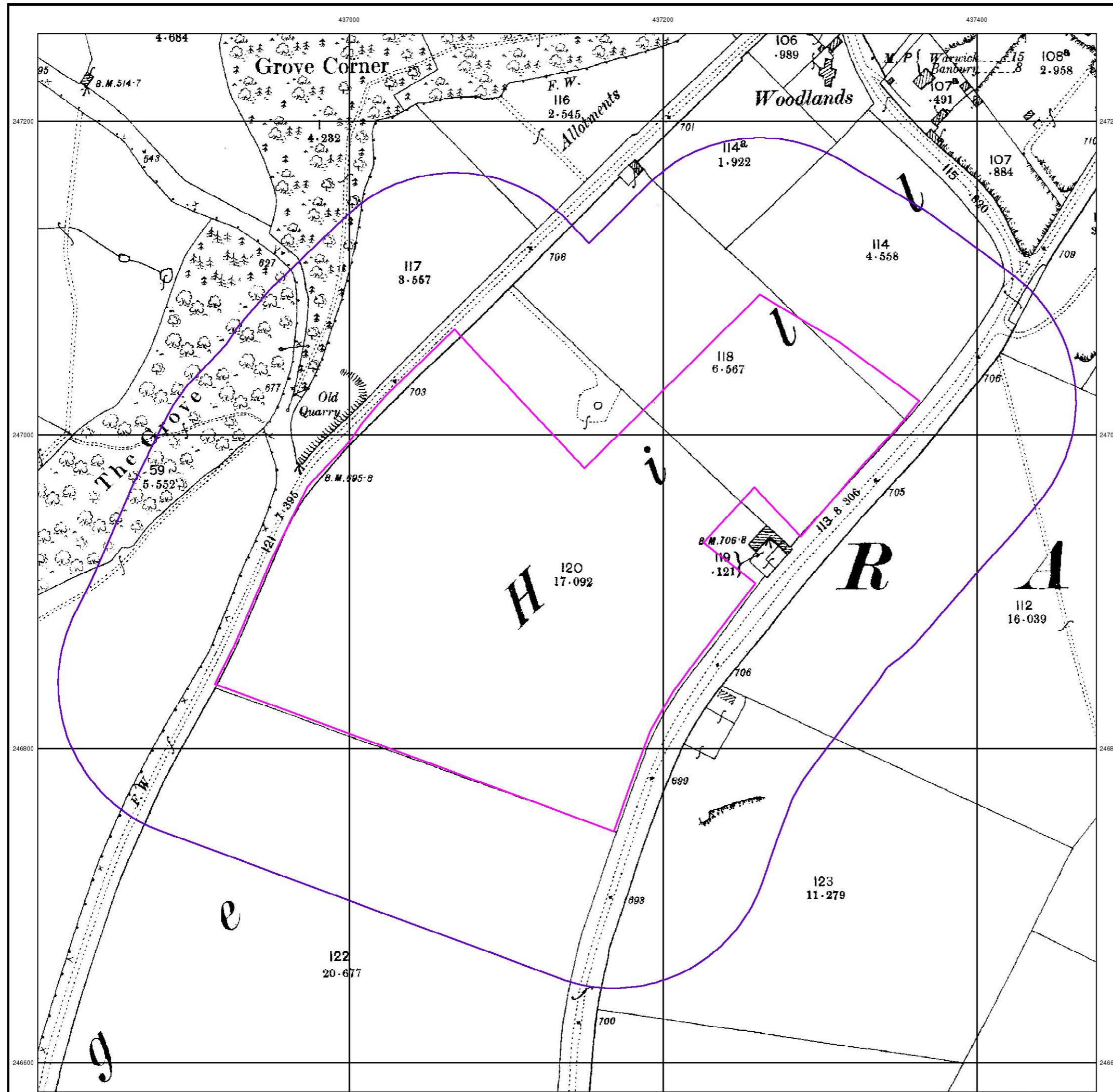
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Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



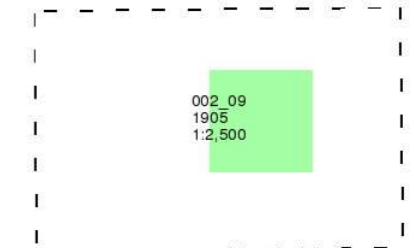
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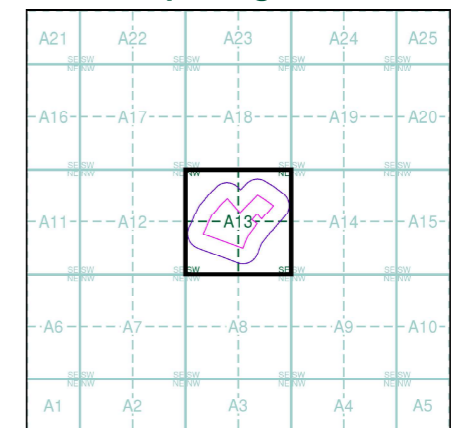
Oxfordshire
Published 1905
Source map scale - 1:2,500

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Map Name(s) and Date(s)



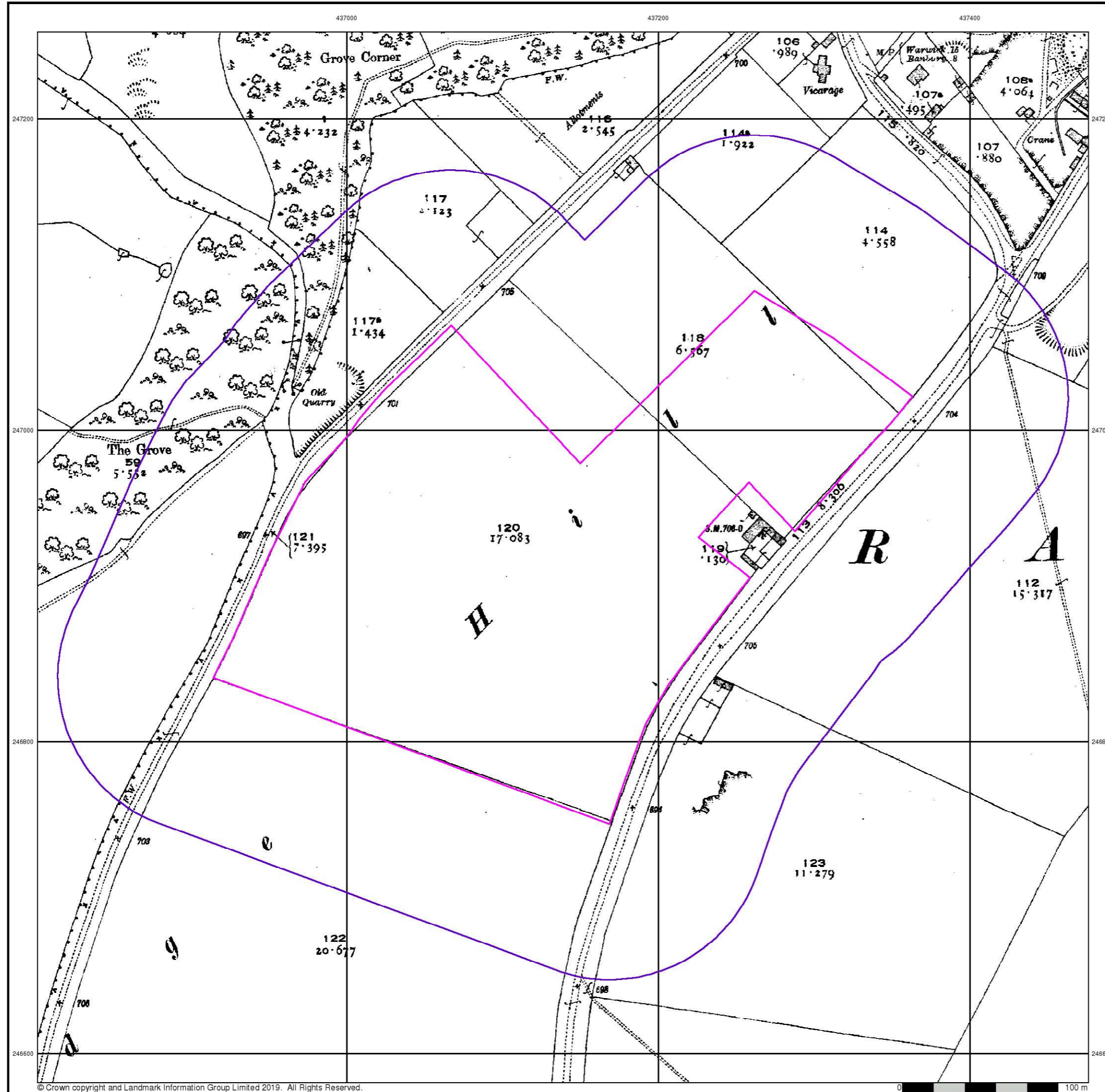
Historical Map - Segment A13



Order Details
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 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
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Site Details
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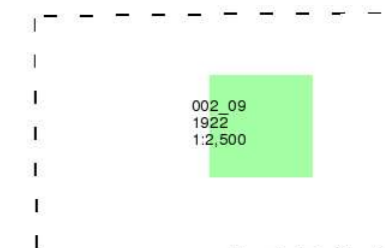
Oxfordshire

Published 1922

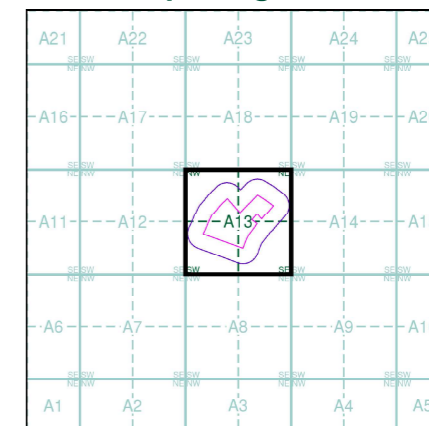
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Map Name(s) and Date(s)



Historical Map - Segment A13



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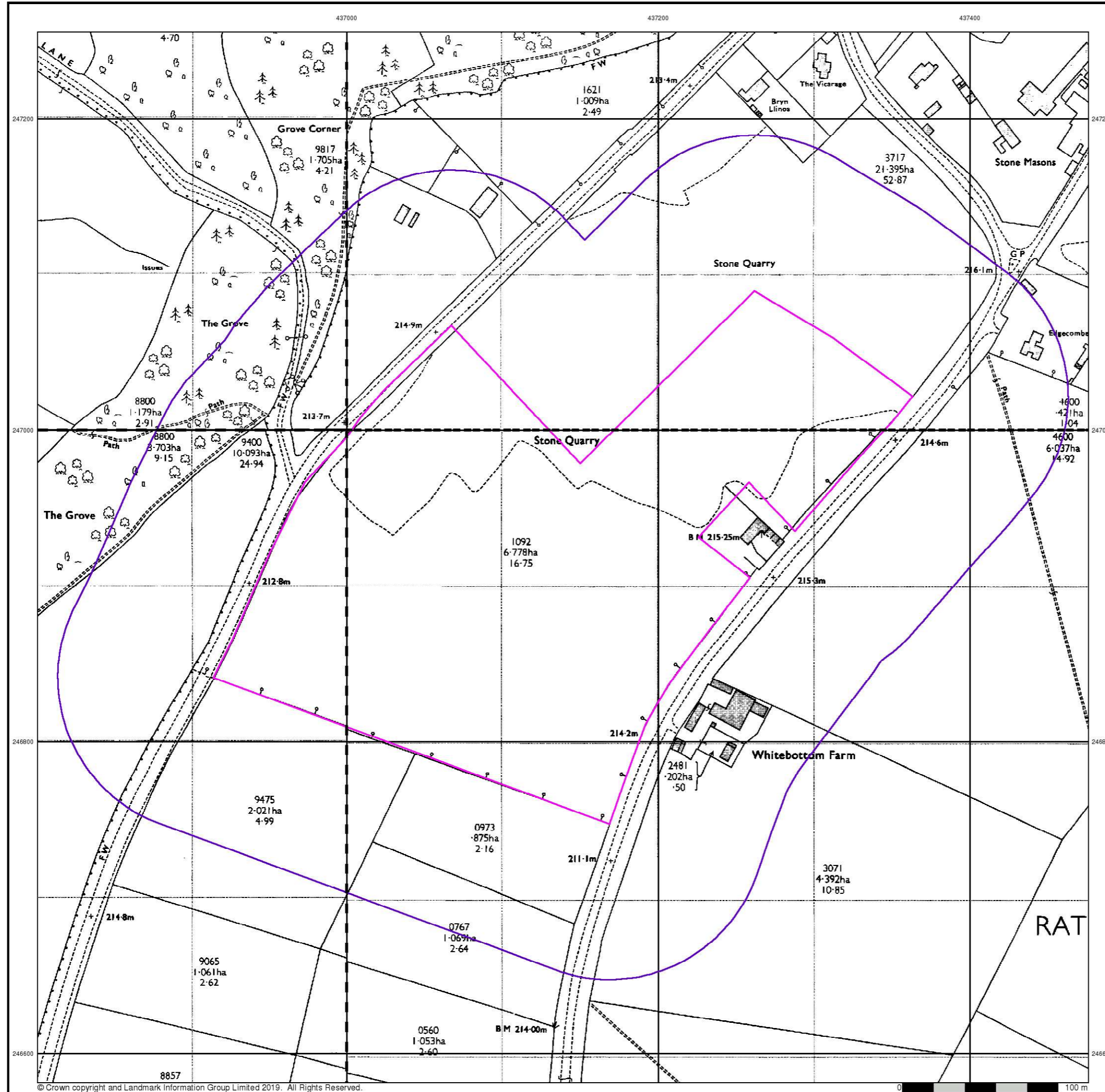
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 Site Area (Ha): 7.65
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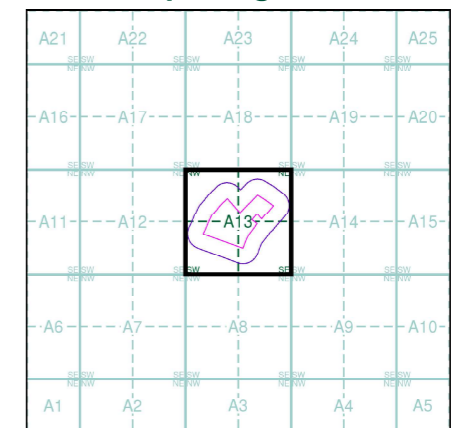
Ordnance Survey Plan
Published 1972
Source map scale - 1:2,500

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Map Name(s) and Date(s)

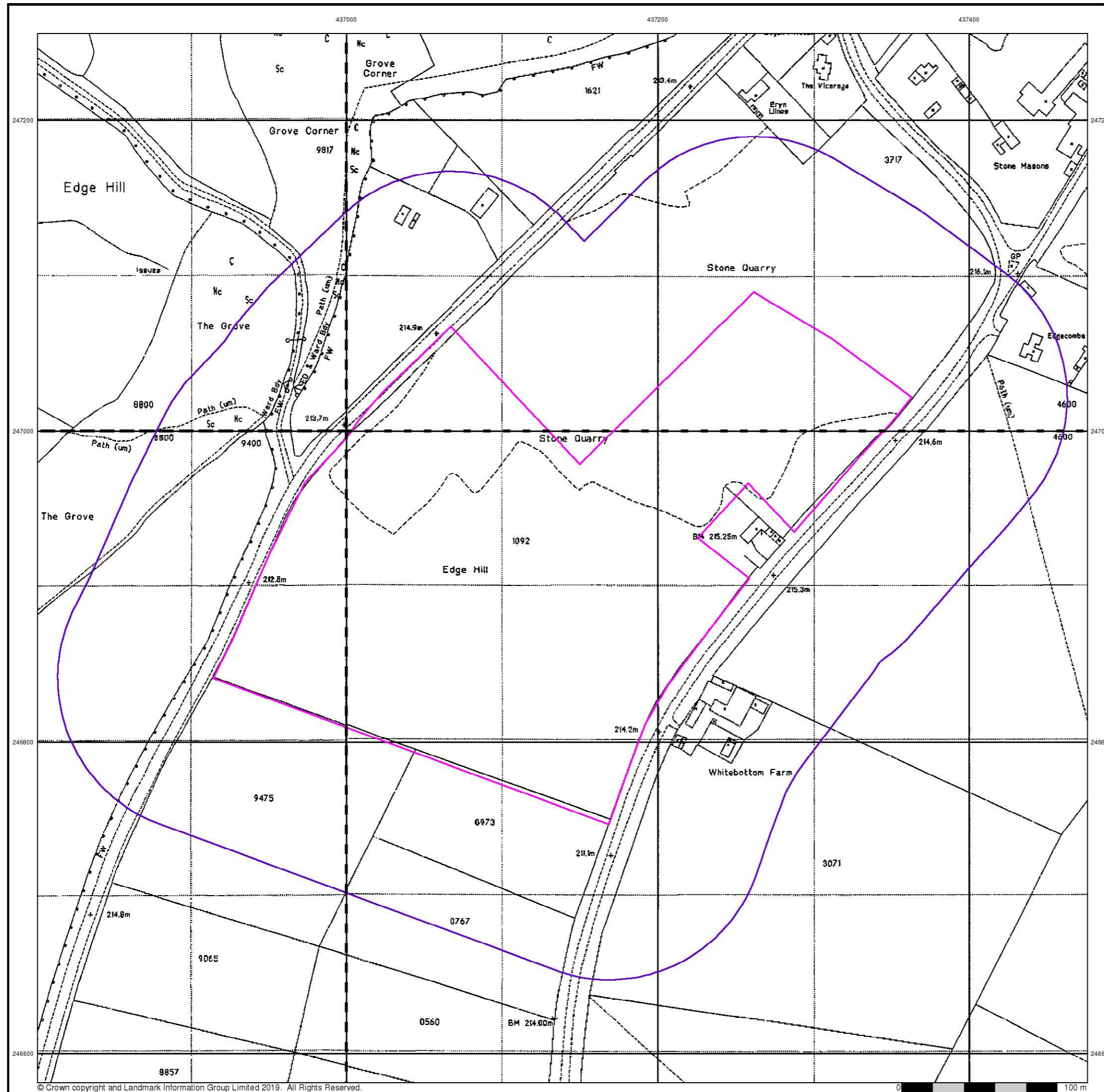
SP3647 1972 1:2,500	SP3747 1972 1:2,500
SP3646 1972 1:2,500	SP3746 1972 1:2,500

Historical Map - Segment A13



Order Details
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 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
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Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



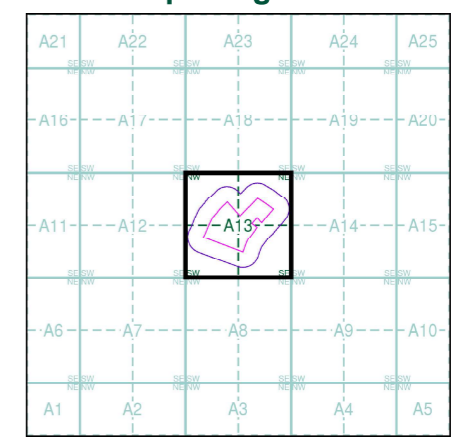
Large-Scale National Grid Data
Published 1993
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SP3647 1993 1:2,500	SP3747 1993 1:2,500
SP3646 1993 1:2,500	SP3746 1993 1:2,500

Historical Map - Segment A13



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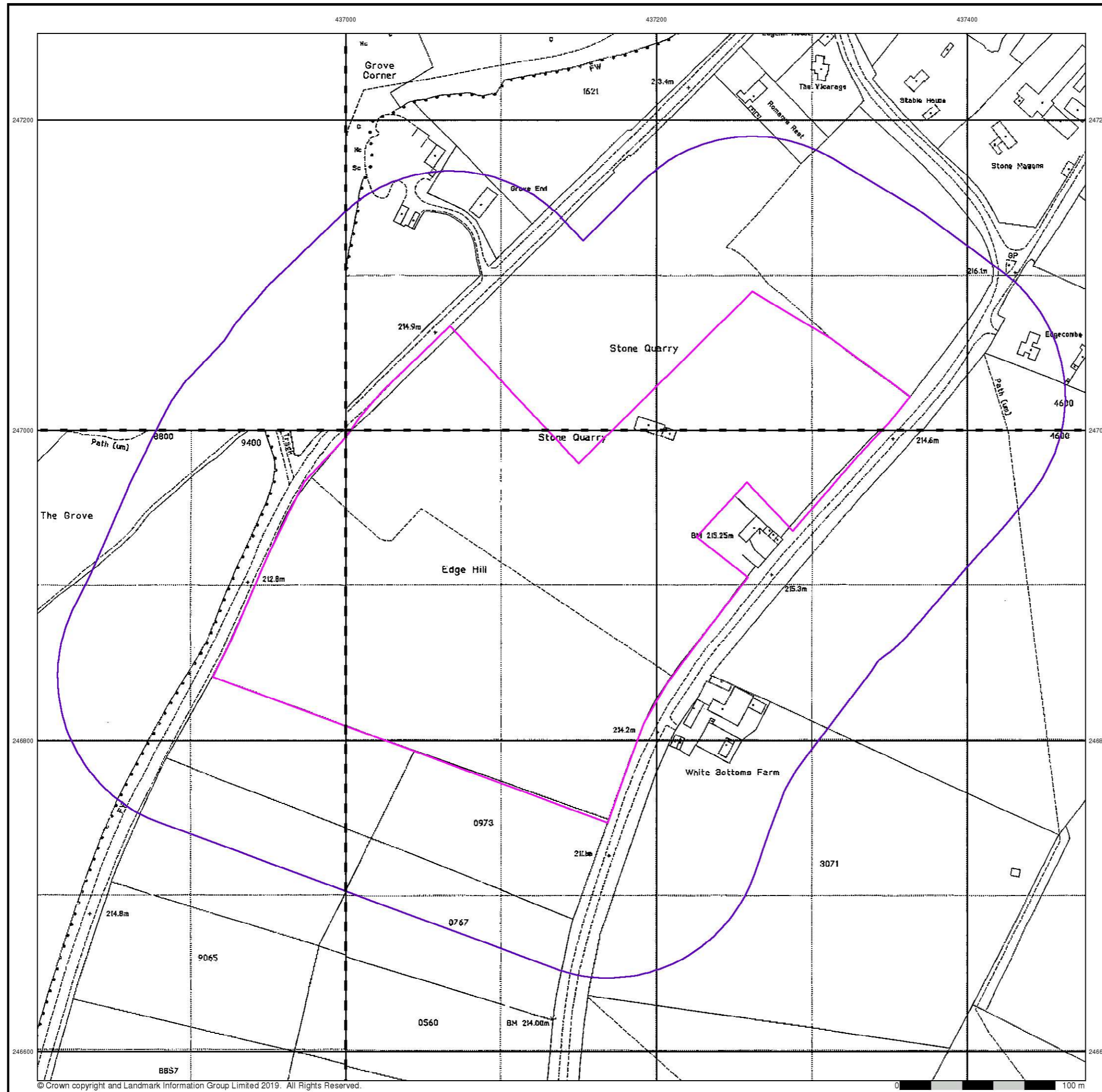
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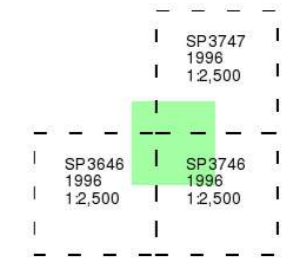
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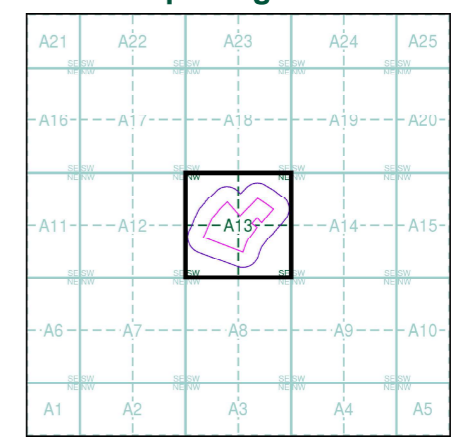
Large-Scale National Grid Data
Published 1996
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



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Site Details

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437000

437200

437400

247200

247200

247000

247000

246800

246800

246600

246600

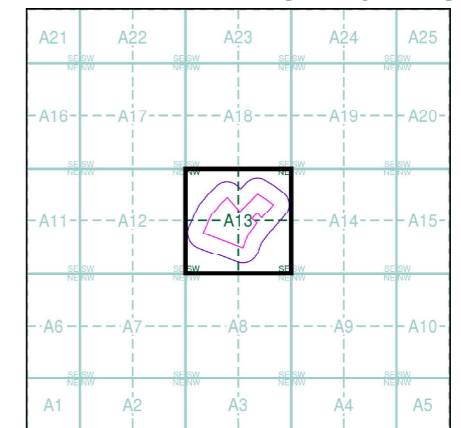


Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 100

Site Details

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ENVIRONMENTAL SETTING AND SITE DESIGN REPORT

Boddington Demolition Limited

Version:	1.3	Date:	2 February 2023		
Doc. Ref:	043-007-E	Author(s):	IA/EC	Checked:	CG
Client No:	043	Job No:	007		



Oaktree Environmental Ltd
Waste, Planning & Environmental Consultants



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Tel: 01606 558833 | Fax: 01606 861183 | E-Mail: sales@oaktreeenvironmental.co.uk | Web: www.oaktree-environmental.co.uk
REGISTERED IN THE UK | COMPANY NO. 4850754

Document History:

Version	Issue date	Author	Checked	Description
1.0	10/01/2022	IA	--	Internal Draft
1.1	30/09/2022	EC	CG	Updates to draft
1.2	12/01/2023	EC	CG	Editing
1.3	02/02/2023	EC	CG	Final submission

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|--|----------|--|
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| Drawing No. BAUGEQ-1-4-001 | - | Proposed Quarry Restorations Site Sections |
| Drawing No. BAUGEQ-1-1-003 | - | Proposed Quarry Restoration Plan |
| Drawing No. BAUGEQ-1-1-004 | - | Proposed Construction Phase Plan |
| Drawing No. 19.05.011 | - | Exploratory Hole Location Plan (showing groundwater monitoring locations) |
| Landmark Artificial Ground and Landslip Plan | | |
| Landmark Superficial Geology Plan | | |
| Landmark Bedrock and Faults Plan | | |
| Landmark Groundwater Vulnerability Plan | | |
| Landmark Bedrock Aquifer Designation Plan | | |
| Landmark Superficial Aquifer Designation Plan | | |
| Landmark Source Protection Zone Plan | | |
| Drawing No. 043-007-02 | - | Conceptual Site Model |
| Drawing No. 043-007-03 | - | Site Receptor Plan |

List of Appendices

- Appendix I** - **Drawings**
- Appendix II** - **Listers Geo Phase 1 Desk Study and Hydrogeological Risk Assessment**
- Appendix III** - **Historical Mapping Data (Small Scale) included in Listers Geo Environmental Report**
- Appendix IV** - **Historical Mapping Data (Large Scale) included in Listers Geo Environmental Report**
- Appendix V** - **Supplementary Hydrogeological Risk Assessment**

1 Introduction

1.1 Report context

- 1.1.1 Oaktree Environmental was commissioned by Boddington Demolition Limited to prepare an Environmental Setting and Site Design Report (ESSD) in support of an application for a bespoke environmental permit for the use of waste in a deposit for recovery operation on land at (the site). It is proposed that approximately 350,000m³ of suitable material is imported to the site to infill the redundant quarry with inert soils and clays for the land to place 10 recreational Ecopods.
- 1.1.2 The site is not situated within a Source Protection Zone (SPZ) for potable water supply. The site is within a drinking water safeguard zone for surface water. The site is within 50 metres west from an ancient, replanted/ deciduous woodland which is included in the Priority Habitats Inventory and the proposals include the deposition of greater than 60,000m³ of waste. As such the proposed operations at the site may not be undertaken under the Standard rules SR2015 No.39 Environmental Permit.
- 1.1.3 Planning permission for the infilling of the redundant quarry with inert soils and clays to include a temporary soils and aggregates recycling and recovery facility and the restoration of the quarry to provide 10 recreational Ecopods was issued by Warwickshire County Council on the 23rd February 2022 (Planning Permission Reference SDC/20CM009). The planning permission is the subject of a Section 106 agreement on the 25th January 2022 in respect of the access to the site from the public highway.
- 1.1.4 This ESSD has been prepared in accordance generally with the Environment Agency template in respect of the preparation of conceptual site models and ESSDs version 1 dated 14 October 2016 (the ESSD template). Where stated in this ESSD parts of the template have been omitted based on the conclusions of previous sections or as those parts are not relevant to the development.

1.2 **Site details**

- 1.2.1 The proposed environmental permit boundary is shown on Drawing No 043/006/01 in Appendix I. The site is centred on National Grid Reference SP 37128 46922. The site is accessed from the B4086 to the west.
- 1.2.2 The site consists of a former limestone quarry. Prior to the commencement of the quarrying activities in the 1950s the site was undeveloped. Quarrying activities have ceased and the remaining quarried material and quarry waste has been screened at the site since 2017.
- 1.2.3 It is proposed that a bespoke environmental permit is applied for the deposit of waste on land at the site as a waste recovery activity – for the use of waste in a deposit for a recovery operation (Construction, reclamation, restoration, or improvement of land other than by mobile plant). The development will take place in accordance with the Waste Recovery Plan entitled “Waste Recovery Plan. Edgehill Quarry, Edgehill, Banbury, OX15 6DH” dated 26 September 2022 which was prepared by Oaktree Environmental.
- 1.2.4 The site is bounded to the east and south by agricultural land to the East of which is residential such as Edgecombe House and White Bottoms Farm. The north of the site consists of more residential properties and the west of the site consists of the B486 and an industrial truck exporter business.
- 1.2.5 There are records of artificial worked ground at the site from man-made excavations as a void. The restoration of the quarry will be undertaken using imported suitable materials from the local catchment. As coarser materials such as sand and gravels are typically re-used or recycled in accordance with the waste hierarchy, it is anticipated that the infilled quarry will be constructed predominantly using cohesive materials such as subsoils or clays.
- 1.2.6 The topography of the site falls generally from east to west towards an unnamed tributary of the Sor Brook. The site is surrounded generally by agricultural land uses. The closest

residential area to the site comprises a collection of houses 50m to the north east of the site.

- 1.2.7 Landfilling activities are not proposed. The site is not located in groundwater source protection zone. The activities at the site will be regulated under a bespoke Environmental Permit. On this basis it is considered that the location of the site is consistent with the Environment Agency Position Statement F1 as set out in their document entitled “The Environment Agency’s approach to groundwater protection” version 1.2 dated February 2018.

2 **Source**

2.1 **Site development**

2.1.1 Approximately 350,000m³ of material will be imported to the site to facilitate the infill of the quarry.

2.1.2 It is intended that the restoration works are carried out using predominantly excavated materials from local construction, demolition and excavation sites in order to achieve a profile on which on establish the surrounding Ecopods in keeping with the surrounding landscape.

2.2 **Environmental Permitting Status**

2.2.1 As stated above the works will be undertaken in accordance with a bespoke environmental permit – for the use of waste in a deposit for a recovery operation (Construction, reclamation, restoration, or improvement of land other than by mobile plant).

2.3 **Historical development**

2.3.1 Based on the historic map data the land use at and in the immediate vicinity of the site has been consistent since 1865. There are no potentially contaminative land uses recorded at or in the immediate vicinity of the site.

2.3.2 There has been one recorded pollution incident to controlled waters within 1km of the site. This consist of a minor spillage of oils approximately 120m northeast of the site in January 1999.

2.3.3 There are no Integrated Pollution Control (IPC) licenses, Local Authority or Integrated Pollution Prevention and Control (IPPC) licenses within 2000m of the site.

2.4 Proposed development

- 2.4.1 Based on the information presented in the Waste Recovery Plan the material imported into the site to construct the engineered fill component of the landform will be limited strictly to the following European Waste Catalogue (EWC) Codes: 01 01 02, 01 04 08, 01 04 09, 02 04 01, 10 12 08, 10 13 14, 17 01 01, 17 01 02, 17 01 03, 17 01 07, 17 05 04, 19 12 09, 19 12 12 and 20 02 02 in accordance with Table 2.5 of Bespoke Environmental Permit. The list of EWC codes along with their associated descriptions at Appendix IV of the Waste Recovery Plan.
- 2.4.2 The majority of the wastes will be accepted under codes 17 05 04 and 20 02 02 (i.e. excavated soils and stones). The remaining waste which are largely of coarser grade materials may be utilised as necessary in order to aid drainage.
- 2.4.3 No hazardous waste will be accepted at the site and the material imported to the site will not contain dangerous substances. On this basis it is considered that the material accepted at the site will contain no discernible concentrations of hazardous substances and that the leachable concentrations of any non-hazardous pollutants in the waste will not pose a significant risk to groundwater quality. It is concluded on this basis that the Environment Agency may grant an Environmental Permit for the proposed activity consistent with Schedule 22 of the Environmental Permitting (England and Wales) Regulations 2016 (as amended).
- 2.4.4 The criteria for the acceptance of material at the site will comprise the classification as one of the EWC Codes in Sections 2.4.1 along with the classification of the material as non-hazardous in accordance with the joint agency guidance document entitled "Waste Classification. EA guidance on waste sampling (version 1.2 dated October 2021) Technical Guidance WM3" reference LIT 10121 dated May 2015.
- 2.4.5 The proposed landform will comprise a mixed after use of ecological and commercial/recreational. The proposed landform is shown on Drawing reference BAUGEQ-1-1-003 revision L a copy of which is reproduced at Appendix I.

2.5 **Slope stability**

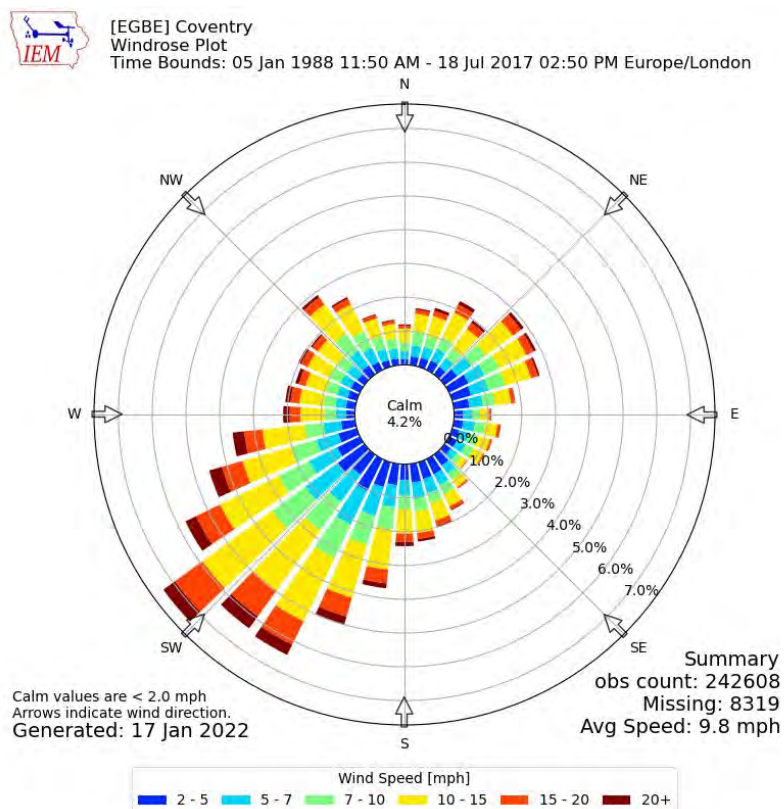
- 2.5.1 The existing quarry at the site comprises a limestone / sandstone extraction. The maximum height of the sidewalls is approximately 4m with a maximum slope angle of approximately 1 vertical (v) in 3 horizontal (h) hence it is considered that the sidewalls of the quarry excavation are stable. The topography of the base of the site is generally flat. It is therefore concluded that there is no significant risk posed due to slope stability in respect of the existing landform.
- 2.5.2 Based on a review of the information in the Listers Geo Phase 1 Desk Study and Hydrogeological Risk Assessment Report which is reproduced at Appendices II, III and IV and site walkover survey undertaken by Oaktree Environmental on 14 April 2022, it is considered that it is extremely unlikely that the placement of further waste in the quarry void will pose an unacceptable risk due to slope stability.
- 2.5.3 It is therefore considered taking into account the avoid that the operations the subject of this environmental permit application can be undertaken without any significant risk due to slope stability. It is therefore concluded that further assessment of the risk posed due to slope stability is not necessary.

3 Site Receptors

3.1.1 A Receptor (Drawing No. 043-007-03) has been provided to highlight all key receptors within 1km of the site as is shown in Appendix I.

3.1.2 The nearest representative meteorological station to the site is Coventry Airport situated approximately 27.5km to the North of the site. Below is a wind rose which shows the prevailing wind speed and direction at the site, based on observations at Coventry Airport. Given the proximity and nature of this observing station, it is considered that it provides a representative indication of wind speed and direction frequency at the site.

3.1.3 As indicated, the predominant wind direction is between South and West, with much less frequent winds, arising from other directions. This is generally the norm for most parts of the UK. Based on this data, any dust emissions from the site would be predominantly carried away from the nearby sensitive receptors located to the West, North-West and North of the site.



4 Pathway and receptor

4.1 Geology

4.1.1 The surface, superficial and bedrock geology of the site and surrounding area are shown at Appendix I. Geological information from the British Geological Survey (BGS) shows that the bedrock geology at the site is recorded as the Marlstone Rock Formation which comprises sandy, shell-fragmental and ooidal ferruginous limestone interbedded with ferruginous calcareous sandstone and generally subordinate ferruginous mudstone beds. The site is made up of artificial ground. There are no recorded superficial deposits on the site.

4.1.2 As discussed in Paragraph 2.4.2 it is considered that the material accepted at the site will contain no discernible concentrations of hazardous substances and that the leachable concentrations of any non-hazardous pollutants in the waste will not pose a significant risk to groundwater quality. On this basis the intention of the provision of the information in this and the following section is to provide a description of the conceptual site model and not to assess further the risk posed to groundwater or surface water receptors.

4.1.3 As reported at Appendix ESSD II an site investigation was undertaken by Listers GEO on 20th May 2019 in respect of which no visual or olfactory evidence of existing contamination at the site or evidence of damage to pollution prevention measures are reported. A site walkover survey was undertaken on 14 April 2022 by Oaktree Environmental Ltd during which no visual or olfactory evidence of contamination was observed also.

4.2 Hydrology

4.2.1 The hydrology of the site and surrounding area along with the surrounding residential, commercial and agricultural receptors are shown on Drawing No 043/007/03. It is considered that the site is not in a sensitive location with respect to surface water or groundwater receptors.

- 4.2.2 The nearest surface watercourse is an unnamed stream that issues from a spring approximately 1,600m northwest of the site and flows north westwards. Further streams issue from springs located north, flowing northwards and 370m west, flowing to the northwest.
- 4.2.3 The site is located close to the western edge of the 'Cherwell' operational catchment with surface water feeding into the Sor Brook which is located approximately 600m southeast of the site. The site is close to a surface water divide which is coincident with the Grange Lane immediately to the north west of the site. The site drains generally towards the south west towards the Sor Brook.
- 4.2.4 Surface water to the west of the divide flows overland generally to the west within the catchment of the River Dene. The reach of the Sor Brook closest to the site has an overall water body classification of 'Poor', as recorded in 2016, due to its ecology. The closest surface watercourse to the site comprises an unnamed stream that issues from a spring 160m north-westwards within the catchment of the River Dene. Further streams issue from springs located 340m north, flowing northward and 370m west, flowing to the northwest.
- 4.2.5 There are no potentially active surface water abstraction licences recorded within 1,000m of the site.
- 4.2.6 The site is situated within flood zone 1 in respect of the Sor Brook therefore is not considered at risk of fluvial flooding.
- 4.2.7 The biological water quality in respect of the Sor Brook which is approximately 600m southeast has a moderate ecological status. The Sor Brook is a tributary of the River Cherwell within the wider catchment of the River Thames. The River Dene is in the overall catchment of the River Severn.

4.3 Hydrogeology – aquifer characteristics

4.3.1 The hydrogeology of the superficial and bedrock deposits underlying and surrounding the site is shown at Appendix I. The site is underlain by the Marlstone Rock Formation and Dyrham Formation which are classified as Secondary Aquifers. The Marlstone Formation is classified as a Secondary A Aquifer and the underlying Dyrham Formation is classified as a Secondary (Undifferentiated Aquifer). The aquifer designation is based on geological mapping provided by the BGS.

4.3.2 There are five groundwater abstraction licences within 1km of the site. The site is not within a designated Source Protection Zone (SPZ).

4.4 Hydrogeology – groundwater flow

4.4.1 There are three monitoring wells on the site where groundwater monitoring has been undertaken. The approximate groundwater flow of the site is from southeast to northwest. The locations of the monitoring wells are shown on Drawing No. 19.05.011 which is reproduced at Appendix I.

4.5 Hydrogeology – groundwater quality

4.5.1 There are five records of potentially active groundwater abstraction licenses located within 1km of the site. All the abstractions are reported to be for general farming and domestic purposes and comprise wells located 240m southeast and 830m northeast of the site, and three springs located 310m to 410m north.

4.5.2 As stated above. The site is not located within a groundwater source protection zone or a groundwater safeguard zone.

4.5.3 There has been one recorded pollution incident to controlled waters within 1,000m of the site. This concerned a minor spillage of oil approximately 120m northeast of the site in January 1999. Given the minor nature of the pollution incident, the time elapsed since the pollution incident and the location of the site area in proximity to a groundwater divide it

is considered extremely unlikely that this incident may have affected groundwater quality in at the site or in the surrounding area.

4.6 Waste treatment, landfill sites and industrial usage

4.6.1 The site was formerly a quarry therefore contaminants associated with this usage may include fuel and other fluids resulting from minor spills or leaks from plant or refuelling. No visual or olfactory evidence of contamination has been observed at the site hence it is considered unlikely that the use of the site as a quarry has affected significantly the quality of the land at the site.

4.6.2 There is one current and two historical landfill disposal sites recorded within 1,000m of the site. A current and historical landfill site is recorded adjacent and immediately to the north of the northern boundary of the site.

4.6.3 The site and the area to the north is close to a groundwater divide, with the prevailing direction of groundwater flow likely to be towards the south east. It is therefore considered unlikely that substances which may be present in the waste at the landfill to the north of the site may migrate to the site. It is considered likely following the restoration of the site infiltration rates close to the groundwater divide may be reduced further leading to a shallowing of the hydraulic gradient hence further dispersion and attenuation of any substances in the groundwater underlying the landfill to the north of the site. It is therefore unlikely that the site will be affected by the presence of the landfill to the north or that the proposed activities at the site will cause substances which may be present in the groundwater beneath the landfill to the north of the site to migrate elsewhere.

4.6.4 There are also no waste transfer treatment or management facilities within 1,000m of the site area.

4.7 Man-made subsurface pathways

4.7.1 There are no records of coal mining held by the Coal Authority, non-coal mining, brine extraction, gypsum extraction, tin mining or clay mining within 1km of the site.

4.7.2 There are no records of active or historic railways or railway tunnels in proximity to the site.

5 Receptors and compliance points

5.1 Groundwater

5.1.1 As discussed in Paragraph 2.4.2 it is considered that the material accepted at the site will contain no discernible concentrations of hazardous substances and that the leachable concentrations of any non-hazardous pollutants in the waste will not pose a significant risk to groundwater quality. On this basis it is considered that there will be no discernible discharge as a result of the proposed works of hazardous substances in the groundwater below or immediately adjacent to the site after allowing for immediate dilution and no significant adverse on the concentrations of non-hazardous pollutants at the down hydraulic gradient boundary of the site.

5.2 Surface water

5.2.1 Based on the conclusions in Paragraph 2.4.2 it is considered that there will be no significant adverse impact on surface water quality on the Sor Brook or its tributaries. As discussed above it is considered that the proposed works will not significantly affect the runoff characteristics of the slope compared with the pre-extraction situation hence it is considered that the proposed works will not affect significantly flows in the Sor Brook or its tributaries.

5.3 Amenity

5.3.1 The principal receptors in respect of amenity are White Bottom Farm, Edgecombe House both to the north east and south east of the site, the surrounding village of Ratley beginning from about 100m north east of the site. The works will be undertaken in accordance with the Environmental Risk Assessment (ERA) which is presented in the subsequent sections of this ESSD hence will not have an unacceptable amenity impact on receptors at the site or in the surrounding area.

5.3.2 The operations will be the subject of an environmental management system which will be included also with this application.

- 5.3.3 It is considered based on the conclusions of the ERA which takes into account the procedures set out in the environmental management system that there will be no unacceptable impact on the residential and agricultural receptors in proximity to the site as a result of the proposed operations.
- 5.3.4 There are no protected Officially Safeguarded Aerodromes which is listed in Annex III of the Department for Transport guidance on The town and country planning (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002 which was updated on 22 December 2016, within the vicinity of the site. On this basis it is considered that the proposed works will not pose a significant risk to any aerodromes.
- 5.3.5 The western boundary of the site comprises a deciduous woodland and a priority habitat inventory. Based on the ERA it is considered that the proposed operations at the site will not pose a significant risk to the deciduous woodland or the priority habitat inventory. As it is considered that there will be no significant risk posed to groundwater or surface water as a result of the proposed operations it is considered that the proposed operations will pose no significant risk to the water quality in the Sor Brook.
- 5.3.6 A conceptual site model diagram showing the potential sources, pathways and receptors in respect of the proposed works is shown on Drawing No 043/007/02.

6 Pollution Control Measures

6.1 Site engineering

6.1.1 As discussed in Paragraph 2.4.2 it is considered that the material accepted at the site will contain no discernible concentrations of hazardous substances and that the leachable concentrations of any non-hazardous pollutants in the waste will not pose a significant risk to groundwater quality. On this basis it is considered that no basal or sidewall low hydraulic conductivity barriers or perimeter layers round the waste are necessary for the protection of groundwater.

6.1.2 As it is considered that the waste will contain no biodegradable material will be deposited at the site hence a low hydraulic conductivity cap for the purposes of preventing the release of ground gas to air is not considered necessary. As discussed in the HRA basal or sidewall low hydraulic conductivity barriers or perimeter layers are not considered necessary at the site as the material deposited at the site will not pose a significant risk to groundwater quality. On this basis it is considered that a low hydraulic conductivity cap over the material deposited at the site is not necessary for the purposes of limiting the infiltration rate through the waste hence is not necessary in respect of the proposed works. Notwithstanding this assessment it is considered likely that following placement the material imported to the site will have a generally a low infiltration capacity as discussed in previous sections, hence the potential for rainfall incident to the restored landform to infiltrate the waste deposited will be limited.

6.1.3 As discussed in the WRP the aim of the works is to restore the quarry to have an acceptable visual impact within the area in keeping with the surrounding landscape.

6.1.4 It is not considered necessary to attenuate the quantity of surface water runoff at the site as the site will be restored in keeping with the surrounding landscape and consistent with the pre-extraction situation. As discussed above an engineered attenuation layer or other engineering measures at the base or side of the waste mass in order to mitigate groundwater or surface water quality impacts are not necessary. As discussed in Paragraph 2.4.2 it is considered that the material accepted at the site will contain no

discernible concentrations of hazardous substances and that the leachable concentrations of any non-hazardous pollutants in the waste will not pose a significant risk to groundwater quality hence water quality. On this basis no surface water or groundwater management infrastructure are proposed in respect of the works. On this basis it is considered that it is not necessary to undertake surface water quality monitoring at or in the vicinity of the site, and that the results of the groundwater monitoring at the boreholes shown at Appendix I will be sufficient to detect any unacceptable deterioration in groundwater quality in the unlikely scenario where this occurs.

- 6.1.5 An approximately 30cm thick growing layer will be placed at the site which will be vegetated in order to provide an after use at the site consistent with the consented restoration scheme shown at Appendix I. As it is considered that the proposed landform will not pose a significant risk to groundwater or surface water quality of the generation of methane or elevated concentrations of carbon dioxide, it is considered that no post closure management of the site will be necessary. The site or area in the immediate vicinity are not affected by the presence of historic mining. The waste to be imported as part of the site operations will be inert and will be placed and compacted in a manner by which it can form the consented landform and after use. It is therefore considered that the potential for the settlement of waste will be negligible. It is considered also that the potential for differential settlement of the waste will be negligible.
- 6.1.6 As discussed above the design of the proposed landform has been undertaken by a suitably qualified engineer hence it is considered that there will be no significant risk in respect of the structural failure of consented landform. On the basis of the above it is considered that following the commencement of the establishment of vegetation on the landform permit surrender would be acceptable.
- 6.1.7 It is concluded based on the above that there is sufficient detail within this section to provide a suitable outline of the engineering measures to be constructed at the site hence the preparation of an outline engineering plan for the site is not necessary.

7 **Monitoring**

7.1 **Weather**

7.1.1 Wind rose data are presented on drawing reference 043/007/03. Based on the information in Sections 5.3 and 6 of the ESSD it is considered that any reasonable changes in the total and effective rainfall or prevailing wind direction and strength are unlikely to affect significantly the conclusions of the risk assessments presented in the ESSD hence it is considered unnecessary to undertake meteorological monitoring at the site.

7.2 **Gas monitoring**

7.2.1 The results of the environmental monitoring undertaken to date at the site are presented at Appendix V.

7.2.2 The site boundary comprises an area of approximately 77,235m². The volume to be imported of 350,000m³ is therefore equivalent to an average depth of approximately 4.53m across the site. The thickness of waste across the majority of the site will be less than 4m with the exceptions of the southern edge of the quarry, the south western corner of the quarry, the north western corner of the quarry and the central part of the eastern edge of the quarry.

7.2.3 The materials to be imported to the site will comprise strictly inert materials and as such will not contain putrescible matter or other organic materials in quantities which may give rise to ground gas generation. As such it is proposed that qualitative ground gas risk assessment is undertaken which gas spike monitoring survey and the installation of gas monitoring wells are considered as appropriate in the context of the risk posed due to ground gas within the consented landform to sensitive receptors.

7.3 **Groundwater level monitoring**

7.3.1 Water levels and the depth to the base of the borehole will be monitored at a monthly frequency at boreholes R01, R02 and R03.

7.4 **Groundwater quality monitoring**

7.4.1 Groundwater quality will be monitored monthly for 12 months. It is proposed that the groundwater monitoring frequency is reduced to quarterly following the collection of 12 months' continuous monitoring.

7.4.2 It is proposed that groundwater quality is monitored for the following determinands first on a monthly basis and then on a quarterly basis:

- pH
- Electrical conductivity
- Sulphate
- Cyanide (Total and free)
- Arsenic (dissolved)
- Boron (dissolved)
- Cadmium (dissolved)
- Chromium (dissolved)
- Copper (dissolved)
- Mercury (dissolved)
- Nickel (dissolved)
- Lead (dissolved)
- Selenium (dissolved)
- Zinc (dissolved)

7.4.3 It is proposed that the following determinands are monitored on an annual basis:

- TPH-CWG
- USEPA PAHs

8 Site Condition report

- 8.1.1 A Site Condition Report (SCR) has been prepared separately to the ESSD in conjunction with which this report should be read.

9 Environmental Risk Assessment Model

9.1 Fundamental considerations

9.1.1 **Source/Hazard:** A property or situation that in particular circumstances could lead to harm.

9.1.2 **Consequences:** The adverse effects or harm as the result of realising a hazard which causes the quality of human health or the environment to be impaired in the short or long term.

9.1.3 **Risk:** A combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

9.2 Pathway

9.2.1 Important in the assessment of a particular risk(s) and to inform the subsequent management of the risk(s) is the identification of the pathway(s) through which the risk may affect the identified receptor(s). The following are examples of pathways:

- Air
- Ground
- Water
- Direct contact / exposure

9.3 Consequences

9.3.1 The following table highlights the consequences of the hazard(s) identified and the abbreviations for each as used in the Risk Assessment Table in Section 3:

Abbreviation	Consequences
A	Minor Injury
B	Major Injury
C	Death
D	Air Pollution
E	Water Pollution
F	Pollution of Land

9.4 Effects of consequences

9.4.1 In order to quantify the level of risk and identify the appropriate management procedures, the potential effects must be considered, as outlined in the table below:

Abbreviation	Consequences	Management Requirements
S	SEVERE	In all cases
Mo	MODERATE	In most cases
Mi	MILD	Occasionally
N	NEGLIGIBLE	No

9.4.1 Note: “Management” is the action required to reduce the risk of a hazard causing a problem on site. Contingency measures are procedures which are in place to reduce the consequences of a hazard.

9.5 Risk estimation and evaluation (probability/frequency of occurring hazard)

9.5.1 The following table allows the likelihood of an occurrence of an identified risk to be assessed:

Abbreviation	Probability	Evaluation
1	Very likely	Could occur during any working day
2	Likely	Could occur regularly
3	Possible	Event possible
4	Unlikely	Event very unlikely

9.6 Risk assessment outcome (combination of probability & consequence)

9.6.1 The following table shows the resultant risk of an identified hazard or potential situation. This uses the hierarchy of both probability and consequence to assess the level of risk. The level of risk determines what level of management would be required in order to reduce the risk of occurrence and/or scale.

		Consequence			
		S	Mo	Mi	N
Probability	1	High	High	Medium	Low
	2	High	Medium	Low	Near-Zero
	3	Medium	Low	Near-Zero	N/A
	4	Low	Near-Zero	N/A	N/A

9.6.2 Where the risk assessment outcome is high, first-level management of the risk is essential, i.e. removal of hazard, implementation of major infrastructure/structural design measures to contain the risk/hazard and company policy changes to incorporate the management of the risk. All risk management measures must be supplemented with detailed induction training, spot training and tool-box talks to ensure all site staff and users are made fully aware of the risk/hazard, all potential consequences and necessary management and contingency procedures.

9.6.3 Where the risk assessment outcome is medium, the management of the risk should be tackled by management or delegates. If removal of the hazard is not possible, management will normally be met through implementing minor structural design measures or by imposing procedures for the prevention of occurrences which will be conveyed to all site staff through the appropriate training, including any contingency measures/procedures.

9.6.4 Where the risk assessment outcome is low, the management of the risk can be done wholly through appropriate training to site staff including any contingency measures/procedures.

- 9.6.5 Where the risk assessment outcome is near-zero, site staff should be made aware of the possibility of an occurrence and contingency measures should be readily available to all staff should they be required.

10 Risk assessment table

The following pages contain the site-specific risk assessment for the site with appropriate remedial actions, recommendations and comments included for each identified hazard, potential contaminant or situation.

The table also contains references to the appropriate section(s) of the site's EMS for additional management procedures.

As discussed in Section 3.6 above, all situations which identify a risk from Low –High should be incorporated into the staff/visitor training schedule, where appropriate and acted on as required.

SEE TABLES OVERLEAF

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Outcome after remediation
DUST / PARTICULATES	SITE SURFACES (DRY AND WINDY WEATHER) STOCKPILED OF WASTE AWAITING PLACEMENT	AIR	SITE PERSONNEL / VISITORS SURROUNDING SITE USERS / OCCUPIERS AT EDGEcombe HOUSE, WHITE BOTTOM FARM, RESIDENTIAL PROPERTIES ALONG GRANGE LANE AND COMMERCIAL PREMISES TO THE NORTH FLORA & FAUNA (ECOLOGY) HIGHWAY NETWORK PROTECTED SPECIES (FISH & NON-FISH) RESIDENTIAL RECEPTORS WILDLIFE SITES INCLUDING DECIDUOUS WOODLAND NEARBY SURFACE WATERS RAILWAY LINE	A, B, D, E	Mi to Mo	3	Low	ALL LOADS SHEETED/CONTAINED ON ARRIVAL AND EGRESS FROM THE SITE DROP HEIGHTS WILL BE KEPT TO A MINIMUM CONTINUOUS MONITORING REGIME IN PLACE TO IDENTIFY ANY POTENTIAL FOR DUST LEAVING SITE BOUNDARY. COMPLAINTS PROCEDURE IN EMS IN PLACE CLEANING OF ANY SPILLAGES USING WET CLEANING METHODS ACCEPTED WASTE TYPES GENERALLY WITH SUFFICIENT MOISTURE CONTENT TO AVOID THE GENERATION OF SIGNIFICANT QUANTITIES OF DUST.	Near Zero
ODOUR	STORED WASTE PROCESSING AND TREATMENT OPERATIONS SPILLAGES OF FLUIDS	AIR	SITE PERSONNEL / VISITORS SURROUNDING SITE USERS / OCCUPIERS AT EDGEcombe HOUSE, WHITE BOTTOM FARM, RESIDENTIAL PROPERTIES ALONG	A, D	Mi to Mo	3	Low	WASTE TO BE IMPORTED TO THE SITE HAS NEGLIGIBLE POTENTIAL TO GENERATE ODOUS STRICT WASTE ACCEPTANCE PROCEDURES TO IDENTIFY POTENTIALLY ODOROUS WASTES AND THEIR CONTAINMENT REJECTED WASTES OR SPILLAGES ARE TO BE QUARANTINED PRIOR TO REMOVAL OFF SITE FOLLOWING DAILY INSPECTIONS	Near Zero

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Outcome after remediation
			GRANGE LANE AND COMMERCIAL PREMISES TO THE NORTH					DAILY OLFACTORY MONITORING PROCEDURES COMPLAINTS PROCEDURE TO BE IN PLACE ANY ODOROUS WASTE RESULTING IN COMPLAINTS WILL BE REMOVED FROM THE WITHIN 48 HOURS	
LITTER	SMALL QUANTITIES OF NON-CONFORMING WASTES POOR HOUSEKEEPING	AIR	SITE PERSONNEL / VISITORS SURROUNDING SITE USERS / OCCUPIERS AT EDGECOMBE HOUSE, WHITE BOTTOM FARM, RESIDENTIAL PROPERTIES ALONG GRANGE LANE AND COMMERCIAL PREMISES TO THE NORTH FLORA & FAUNA (ECOLOGY) HIGHWAY NETWORK PROTECED SPECIES (FISH & NON-FISH) RESIDENTIAL RECEPTORS WILDLIFE SITES NEARBY SURFACE WATERS	A to C E,F	Mi	3	Near-Zero	DAILY INSPECTIONS OF THE SITE AND AREAS IN THE IMMEDIATE VICINITY OF THE SITE BOUNDARY FOR LITTER WASTE ACCEPTED AND STORED WILL NOT CONTAIN 'LITTER' LITTER ONLY LIKELY TO OCCUR IN ANY SMALL QUANTITIES OF NON-CONFORMING WASTES WHICH WILL BE SEGREGATED AND STORED IN A SEALED CONTAINER AND WILL NOT BE TRANSFERRED TO THE PLACEMENT AREAS	Near Zero
NOISE/VIBRATION	ALL ACTIVITES INVOLVING THE ACCEPTANCE,	AIR OR GROUND BY VIBRATION	SITE PERSONNEL / VISITORS	A, D	Mi to Mo	3	Low	SITE SUBJECT TO A NOISE ASSESSMENT IN WHICH IT IS CONCLUDED THAT THE CONSENTED OPERATIONS WOULD GENERATE NOISE LEVELS WITHIN THE ACCEPTABLE LIMITS	Near-Zero

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Outcome after remediation
	STORAGE AND PROCESSING OF WASTE REPAIRS / MAINTENANCE FAULTY MOBILE / FIXED PLANT		SURROUNDING SITE USERS / OCCUPIERS AT EDGEcombe HOUSE, WHITE BOTTOM FARM, RESIDENTIAL PROPERTIES ALONG GRANGE LANE AND COMMERCIAL PREMISES TO THE NORTH FLORA & FAUNA (ECOLOGY) PROTECTED SPECIES NON-FISH WILDLIFE SITES RESIDENTIAL RECEPTORS					FOR DAYTIME NOISE. BEST PRACTICE MEASURES WILL BE EMPLOYED TO MINIMISE NOISE.	
VERMIN (LEPTOSPIROSIS etc.)	SMALL AREAS OF STANDING WATER ON WASTE SURFACE	WATER, DIRECT CONTACT WITH WASTE	SITE PERSONNEL / VISITORS SURROUNDING SITE USERS / OCCUPIERS AT EDGEcombe HOUSE, WHITE BOTTOM FARM, RESIDENTIAL PROPERTIES ALONG GRANGE LANE AND COMMERCIAL PREMISES TO THE NORTH RESIDENTIAL RECEPTORS	A to C	Mi to Mo	3	Low	WEAR PPE - GLOVES AND MASKS AS APPROPRIATE SITE INSPECTIONS DAILY ANY WASTES CONSIDERED UNSUITABLE AFTER DEPOSIT WILL BE ASSIGNED TO THE QUARANTINE AREA OF THE ADJACENT WASTE FACILITY. PEST CONTROLLER CALLED IN THE EXTREMELY UNLIKELY EVENT OF PESTS BEING PRESENT AT THE SITE OR COMPLAINTS RECEIVED FROM RECEPTORS	Near Zero

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Outcome after remediation
PESTS	STORED SMALL QUANTITIES OF NON-CONFORMING WASTES	DIRECT CONTACT	SITE PERSONNEL / VISITORS SURROUNDING SITE USERS / OCCUPIERS AT EDGEcombe HOUSE, WHITE BOTTOM FARM, RESIDENTIAL PROPERTIES ALONG GRANGE LANE AND COMMERCIAL PREMISES TO THE NORTH RESIDENTIAL RECEPTORS	A, D	Mi to Mo	3	Low	STRICT WASTE ACCEPTANCE PROCEDURES AND ANY WASTES WITH PEST ISSUES WILL BE REJECTED REJECTED WASTES OR SPILLAGES ARE QUARANTINED PRIOR TO REMOVAL OFF SITE FOLLOWING DAILY INSPECTIONS AND STORED IN SECURE CONTAINERS COMPLAINTS PROCEDURE IN PLACE	Near Zero
FIRE/ SMOKE / PARTICULATES	MALFUNCTION OF FIXED AND MOBILE PLANT ARSON	AIR, DIRECT CONTACT	SITE PERSONNEL / VISITORS SURROUNDING SITE USERS / OCCUPIERS AT EDGEcombe HOUSE, WHITE BOTTOM FARM, RESIDENTIAL PROPERTIES ALONG GRANGE LANE AND COMMERCIAL PREMISES TO THE NORTH FLORA & FAUNA (ECOLOGY) HIGHWAY NETWORK PROTECED SPECIES (FISH & NON-FISH) RESIDENTIAL RECEPTORS WILDLIFE SITES NEARBY SURFACE	A to F	Mi to S	3	Low	PLANT TO BE SERVICED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS. NO COMBUSTABLE WASTES TO BE ACCEPTED AT OR STORED ON SITE	Near Zero

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Outcome after remediation
			WATERS						
VEHICLE COLLISION/ ACCIDENT	MUD ON ROADS FROM WASTE STORAGE & VEHICLE BODIES POOR VISIBILITY SPILLAGES OF OILS/FLUIDS CAUSING VEHICLES TO SKID LACK OF PPE WORN BY STAFF	DIRECT CONTACT	SITE PERSONNEL / VISITORS VEHICLE USERS PEDESTRIANS	A to F	Mi to S	3	Low	GOOD HOUSEKEEPING/ VEHICLE MANAGEMENT AN ACCIDENT LOGBOOK SHOULD BE KEPT FOR ALL INCIDENTS ENCOURAGEMENT FOR STAFF FOR GREATER NUMBER OF "ACCIDENT-FREE DAYS" TO ENCOURAGE A SAFER WORKING ENVIRONMENT HSE COMPLIANT RISK ASSESSMENTS FOR ALL SITE ACTIVITIES TO IDENTIFY SITUATIONS WHICH MAY LEAD TO HARM FOR SITE USERS, EMPLOYEES, VISITORS AND MANAGEMENT APPROPRIATE SIGNAGE THROUGHOUT THE SITE ALL STAFF USE HORNS / ALARMS ON EQUIPMENT TO ALERT THEM OF THEIR PRESENCE THE SITE HAS TRAINED STAFF WHO CONTROL VEHICLE MOVEMENTS THROUGHOUT THE SITE BARRIER TO BE INSTALLED AROUND PROPANE TANKS TO PROTECT TANKS AGAINST COLLISION RISK	Low – Near-Zero
LEACHATE	SMALL QUANTITIES OF NON-CONFORMING WASTES	GROUND	SURFACE WATERS FLORA & FAUNA (ECOLOGY) PROTECTED SPECIES (FISH & NON-FISH) WILDLIFE SITES NEARBY WATERCOURSES	E, F	Mi to Mo	3	Low	ALL NON-CONFORMING WASTES WHICH ARE LIABLE TO GIVE RISE TO CONTAMINATION WILL BE REMOVED FROM SITE IF THE SITE IS NOT SECURE OR OPERATIONS AT THE SITE ARE SUSPENDED. ANY LEACHATES IDENTIFIED WILL BE DEALT WITH IN ACCORDANCE WITH SPILLAGE PROCEDURES AND SILL KITS ARE AVAILABLE AT THE SITE ONLY WASTES WHICH DO NOT PRODUCE LEACHATE WITH SIGNIFICANT QUANTITIES OF DISSOLVED SUBSTANCES WILL BE ACCEPTED AT THE SITE.	Near-Zero

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Outcome after remediation
IMPACT/INJURY	COLLAPSE OF STORED MATERIALS/ FALLING MATERIALS	DIRECT CONTACT	SITE PERSONNEL/ VISITORS	A to C	Mi to S	4	Low – Near-Zero	WASTES ACCEPTED AT THE SITE TO BE PLACED AS SOON AS PRACTICABLE DROP HEIGHTS WILL ALWAYS BE KEPT TO A MINIMUM APPROPRIATE PPE ISSUED TO ALL SITE STAFF AND AVAILABLE IN THE MAIN SITE OFFICE STAFF TRAINING AND HANDLING PROCEDURES IN PLACE	Near Zero
HYDROCARBONS	UNBUNDED FUEL TANKS DRIPS WHEN REFUELLING PLANT FAILURE	GROUND - DIRECT CONTACT, INGESTION INHALATION (OF VOLATILES)	SURFACE WATERS FLORA & FAUNA (ECOLOGY) PROTECED SPECIES (FISH & NON-FISH) WILDLIFE SITES NEARBY WATERCOURSES	A, B, D, E, F	Mi to S	3	Low	ANY FUEL TANKS (AND PIPEWORK) TO BE STORED WITHIN A BUNDED AREA AND LOCKED WHEN NOT IN USE. SPILL KITS KEPT CLOSE TO SOURCE(S) OF HAZARDS PREVENTATIVE MAINTENANCE SCHEDULE FOR PLANT/MACHINERY ANY SPILLAGES IDENTIFIED WILL BE DEALT WITH IN ACCORDANCE WITH SPILLAGE PROCEDURES IN THE EMS	Near Zero
RELEASE OF GASES/FUMES/ VAPOURS/ VOLATILES	OVERTURNED VEHICLE/PLANT FAILURE	AIR GROUND WATER CONFINED SPACES	SITE PERSONNEL / VISITORS SURROUNDING SITE USERS / OCCUPIERS SURFACE WATERS FLORA & FAUNA (ECOLOGY) PROTECED SPECIES (FISH & NON-FISH) ADJACENT RESIDENTIAL RECEPTORS	A to F	Mi to S	3	Low	ENSURE ANY STORAGE OF FUELS, OILS AND LUBRICANTS IN PROPERLY DESIGNATED BUNDED AREAS IN ACCORDANCE WITH LEGISLATIVE GUIDANCE PREVENTATIVE MAINTENANCE SCHEDULE FOR PLANT/MACHINERY QUARANTINE OF REJECTED WASTES	Near Zero

Hazard / Potential Contaminant or Situation	Source	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Outcome after remediation
			WILDLIFE SITES NEARBY WATERCOURSES						
POINT SOURCE EMISSIONS TO AIR	PLANT EXAUSTS	AIR DEPOSITION TO LAND	SURROUNDING SITE USERS / OCCUPIERS RESIDENTIAL AREAS WILDLIFE SITES SITE PERSONNEL / VISITORS	D,F	Mi to Mo	2	Low to Medium	ELEVATED UPWARDS POINTING EXAUSTS TO DILUTE AND DISPERSE RESIDUAL EMISSIONS	Near Zero

11 **Conclusion**

- 11.1.1 It is considered that the proposed deposition of imported material at the site as described in the ESSD as a waste recovery activity for the purposes of the restoration of the quarry at the site will not pose a significant risk to human health or controlled waters or of loss of amenity.

Appendix I

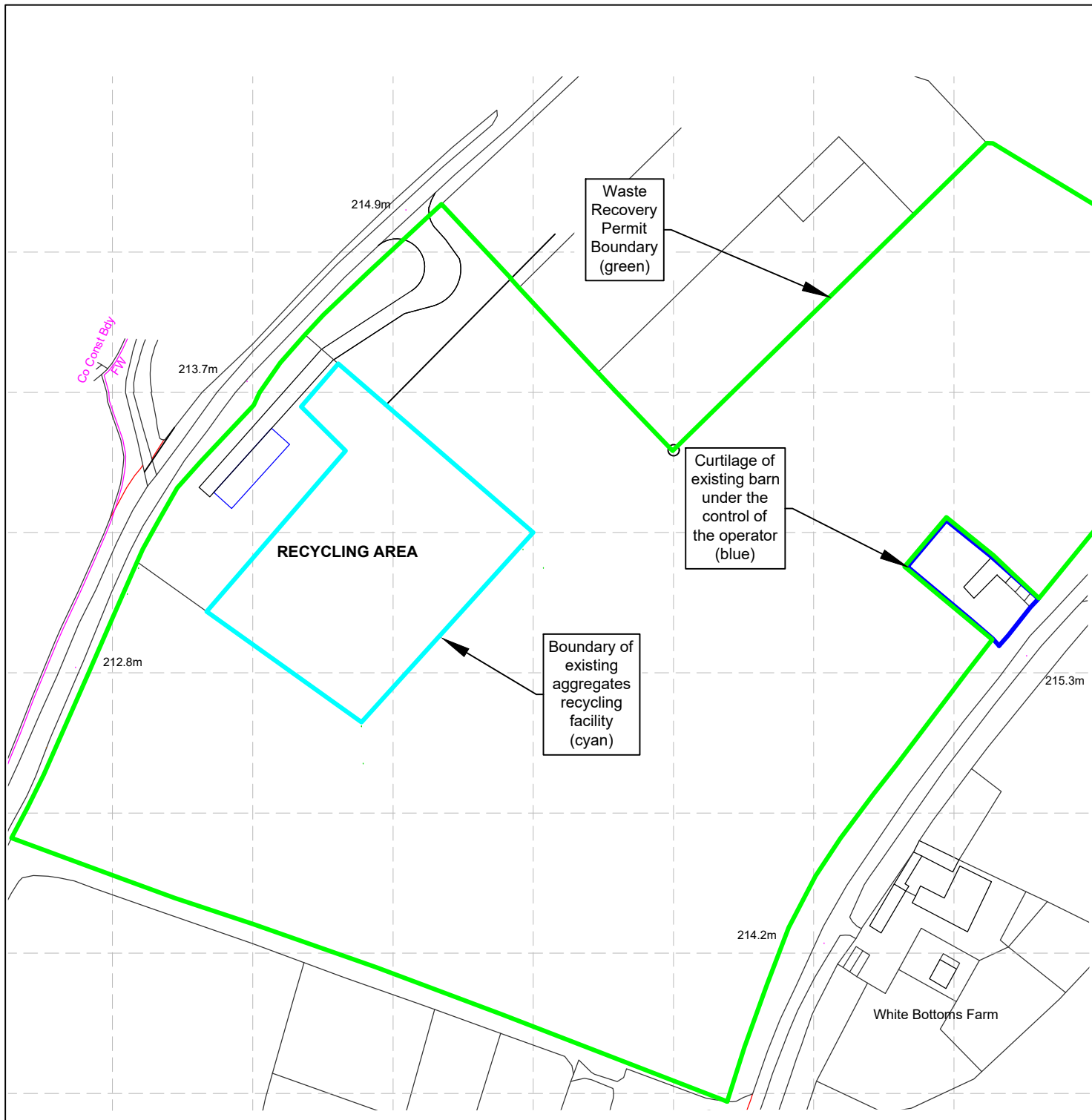
Drawings

NOTES

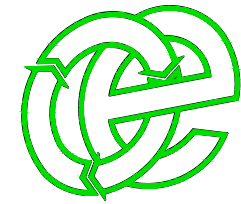
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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	02.02.23	CG	Initial drawing



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants



DRAWING TITLE
PERMIT BOUNDARY PLAN

CLIENT
Boddington Demolition Ltd

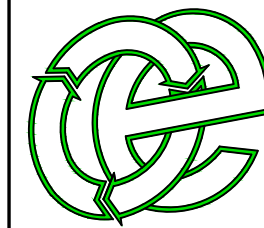
PROJECT/SITE
Edgehill Quarry, Edgehill, Banbury

SCALE @ A4 1:2,000	CLIENT NO 043	JOB NO 007
------------------------------	-------------------------	----------------------

DRAWING NUMBER 043-007-01	REV -	STATUS Issued
-------------------------------------	-----------------	-------------------------

DRAWN BY CG	CHECKED CG	DATE 02.02.23
-----------------------	----------------------	-------------------------

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



Title: CONCEPTUAL SITE MODEL			
Drawing No:	043/007/02	Revision:	-
Client: Boddington Demolition Limited			
Site: Edgehill Quarry, Edgehill, Banbury, Warwickshire, OX15 6DH			
NGR:			
Date:	27 January 2023	Printed At:	A3
Scale: Not to scale			
Job No:	007	Client No:	043
Drawn By:	CG	Checked:	EC

Key:

	Consented restoration works
	Head deposits
	Marlstone Rock Formation
	Dryham Formation
	Charmouth Mudstone Formation
	Blue Lias Formation
	Approximate permit boundary extent

- Notes:**
- (1) Drawing for indication only.
 - (2) Do not scale from this drawing.
 - (3) Refer to ESSD Report for full details.
 - (4) Pathways are shown in dark blue and ochre font and receptors and other features are shown in green font.

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Revision Details:

Rev:	Description:	Date:
-	Initial drawing	27.01.23

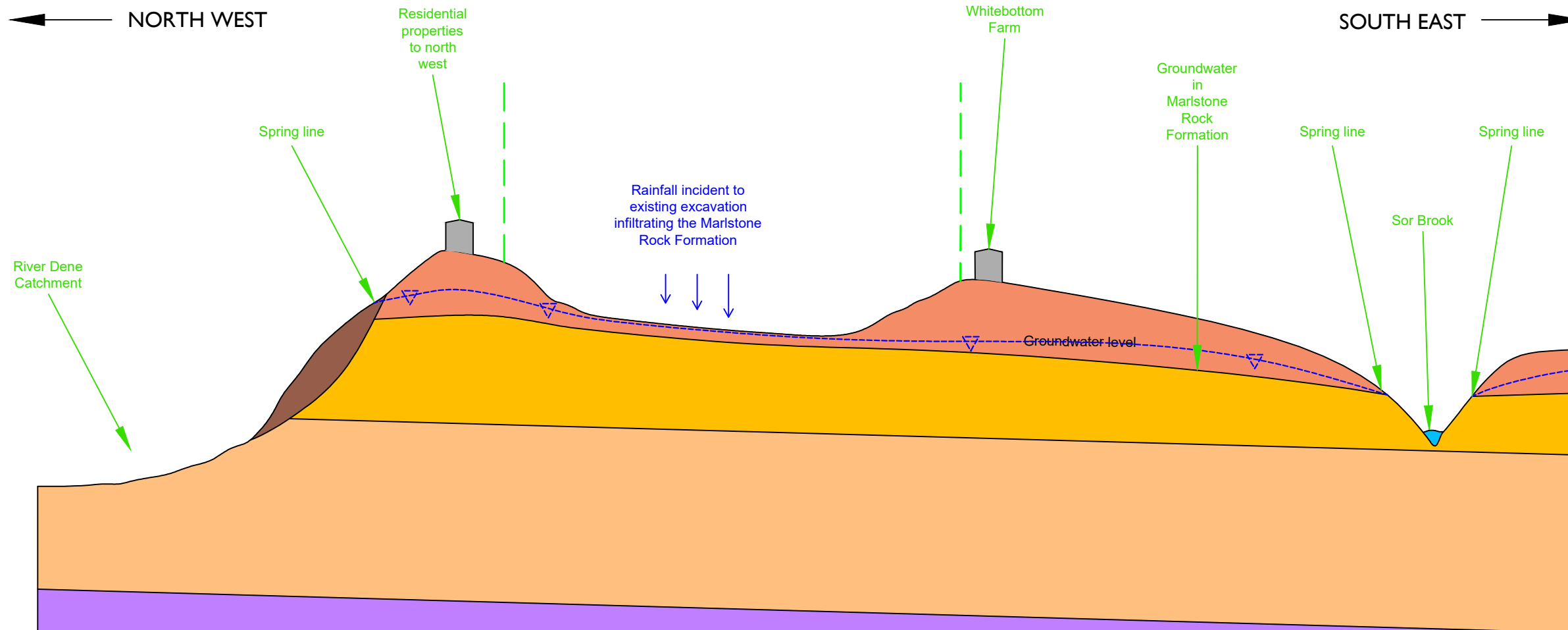


FIGURE 1: EXISTING SITUATION

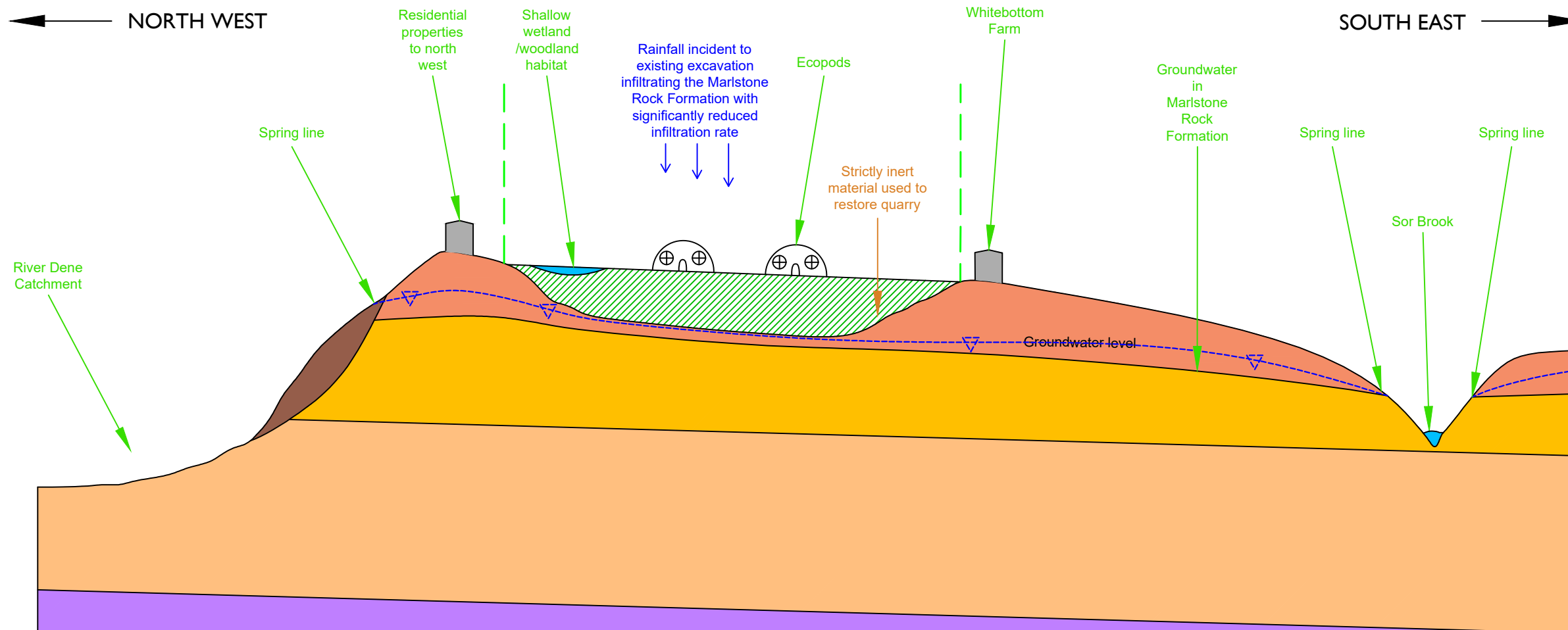
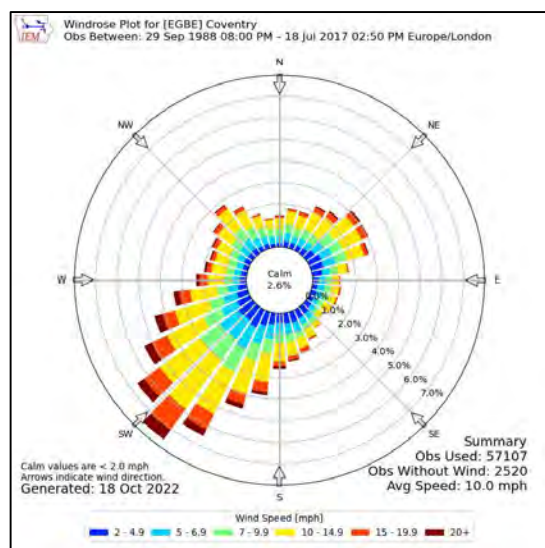
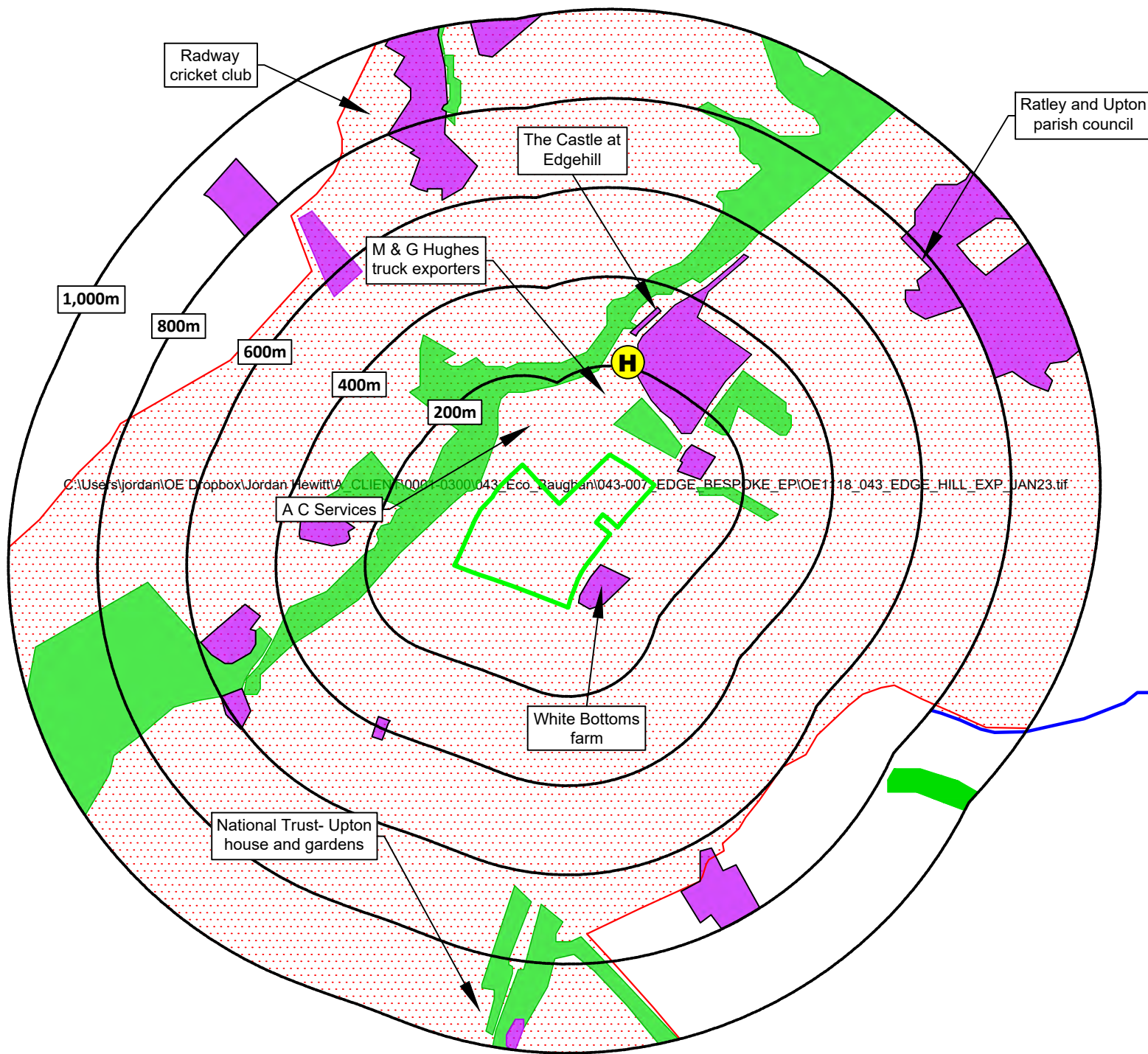
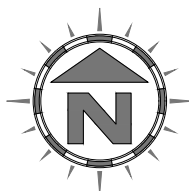


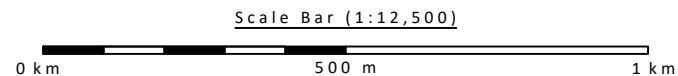
FIGURE 2: COMPLETION OF CONSENTED DEVELOPMENT

KEY:

- Permit boundary
- Main River
- Class A roads
- Class B roads
- Class C roads
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Residential receptor blocks (may also include small retail/leisure)
- H Nearest fire hydrant
- Railway line
- Woodland areas
- Priority habitat (Deciduous Woodland)
- Area of outstanding natural beauty



Compass Wind Rose for (EGBE) Coventry Period 1988-2017
- source: Iowa State University



NOTES

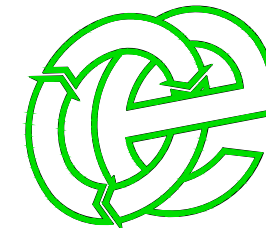
1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	30.01.23	JH	Initial drawing

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants



DRAWING TITLE
RECEPTOR PLAN

CLIENT
Boddington Demolition Ltd

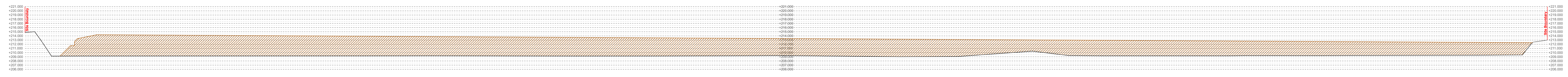
PROJECT/SITE
Edgehill Quarry, Edgehill, Banbury OX15 6DH

SCALE @ A3 1:12,500	CLIENT NO 043	JOB NO 007
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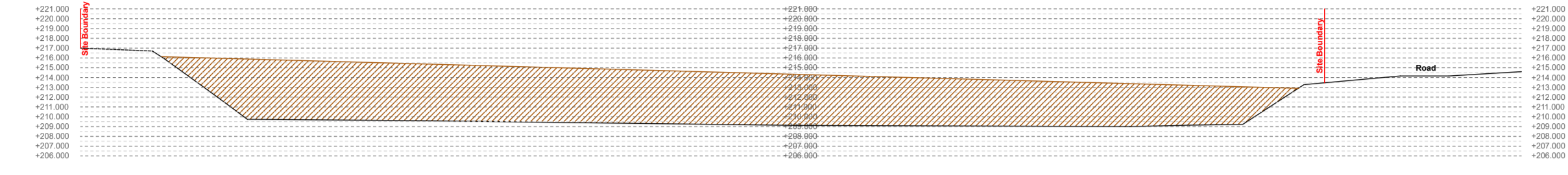
DRAWING NUMBER 043-007-03	REV -	STATUS Issued
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DRAWN BY JH	CHECKED RS	DATE 30.01.23
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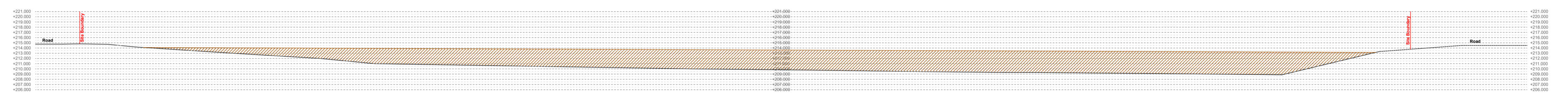
Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk



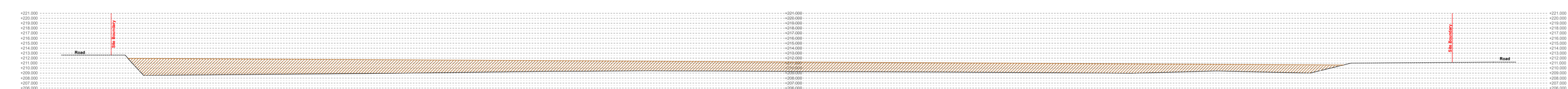
SITE SECTION A-A



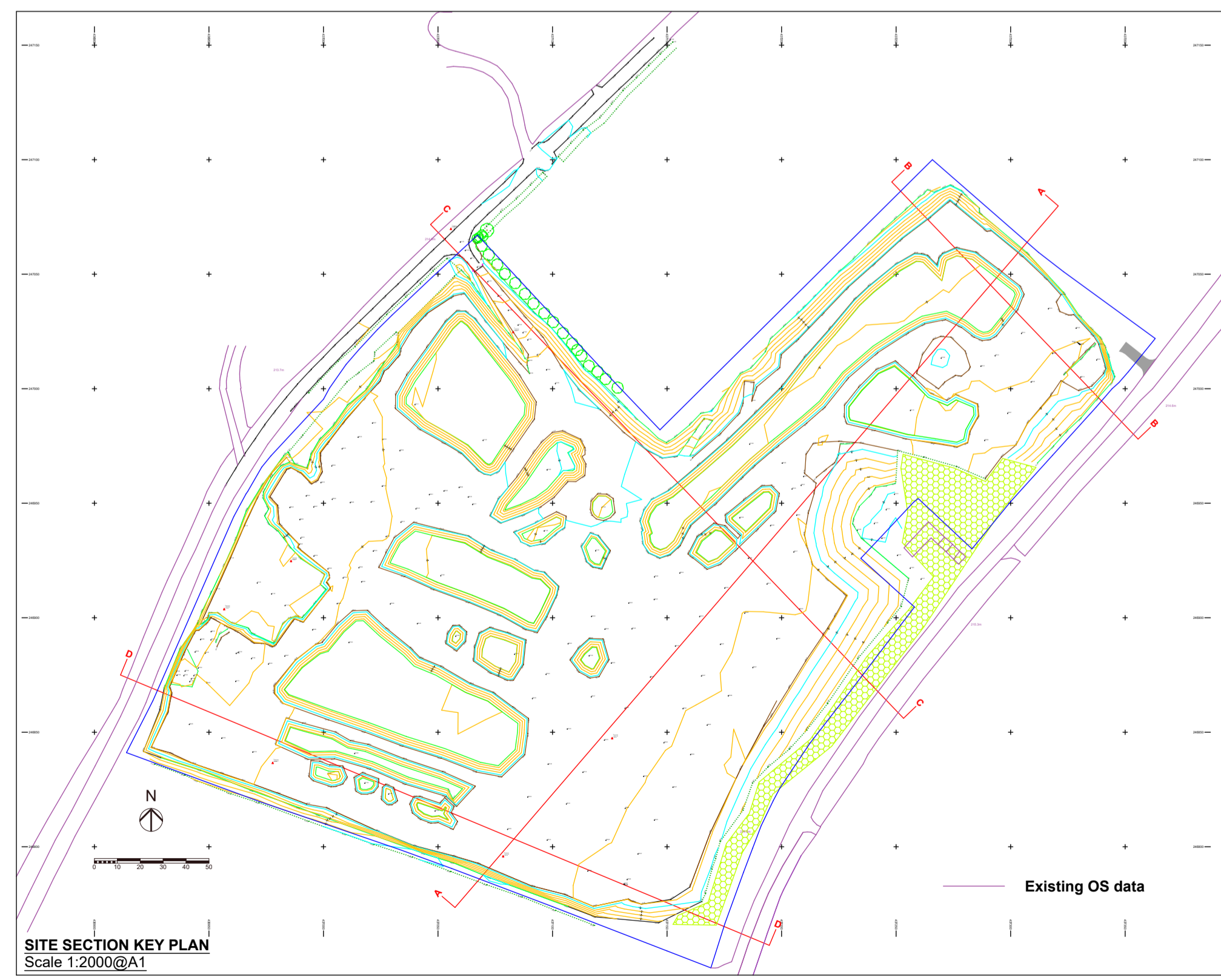
SITE SECTION B-B



SITE SECTION C-C



SITE SECTION D-D



SITE SECTION KEY PLAN
Scale 1:2000@A1

	Existing Ground Level
	Interpolated/estimated ground level
	Proposed fill

NOTES

1) This drawing has been produced/issued for the specific use as stated in the drawing status below. The drawing should only be used therefore for matters concerning the identified use.

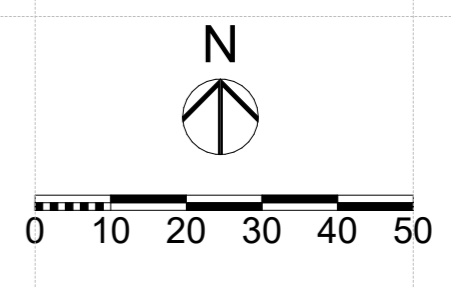
2) Until technical approval, consents and/or licensing has been obtained from the relevant authority, it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given, it is entirely at their own risk.

3) All dimensions and/or levels to be checked on site prior to works proceeding.

CHARTERED SURVEYORS	
Treath Freweartha Road Praa Sands Penzance TR20 9ST	
Client: ANDREW P BAUGHAN	
Project Ref:	BAUQE
Project Title:	'EDGEHILL QUARRY RESTORATION' Edgehill Quarry, Edgehill, Banbury, Warwickshire, OX15 6DH.
Drwg Title:	PROPOSED QUARRY RESTORATION SITE SECTIONS (topo courtesy of HD Surveying, 21st June 2019)
Drwg Status:	PLANNING
Drawn by:	DJJ Drwg No: BAUQE-1-4-001
Date:	27.06.2019 Scale: 1:500@A1 Rev: B
<small>Registered in England & Wales no: 08018937 VAT reg no: 127 6836 89</small>	
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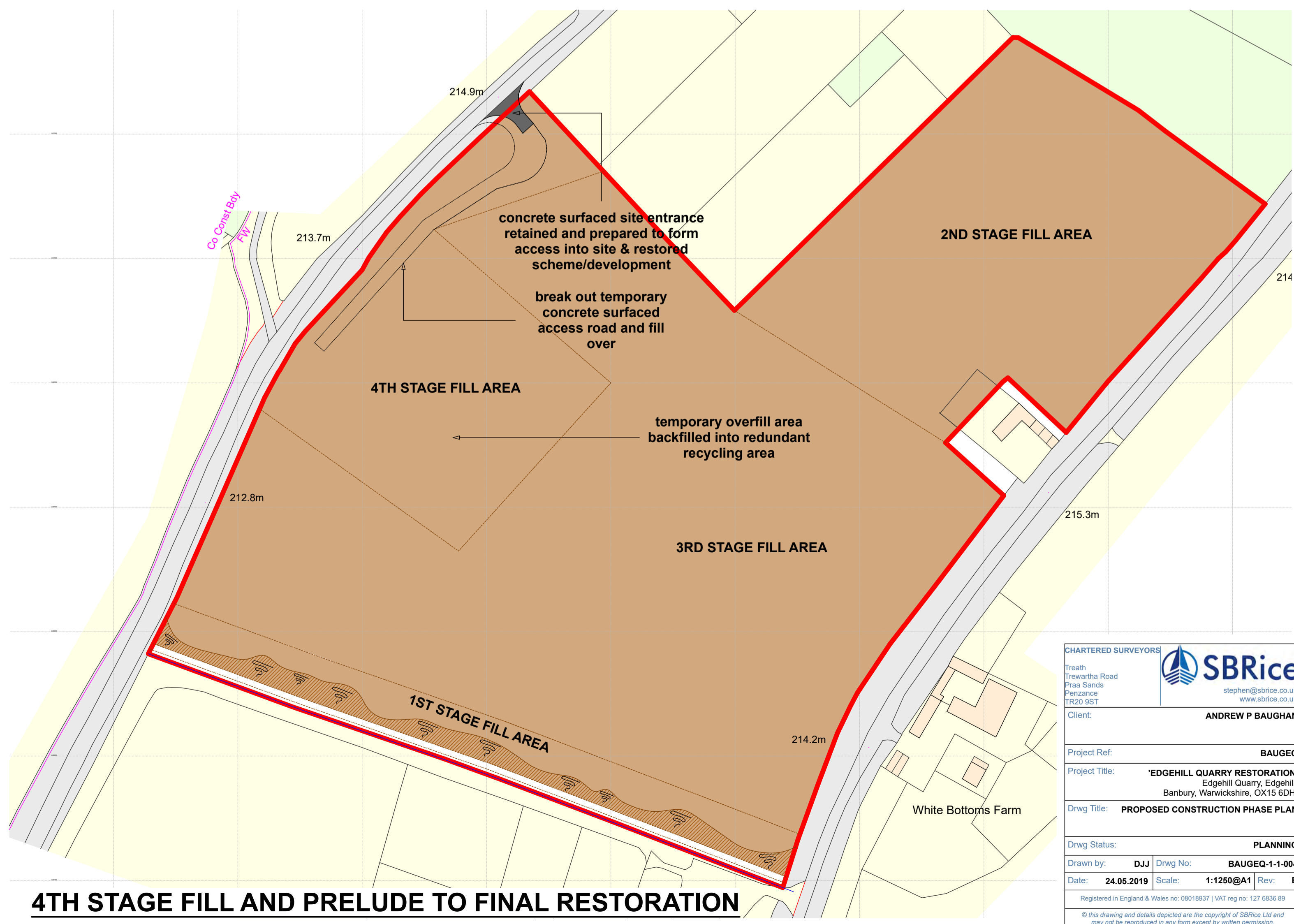
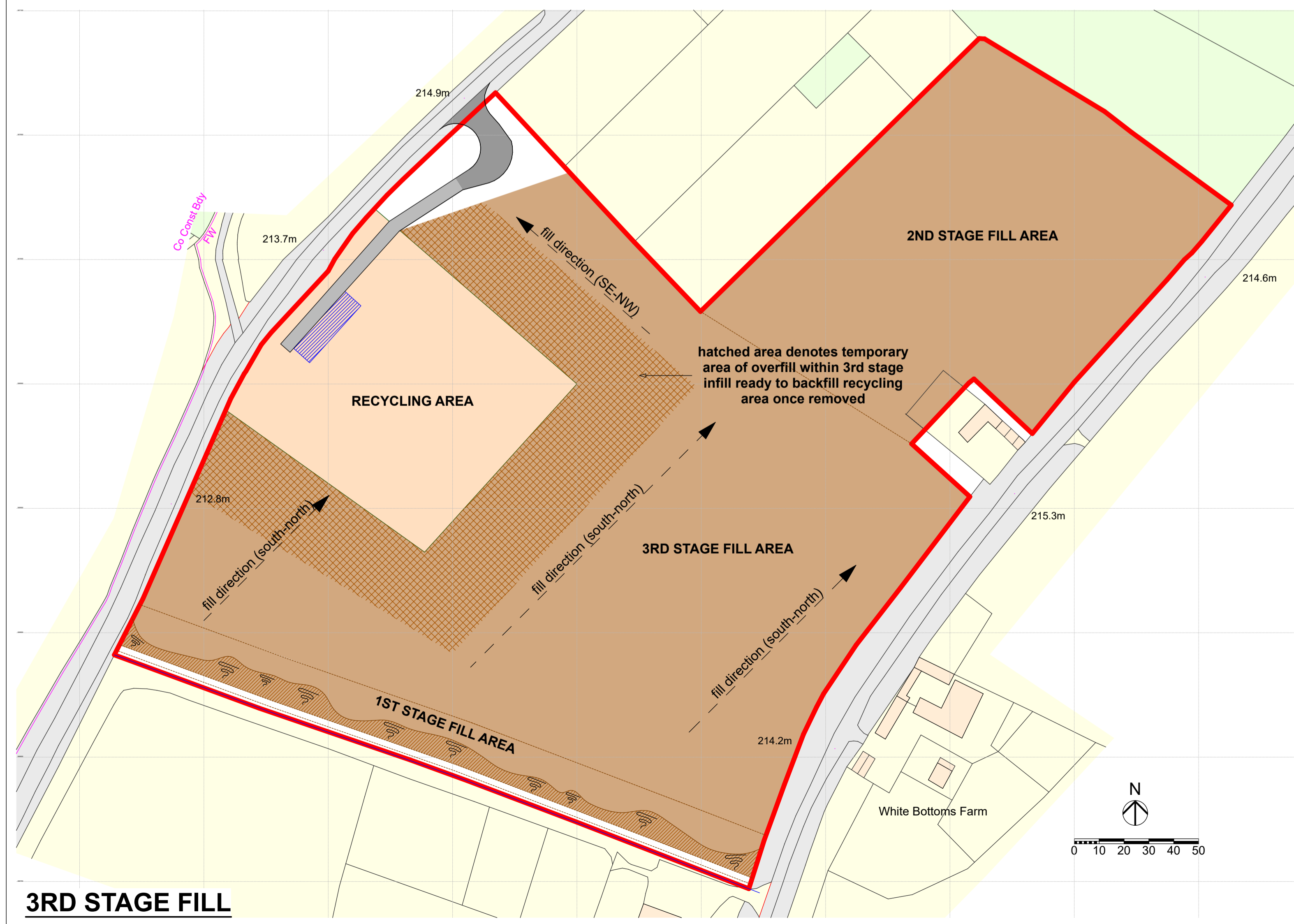
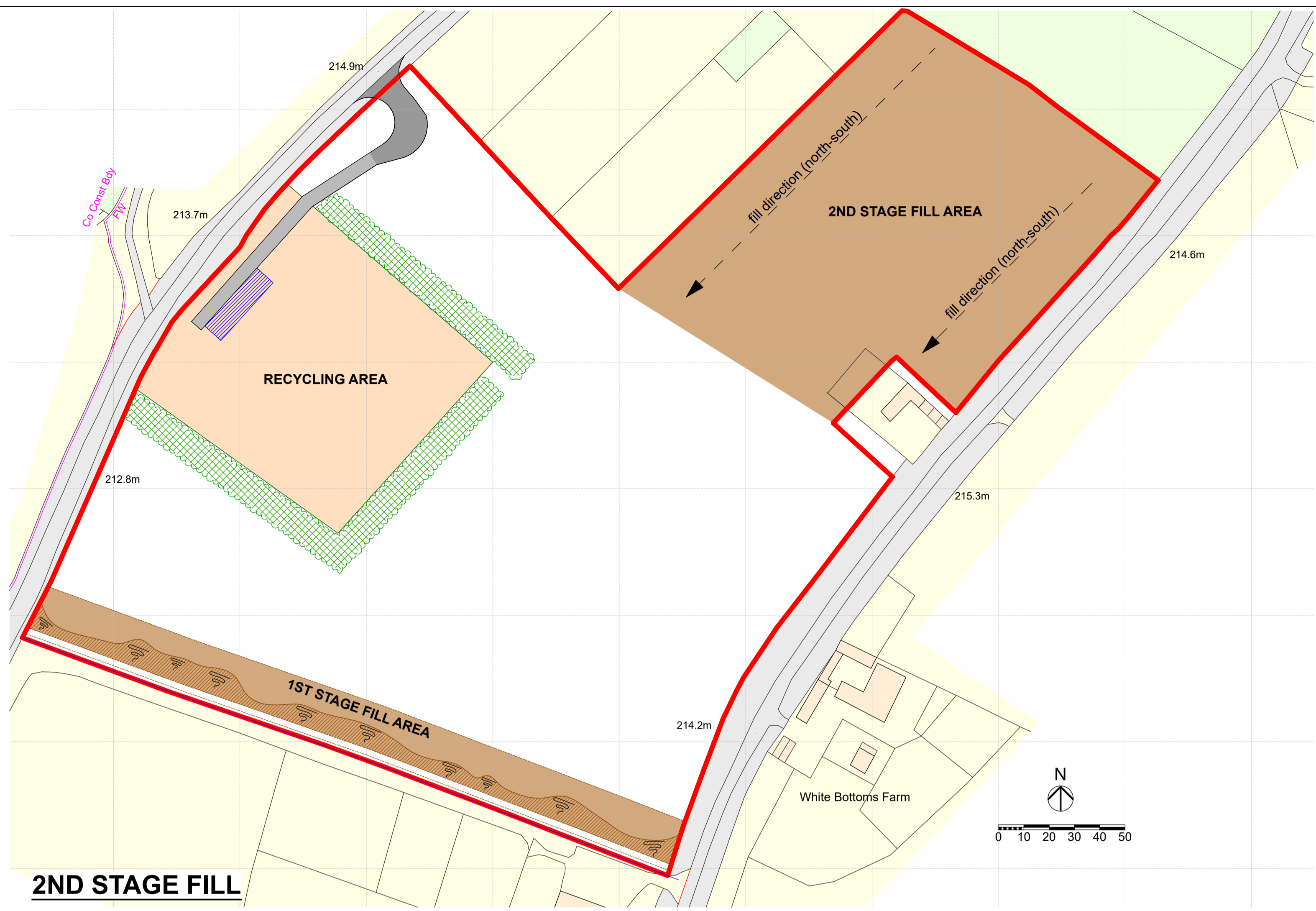
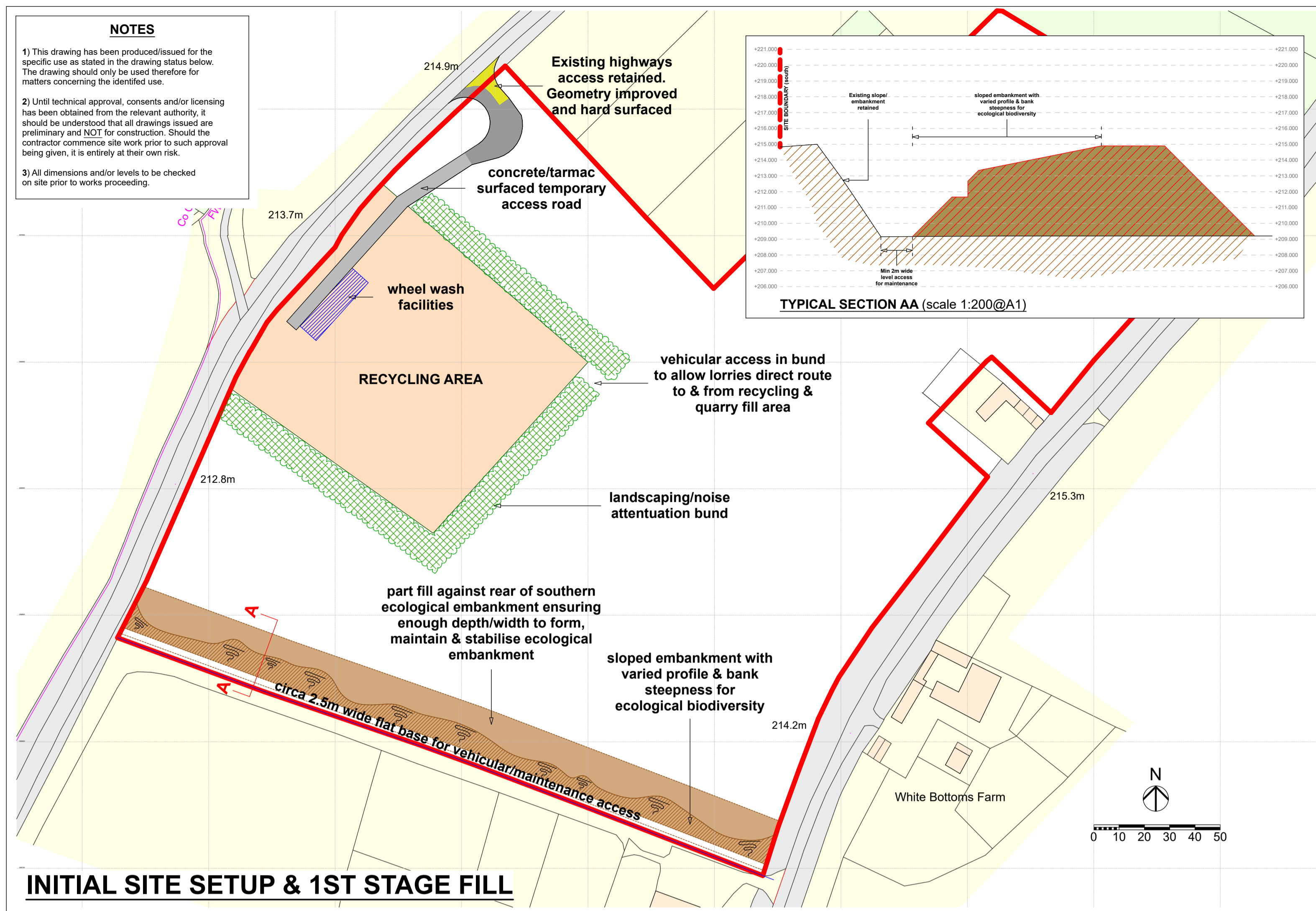
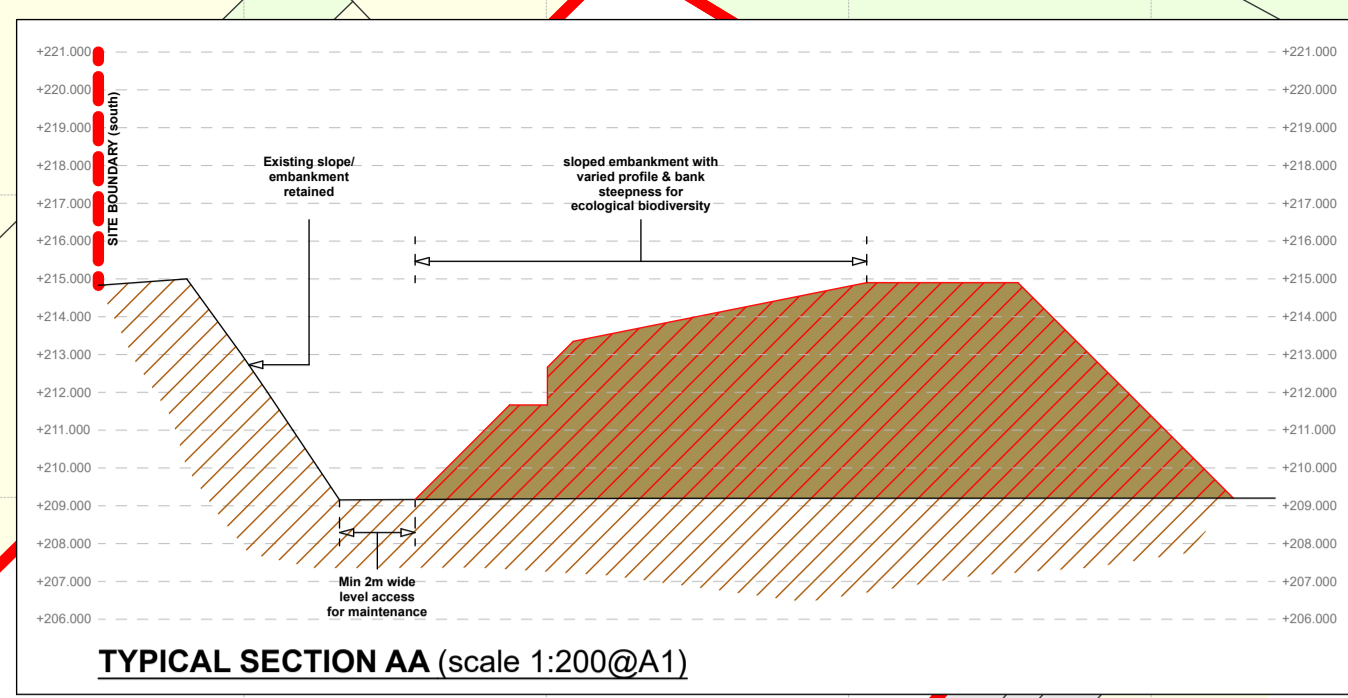
- 1) This drawing has been produced/issued for the specific use as stated in the drawing status below. The drawing should only be used therefore for matters concerning the identified use.
- 2) Until technical approval, consents and/or licensing has been obtained from the relevant authority, it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given, it is entirely at their own risk.
- 3) All dimensions and/or levels to be checked on site prior to works proceeding.



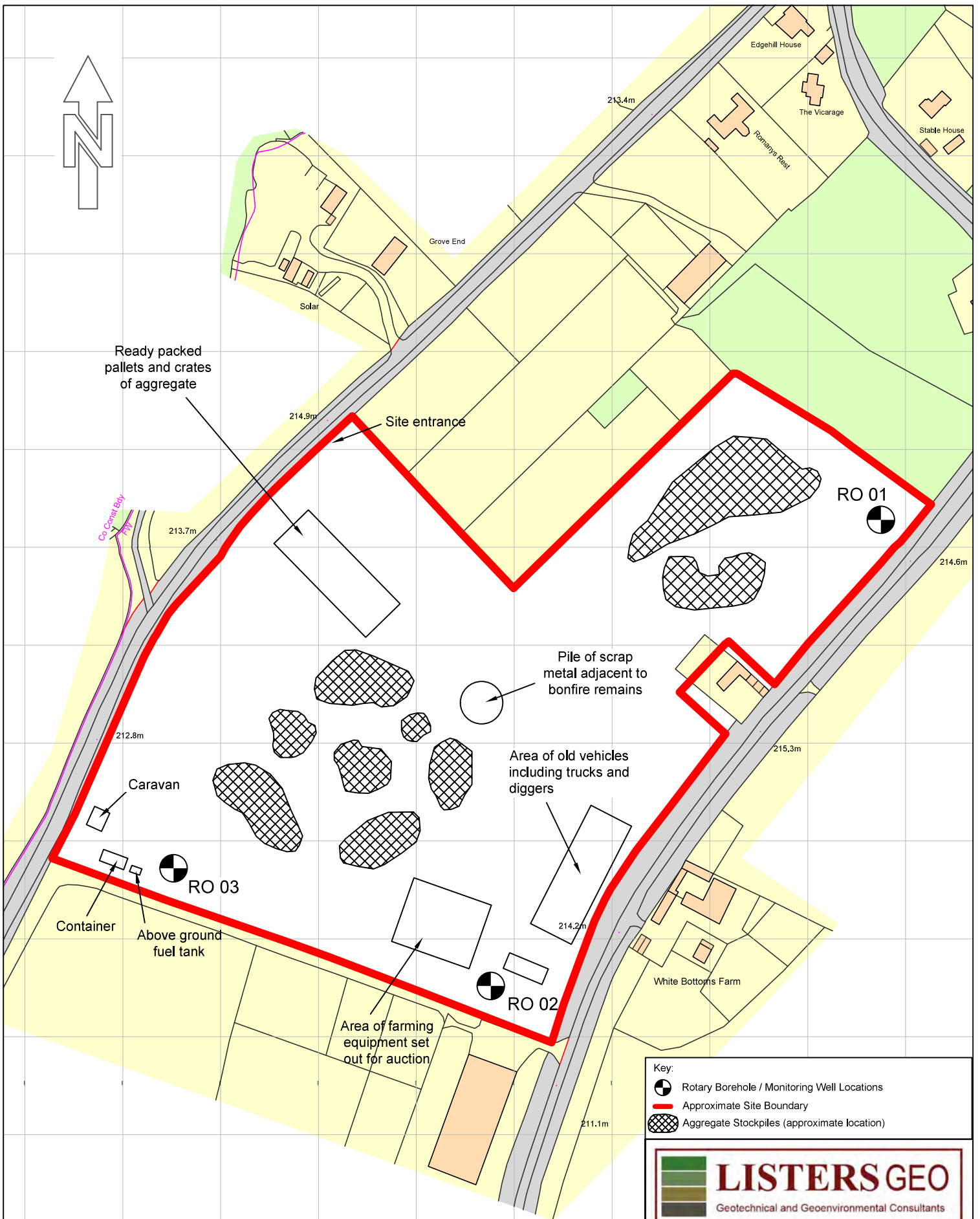
CHARTERED SURVEYORS Fresh Foreatha Road Priors Sands Pencoed TR20 9ST		SBRice stephen@sb Rice.co.uk www.sbrice.co.uk
Client:		ANDREW P BAUGHAN
Project Ref:		BAUGEQ
Project Title:		'EDGEHILL QUARRY RESTORATION' Edgehill Quarry, Edgehill, Banbury, Warwickshire, CV15 8DR.
Drwg Title:		PROPOSED QUARRY RESTORATION PLAN
Drwg Status:		PLANNING
Drawn by:		DJJ Drwg No: BAUGEQ-1-1-003
Date:	18.04.2019	Scale: 1:1000@A1 Rev: L
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- 2) Until technical approval, consents and/or licensing has been obtained from the relevant authority, it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given, it is entirely at their own risk.
- 3) All dimensions and/or levels to be checked on site prior to works proceeding.



CHARTERED SURVEYORS			
Trevith Frewartha Road Pras Sands Penzance TR20 9ST		stephen@sbrice.co.uk www.sbrice.co.uk	
Client:	ANDREW P BAUGHAN		
Project Ref:	BAUGEQ		
Project Title:	'EDGEHILL QUARRY RESTORATION' Edgehill Quarry, Edgehill, Banbury, Warwickshire, OX15 6DH.		
Drwg Title:	PROPOSED CONSTRUCTION PHASE PLAN		
Drwg Status:	PLANNING		
Drawn by:	DJJ	Drwg No.:	BAUGEQ-1-1-004
Date:	24.05.2019	Scale:	1:1250@A1
		Rev:	B
Registered in England & Wales no: 08018037 VAT reg no: 127 6836 89			
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- Key:
- Rotary Borehole / Monitoring Well Locations
 - Approximate Site Boundary
 - Aggregate Stockpiles (approximate location)



Listers Geotechnical Consultants Ltd www.listersgeotechnics.co.uk Tel: 01327 860060

Title: Exploratory Hole Location Plan - Existing Site Layout


Site: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Scale: NTS	Job No: 19.05.011	Drawn By: HC
------------	-------------------	--------------



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Geology 1:50,000 Maps Legends





Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WHM	Whitby Mudstone Formation	Mudstone	Not Supplied - Toarcian
	MRB	Marlstone Rock Formation	Ferruginous Limestone and Ironstone	Not Supplied - Pliensbachian
	DYS	Dyrham Formation	Siltstone and Mudstone, Interbedded	Not Supplied - Pliensbachian
	CHAM	Charmouth Mudstone Formation	Mudstone	Not Supplied - Sinemurian



Geology 1:50,000 Maps

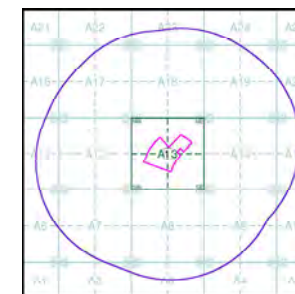
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	201
Map Name:	Banbury
Map Date:	1982
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

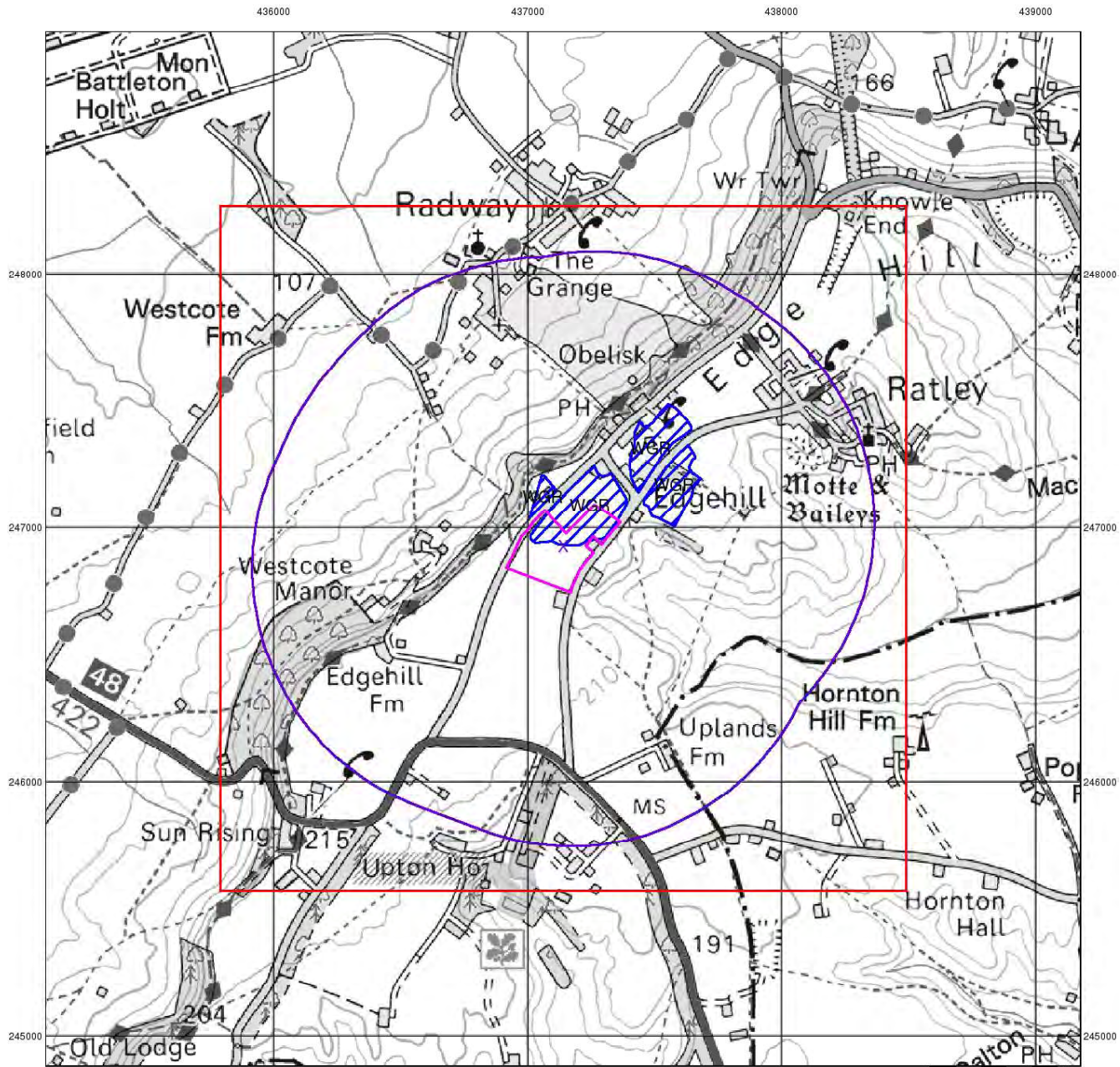
Order Number:	208690290_1_1
Customer Reference:	19.05.011a
National Grid Reference:	437140, 246930
Slice:	A
Site Area (Ha):	7.65
Search Buffer (m):	1000

Site Details:

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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



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Artificial Ground and Landslip

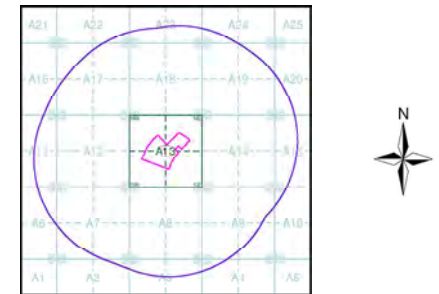
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



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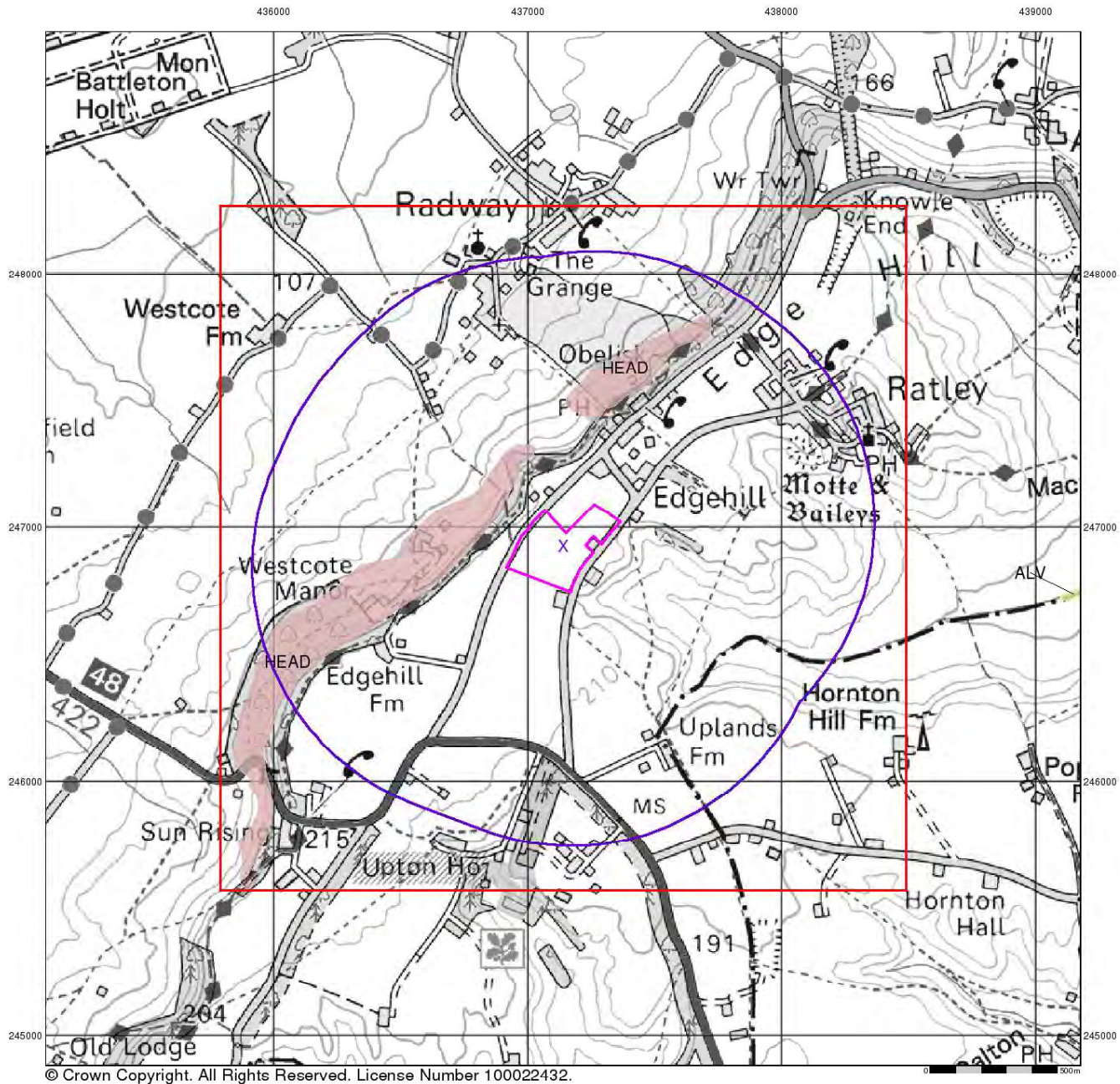
Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details:

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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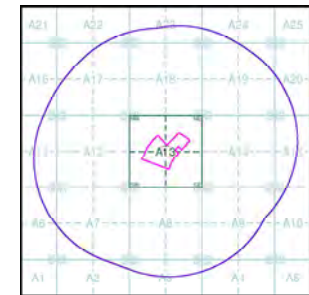
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

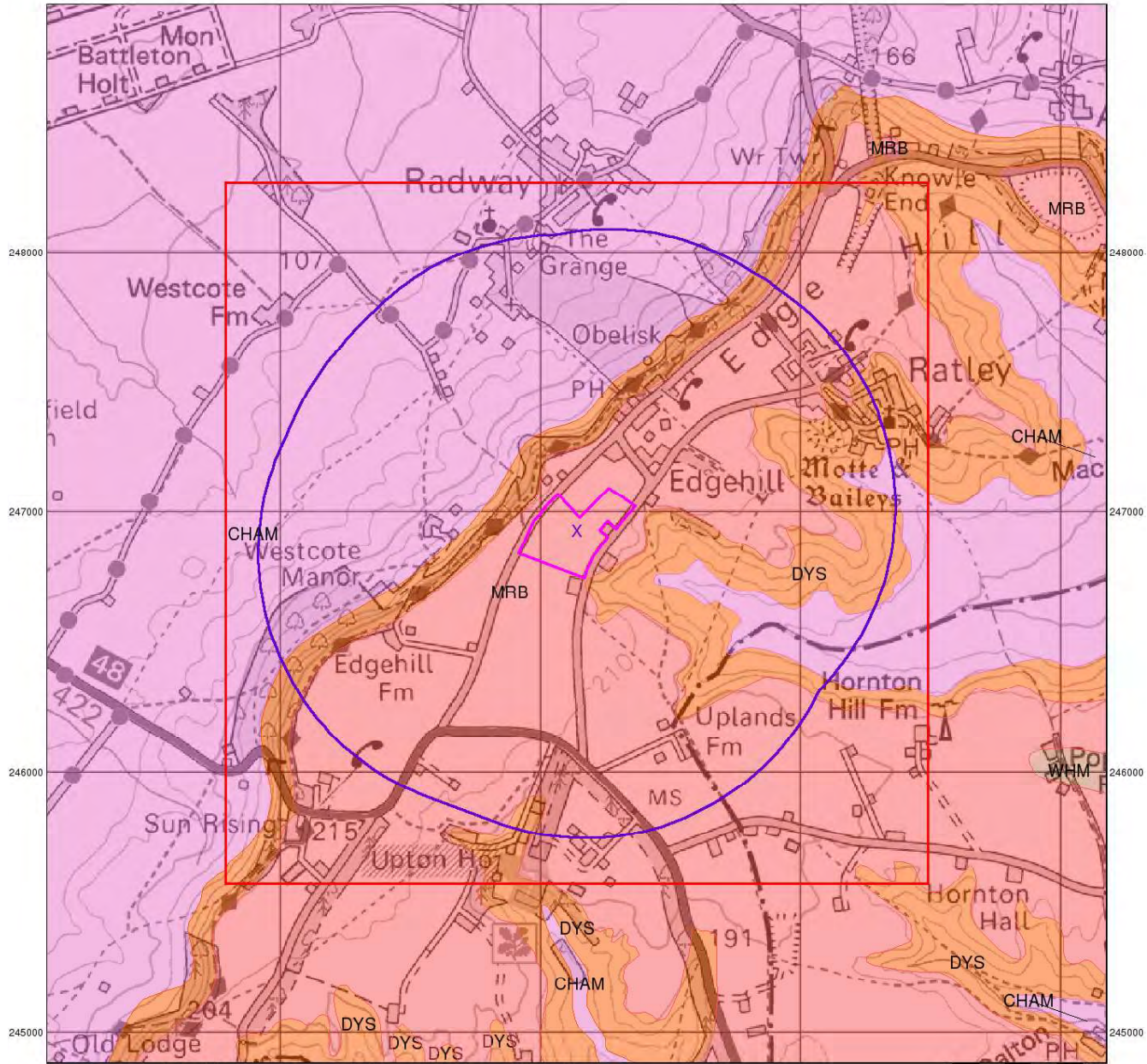
Site Details:

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



Tel: 0844 944 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

436000 437000 438000 439000



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Bedrock and Faults

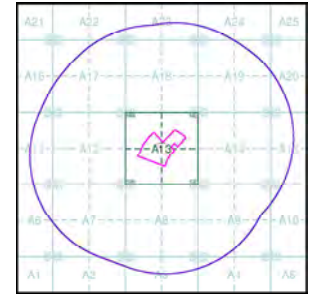
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

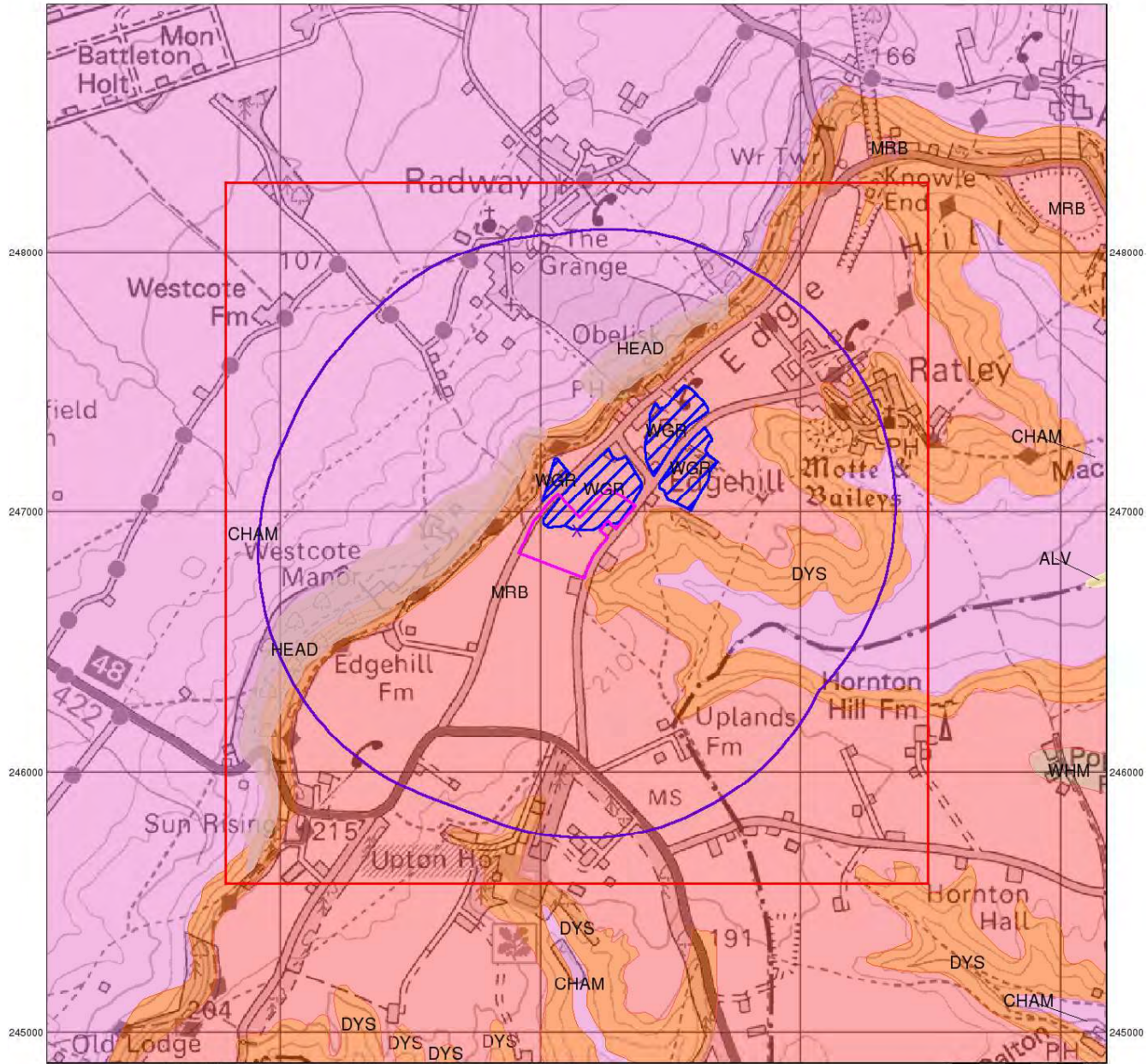
Site Details:

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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

436000 437000 438000 439000



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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

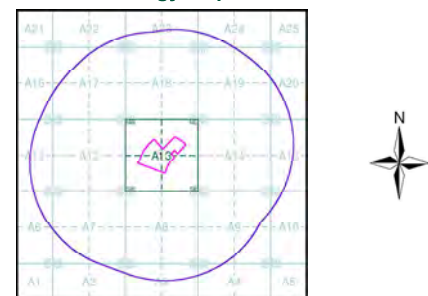
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
 Kingsley Dunham Centre
 Keyworth
 Nottingham
 NG12 5GG
 Telephone: 0115 936 3143
 Fax: 0115 936 3276
 email: enquiries@bgs.ac.uk
 website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

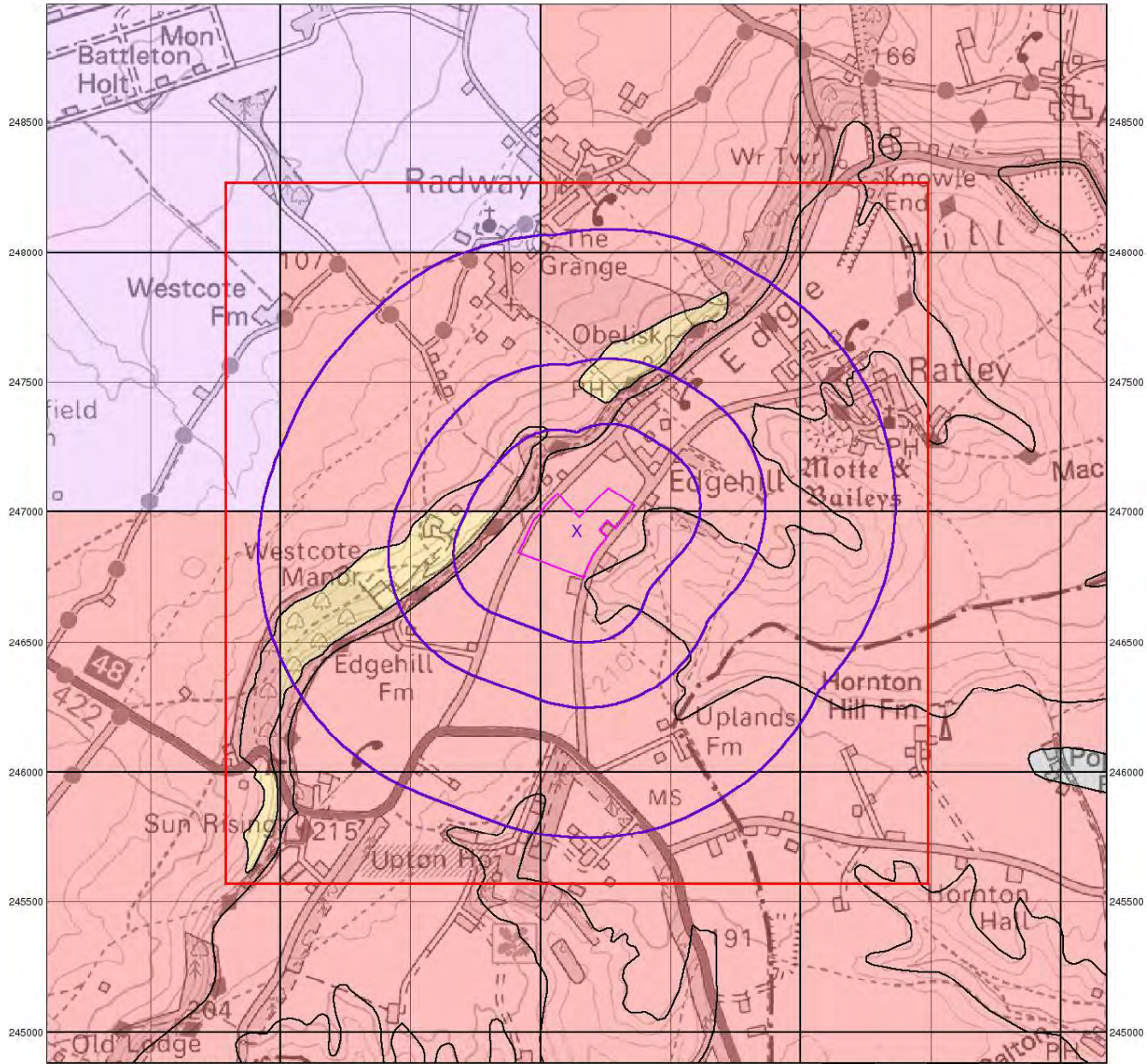
Site Details:

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0 1 km



Groundwater Vulnerability

General

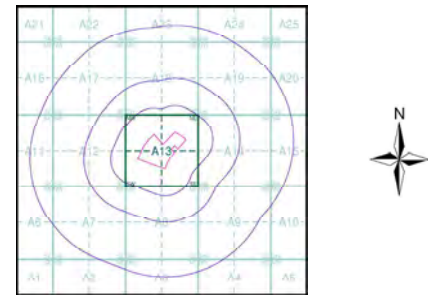
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- | Bedrock Aquifers | Superficial Aquifers |
|---|---|
| High Vulnerability, Principal Aquifer | High Vulnerability, Principal Aquifer |
| High Vulnerability, Secondary Aquifer | High Vulnerability, Secondary Aquifer |
| Medium Vulnerability, Principal Aquifer | Medium Vulnerability, Principal Aquifer |
| Medium Vulnerability, Secondary Aquifer | Medium Vulnerability, Secondary Aquifer |
| Low Vulnerability, Principal Aquifer | Low Vulnerability, Principal Aquifer |
| Low Vulnerability, Secondary Aquifer | Low Vulnerability, Secondary Aquifer |

- Unproductive Aquifer
- Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

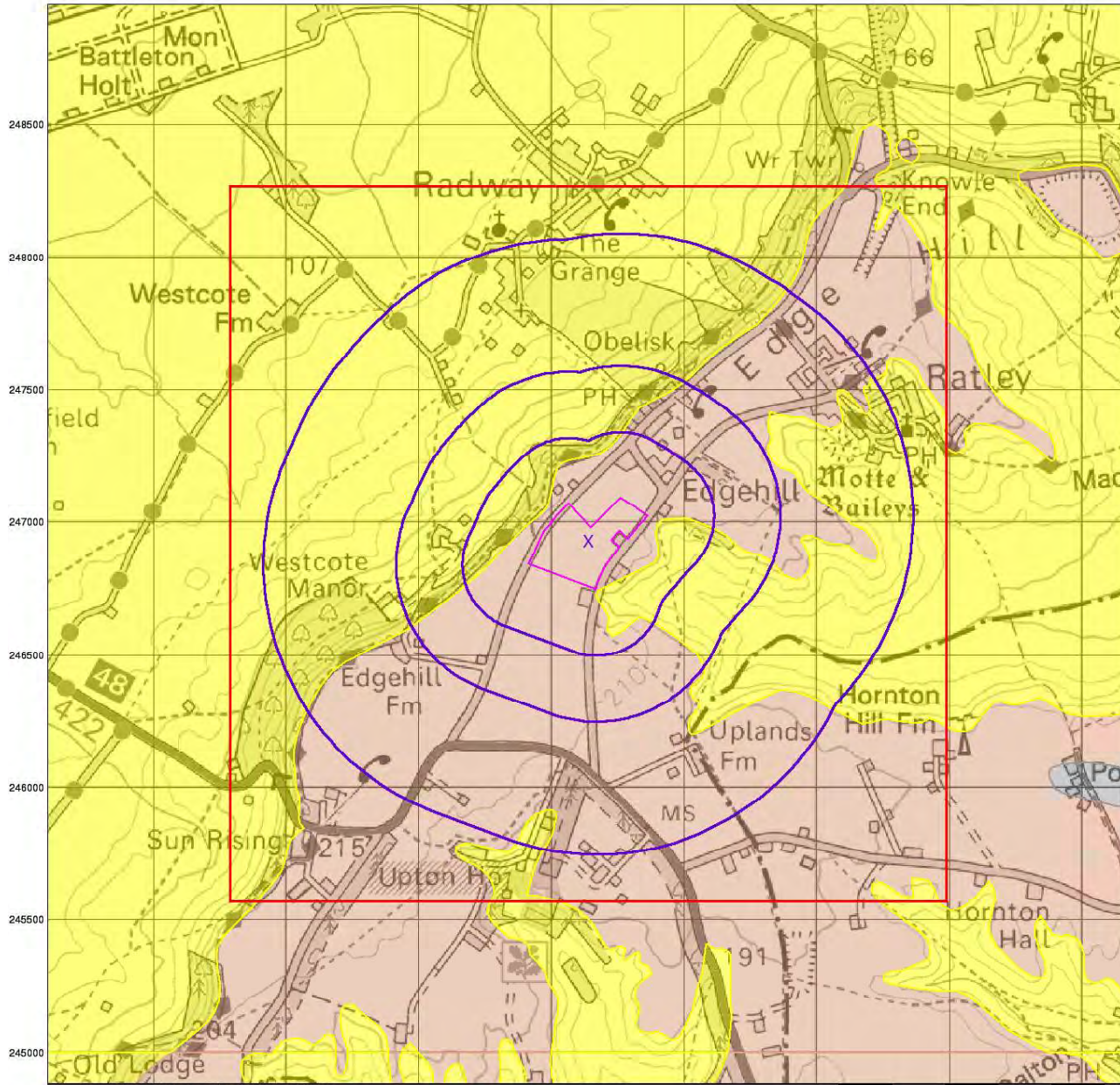
Site Details

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0 1 km



Bedrock Aquifer Designation

General

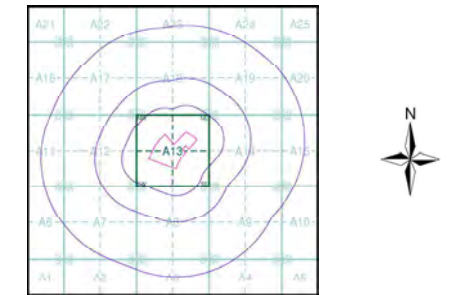
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

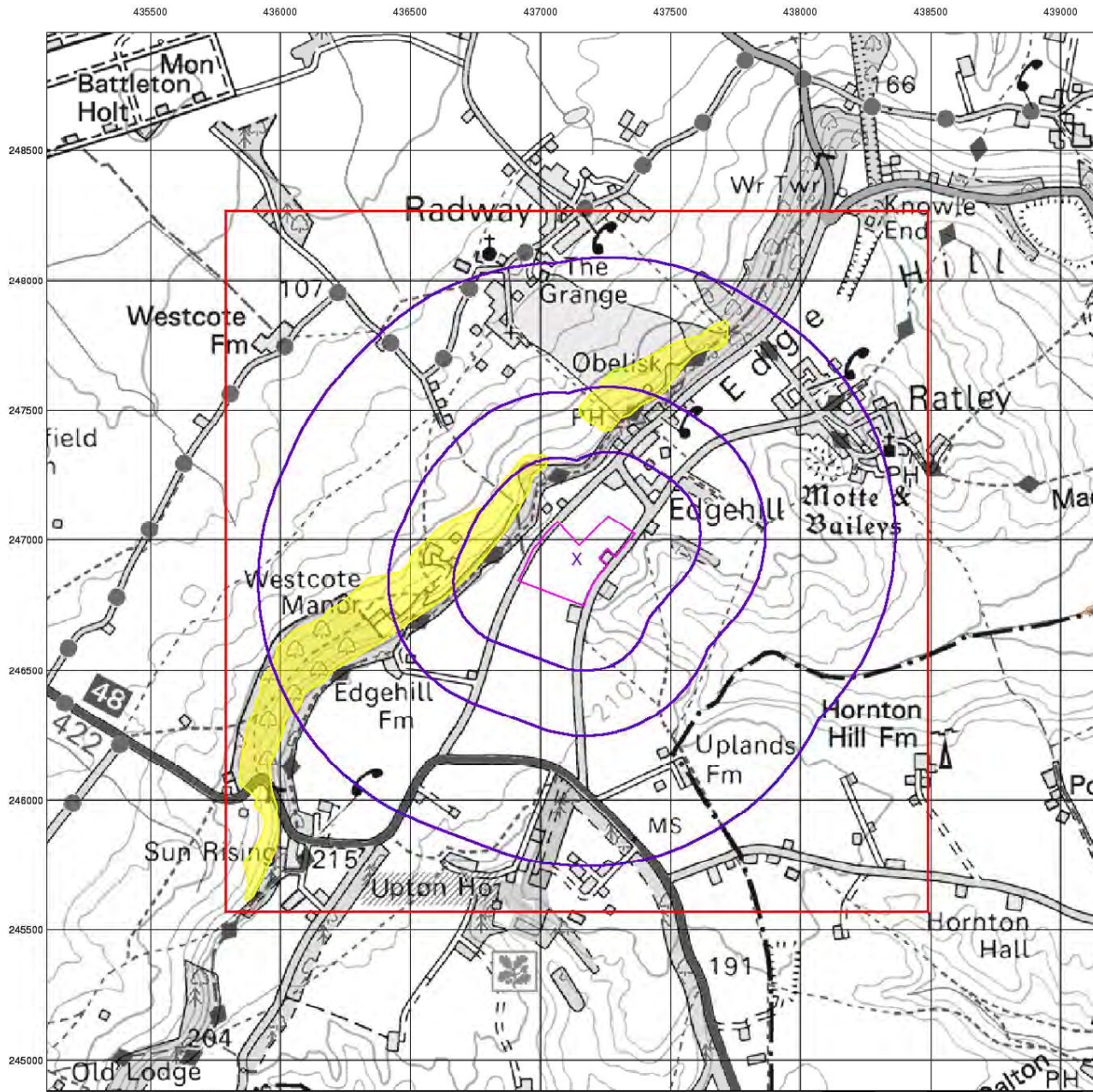
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 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

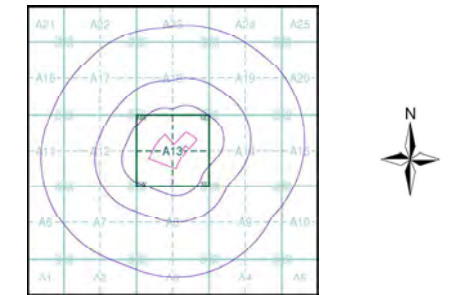
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

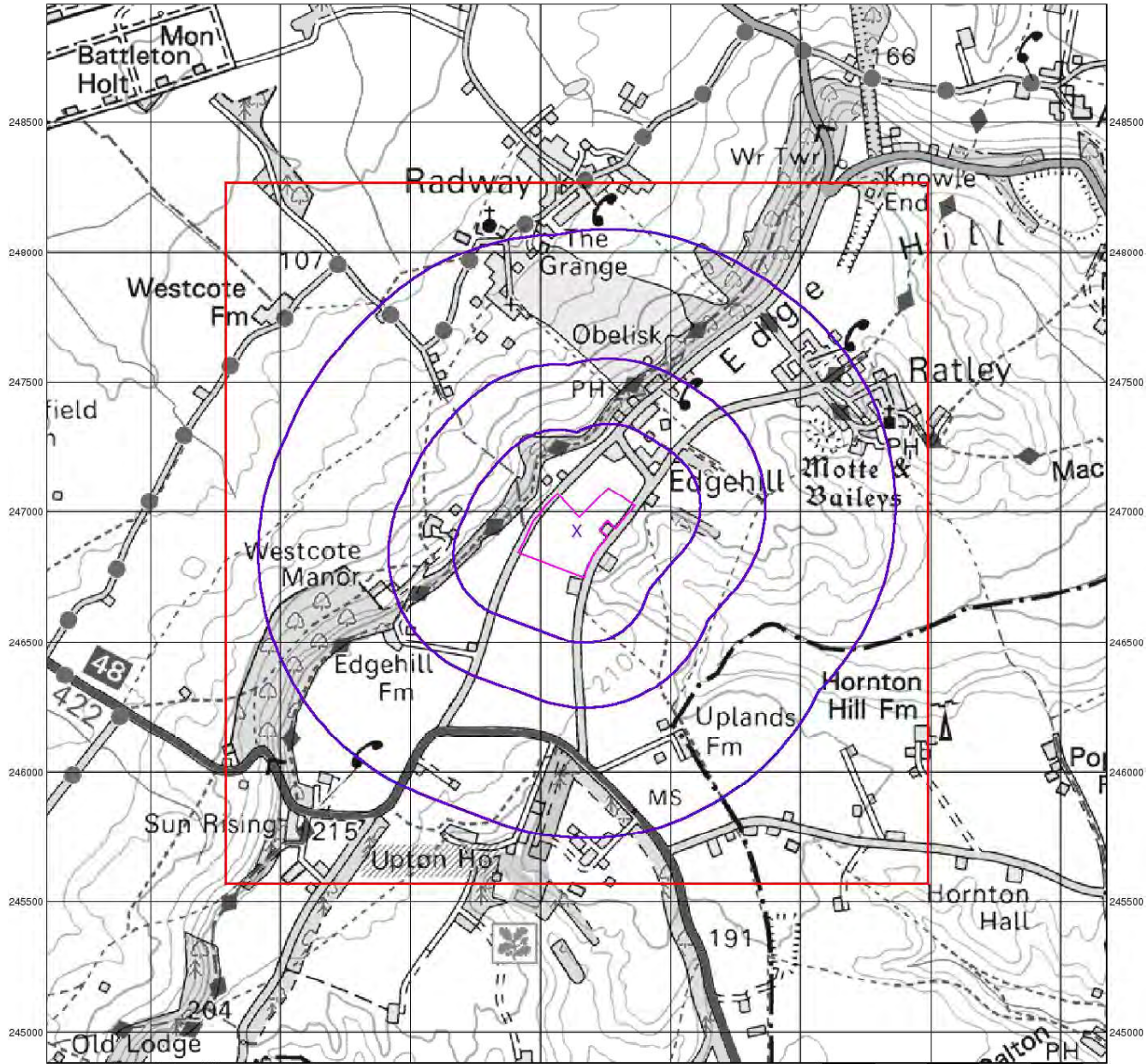
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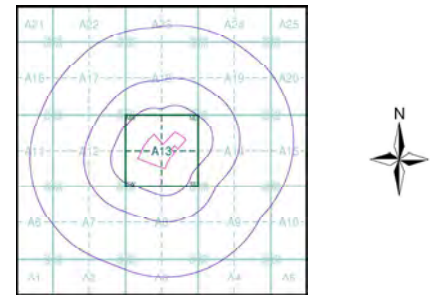
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Source Protection Zones

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Agency and Hydrological**
- Inner zone (Zone 1)
 - Inner zone - subsurface activity only (Zone 1c)
 - Outer zone (Zone 2)
 - Outer zone - subsurface activity only (Zone 2c)
 - Total catchment (Zone 3)
 - Total catchment - subsurface activity only (Zone 3c)
 - Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



Appendix II

Listers Geo Phase 1 Desk Study and Hydrogeological Risk Assessment

Appendix III

Historical Mapping Data (Small Scale) included in Listers Geo Environmental Report

Appendix IV

Historical Mapping Data (Large Scale) included in Listers Geo Environmental Report

Appendix V

Supplementary Hydrogeological Risk Assessment



Eco Baughan 2000 Ltd

Phase 1 Desk Study and Hydrogeological Risk Assessment

**Edgehill Quarry
Edgehill
Banbury
Oxfordshire
OX15 6DH**

**Report No: 19.05.011
June 2019**



DOCUMENT RECORD

Report Title Phase 1 Desk Study and Hydrogeological Risk Assessment Report
Project Address Edgehill Quarry, Edgehill, Banbury, Oxfordshire, OX15 6DH
Project Number 19.05.011
Client Eco Baughan 2000 Ltd

Prepared By

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Checked By

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For and on behalf of ListersGeo, trading name of Listers Geotechnical Consultants Ltd

Issue No	Date	Status
1	27 th June 2019	Draft
2	8 th November 2019	Final

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EXECUTIVE SUMMARY

Project Reference	19.05.011
Site Location	Edgehill Quarry, Edgehill, Banbury, Oxfordshire, OX15 6DH
OS Grid Reference	437140, 246930
Development Proposals	Quarry restoration to accommodate a mixed use development comprising Park Homes for permanent residential use, eco-lodges for recreational use and land set aside for ecological and biodiversity enhancement.
Current Site Usage	The site comprises a former quarry.
Existing Buildings	No permanent structures are present at the site.
Topography	The general area slopes down to the northwest and southeast with the site itself generally flat lying and excavated to approximately 3-4m below its natural elevation.
Vegetation	Minor vegetation of long-standing stockpiles has occurred.
Published Geology	The site is shown to be directly underlain by bedrock of the Marlstone Rock Formation over the Dyrham Formation. It is understood that the majority of the Marlstone Rock Formation will have been excavated during quarry operation.
Site History	The site was undeveloped prior to its use as a quarry since the 1950s. It is understood that quarrying ceased a number of years ago however screening of quarry waste has taken place at the site for the last two years.
Unexploded Ordnance	There is a low potential risk of encountering Unexploded Ordnance (UXO).
Hydrology	The nearest surface watercourse is an unnamed stream that issues from a spring approximately 160m northwest of the site and flows northwestwards.
Hydrogeology	The underlying Marlstone Rock Formation and Dyrham Formation are classified as Secondary Aquifers. There are five groundwater abstraction licences within 1km of the site, however the site is not within a designated Source Protection Zone (SPZ) for potable water supply.
Ground Conditions Encountered	Ironstone of the Marlstone Rock Formation was encountered from ground level to 0.5m and 0.6m bgl over the Dyrham Formation, proven to the base of the boreholes at 10m bgl.
Groundwater Encountered	Groundwater was not encountered during intrusive works however resting water levels of between 9.50m and 9.59m bgl were encountered during subsequent monitoring. It cannot be concluded whether water encountered represents groundwater or infiltrated rainwater at this stage.
Risks to Controlled Waters	There are considered to be no significant risks to Controlled Waters during or following the proposed restoration and redevelopment works.
Recommendations	Groundwater presence and elevation could be confirmed by way of surveying, rising head tests, and additional monitoring, if required. With regard to the Waste Recovery Permit (WRP), consideration should be to recycling facility design, environmental impacts such as dust and noise, and chemical acceptability criteria and sampling frequency. The proposed aftercare programme should include long-term gas monitoring, particularly within proposed residential areas. A Materials Management Plan (MMP) will need to be produced, in accordance with Definition of Waste: Code of Practice (DOWCOP).

This executive summary should be read in conjunction with the main report.

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- Site Location Plan
- Exploratory Hole Location Plan - Existing Site Layout
- Exploratory Hole Location Plan - Proposed Site Layout
- Schematic Geological Cross-Section
- Site Photographs

APPENDIX B – FIELDWORK AND TESTING

- Rotary Borehole Logs
- Groundwater Monitoring Results

APPENDIX C – ENVIROCHECK DESK STUDY INFORMATION

- Site Sensitivity Report
- Geology Report
- Mining and Ground Stability Report
- Historical Ordnance Survey and National Grid Maps

INTRODUCTION

A Phase 1 Desk Study and Hydrogeological Risk Assessment has been undertaken for quarry restoration works and a proposed mixed-use development at Edgehill Quarry, Edgehill, Banbury, Oxfordshire, OX15 6DH. A Site Location Plan is provided in Appendix A. The Ordnance Survey National Grid reference for the approximate centre of the site is 437140, 246930.

Instruction to undertake the works was received in stages, as follows:

- Intrusive works and factual report, instructed verbally by Andrew Baughan of Eco Baughan 2000 Ltd, on 9th May 2019
- Phase 1 Desk Study report, instructed by S B Rice Ltd, on behalf of the client, on 17th May 2019.
- Monitoring works and hydrogeological risk assessment, instructed by S B Rice Ltd, on behalf of the client, on 31st May 2019.

This report describes the desk study and intrusive site investigation activities carried out by ListersGeo in order to provide an evaluation of the ground conditions and hydrogeology of the site.

This report supplements a previous Infiltration Test report prepared by Subadra Consulting Ltd, report number IN19506 CL 001, dated May 2019, and information reported has been relied upon within this report to aid in assessment. This current report should be read in conjunction with the previous report for full details of the investigations undertaken at the site.

This report has been prepared for the sole use of the client and their professional advisors. This report shall not be relied upon by third parties without the express written authority of ListersGeo. If an unauthorised third party comes into possession of this report they must not rely on it and the authors owe them no duty of care and skill.

SCOPE OF THE INVESTIGATION

The scope of the investigation was to undertake a desk study and walkover survey, and provide an assessment of the hydrogeology of the site, with respect to the proposed quarry restoration works and redevelopment scheme.

It is understood that this information is required in support of the planning application for the development. As such, the findings of this report will require approval by the Local Authority as soon as possible to avoid delay to the development.

Following the brief, the report does not include any assessment of the engineering properties of the soils, or risk assessment with respect to the proposed infill materials.

PROPOSALS

It is proposed to infill the existing quarry with 400,000m³ of waste soils, processed at an on-site recycling facility. This is understood to comprise approximately 10,000m³ of site-derived soils currently stockpiles at the site, and 390,000m³ of imported demolition waste and soils.

Following infilling, restoration is proposed to comprise a mixed-use development comprising Park Homes for permanent residential use, eco-lodges for recreational use and land set aside for ecological and biodiversity enhancement. A proposed site layout plan is provided in Appendix A.

SITE INFORMATION AND WALKOVER SURVEY

A walkover survey of the site and its immediate surrounds was undertaken on the 20th May 2019, preceding the fieldwork. A selection of site photographs is presented in Appendix A along with a plan showing the existing site layout annotated with the salient features identified.

The site lies in a mixed residential and rural area and is currently occupied by a former quarry. Access to the site was afforded via the B4086 road to its west.

The site consists of a roughly L-shaped parcel of land, measuring approximately 380m by 260m and covering approximately 7.7 ha in area.

The general topography of the area slopes down to the northwest and southeast with the site itself generally flat lying. The existing quarry is reported to have been excavated to approximately 3-4m below its natural elevation.

The site is bordered by:

Direction	Feature
North	Undeveloped land with occasional commercial properties and residential housing beyond
East	Unnamed road with farmyard and agricultural land beyond
South	Agricultural land
West	B4086 road with agricultural land beyond

The site itself comprised a large, level expanse of open ground surrounded by steep semi-vegetated banks and rock faces, representing a former quarry. Numerous stockpiles of varying sizes were present within the site bounds, some of which comprised unscreened, semi-vegetated quarry waste and others which comprised recently segregated aggregate. A pile of scrap metal was noted to be present in the centre of the site adjacent to the remains of a former bonfire.

In the southwest of the site was a caravan, a shipping container, an above ground red diesel fuel tank, several gas canisters, and segregated piles of waste wood and textiles.

There was a portable office building in the southeast of the site, understood no longer to be in use, alongside a fenced-off area containing various old plant including diggers and HGVs.

Mobile screening plant were located in the northeast and northwest of the site with pallets of ready-packed aggregate of varying sizes along the northwestern boundary.

No obvious evidence of gross contamination or spills was observed at the site, including in the vicinity of the red diesel storage tank.

PREVIOUS WORK

Infiltration testing was previously undertaken by Subadra Consulting Ltd as detailed in letter report number IN19506 CL 001, dated May 2019. The salient points relevant to this report are included here, but the full report should be referred to for more detail.

Soakaway testing, carried out in accordance with the BRE Digest 365 (2016), was undertaken in two trial pits excavated at the site to a depth of 1.0m and 1.2m bgl. It is understood that this was carried out under the supervision of EAS Transport and Planning Ltd, reported to be the drainage consultants for the proposed works.

Ground conditions encountered were reported to comprise a thin layer of dense, light brown, gravelly, very silty sand over weak, red, grey, and brown, weathered mudstone. This was reported to represent Made Ground over the Marlstone Rock Formation but is considered by ListersGeo to be more likely to comprise residual unquarried Marlstone Rock Formation over weathered Dyrham Formation.

Infiltration rates of between 2.8m and 10m per day (3.2×10^{-5} m/s to 1.1×10^{-4} m/s) were reported with rates deteriorating with increased saturation.

DESK STUDY AND BACKGROUND INFORMATION

A desk study review of the site and its history has been undertaken to determine the former land usage and the potential for any historically derived sources of chemical contamination, as well as provide information to aid in assessment.

The information provided in the desk study is obtained from independent third-party sources but no guarantee can be given for the accuracy or completeness of the third-party data used. It should be appreciated that such data is not exhaustive and is constantly being updated and reviewed in light of new information and procedures. Therefore, improved practices, technology, and new information may affect the conclusions and hence this report should be referred back to ListersGeo for reassessment if new data comes to light, or changes in legislation/best practise is identified prior to development. Similarly, should the development commence after expiry of one year from publication of this report, then it is recommended that this report is referred back to ListersGeo for reassessment.

The desk study comprises a review of the following consultations and information sources:

- Environment Agency (EA)
- Natural England
- National Geoscience Information Service
- Public Health England
- Centre for Ecology & Hydrology
- British Geological Survey (BGS)
- Contemporary Trade Directories
- Historical Ordnance Survey maps
- Aerial Imagery
- Unexploded Ordnance (UXO) maps

Information from the above referenced sources has been utilised to develop a conceptual model of the site for use in the hydrogeological risk assessment.

A copy of the desk study information obtained from Landmark is presented in Appendix C of this report.

GEOLOGY

Published Geology

Reference to the British Geological Survey (BGS) 1:50,000 scale map sheet 201 for Banbury, dated 1982, and other published geological information on the area indicates that the site is directly underlain by bedrock geology, the Marlstone Rock Formation over Dyrham Formation of the Jurassic period.

The site itself is understood to have been quarried for the Marlstone Rock Formation and a further separate area of worked out ground is mapped a short distance north of the site.

A schematic geological cross-section of the site surround is provided in Appendix A.

Bedrock

The Marlstone Rock Formation is generally represented by interbedded ferruginous limestone and sandstone. In the site area it is anticipated to be approximately 5-10m in thickness, however approximately 3-4m is understood to have been quarried and only a minimal thickness, left to form the quarry floor, is anticipated to remain.

The Dyrham Formation is generally represented by grey and green grey, silty and sandy, nodular mudstone. Beneath the site it is likely to be in the region of 40m in thickness.

Historical Boreholes

The BGS holds records of exploratory holes historically put down during previous investigations. The records of one historical borehole, located approximately 350m north of the site, has been reviewed to aid in preliminary assessment of the ground conditions.

It encountered red sandy stone to approximately 8m underlain by clay to the base of the borehole at 17.7m below ground level (bgl). It is not reported whether groundwater was encountered.

HISTORY OF THE SITE

The history of the site has been established by reviewing available historical Ordnance Survey and National Grid maps and aerial imagery of the area. This has identified the following:

Time Period	Historical Usage of the Site	Historical usage of the Surrounding Area
1886	The site forms part of two fields with tracks crossing in the south and north of the site.	<p>The site is surrounded predominantly by agricultural fields with the village of Edgehill largely as present day, labelled as 'Ratley Grange'. The roads bounding the site to the east and west are shown in their current position, as is the barn immediately east of the site.</p> <p>A windmill (corn) is located approximately 30m northwest of the site.</p> <p>There are two quarries labelled to the north, with excavations shown to extend from approximately 100m to 400m northeast of the site.</p> <p>A small excavation is also marked approximately 10m west of the site but it is unlabelled.</p> <p>Two small 'old quarries' are shown approximately 760m south and 780m southeast of the site.</p>
1900 - 1905	The tracks are no longer shown.	<p>The quarries 100m northeast of the site are shown to have expanded.</p> <p>The small excavation to the west is labelled as 'Old Quarry'.</p>

Time Period	Historical Usage of the Site	Historical usage of the Surrounding Area
1922 - 1928		The windmill is no longer mapped. Continued quarry expansion is shown to the northeast.
1955	The northern part of the site is shown to form part of the quarry to the north of the site. The south of the site is still shown as undeveloped.	Significant expansion of the quarries in the northeast has occurred to the north, east, and south. The former 'old quarry' 10m west of the site is also shown to have expanded northwards.
1972 - 1993		The village is labelled as 'Edgehill'. The excavation to the west of the site appears to have been infilled and redeveloped to include some small buildings. Partial infilling and redevelopement of the quarry to the northeast is also indicated to have occurred, including residential properties. The small old quarry 760m south of the site appears to have been infilled.
1996	The quarry is shown to have extended southwards and is now covering two thirds of the site. A small building is shown in the north of the site.	The eastern extent of the quarry to the northeast is shown to have been infilled, part of which is labelled to comprise an orchard. Only a small area of excavation remains; labelled as disused. The portion of the quarry immediately north of the site itself is shown to have been infilled.
1999	Aerial imagery indicates the quarry to have extended further southwards, leaving only a narrow strip at the southern end unworked.	
2006	Aerial imagery shows the site with its current boundary.	The portion of the quarry immediately northwest of the site is shown to have been infilled and divided into several small field plots. A large building is present immediately adjacent to the southeastern corner of the site. The small old quarry 780m southeast of the site appears to have been infilled.
2017		Aerial imagery shows an area of parked lorries immediately adjacent to the northwest of the site.
2019	The site is shown with its existing boundary and is labelled as disused workings.	

INTERVIEWS

Dialogue with the current site operator informed that formal quarry operations at the site finished a number of years ago however screening of quarry waste was currently being undertaken and had been for the last two years.

UNEXPLODED ORDNANCE AND BOMB SITES

The Zetica bomb risk map shows that the site is located in an area where there is a low risk of unexploded ordnance. Low-risk regions are those with a bombing density of up to 15 bombs per 1,000 acres and there is a low potential for encountering UXO on the site. Works can normally proceed without any special precautions.

HYDROLOGY

The nearest surface watercourse is an unnamed stream that issues from a spring approximately 160m northwest of the site and flows northwestwards. Further streams issue from springs located 340m north, flowing northward, and 370m west, flowing to the northwest.

The EA's Catchment Data Explorer indicates that the site lies on the western edge of the 'Cherwell' Operational Catchment, with surface water feeding the Sor Brook, approximately 600m southeast of the site. The stretch of the Sor Brook closest to the site has an overall water body classification of 'Poor', as recorded in 2016, due to its ecology.

The Envirocheck data indicates that the site lies outside of any flood impact zones. However, this information does not constitute a site-specific Flood Risk Assessment (FRA), as the results of a site-specific FRA may differ to the information provided in the baseline desk study. It is therefore recommended that further enquiries are made to determine if a site-specific FRA is required to support the planning application/development at the site.

There are no potentially-active surface water abstraction licenses recorded to be located within 1000m of the site.

HYDROGEOLOGY

Information obtained from the EA indicates that the Marlstone Rock Formation is classified as a Secondary A Aquifer and the underlying Dyrham Formation is classified as a Secondary (Undifferentiated) Aquifer.

The aquifer designation data is based on geological mapping provided by the BGS. The maps are divided into two different types of aquifer designation:

- **Superficial (Drift)** - permeable unconsolidated (loose) deposits. For example, sands and gravels.
- **Bedrock** - solid permeable formations e.g. sandstone, chalk and limestone.

For each type there are classifications of Principal, Secondary A and Secondary B Aquifers, and Unproductive Strata, each with a decreasing rank of importance.

There are five records of potentially-active groundwater abstraction licenses located within 1000m of the site. All the abstractions are reported to be for general farming and domestic purposes and comprise wells located 240m southeast and 830m northeast of the site, and three springs located 310m to 410m north.

The Drinking Water Inspectorate (DWI) use the term domestic purposes to mean drinking, cooking, and washing in either domestic or commercial premises. It has therefore conservatively assumed that all of these abstractions may be intended for potable consumption.

According to information provided by the EA the site is outside of any Source Protection Zones (SPZ) for public potable water supply.

WASTE TREATMENT AND LANDFILL SITES

One current and two historical landfill disposal sites are recorded within 1000m of the site. A current and a historical landfill site are reported to have been on the north of the site itself, however may have been adjacent. Information reported about the current landfill indicates that a licence was granted in 1989 to accept brick and concrete rubble and clean soils, however the licence was never used. Another historical landfill site was located on a disused quarry approximately 100m northeast of the site. No further information is held.

Given that the quarry infill material is currently unknown, and hence the possibility of a functioning pathway cannot be discounted, it is considered possible that these landfill sites may pose a significant risk to the subject site, along with the quarry infill itself.

Reference to records from the BGS, the EA and the Local Authority indicates that there are no waste transfer, treatment, or management facilities within 1000m of the site area.

ENVIRONMENTAL PERMITS, INCIDENTS AND REGISTERS

There has been one recorded pollution incident to controlled waters within 1000m of the site; concerning a minor spillage of oils approximately 120m northeast of the site in January 1999.

There are no Integrated Pollution Control (IPC) licenses, Local Authority or Integrated Pollution Prevention and Control (IPPC) licenses within 2000m of the site.

There are two records of potentially-active discharge licenses located within 1000m of the site, as follows:

- One relating to a domestic property, approximately 590m northwest of the site, discharging treated sewage effluent to a tributary of the Radway Brook.
- One relating to the National Trust property, Upton House, approximately 950m south of the site, discharging treated sewage effluent to groundwater.

INDUSTRIAL USAGE SITES

There are two past or present trade directory entries that have been identified up to 250m from the site. These comprise an inactive and an active haulage company located at the same address approximately 80m north of the site.

The nearest active fuel filling station is identified to be in excess of 1km from the site.

The site was formerly used as a quarry. Contaminants associated with this usage may include fuels and oils resulting from spills or leaks from plant or plant refuelling.

WORKED OUT GROUND/MADE GROUND

Worked out ground is recorded at the site itself and from immediately north of the site, approximately 10m west of the site, from approximately 100m to 400m northeast of the site, approximately 760m south of the site and 780m southeast of the site. Evidence of infilling in these areas is shown for all of these areas with the exception of a small area approximately 180m northeast of the site.

RADON GAS

Desk study information indicates that the site lies within an area where more than 30% of homes exceed the action level of 200 Bq/m³ for radon gas. In accordance with BR 211, 'Radon: guidance on protective measures for new dwellings', full radon protection measures are therefore reported to be necessary in the construction of new dwellings or extensions on this site.

POTENTIAL GEOTECHNICAL HAZARDS

Geological

The risk of naturally occurring geotechnical hazards at the site is recorded in the Envirocheck report to be as follows:

Ground Stability Hazard	Hazard Potential	Potential Risk Strata
Landslides	Low to Moderate	Dyrham Formation
Shrinking and swelling clays	Low	Dyrham Formation
Collapsible deposits	Very Low	
Ground dissolution from soluble rocks	No Hazard	
Running sand	No Hazard	
Compressible deposits	No Hazard	

A potential risk also exists of gulls and cambering of the Marlstone Rock Formation over the Dyrham Formation on the valley sides.

Mining

The desk study information identified that the site does not lie within an area likely to be affected by coal mining or non-coal mining.

Natural Cavities

There is a record of natural cavities approximately 480m southwest of the site, reported as gulls/fissures, associated with the Marlstone Rock Formation.

BACKGROUND SOIL CHEMISTRY

Information from the BGS is provided in the following table listing the background soil chemistry of some commonly occurring inorganic elements in the natural soils in the site area:

Contaminant	Level in Rural Soil (mg/kg)
Arsenic	60 - >120
Cadmium	<1.8
Chromium	20 - >180
Lead	<100
Nickel	80 - >100

These concentrations indicate potentially elevated arsenic, nickel, and chromium concentrations in the area and that the concentration of arsenic in locally-derived soils, potentially proposed for infill, is likely to exceed published Generic Assessment Criteria (GAC) for a residential site.

POTENTIALLY SENSITIVE LAND USES

The site is located within the Cotswolds Area of Outstanding Natural Beauty (AONB) and within three broad nitrate vulnerable zones. Additionally, an area of Ancient Woodland extends from 50m northwest of the site.

No further potentially sensitive land uses are located within 500m of the site.

CONCEPTUAL SITE MODEL

A preliminary qualitative risk assessment has been carried out using the source-pathway-receptor principle to create a Conceptual Site Model (CSM). It is understood that the development proposals are to infill the existing quarry to accommodate a mixed-use development comprising Park Homes (conservatively assumed to include private gardens), eco-lodges for recreational use, and land set aside for ecological and biodiversity enhancement.

Potential sources of contamination and potential receptors have been assessed using the Contaminated Land Exposure Assessment (CLEA) Guidelines. This takes into account the fact that a complete pathway must exist between a potential source of contamination and a potential receptor for there to be considered a risk.

POTENTIAL SOURCES OF CONTAMINATION

The results of the desk study and walkover indicate that the following potential sources of contamination are present at, or in close proximity, to the site:

Soil/Groundwater

- On-site fill
- Former on-site and adjacent quarrying operations, including fuels and oils
- Elevated naturally-elevated arsenic concentrations

Ground Gas

- On-site proposed infilling operations (approximately 3-5m in thickness)
- Historical landfilling operations, immediately adjacent to the northwest and approximately 100m northeast of the site
- Naturally-generated radon gas

POTENTIAL RECEPTORS

The following receptors have been identified at or in close proximity of the site:

Human Health – Long Term Exposure

- End users of the site - the future residents and visitors
- Surrounding residents

Human Health – Short Term Exposure

- Construction workers

Controlled Waters

- Groundwater of the underlying and adjacent Marlstone Rock Formation (Secondary A Aquifer)

- Groundwater of the underlying Dyrham Formation (Secondary Undifferentiated Aquifer)
- Surface water of the unnamed stream, 160m northwest of the site

Infrastructure

- Buried substructures
- Water supply pipes

POTENTIAL PATHWAYS

It is considered that the following potential pathways may exist between the potential sources and receptors identified above.

Human Health

- Direct soil ingestion in areas of exposed soil
- Ingestion of soil attached to home-grown fruit and vegetables
- Ingestion of fruit and vegetables with contamination uptake
- Inhalation of indoor and outdoor gases, vapours, and/or dust
- Dermal contact with contaminated soil

Controlled Waters

- Migration of contaminants through the unsaturated zone
- Migration of contaminants through the groundwater
- Movement of contaminants through drains or services runs

Infrastructure

- Leachable or corrosive contaminants within the soil
- Leachable or corrosive contaminants within the groundwater

PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT

Based on the desk study research and the walkover survey, the following potentially-complete pollutant linkages have been assessed, both during and following restoration and development:

Source	Pathway	Receptor	Complete Linkage Potential
Potentially impacted soils and groundwater <i>- including Made Ground, arsenic, and hydrocarbons</i>	Ingestion - in areas of exposed soil or attached to and/or contained within homegrown produce	End users of the site - the future residents and visitors	Possible - risk dependant on contaminants in imported material.
		Construction workers	
		Surrounding residents	Unlikely, due to distance of receptors from site.
	Inhalation - indoor and outdoor gases, dusts, and/or vapours	End users of the site - the future residents and visitors	Possible - risk dependant on contaminants in imported material.
		Construction workers	
		Surrounding residents	
	Dermal contact - with areas of exposed soil and wind-blown dusts	End users of the site - the future residents and visitors	Possible - risk dependant on contaminants in imported material.
		Construction workers	
		Surrounding residents	
	Direct contact - corrosive contaminants with infrastructure	Buried substructures	Possible - risk dependant on contaminants in imported material.
Water supply pipes			
Migration of contaminants through the unsaturated zone, groundwater, or service runs	Groundwater – underlying Secondary Aquifers	Unlikely, based on likely low permeability strata and distance to known potable abstraction points.	
	Surface water – Unnamed stream - 160m NW		
Ground Gas	Migration of contaminants through the unsaturated zone or service runs	End users of the site - the future residents and visitors	Possible, given reported radon risk and nearby landfill sites.
		Construction workers	Unlikely, due to outdoor dispersion.
		Surrounding residents	Unlikely as a result of site.

GEOTECHNICAL CONCEPTUAL SITE MODEL

It is understood that Park Homes and single storey eco-lodges are proposed at the site. These are likely to place minimal loadings and shallow foundations are likely to be sufficient. Consideration should be made, however, to the potential for variable settlement of the infilled material with regard to foundations and service runs and flexible materials made be required.

Access roads across areas of infilled ground will need to be constructed on suitably compacted coarse-grained fill and be of an appropriate minimum pavement construction thickness as it is likely that it will be considered frost susceptible.

Given that the quarry is dry to a depth of approximately 3-5m bgl, it is unlikely that groundwater will flood excavations and/or affect stability during groundworks.



If Sustainable Drainage Systems (SuDS) are to be installed it may be pertinent to ensure that sufficient coarse-grained infill material is placed in their vicinity in order to facilitate infiltration.

EXPLORATION AND TESTING

Three rotary boreholes were drilled at the site on 20th and 21st May 2019.

The positions of all exploratory holes undertaken at the site as part of this investigation can be seen on the Exploratory Hole Location Plans in Appendix A and the logs are provided in Appendix B.

The exploratory excavations were surveyed using a handheld GPS device to the nearest 5m. Elevations have not been provided.

SAMPLING STRATEGY

The investigation was undertaken in accordance with the scope of works agreed with the client's representative, S B Rice Ltd. The positions of the exploratory holes were selected by ListersGeo to form a triangle across the site.

METHODOLOGY

Although the site forms the base of a quarry, as a precaution, the proposed locations were scanned using a Cable Avoidance Tool prior to commencement of intrusive works in order to minimise the dangers from/to unrecorded buried services and a service avoidance pit was dug, using insulated hand tools, to a depth of around 1.2m bgl.

Boreholes, RO1 to RO3, were drilled utilising an openhole technique with a Beretta 44 rotary rig, at a diameter of 115mm, to a depth of 10m bgl. Metal casing was extended to a depth of 3m bgl in each of the boreholes, to avoid the collapse of the looser deposits within the upper part of the boreholes. Air mist flush was used in order to enable groundwater strikes to be recorded. On completion, all three of the boreholes were installed as monitoring wells with 50mm diameter slotted uPVC standpipe from 1.0m to 10.0m bgl. The slotted section of the standpipe was surrounded with pea gravel and sealed with expansive bentonite above and below. The standpipes were finished with raised stopcock covers.

Subsequent groundwater monitoring was undertaken on one occasion following the intrusive work.

Conclusions given in this report are based on data obtained from these sources but it should be noted that variations, which affect these conclusions, may inevitably occur between and beyond the test locations.

GROUND CONDITIONS

The intrusive investigation revealed that the general succession of strata was represented by a layer of Marlstone Rock Formation overlying the Dyrham Formation to the full depth of the investigation at 10m bgl.

The Ground Model for the site is as follows:

MARLSTONE ROCK FORMATION

The Marlstone Rock Formation was encountered at each borehole location from ground level to 0.5m and 0.6m bgl, with an average thickness of 0.57m and comprised ironstone (drillers description).

DYRHAM FORMATION

The Marlstone Rock Formation was encountered at each borehole location from either 0.5m or 0.6m bgl to the base of the borehole at 10m bgl, and comprised highly weathered, orange and grey, silty clay (drillers description).

GROUNDWATER

Groundwater was not encountered in any of the boreholes during the intrusive work down to 10m bgl, for the short time that the holes were open.

Subsequent monitoring carried out as part of the project recorded standing groundwater levels of between 9.50m and 9.59m bgl. As this equates to a minimal thickness of water in the standpipe it cannot be concluded that this represents the groundwater itself and may instead be a result of rainwater that has infiltrated into the monitoring well and was unable to drain away.

It is not possible to infer hydraulic gradient or groundwater flow direction due to lack of topographical elevation data.

CONTAMINATION

Soil

No obvious olfactory or visual evidence of soil contamination was observed during intrusive work.

Groundwater

No obvious olfactory or visual evidence of groundwater contamination was observed during monitoring.

HYDROGEOLOGICAL RISK ASSESSMENT

The following quantitative risk assessment has been carried out using the source-pathway-receptor principle. This takes into account the fact that a complete linkage must exist between a potential source of contamination and a potential receptor for there to be considered a risk.

The potential Controlled Waters receptors assessed at the site are:

- Groundwater of the underlying and adjacent Marlstone Rock Formation (Secondary A Aquifer)
- Groundwater of the underlying Dyrham Formation (Secondary Undifferentiated Aquifer)
- Surface water of the unnamed stream, 160m northwest of the site

The preliminary environmental risk assessment indicated that there were unlikely to be complete linkages with any of the identified potential Controlled Waters receptors.

During subsequent investigation, groundwater was not encountered during intrusive works and only in minimal quantities at the base of the boreholes during subsequent monitoring (at 9.5m bgl approximately 0.3m from the base of the monitoring wells). As such, based on this single monitoring visit, it is not possible to conclude whether this water was representative of a groundwater body or rainwater that has infiltrated into the monitoring well and not been able to drain away.

The following points have been made on the conservative assumption that the water encountered does indeed represent groundwater.

- The site is located on a topographical high of c.215m above Ordnance Datum (AOD) natural ground level (some 50m higher than the surrounding area), formed by the underlying Dyrham Formation (see cross-section in Appendix A). This infers a quarry floor elevation of c.210m AOD and approximate encountered water level of c.200m AOD. Given its protrusion above the surrounding area and underlying geology, it is likely that any groundwater encountered within the monitoring wells, and therefore the Dyrham Formation, would have represented a perched rather than continuous groundwater body.
- Nearby groundwater abstractions are located at a significantly lower elevation (well to southeast at c.180m AOD and springs to northwest at c.160-175m AOD), likely to be towards the base of the Dyrham Formation or underlying Charmouth Mudstone Formation, as are all of the nearby watercourses (Sor Brook to southeast at c.175m AOD and springs to northwest at c.160-175m AOD). This indicates that the continuous water table is likely to rest at 160-175m AOD; approximately 35-50m below the existing quarry floor and 40-55m below the likely final site levels following restoration.
- The presence of a perched water body some 25-45m above the continuous water table indicates that the geology is of low permeability and a pathway to the continuous groundwater body is unlikely to be present. This is supported by the infiltration rate in the order of 10^{-5} m/s recorded by Subadra (2019).

- Recycled material used to infill the site, be it imported or site-derived, will likely be subject to acceptance criteria with regard to human health as a minimum, as required by the regulators. This will mean that concentrations of potential contaminants are likely to be relatively low.
- Given the distance to continuous groundwater and the likely low concentrations of contaminants, any potential contaminants introduced through infilling operations are therefore unlikely to reach the aquifer in significant quantities, if at all. Regardless of groundwater flow direction, potential contaminants are therefore even less likely to reach the ultimate receptors of the groundwater abstractions and nearby surface water bodies over 160m from the site.

Given the above assessment, it is considered that during or following restoration and redevelopment of the site there is unlikely to be a significant risk to Controlled Waters in the vicinity of the site.

Irrespective of this, it would be pertinent to construct the on-site recycling facility in such a way to minimise impacts prior to confirmation of its acceptability for re-use including, but not restricted to, construction on an impermeable membrane protected by an appropriately thick layer of soil and graded towards bunded water collection sumps, as appropriate, in accordance with best practice procedures.

Evidence that the restoration activities have not adversely affected the environment is likely to be required as part of the Waste Recovery Permit (WRP) required for restoration operations with details of how pollution reduction is to be achieved required for the initial application process.

REGULATORY APPROVAL

The findings of this assessment will require approval by the Local Authority and Environment Agency prior to any development taking place in order to minimise delay, should further assessment or precautions during restoration be requested.

RECOMMENDATIONS

Although groundwater levels beneath the site were not confirmed, the findings of the investigation indicate that there is unlikely to be a significant risk to nearby Controlled Waters during or following restoration and redevelopment works.

Should further confirmation of groundwater presence and elevation be required, further siteworks are advised to comprise rising head testing, elevation surveying, and additional groundwater level monitoring of all three of the monitoring wells, particularly during wetter seasons when groundwater levels would be expected to rise.

With respect to the restoration activities, infilling is proposed to total 400,000m³ and as such a Bespoke WRP will be required for the operations. As part of the application process and overall operation of the scheme, details of the site construction and operating procedures will be required along with a management plan regarding reduction of pollution risks, in accordance with EA guidance (EPB2, 2018). It is therefore recommended that when preparing these documents, the following aspects are considered:

- Recycling facility design to minimise impacts from soils prior to confirmation of their acceptability for re-use, such as a bunded construction on an impermeable membrane protected by an appropriately thick layer of soil and graded towards bunded water collection sumps, as appropriate.
- Potential impacts of dust and noise on the surrounding residents and environment and possible positioning of environmental monitoring points around the recycling facility and site itself in order to minimise impact to the site surrounds.
- Sampling frequency and site-specific acceptability thresholds for the key contaminants to be tested, protective of human health and controlled waters, in order to prove their acceptability. These will need to be agreed with the regulators. It should be noted that it may be possible to zone the site with regard to acceptability criteria, with land set aside for ecological enhancement and deeper soils requiring less stringent criteria than the residential area, in order to widen the importation opportunities.
- The proposed aftercare monitoring programme designed to confirm both that the site has been returned to a satisfactory state and that the restoration is fit for purpose, in accordance with the WRP. This is recommended to include long-term gas monitoring in the residential areas, particularly in the vicinity of the Park Homes.

In addition to the above, a Materials Management Plan (MMP) will need to be produced to document the proposed material movements, in line with the Definition of Waste: Code of Practice (DOWCOP).

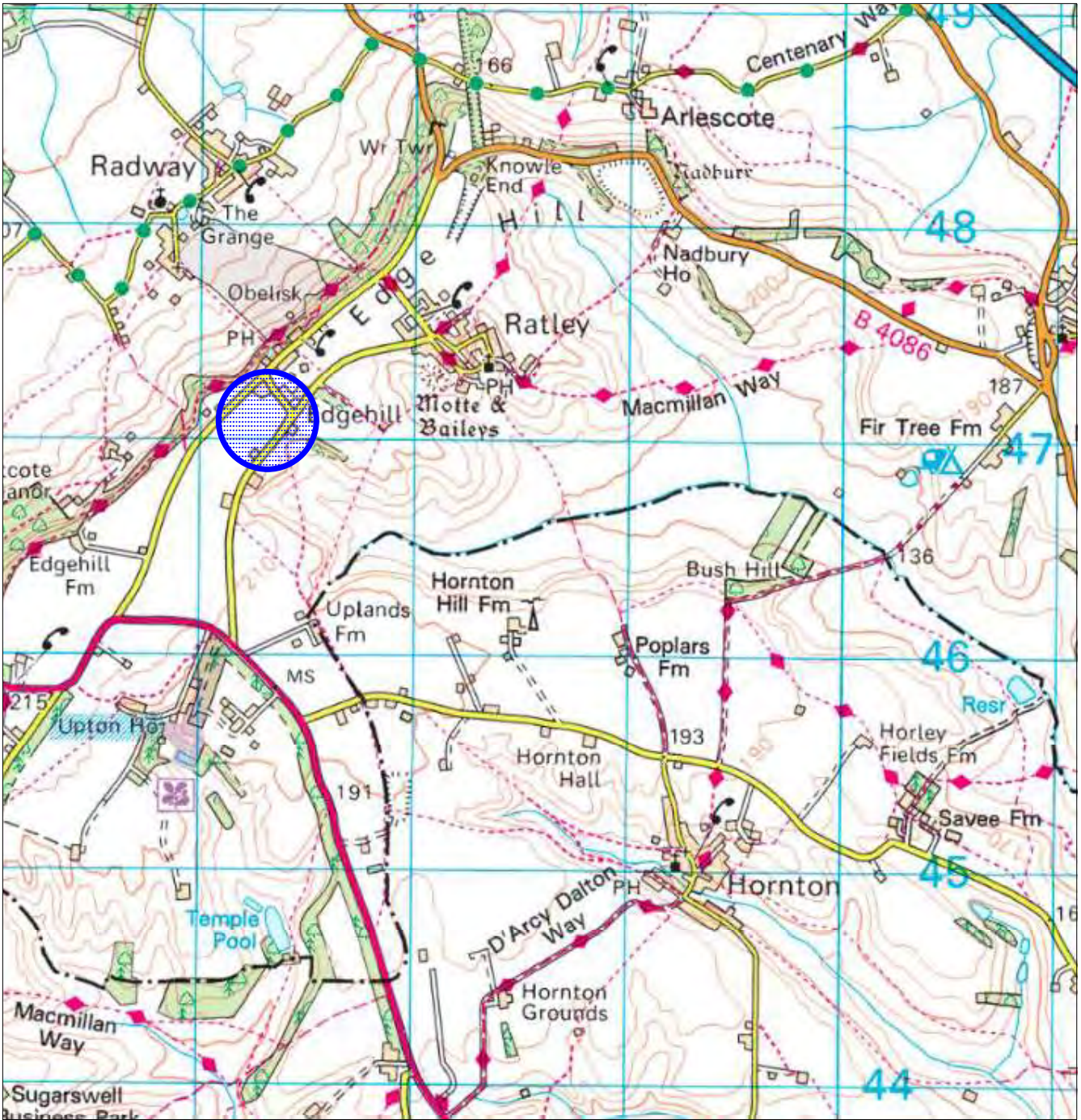
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APPENDIX A PLANS AND PHOTOGRAPHS

Extract of 1:50,000 Ordnance Survey Explorer Map



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Key:  Approximate Site Location



Listers Geotechnical Consultants Ltd www.listersgeotechnics.co.uk Tel: 01327 860060

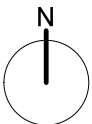
Title: Site Location Plan

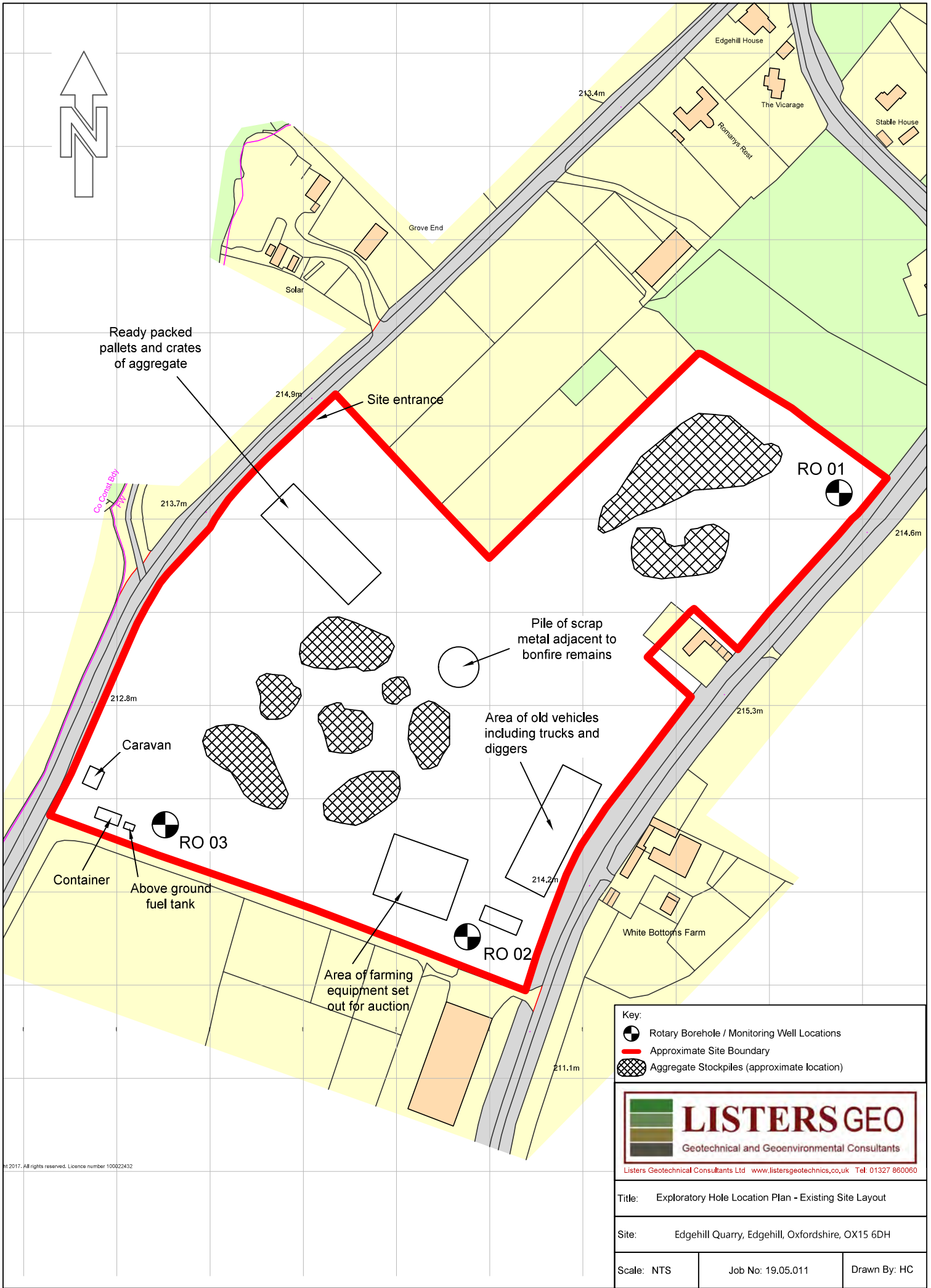
Site: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Scale: NTS

Job No: 19.05.011

Drawn By: HC





Ready packed pallets and crates of aggregate

Site entrance

RO 01




Pile of scrap metal adjacent to bonfire remains

Area of old vehicles including trucks and diggers

RO 03

RO 02

Area of farming equipment set out for auction

- Key:
-  Rotary Borehole / Monitoring Well Locations
 -  Approximate Site Boundary
 -  Aggregate Stockpiles (approximate location)



LISTERS GEO
Geotechnical and Geoenvironmental Consultants

Listers Geotechnical Consultants Ltd www.listersgeotechnics.co.uk Tel: 01327 860060

Title: Exploratory Hole Location Plan - Existing Site Layout

Site: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Scale: NTS	Job No: 19.05.011	Drawn By: HC
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Key:
 ● Rotary Borehole / Monitoring Well Locations
 — Approximate Site Boundary



Title: Exploratory Hole Location Plan - Proposed Site Layout
 Site: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH
 Scale: NTS Job No: 19.05.011 Drawn By: HC

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View of site entrance from centre of site (view to northwest)



View across site from southern site boundary with parked trucks in right of view (view to northeast)



Typical condition of excavation boundary (view of northeastern corner and



Typical condition of existing quarry floor



Caravan and fuel tank in southwestern corner (view to west)



Farming equipment set out for auction with southern boundary beyond (view to south)



Stockpiles of screened materials in centre of site



Packed pallets of screened aggregate in northwest of site (view to northwest)



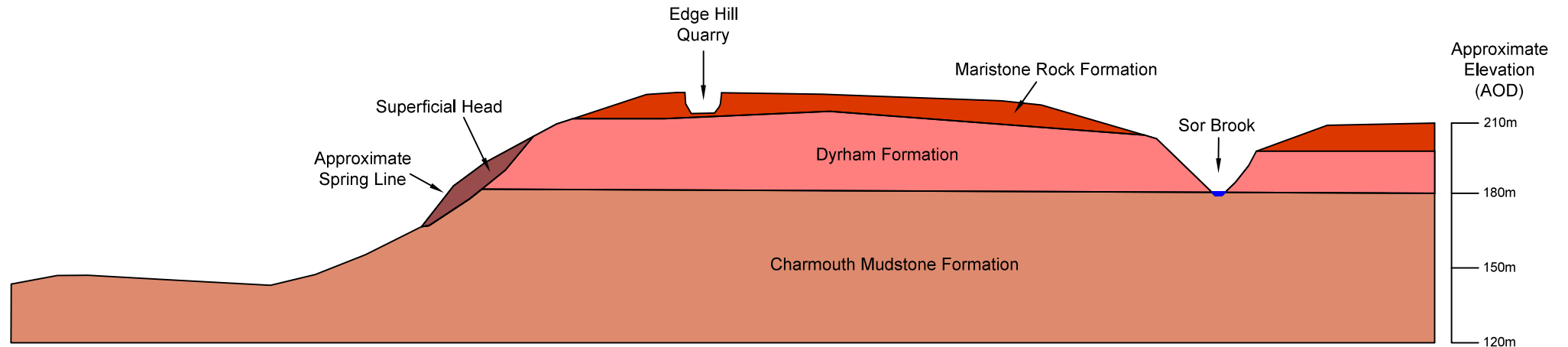
Segregated waste in southwest of site with fuel tank in right of view (view to south)



Stockpile of waste metal in centre of site with bonfire remains adjacent (view to north)

NW

SE



N.B. Not to scale. Vertical exaggeration approximately x3



Listers Geotechnical Consultants Ltd www.listersgeotechnics.co.uk Tel: 01327 860060

Title: Schematic Geological Cross-Section

Site: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Scale: NTS

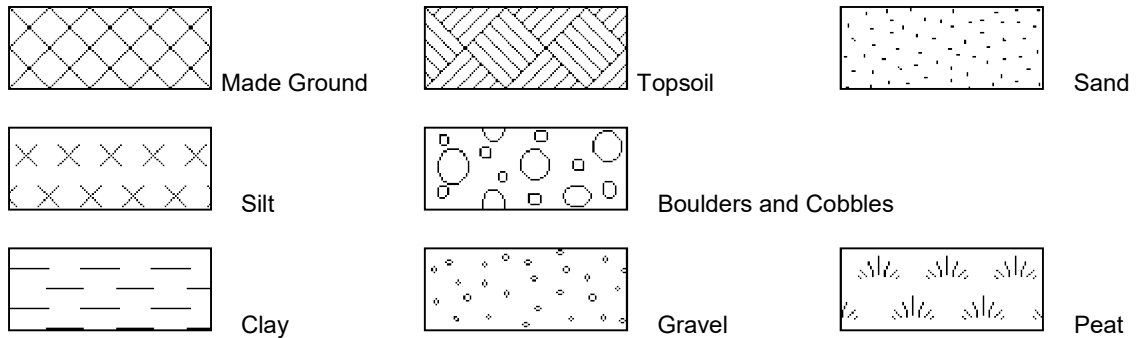
Job No: 19.05.011

Drawn By: HC

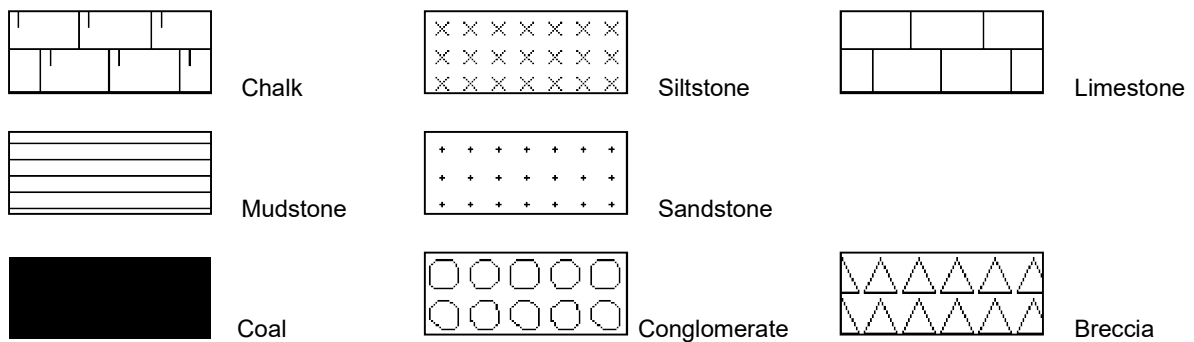


APPENDIX B FIELDWORK AND TESTING



LEGEND - Soils



LEGEND - Rocks (Sedimentary)



LOG ABBREVIATIONS

W	Water Sample		Water Strike
B	Bulk Sample		Water (Standing Level)
D	Disturbed Sample	PP	Pocket Penetrometer
J	Jar Sample	HV	Hand Vane
U	Undisturbed Sample	SPT	Standard Penetration Test
(No. of blows shown in brackets for U100 samples)		CPT	Cone Penetration Test
WAC	Waste Acceptance criteria Sample	CBR	California Bearing Ratio
		*	Extrapolated Value

Pocket penetrometer testing provides values of unconfined compressive strength. The results have been converted to an approximate equivalent shear strength which should be used with due circumspection. As the pocket penetrometer tends to overestimate shear strength, we have used an appropriate reduction factor.

LOG KEY



Rotary Borehole Log

Borehole No.

RO 01

Project Location: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Co-ords: 436330E - 247020N

Project Number:
19.05.011

Level: N/A

Logged By:

Dates: 20/05/2019

Jane Taylor
to BS 5930:2015

Well	Water Strikes	Depth (m)	Samples and Testing		Coring (%)			Depth (m)	Level (m)	Legend	Stratum Description
			Type	Result	TCR	SCR	RQD				
								0.60			MARLSTONE ROCK FORMATION Ironstone (drillers description)
								10.00			DYRHAM FORMATION Orange and grey silty CLAY. Highly weathered (drillers description)
End of Borehole at 10.00m											

Rig Type: Beretta T44
Borehole Diameter: 115mm
Instrumentation: Standpipe installed to 10.0m
Groundwater: None encountered
Remarks: Co-ordinates provided to nearest 5m

Flushing Medium: Air/Mist
Casing Depth: GL to 3m bgl





Rotary Borehole Log

Borehole No.

RO 02

Project Location: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Co-ords: 437140E - 246780N

Project Number:
19.05.011

Level: N/A

Logged By:

Dates: 21/05/2019

Jane Taylor
to BS 5930:2015

Well	Water Strikes	Depth (m)	Samples and Testing		Coring (%)			Depth (m)	Level (m)	Legend	Stratum Description
			Type	Result	TCR	SCR	RQD				
								0.60			MARLSTONE ROCK FORMATION Ironstone (drillers description)
											DYRHAM FORMATION Orange and grey silty CLAY. Highly weathered (drillers description)
								10.00			End of Borehole at 10.00m

Rig Type: Beretta T44
Borehole Diameter: 115mm
Instrumentation: Standpipe installed to 10.0m bgl
Groundwater: None encountered
Remarks: Co-ordinates provided to nearest 5m
Flushing Medium: Air/Mist
Casing Depth: GL to 3m bgl





Rotary Borehole Log

Borehole No.
RO 03

Project Location: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Co-ords: 436960E - 246845N

Project Number:
19.05.011

Level: N/A

Logged By:
Jane Taylor
to BS 5930:2015

Dates: 21/05/2019

Well	Water Strikes	Depth (m)	Samples and Testing		Coring (%)			Depth (m)	Level (m)	Legend	Stratum Description
			Type	Result	TCR	SCR	RQD				
1								0.50			MARLSTONE ROCK FORMATION Ironstone (drillers description)
								10.00			DYRHAM FORMATION Orange and grey silty CLAY. Highly weathered (drillers description)
End of Borehole at 10.00m											

<p>Rig Type: Beretta T44</p> <p>Borehole Diameter: 115mm</p> <p>Instrumentation: Standpipe installed to 10.0m bgl</p> <p>Groundwater: None encountered</p> <p>Remarks: Co-ordinates provided to nearest 5m</p>	<p>Flushing Medium: Air/Mist</p> <p>Casing Depth: GL to 3m bgl</p>
---	--



Project: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Date: 05/06/2019

Recorded by: RC

Equipment: Dip-meter

Groundwater monitoring

Hole ID	Ground level (m aOD)	Water depth (m bgl)	Water level (m aOD)	Depth of well base (m bgl)	Remarks
RO1	-	9.50	-	9.74	Top of standpipe = 0.25m above ground level
RO2	-	9.51	-	9.87	Top of standpipe = 0.48m above ground level
RO3	-	9.59	-	9.90	Top of standpipe = 0.40m above ground level

SUMMARY OF GROUNDWATER MONITORING - 05 Jun 19

Report No.
19.05.011



APPENDIX C

ENVIROCHECK DESK STUDY INFORMATION

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

204401007_1_1

Customer Reference:

19.05.011a

National Grid Reference:

437140, 246930

Slice:

A

Site Area (Ha):

7.65

Search Buffer (m):

1000

Site Details:

Edgehill Quarry

Edgehill

BANBURY

OX15 6DH

Client Details:

Mrs J Taylor

Listers Geotechnical Consultants Ltd

Slapton Hill Barn

Blakesley Road

Slapton

Towcester

Northants

NN12 8QD

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	11
Hazardous Substances	-
Geological	13
Industrial Land Use	19
Sensitive Land Use	20
Data Currency	21
Data Suppliers	27
Useful Contacts	28

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				4
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 2		Yes		
Pollution Incidents to Controlled Waters	pg 2		1		
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 2				4
River Quality	pg 3				1
River Quality Biology Sampling Points	pg 3				1
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 4		1	3	1 (*8)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 7	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 8		1	2	19

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 11	1	1		
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage		2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 11		3		1
Potentially Infilled Land (Water)					
Registered Landfill Sites	pg 12	1			
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 13	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 13	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 15		7	5	2
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities	pg 17			1	
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 17	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 17	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 18		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 18		Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 18	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 18	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 19		2		1
Fuel Station Entries					
Points of Interest - Commercial Services	pg 19		1		
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 19	1	2		1
Points of Interest - Public Infrastructure	pg 19				2
Points of Interest - Recreational and Environmental					
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 20		2		2
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty	pg 20	1			
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 20	3			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	0	1	437139 246928
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	111	1	436900 247050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (W)	126	1	436850 247000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	129	1	436800 246928
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	149	1	436850 247050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	170	1	436800 247000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	181	1	436850 247100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	282	1	436700 247050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	308	1	436650 247000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	320	1	436600 246928
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	361	1	437200 247450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	366	1	437150 247450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	411	1	437200 247500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	415	1	436500 246900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	416	1	437150 247500
1	Discharge Consents Operator: Mr & Mrs J Cave-Brown-Cave Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: An Stp Serving Sunnyside Sunnyside, King John'S Lane, Radway, Worcestershire, Cv35 0bt Authority: Environment Agency, Midlands Region Catchment Area: Mid Avon Catchment Reference: S/13/26526/S Permit Version: 1 Effective Date: 13th July 2005 Issued Date: 13th July 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Trib(Ditch) Radway Bk Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	587	2	436630 247460

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: The National Trust For Places Of Historic Interest Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Upton House near Edge Hill Warwickshire Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cawm.1027 Permit Version: 2 Effective Date: 21st December 2012 Issued Date: 21st December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 100m	A3NW (S)	950	2	437100 245800
2	Discharge Consents Operator: The National Trust For Places Of Historic Interest Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Upton House near Edge Hill Warwickshire Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cawm.1027 Permit Version: 1 Effective Date: 13th December 2004 Issued Date: 11th January 2005 Revocation Date: 20th December 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A3NW (S)	950	2	437100 245800
2	Discharge Consents Operator: The National Trust Property Type: SPORT, AMUSEMENT+RECREATION/GOLF CLUB/GYM/THEME PK/SPA Location: Upton House, Edge Hill, Warks Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTCU.0904 Permit Version: 1 Effective Date: 23rd October 1979 Issued Date: 23rd October 1979 Revocation Date: 13th December 2004 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Broken Ironstone Strata Status: Consent revoked or revised: New Consent issued (Section 37(1)) Positional Accuracy: Located by supplier to within 100m	A3NW (S)	950	2	437100 245800
	Nearest Surface Water Feature	A13NW (NW)	157	-	436885 247104
3	Pollution Incidents to Controlled Waters Property Type: Not Given Location: EDGEHILL Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed incident Incident Date: 30th January 1999 Incident Reference: THWE1999042197 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	117	2	437300 247200
4	Registered Radioactive Substances Name: Avonvale Veterinary Group (Could Be Avonvale Veterinary Practice Ltd) Location: Ratley Lodge, Ratley, Banbury, Ox15 6dt Authority: Environment Agency, Thames Region Permit Reference: Bv4746 Dated: Not Supplied Process Type: Not Supplied Description: Not Supplied Status: Application has been determined by the EA Positional Accuracy: Automatically positioned to the address	A19SE (NE)	775	2	438019 247433

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Registered Radioactive Substances Name: Avonvale Veterinary Group (Could Be Avonvale Veterinary Practice Ltd) Location: Ratley Lodge, Ratley, Banbury, Ox15 6dt Authority: Environment Agency, Thames Region Permit Reference: Bh8373 Dated: Not Supplied Process Type: Not Supplied Description: Not Supplied Status: Application has been determined by the EA Positional Accuracy: Automatically positioned to the address	A19SE (NE)	775	2	438019 247433
4	Registered Radioactive Substances Name: Avonvale Veterinary Group Location: Ratley Lodge, Ratley, BANBURY, Oxfordshire, OX15 6DT Authority: Environment Agency, Thames Region Permit Reference: Bw8496 Dated: 1st December 2003 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to an authorisation under S13 or S14 RSA in respect of a registration under S7 when Technetium 99M is used being =< 10 gigabecquerels Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A19SE (NE)	795	2	438060 247405
4	Registered Radioactive Substances Name: Avonvale Veterinary Group Location: Ratley Lodge, Ratley, BANBURY, Oxfordshire, OX15 6DT Authority: Environment Agency, Thames Region Permit Reference: Bh8667 Dated: 19th April 2000 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA in respect of a registration under S7 when Technetium 99M is used being =< 10 gigabecquerels Status: Authorisation superseded by a new application Positional Accuracy: Automatically positioned to the address	A19SE (NE)	796	2	438060 247405
	River Quality Name: Sor Bk GQA Grade: River Quality B Reach: Source - Bloxham Bk Estimated Distance (km): 22.7 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A9NE (SE)	805	2	437980 246505
5	River Quality Biology Sampling Points Name: Sor Brook Reach: Source To Bloxham Brook Estimated Distance: 22.70 Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Biology GQA Grade B - Good Year: 1995 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2000 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2002 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2003 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2004 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2005 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2006 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2007 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2008 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2009 GQA Grade: River Quality Biology GQA Grade A - Very Good	A9NE (SE)	803	2	437990 246520

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	<p>Water Abstractions</p> <p>Operator: Mr M K L Grasby Licence Number: 28/39/14/0171 Permit Version: 100 Location: Whitebottoms Farm, Ratley (A) Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 2 Yearly Rate (m3): 827 Details: Middle Lias; Status: Revoked; Lapsed Or Cancelled Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th February 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A13SE (SE)	235	2	437400 246700
7	<p>Water Abstractions</p> <p>Operator: The Trustees Of Major M J P Starky Licence Number: 18/54/13/0037 Permit Version: 101 Location: Ratley Grange - Spring (2) Authority: Environment Agency, Midlands Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ratley Grange Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 14th August 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	313	2	437300 247400
8	<p>Water Abstractions</p> <p>Operator: The Trustees Of Major M J P Starky Licence Number: 18/54/13/0038 Permit Version: 101 Location: Ratway Grange - Underground Spring Authority: Environment Agency, Midlands Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ratway Grange Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 14th August 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SW (N)	335	2	437100 247400
9	<p>Water Abstractions</p> <p>Operator: The Trustees Of Major M J P Starky Licence Number: 18/54/13/0037 Permit Version: 101 Location: Ratley Grange - Spring (1) Authority: Environment Agency, Midlands Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ratley Grange Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 14th August 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	413	2	437300 247500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Water Abstractions Operator: Mr & Mrs J P Thorne Licence Number: 28/39/14/0007 Permit Version: 100 Location: Grange Farm, Ratley (A) Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 2 Yearly Rate (m3): 863 Details: Grange Farm, Ratley Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th July 1968 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	829	2	438100 247400
	Water Abstractions Operator: R I Hall Licence Number: 28/39/14/0166 Permit Version: Not Supplied Location: Glebe Farm, HORLEY Authority: Environment Agency, Thames Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: River Daily Rate (m3): 682 Yearly Rate (m3): 22730 Details: Status: Revoked; Lapsed Or Cancelled Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1669	2	439000 246700
	Water Abstractions Operator: Upton Farm Licence Number: 28/39/14/0303 Permit Version: 101 Location: Upton Estate, Banbury, Oxon Spring R Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton House Estate, Banbury, Oxon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1853	2	437300 244900
	Water Abstractions Operator: Upton Farm Licence Number: 28/39/14/0303 Permit Version: 101 Location: Upton Estate - C Authority: Environment Agency, Thames Region Abstraction: Household Water Supply: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton House Estate, Banbury, Oxon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1853	2	437300 244900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: J Rees, N Samuel & The Alliance Assurance Licence Number: 28/39/14/0303 Permit Version: 100 Location: Upton Estate, Banbury, Oxon Spring R Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton Estate, Banbury, Oxon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th December 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1853	2	437300 244900
	Water Abstractions Operator: J Rees, N Samuel & The Alliance Assurance Licence Number: 28/39/14/0303 Permit Version: 100 Location: Upton Estate, Banbury, Oxon Spring R Authority: Environment Agency, Thames Region Abstraction: Household Water Supply: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton Estate, Banbury, Oxon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th December 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1853	2	437300 244900
	Water Abstractions Operator: R B Waley-Cohen & Trustees Of The Bearsted Settlement Licence Number: 18/54/13/0151 Permit Version: 101 Location: Sun Rising, Warwickshire - Spring Authority: Environment Agency, Midlands Region Abstraction: Private Water Undertaking: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton House Estate, Warwickshire Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 4th August 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1SW (SW)	1885	2	435700 245400
	Water Abstractions Operator: R B Waley-Cohen, The Hon. Mrs R B Licence Number: 18/54/13/0151 Permit Version: 100 Location: Sun Rising, Warwickshire - Spring Authority: Environment Agency, Midlands Region Abstraction: Private Water Undertaking: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton House Estate, Warwickshire Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 28th March 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1SW (SW)	1885	2	435700 245400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: F Spencer Licence Number: 28/39/14/0164 Permit Version: Not Supplied Location: Poplars Farm, HORNTON Authority: Environment Agency, Thames Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 2 Yearly Rate (m3): 372 Details: Status: Revoked; Lapsed Or Cancelled Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(SE)	1967	2	439100 246100
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: <300 mm/year Baseflow Index: >70% Superficial: <90% Patchiness: Superficial <3m Thickness: Superficial No Data Recharge:	A13NE (N)	0	3	437139 247000
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: <300 mm/year Baseflow Index: >70% Superficial: <90% Patchiness: Superficial <3m Thickness: Superficial No Data Recharge:	A13NW (W)	0	3	437000 246928
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: <300 mm/year Baseflow Index: >70% Superficial: <90% Patchiness: Superficial <3m Thickness: Superficial No Data Recharge:	A13NE (NE)	0	3	437139 246928
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (NE)	0	3	437139 246928
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
11	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1308.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13NW (NW)	157	4	436885 247104
12	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 260.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18SE (N)	338	4	437185 247418
13	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 432.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12NE (W)	368	4	436573 246976
14	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 6.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Sor Brook Catchment Name: Thames Primacy: 1	A9NW (SE)	601	4	437647 246384
15	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 318.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Sor Brook Catchment Name: Thames Primacy: 1	A9NW (SE)	607	4	437653 246382
16	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 717.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Sor Brook Catchment Name: Thames Primacy: 1	A9NE (SE)	703	4	437894 246561
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12SW (W)	744	4	436212 246599
18	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 9.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12SW (W)	750	4	436204 246604

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18NW (N)	753	4	436897 247800
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 444.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A19NW (NE)	755	4	437585 247771
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 144.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12SW (W)	757	4	436195 246608
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 325.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12NW (W)	782	4	436193 247141
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18NW (N)	821	4	436897 247870
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 400.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11SE (W)	835	4	436091 246708
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 70.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18NW (N)	851	4	436907 247903
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 208.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A19NW (NE)	923	4	437656 247924
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11NE (W)	946	4	435991 247044

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11NE (W)	951	4	435988 247051
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 286.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11NE (W)	953	4	435986 247055
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 482.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11SE (W)	957	4	435981 246630
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A23SE (N)	988	4	437272 248077
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A23SE (N)	989	4	437271 248078

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Historical Landfill Sites Licence Holder: Not Supplied Location: Edgehill Name: Stone Quarry Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD28744 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: 385	A13NE (NE)	0	2	437201 247013
34	Historical Landfill Sites Licence Holder: Not Supplied Location: Edgecombe, Edgehill Name: Disused Quarry Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD28743 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: S70	A13NE (E)	104	2	437467 247029
	Local Authority Landfill Coverage Name: Stratford On Avon District Council - Has supplied landfill data		0	5	437139 246928
	Local Authority Landfill Coverage Name: Warwickshire County Council - Had landfill data but passed it to the relevant environment agency		0	6	437139 246928
	Local Authority Landfill Coverage Name: Cherwell District Council - Has supplied landfill data		609	7	437654 246380
	Local Authority Landfill Coverage Name: Oxfordshire County Council - Has supplied landfill data		609	8	437654 246380
35	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NW (NW)	3	-	437013 247018
36	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NE (NE)	60	-	437417 247048
37	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NE (NE)	117	-	437425 247127
38	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A8SW (S)	720	-	436981 246053

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	<p>Registered Landfill Sites</p> <p>Licence Holder: C & W Knight Licence Reference: 385 Site Location: Edge Hill Quarry, Kineton, Warwick, Warwickshire Licence Easting: 437200 Licence Northing: 247050 Operator Location: Fenny Compton, LEAMINGTON SPA, Warwickshire, CV3 30XT Authority: Environment Agency - Midlands Region, Lower Severn Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence not applicable (never used)Under Review Dated: 1st October 1989 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Accuracy: Not Applicable Authorised Waste: Brick & Concrete Rubble Clean Uncontam. Soil</p>	A13NE (NE)	0	2	437156 246960

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lias Group	A13NE (NE)	0	1	437139 246928
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: >120 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: >180mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: >100 mg/kg	A13NE (NE)	0	1	437139 246928
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 60 - 120 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: >180mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 80 - 100 mg/kg	A13SE (SE)	15	1	437229 246767
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 120 - 180 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 60 - 80 mg/kg	A13NW (NW)	127	1	436889 247073
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 60 - 120 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: >180mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 60 - 80 mg/kg	A13NW (W)	135	1	436839 247000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NW (NW)	181	1	436842 247099
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 120 - 180 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A13SE (SE)	236	1	437437 246750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 120 - 180 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 45 - 60 mg/kg Concentration:	A13NW (NW)	246	1	436812 247155
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 120 - 180 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 60 - 80 mg/kg Concentration:	A18SE (N)	328	1	437249 247417
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A18SE (N)	346	1	437223 247432
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 45 - 60 mg/kg Concentration:	A12NE (W)	383	1	436567 247000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 45 - 60 mg/kg Concentration:	A14SE (E)	747	1	438000 246632
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 60 - 120 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium >180mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 80 - 100 mg/kg Concentration:	A8SW (S)	851	1	437004 245913

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A23SE (N)	911	1	437139 248000
40	BGS Recorded Mineral Sites Site Name: Edge Hill Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 4560 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A13NE (N)	23	1	437180 247040
41	BGS Recorded Mineral Sites Site Name: The Grove Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245970 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	33	1	436980 247024
42	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 10562 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	218	1	437439 247236
43	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245968 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	225	1	437390 247274
43	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245972 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	250	1	437412 247290

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245976 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	250	1	437412 247290
43	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245973 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	252	1	437412 247293
44	BGS Recorded Mineral Sites Site Name: Ratley Leys Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 10563 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	239	1	437550 247170
45	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245971 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	334	1	437446 247368
45	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245969 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	336	1	437444 247372
45	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245974 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	337	1	437447 247371

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
45	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245975 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	337	1	437447 247371
46	BGS Recorded Mineral Sites Site Name: Upton House Location: Edge Hill, Banbury, Warwickshire Source: British Geological Survey, National Geoscience Information Service Reference: 39610 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A8SW (S)	761	1	436970 246013
47	BGS Recorded Mineral Sites Site Name: Hornton Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 39603 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	784	1	437658 246136
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Natural Cavities Easting: 437500 Northing: 247500 Distance: 475 Quadrant Reference: A19 Quadrant Reference: SW Bearing Ref: NE Cavity Type: Gulls/Fissures due to Cambering Solid Geology Detail: Lias Group, Lias Group, Lias Group Superficial Geology No Details Detail:	A19SW (NE)	475	9	437500 247500
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	21	1	437229 246767
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	72	1	437291 246797
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	87	1	437441 246984
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	137	1	436928 247130
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	146	1	437283 246656
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	178	1	437377 246717
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	127	1	436889 247073
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	437229 246767
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	111	1	436920 247075
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	131	1	436970 247155
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	136	1	436893 247079
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SE (W)	143	1	436782 246905
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	156	1	436938 247158
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (W)	162	1	436771 246914
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Higher probability radon area (more than 30% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Radon Potential - Radon Protection Measures Protection Measure: Full radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	Contemporary Trade Directory Entries Name: M F Sabin Location: Grove End, Edgehill, Banbury, Oxfordshire, OX15 6DH Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	81	-	437087 247146
48	Contemporary Trade Directory Entries Name: A C Services Banbury Ltd Location: Grove End, Edgehill, Banbury, OX15 6DH Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	85	-	437086 247150
49	Contemporary Trade Directory Entries Name: Alan Parker Location: Office, Green Grounds Cottages, Upton House Est, Upton, Banbury, Oxfordshire, OX15 6HL Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SE (SW)	928	-	436661 245946
50	Points of Interest - Commercial Services Name: A C Services Banbury Ltd Location: Grove End, Edgehill, Banbury, OX15 6DH Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (N)	85	10	437086 247150
51	Points of Interest - Manufacturing and Production Name: Stone Quarry Location: OX15 Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A13SW (SW)	0	10	437113 246906
52	Points of Interest - Manufacturing and Production Name: Quarry (Stone) Location: OX15 Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	24	10	437192 247053
53	Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: OX15 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A14NW (NE)	196	10	437504 247158
54	Points of Interest - Manufacturing and Production Name: J V White & Sons Location: Upton, Banbury, OX15 6HJ Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A9SW (SE)	654	10	437482 246173
55	Points of Interest - Public Infrastructure Name: Graveyard Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	772	10	436815 247796
55	Points of Interest - Public Infrastructure Name: Graveyard Location: CV35 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	772	10	436815 247796

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	Ancient Woodland Name: Not Supplied Reference: 1410751 Area(m ²): 43373.18 Type: Plantation on Ancient Woodland	A13NW (NW)	47	11	436953 247017
57	Ancient Woodland Name: Not Supplied Reference: 1410752 Area(m ²): 32120.95 Type: Plantation on Ancient Woodland	A13NW (NW)	74	11	437001 247106
58	Ancient Woodland Name: Knowle End Wood Reference: 1107784 Area(m ²): 193125.69 Type: Plantation on Ancient Woodland	A19SW (NE)	514	11	437536 247523
59	Ancient Woodland Name: Not Supplied Reference: 1410750 Area(m ²): 61652.74 Type: Plantation on Ancient Woodland	A7NW (SW)	551	11	436436 246569
60	Areas of Outstanding Natural Beauty Name: Cotswolds Multiple Areas: N Total Area (m2): 2041091141.36 Designation Date: 30th August 1966 Source: Natural England	A13NE (NE)	0	11	437139 246928
61	Nitrate Vulnerable Zones Name: Cherwell (Ray To Thames) And Woodeaton Brook Nvz Description: Surface Water Source: Environment Agency, Head Office	A13NE (NE)	0	3	437139 246928
62	Nitrate Vulnerable Zones Name: River Avon (To Confluence With River Severn) Nvz Description: Surface Water Source: Environment Agency, Head Office	A13NE (N)	0	3	437139 246950
63	Nitrate Vulnerable Zones Name: Balscote Description: Groundwater Source: Environment Agency, Head Office	A13NE (NE)	0	3	437139 246928

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Stratford-on-Avon District Council - Environmental Services Cherwell District Council - Environmental Health Department	April 2014 October 2014	Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Midlands Region Environment Agency - Thames Region	January 2019 January 2019	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Midlands Region Environment Agency - Thames Region	March 2013 March 2013	Annual Rolling Update Annual Rolling Update
Integrated Pollution Controls Environment Agency - Midlands Region Environment Agency - Thames Region	October 2008 October 2008	Variable Variable
Integrated Pollution Prevention And Control Environment Agency - Midlands Region Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region	January 2019 January 2019 January 2019	Quarterly Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Stratford-on-Avon District Council - Environmental Health Department Cherwell District Council - Environmental Health Department	August 2014 October 2014	Variable Variable
Local Authority Pollution Prevention and Controls Stratford-on-Avon District Council - Environmental Health Department Cherwell District Council - Environmental Health Department	August 2014 October 2014	Annual Rolling Update Not Applicable
Local Authority Pollution Prevention and Control Enforcements Stratford-on-Avon District Council - Environmental Health Department Cherwell District Council - Environmental Health Department	August 2014 October 2014	Variable Variable
Nearest Surface Water Feature Ordnance Survey	January 2019	
Pollution Incidents to Controlled Waters Environment Agency - Midlands Region Environment Agency - Thames Region	December 1999 September 1999	Not Applicable Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Midlands Region Environment Agency - Thames Region	July 2015 March 2013	Annual Rolling Update Annual Rolling Update
Prosecutions Relating to Controlled Waters Environment Agency - Midlands Region Environment Agency - Thames Region	March 2013 March 2013	Annual Rolling Update Annual Rolling Update
Registered Radioactive Substances Environment Agency - Midlands Region Environment Agency - Thames Region	June 2016 June 2016	
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - West Area	January 2019 January 2019 January 2019 January 2019	Quarterly Quarterly Quarterly Quarterly

Agency & Hydrological	Version	Update Cycle
Water Abstractions Environment Agency - Midlands Region Environment Agency - Thames Region	January 2019 January 2019	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Midlands Region Environment Agency - Thames Region	October 2017 October 2017	Quarterly Quarterly
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	Annually
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	January 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2019	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2019	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2019	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2019	Quarterly
Flood Defences Environment Agency - Head Office	February 2019	Quarterly
OS Water Network Lines Ordnance Survey	January 2019	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability Environment Agency - Head Office	October 2013	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	July 2018	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Midlands Region Environment Agency - Thames Region	October 2008 October 2008	Not Applicable Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - West Area	July 2018 July 2018 July 2018 July 2018	Quarterly Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - West Area	January 2019 January 2019 January 2019 January 2019	Quarterly Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Cherwell District Council - Environmental Health Department Oxfordshire County Council Stratford-on-Avon District Council Warwickshire County Council	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Cherwell District Council - Environmental Health Department Oxfordshire County Council Stratford-on-Avon District Council Warwickshire County Council	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - Thames Region - West Area	March 2003 March 2003 March 2003	Not Applicable Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - Thames Region - West Area	March 2003 March 2003 March 2003	Not Applicable Not Applicable Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - Thames Region - West Area	March 2003 March 2003 March 2003	Not Applicable Not Applicable Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Cherwell District Council Oxfordshire County Council Stratford-on-Avon District Council Warwickshire County Council	February 2016 February 2016 February 2016 July 2007	Variable Variable Variable Annual Rolling Update
Planning Hazardous Substance Consents Cherwell District Council Oxfordshire County Council Stratford-on-Avon District Council Warwickshire County Council	February 2016 February 2016 February 2016 July 2007	Variable Variable Variable Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2019	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	April 2019	Quarterly
Fuel Station Entries Catalist Ltd - Experian	May 2019	Quarterly
Gas Pipelines National Grid	July 2014	
Points of Interest - Commercial Services PointX	November 2018	Quarterly
Points of Interest - Education and Health PointX	November 2018	Quarterly
Points of Interest - Manufacturing and Production PointX	November 2018	Quarterly
Points of Interest - Public Infrastructure PointX	November 2018	Quarterly
Points of Interest - Recreational and Environmental PointX	November 2018	Quarterly
Underground Electrical Cables National Grid	December 2015	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	August 2018	Bi-Annually
Areas of Adopted Green Belt Cherwell District Council Stratford-on-Avon District Council	March 2019 March 2019	As notified As notified
Areas of Unadopted Green Belt Cherwell District Council Stratford-on-Avon District Council	March 2019 March 2019	As notified As notified
Areas of Outstanding Natural Beauty Natural England	August 2018	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	March 2019	Bi-Annually
Marine Nature Reserves Natural England	January 2018	Bi-Annually
National Nature Reserves Natural England	August 2018	Bi-Annually
National Parks Natural England	April 2017	Bi-Annually
Nitrate Vulnerable Zones Environment Agency - Head Office Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December 2017 October 2015	Bi-Annually
Ramsar Sites Natural England	April 2019	Bi-Annually
Sites of Special Scientific Interest Natural England	March 2019	Bi-Annually
Special Areas of Conservation Natural England	August 2018	Bi-Annually
Special Protection Areas Natural England	April 2019	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Stratford-on-Avon District Council Elizabeth House, Church Street, Stratford Upon Avon, Warwickshire, CV37 6HX	Telephone: 01789 267575 Fax: 01789 260808 Website: www.stratford.gov.uk
6	Warwickshire County Council PO Box 43, Shire Hall, Warwick, Warwickshire, CV34 4SX	Telephone: 01926 410410 Website: www.warwickshire.gov.uk
7	Cherwell District Council - Environmental Health Department Bodicote House, Bodicote, Banbury, Oxfordshire, OX15 4AA	Telephone: 01295 252535 extn 4511 Fax: 01295 270028 Website: www.cherwell-dc.gov.uk
8	Oxfordshire County Council County Hall, New Road, Oxford, Oxfordshire, OX1 1ND	Telephone: 01865 792422 Fax: 01865 810106 Email: environmental.services@oxfordshire.gov.uk Website: www.oxfordshire.gov.uk
9	Peter Brett Associates Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN	Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk
10	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
11	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

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

Mrs J Taylor, Listers Geotechnical Consultants Ltd, Slapton Hill Barn, Blakesley Road, Slapton, Towcester, Northants, NN12 8QD

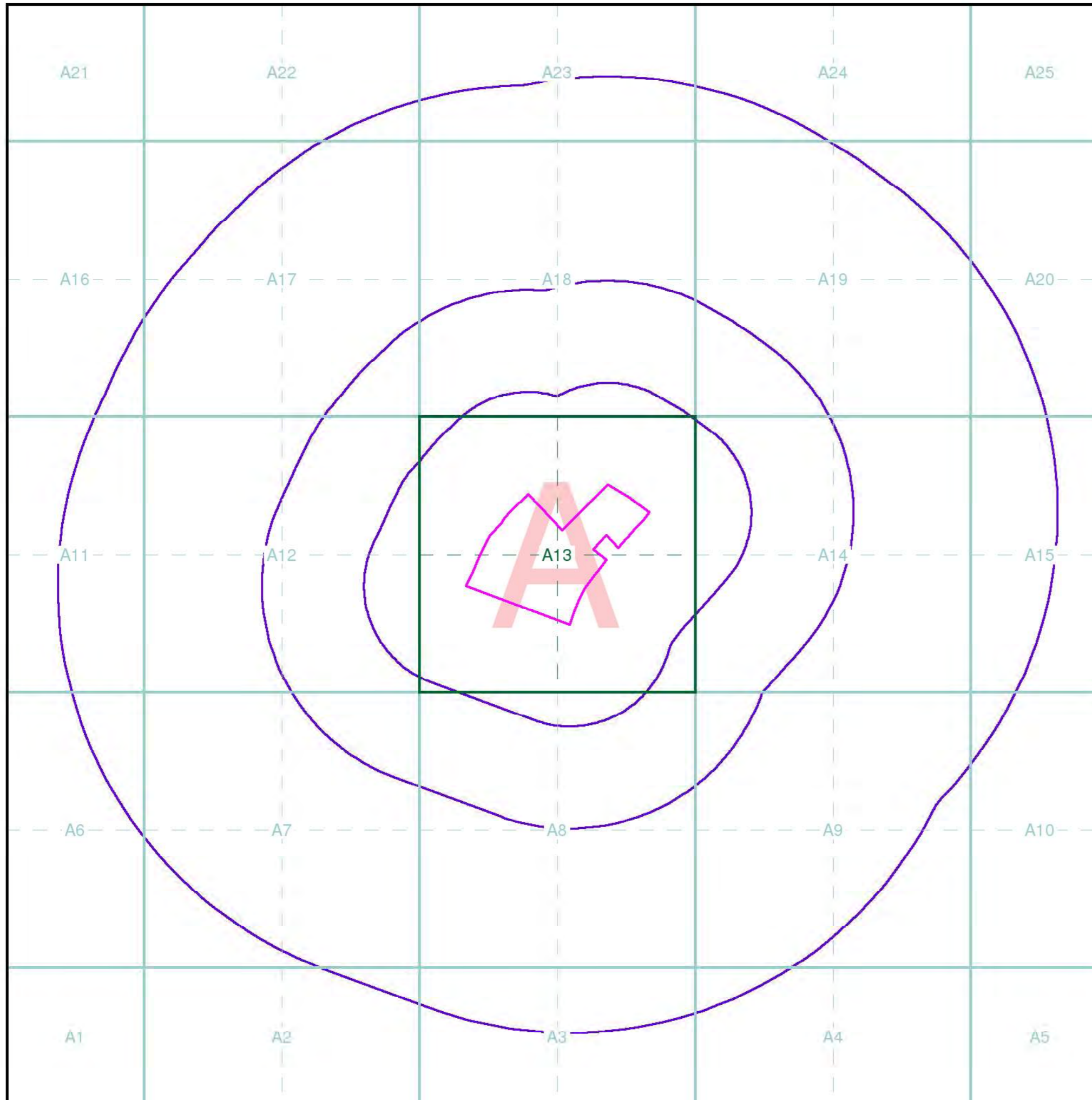
Order Details

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Customer Ref: 19.05.011a
National Grid Reference: 437130, 246920
Site Area (Ha): 7.65
Search Buffer (m): 1000

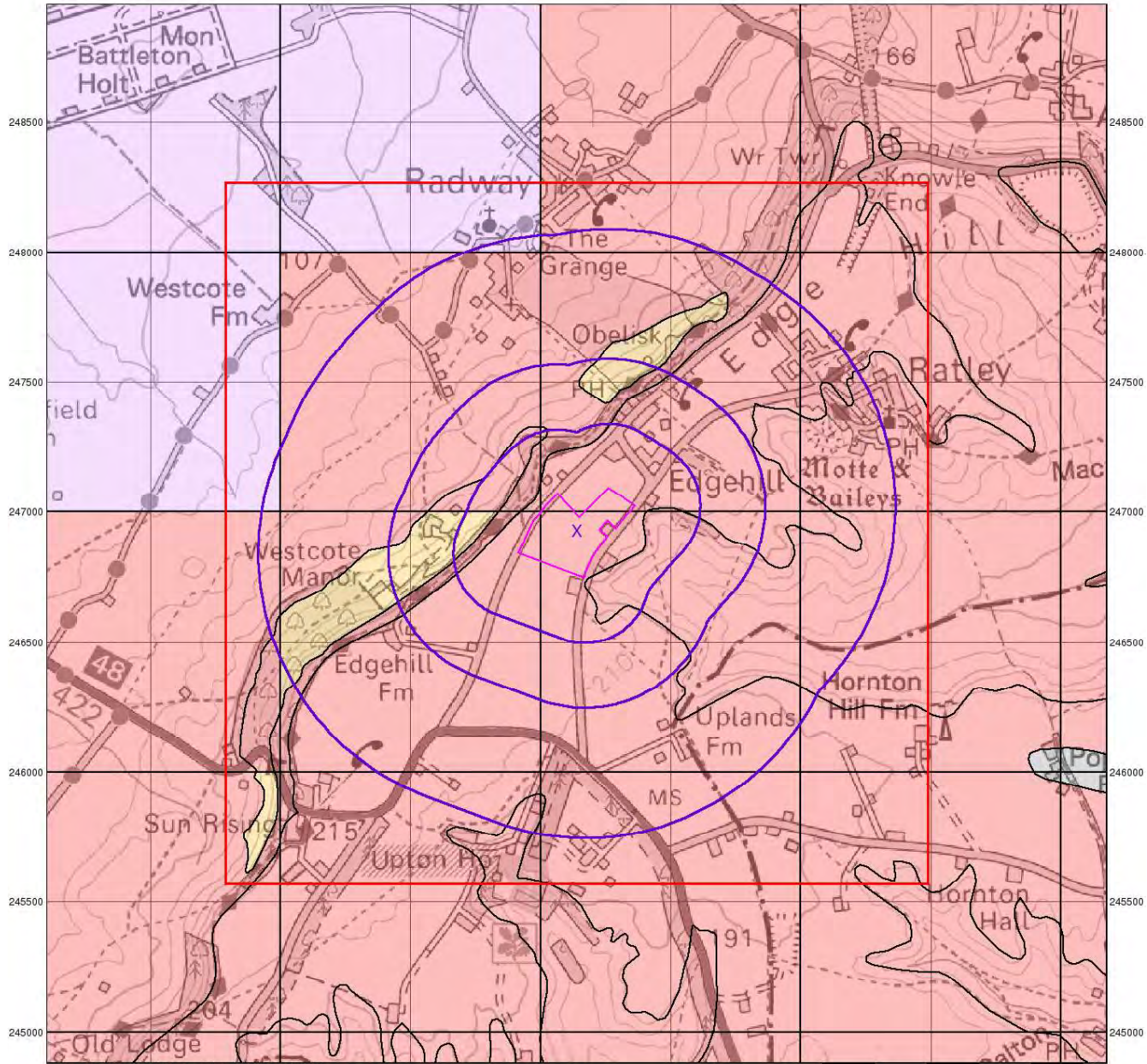
Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH

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<http://www.landmarkinfo.co.uk/Terms/Show/515>



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0 1 km



Groundwater Vulnerability

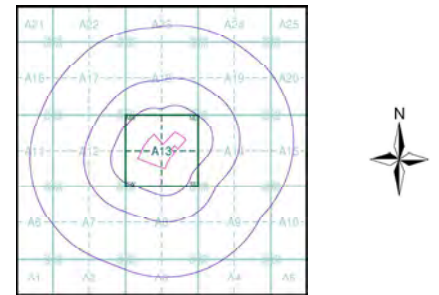
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- | Bedrock Aquifers | Superficial Aquifers |
|---|---|
| High Vulnerability, Principal Aquifer | High Vulnerability, Principal Aquifer |
| High Vulnerability, Secondary Aquifer | High Vulnerability, Secondary Aquifer |
| Medium Vulnerability, Principal Aquifer | Medium Vulnerability, Principal Aquifer |
| Medium Vulnerability, Secondary Aquifer | Medium Vulnerability, Secondary Aquifer |
| Low Vulnerability, Principal Aquifer | Low Vulnerability, Principal Aquifer |
| Low Vulnerability, Secondary Aquifer | Low Vulnerability, Secondary Aquifer |
| Unproductive Aquifer | |
| Soluble Rock | |

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

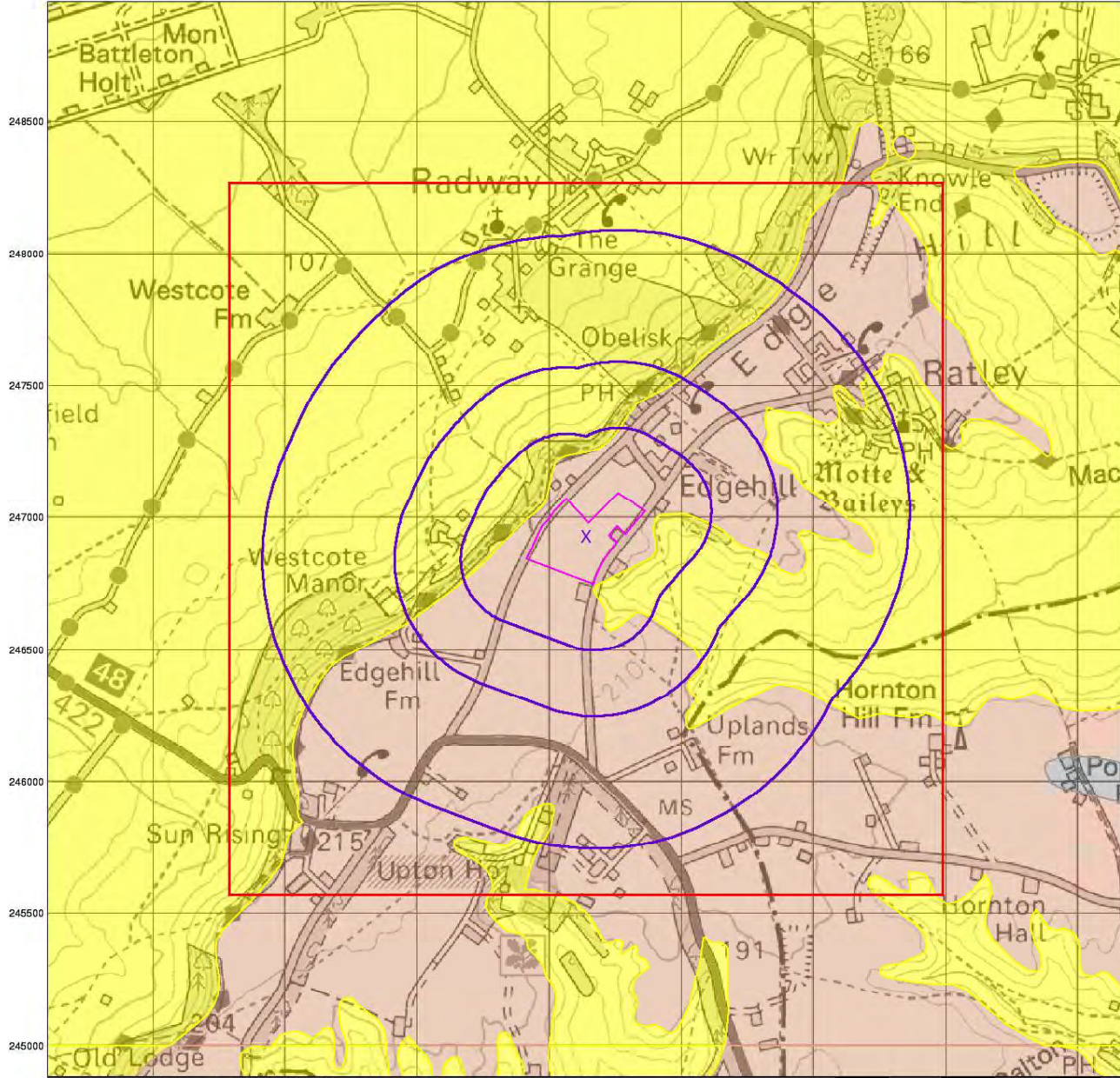
Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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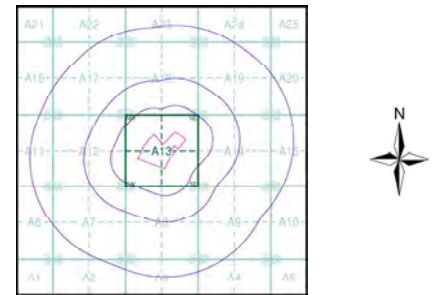
Bedrock Aquifer Designation

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID

Agency and Hydrological

- Geological Classes**
- Principal Aquifer
 - Secondary A Aquifer
 - Secondary B Aquifer
 - Secondary Undifferentiated
 - Unproductive Strata
 - Unknown
 - Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

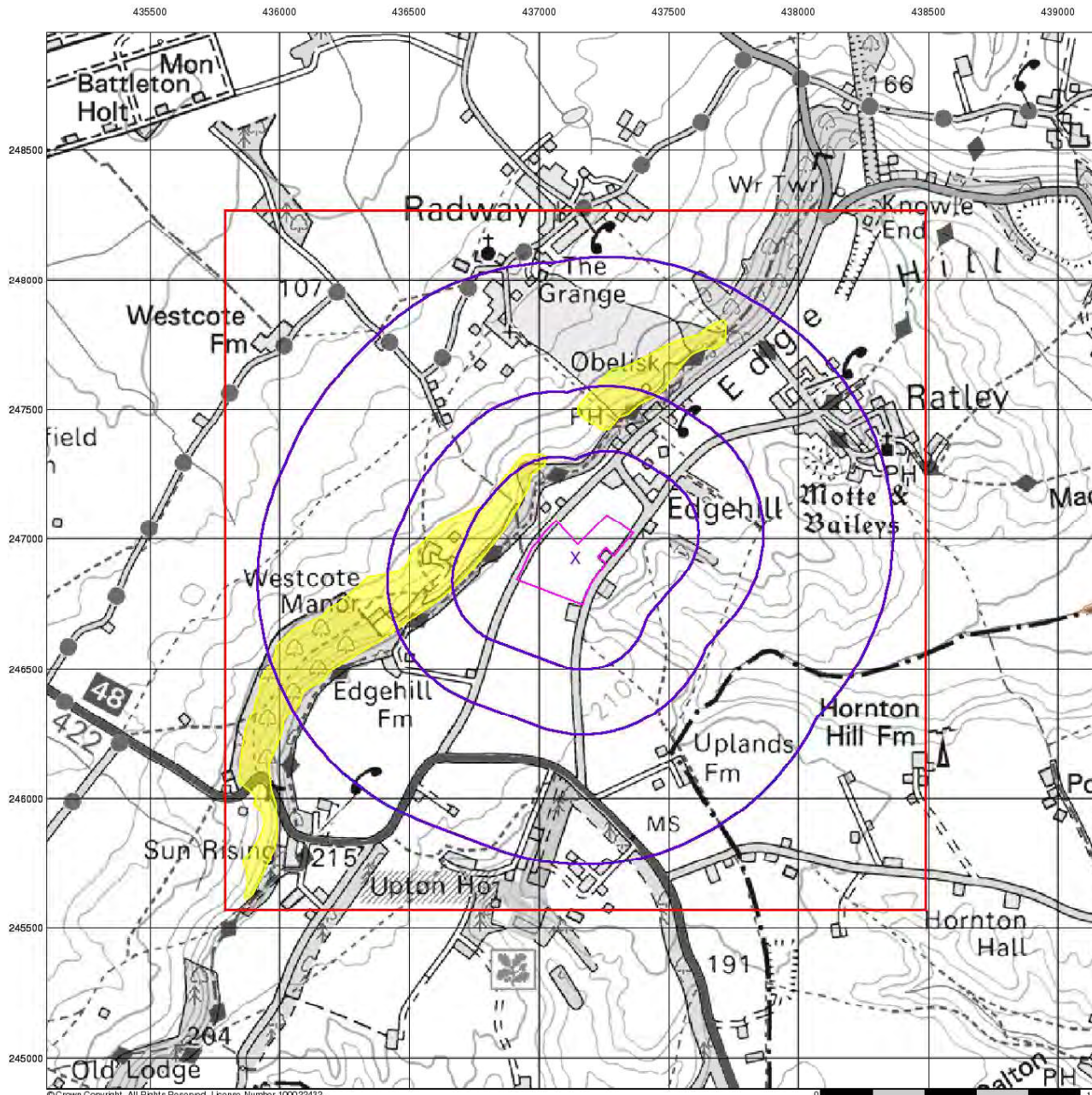
Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

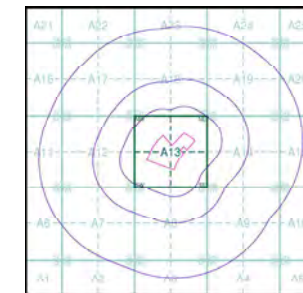
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

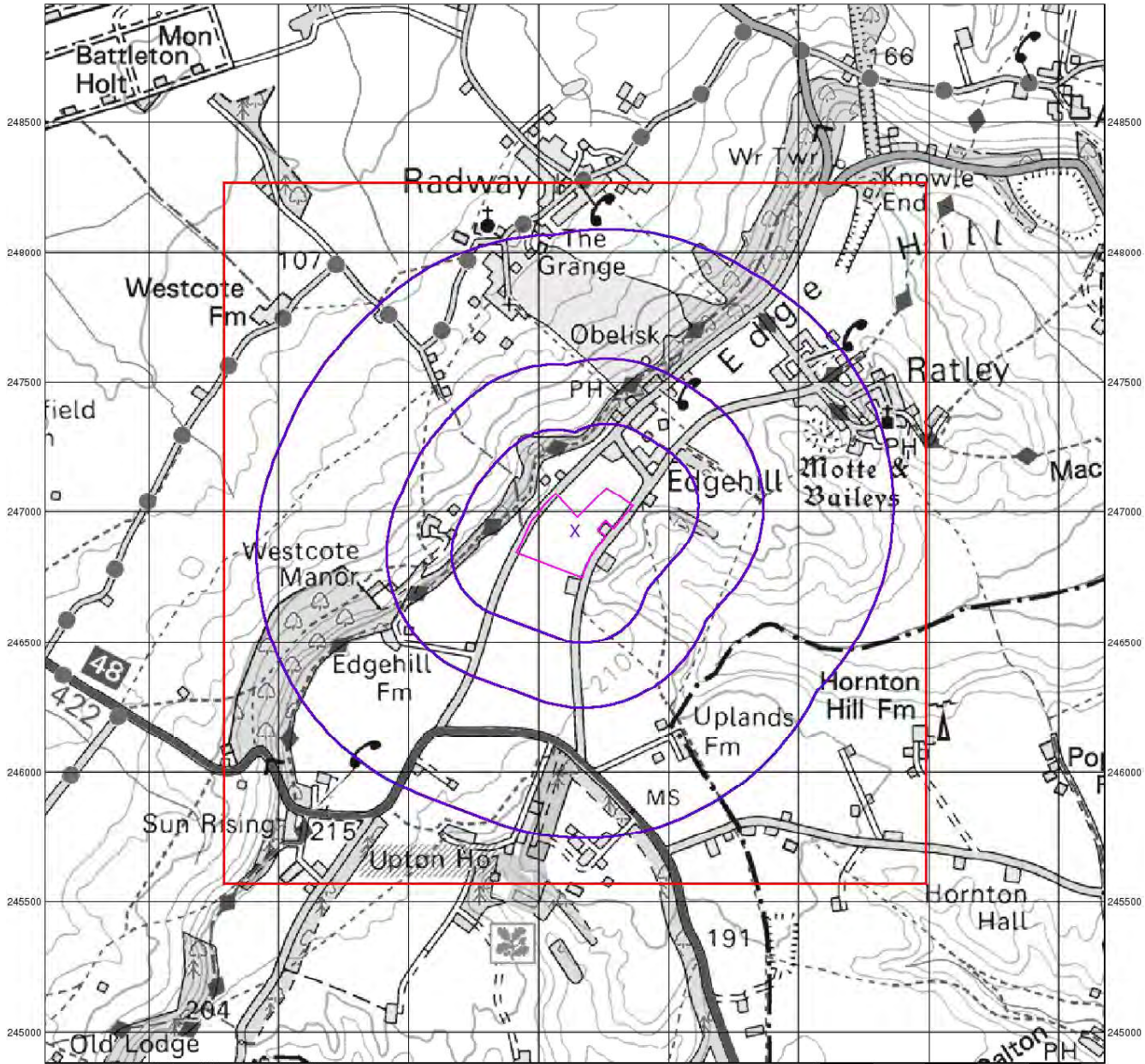
Site Details

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Source Protection Zones

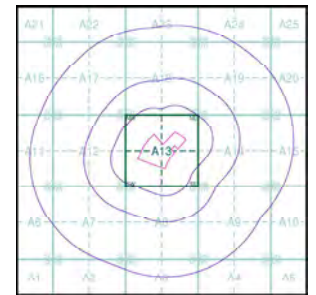
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

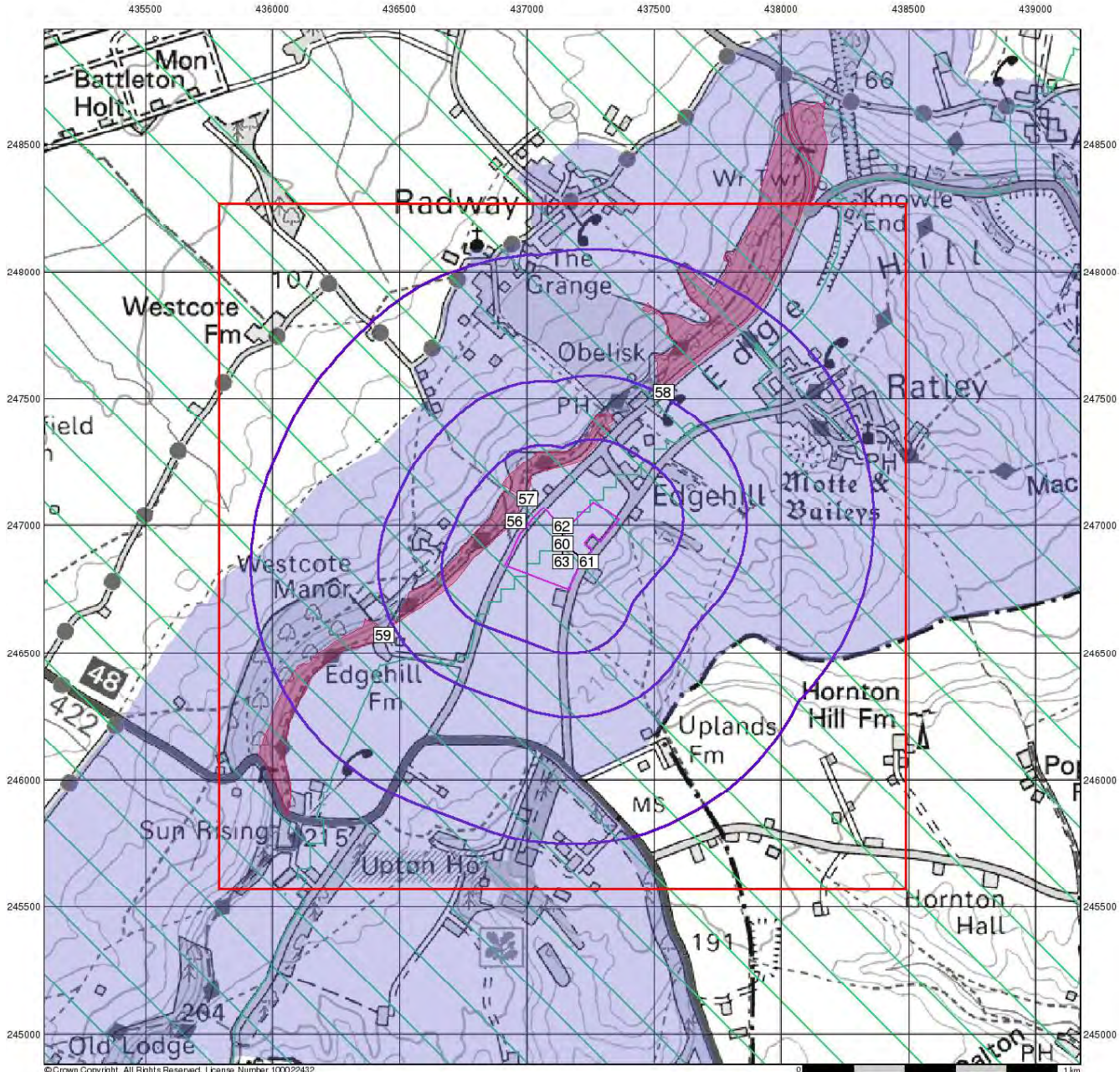
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 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

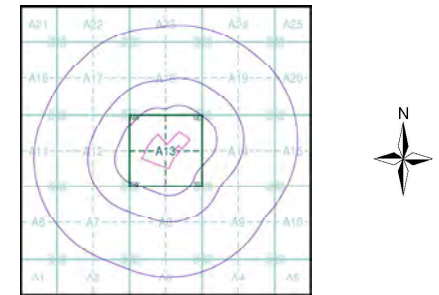
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Sensitive Land Uses

- | | |
|------------------------------------|-------------------------------------|
| Ancient Woodland | National Park |
| Area of Adopted Green Belt | Nitrate Sensitive Area |
| Area of Unadopted Green Belt | Nitrate Vulnerable Zone |
| Area of Outstanding Natural Beauty | Ramsar Site |
| Environmentally Sensitive Area | Site of Special Scientific Interest |
| Forest Park | Special Area of Conservation |
| Local Nature Reserve | Special Protection Area |
| Marine Nature Reserve | World Heritage Sites |
| National Nature Reserve | |

Site Sensitivity Context Map - Slice A



Order Details

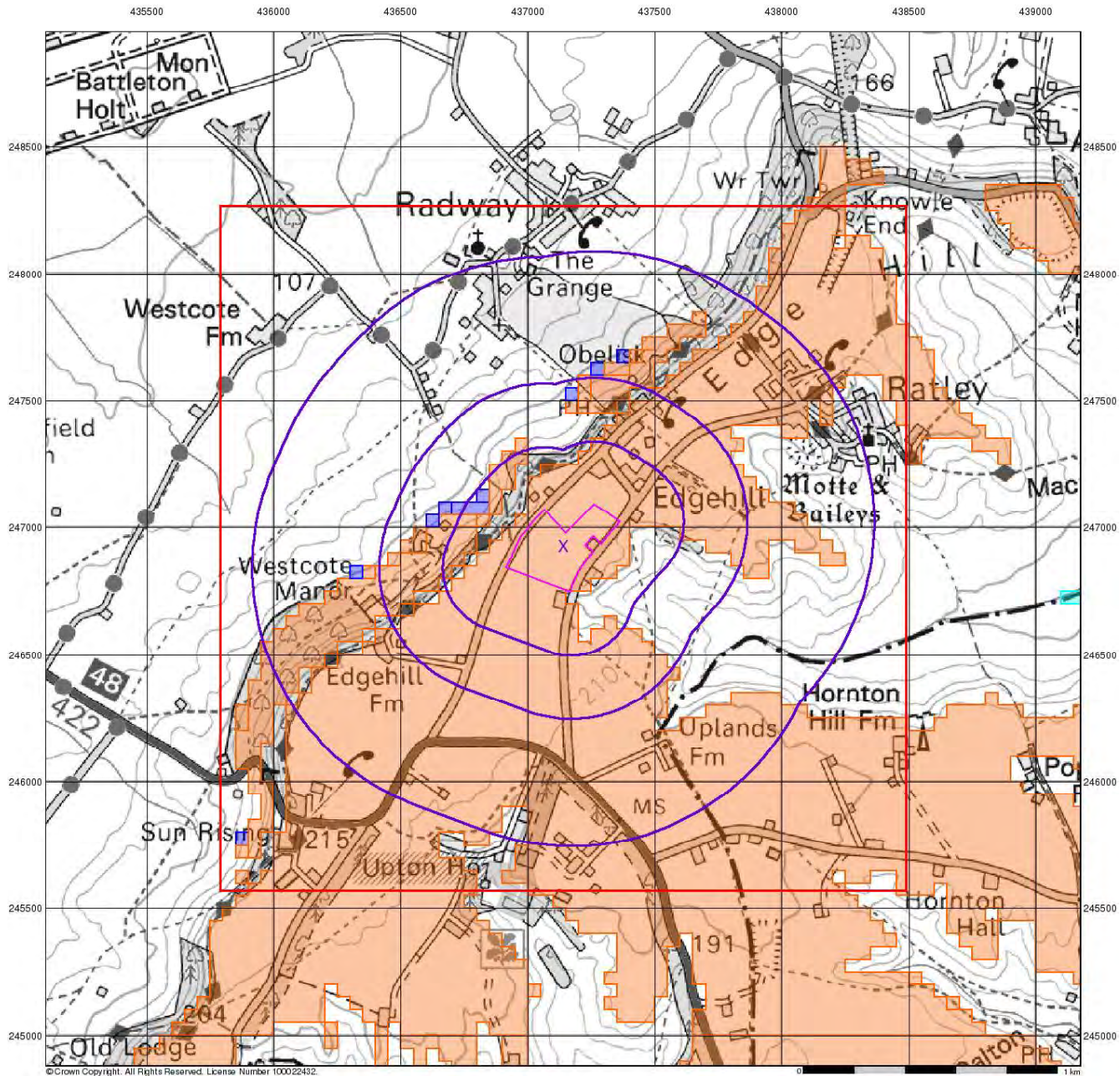
Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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BGS Flood GFS Data

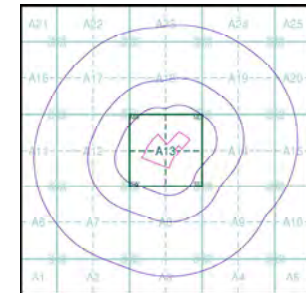
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

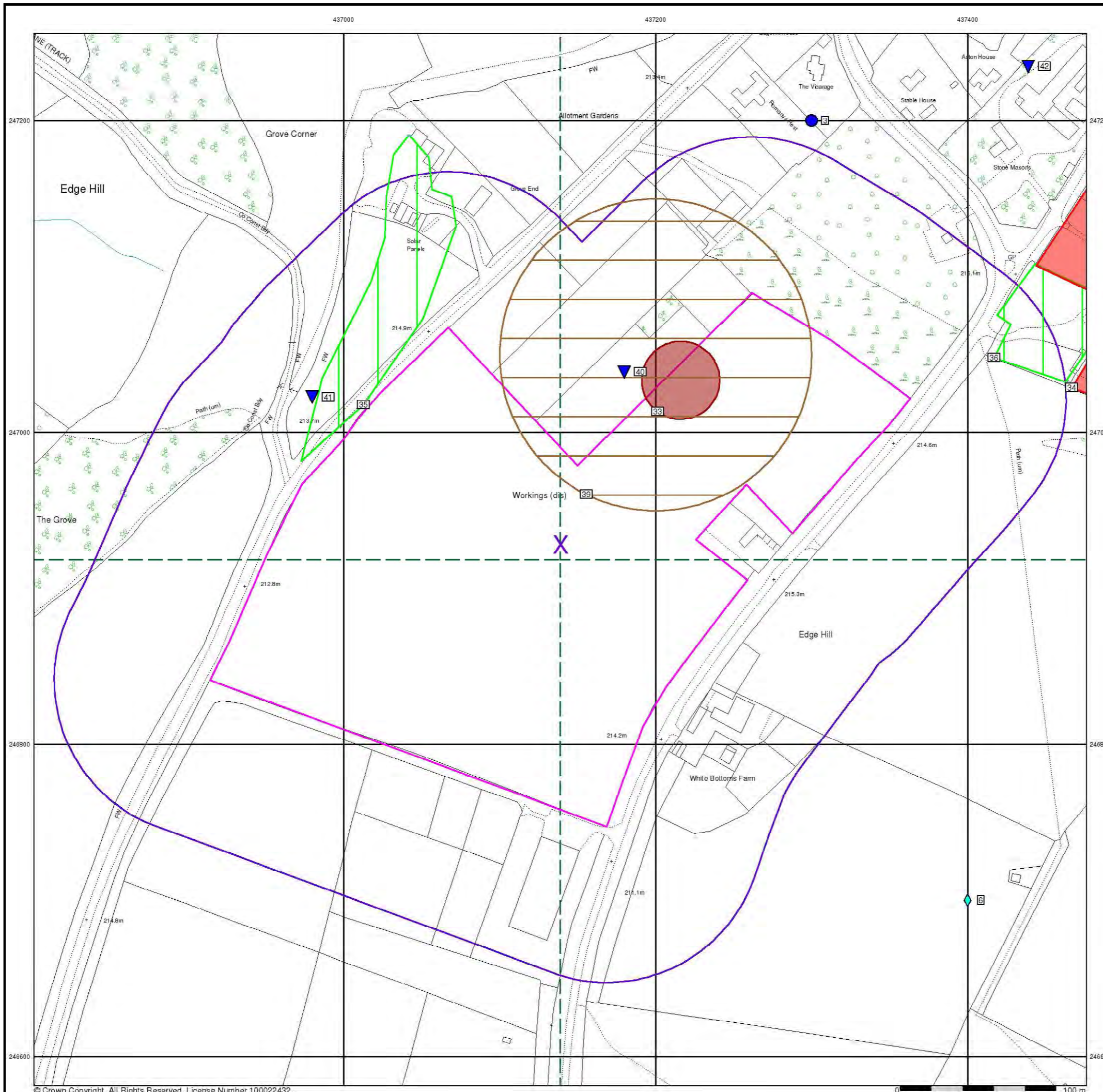
Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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LISTERS GEO
Geotechnical and Geoenvironmental Consultants

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Severalty of Type at Location
- Pylon
- Overhead Transmission Line

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention and Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Waste

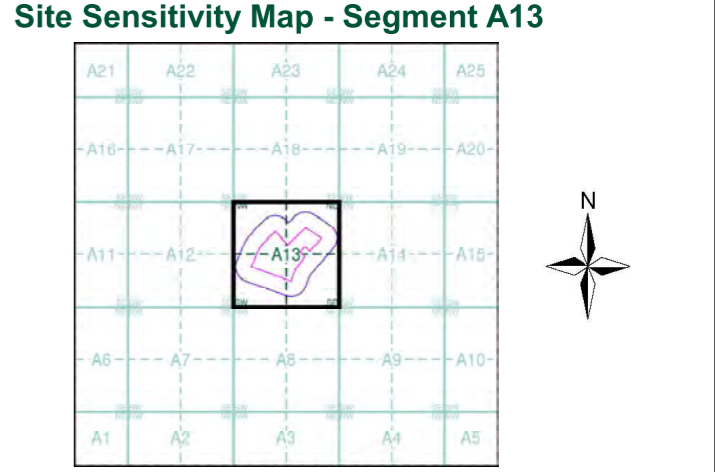
- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

- BGS Recorded Mineral Site



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Plot Buffer (m): 100

Site Details
 Edgell Quarry, Edgell, BANBURY, OX15 6DH

Landmark
 INFORMATION GROUP

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Industrial Land Use Map

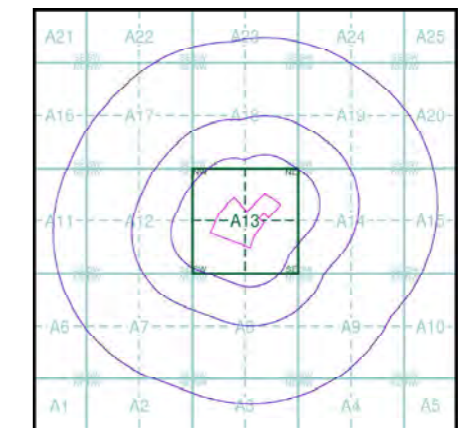
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

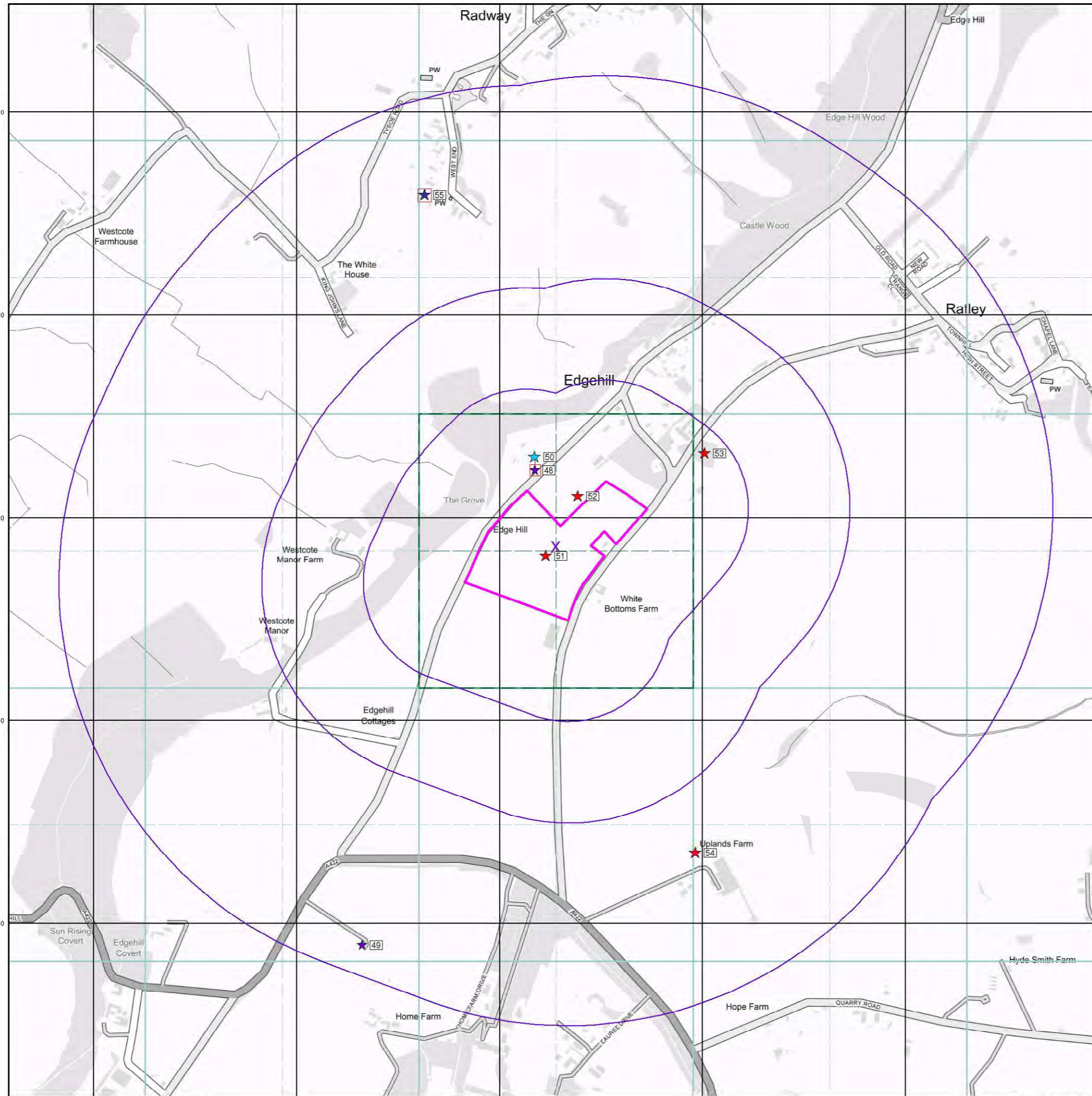
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 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

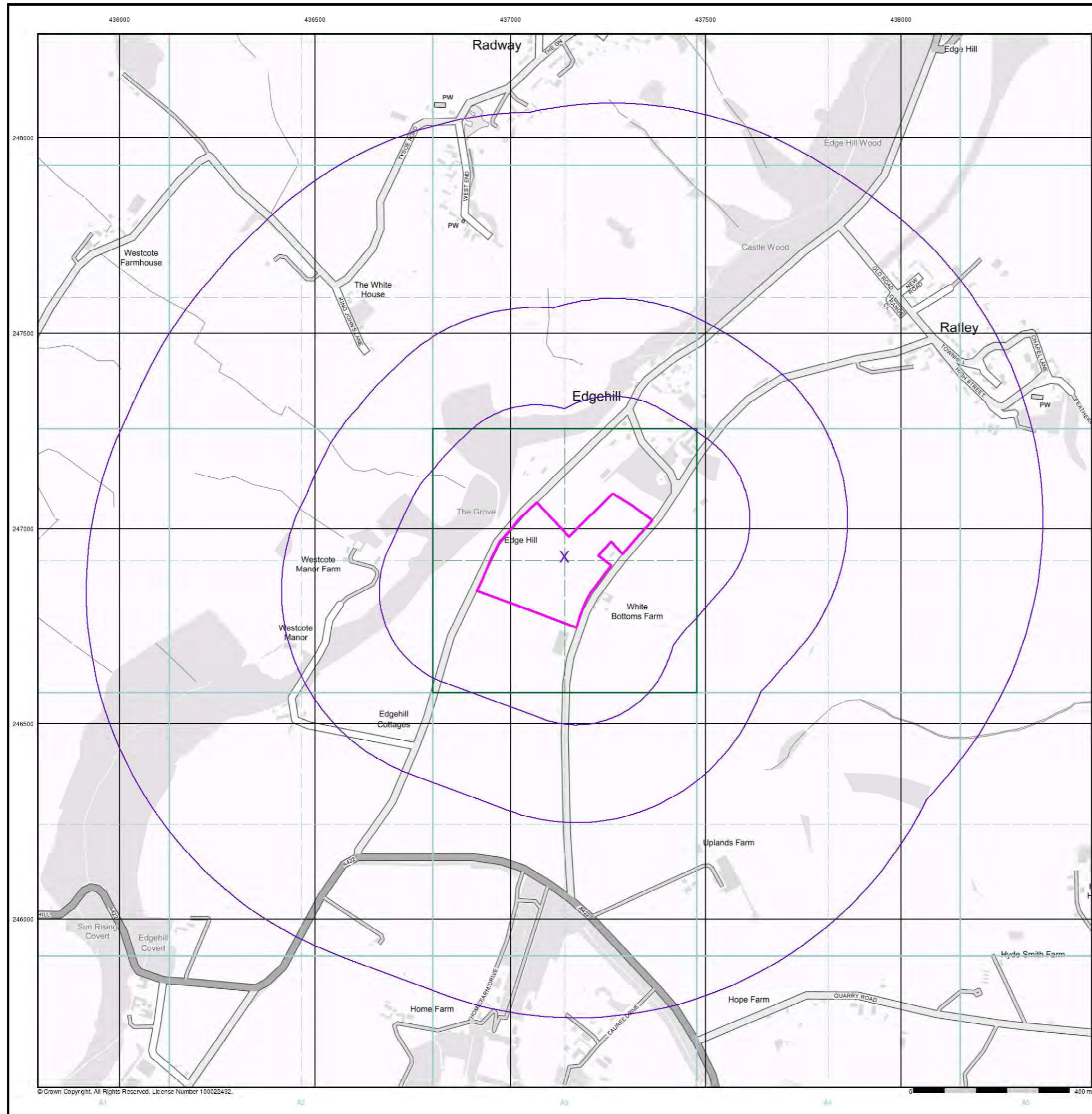
Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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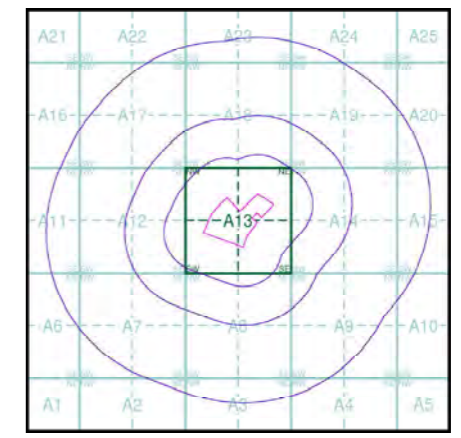
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

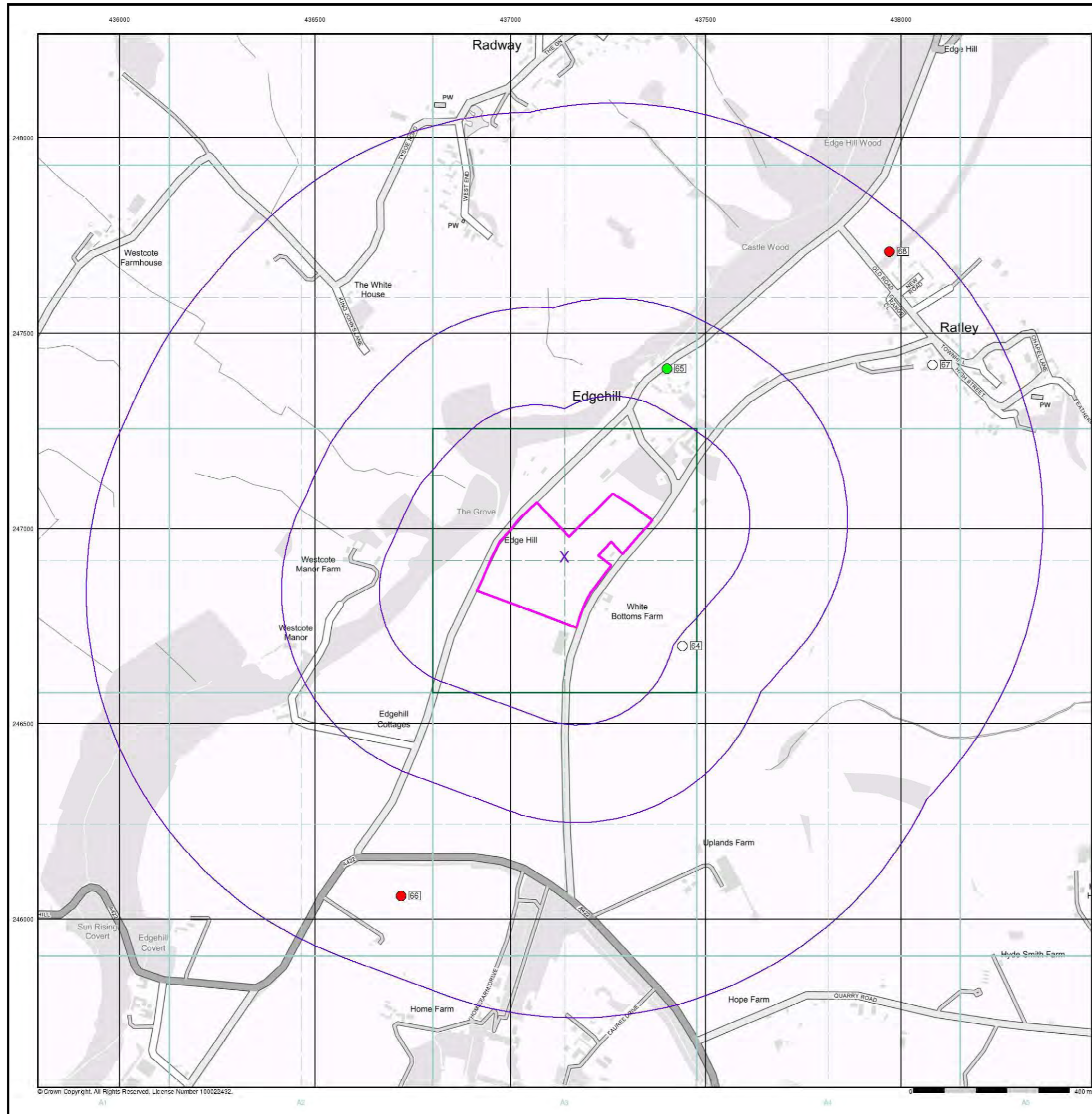
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 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

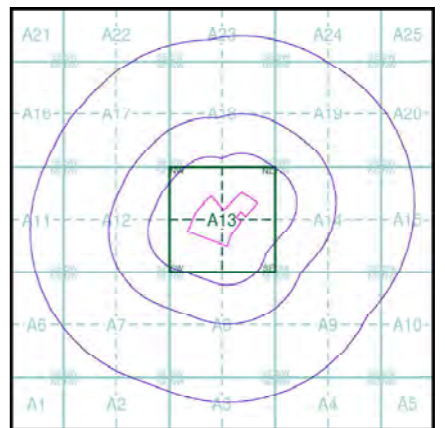
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

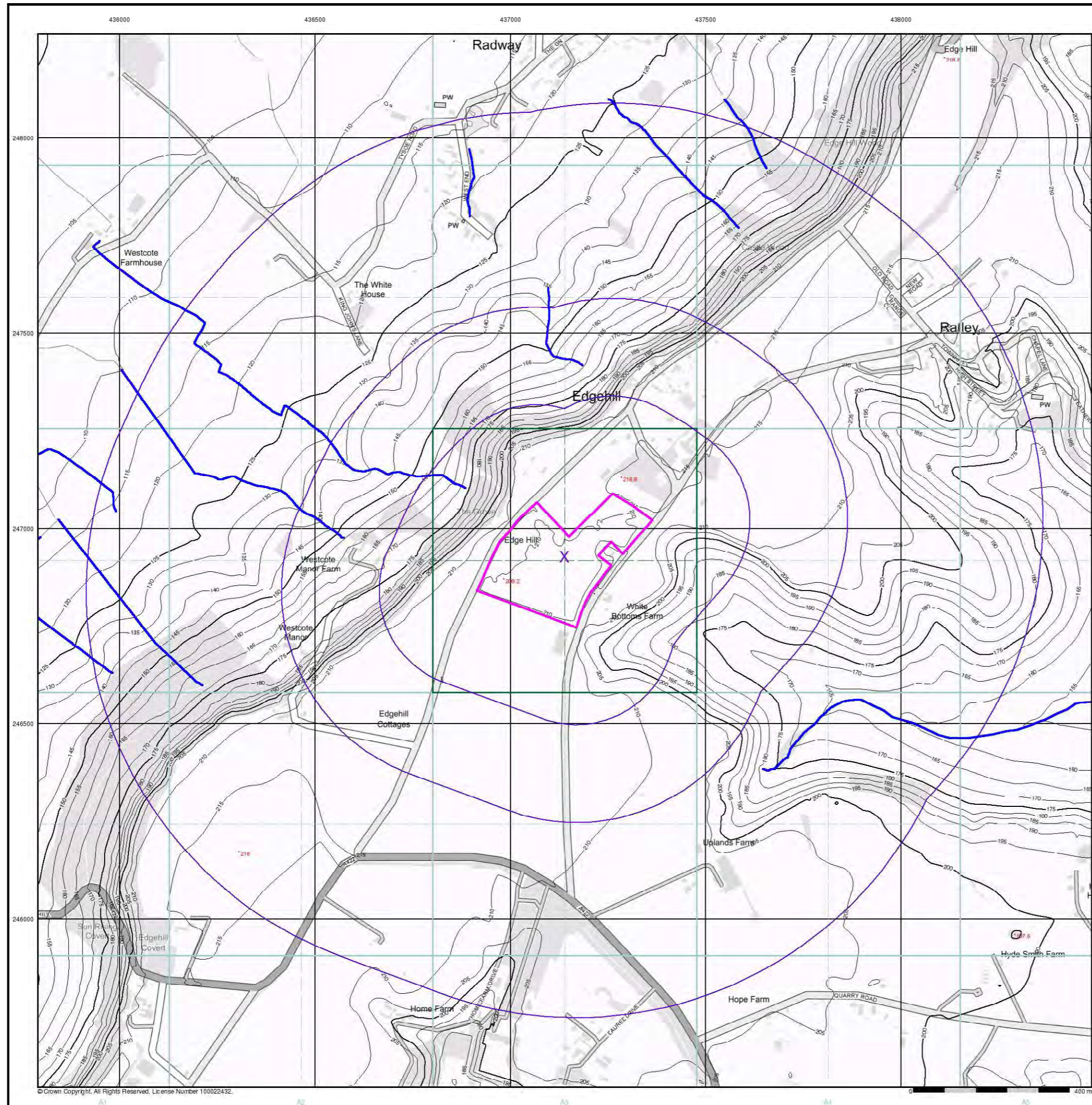
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 National Grid Reference: 437140, 246930
 Slice: A
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 Search Buffer (m): 1000

Site Details

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

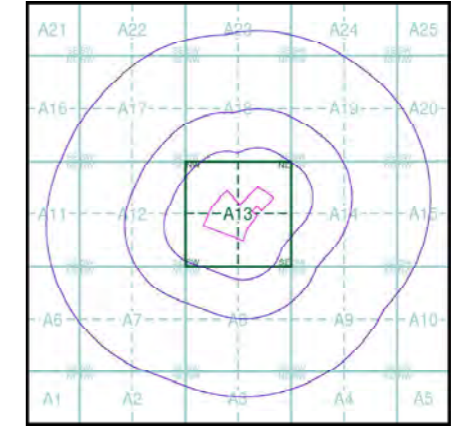
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- Standard Contour
- Master Contour
- Spot Height
- Mean Low Water
- Mean High Water

OS Water Network Map - Slice A



Order Details

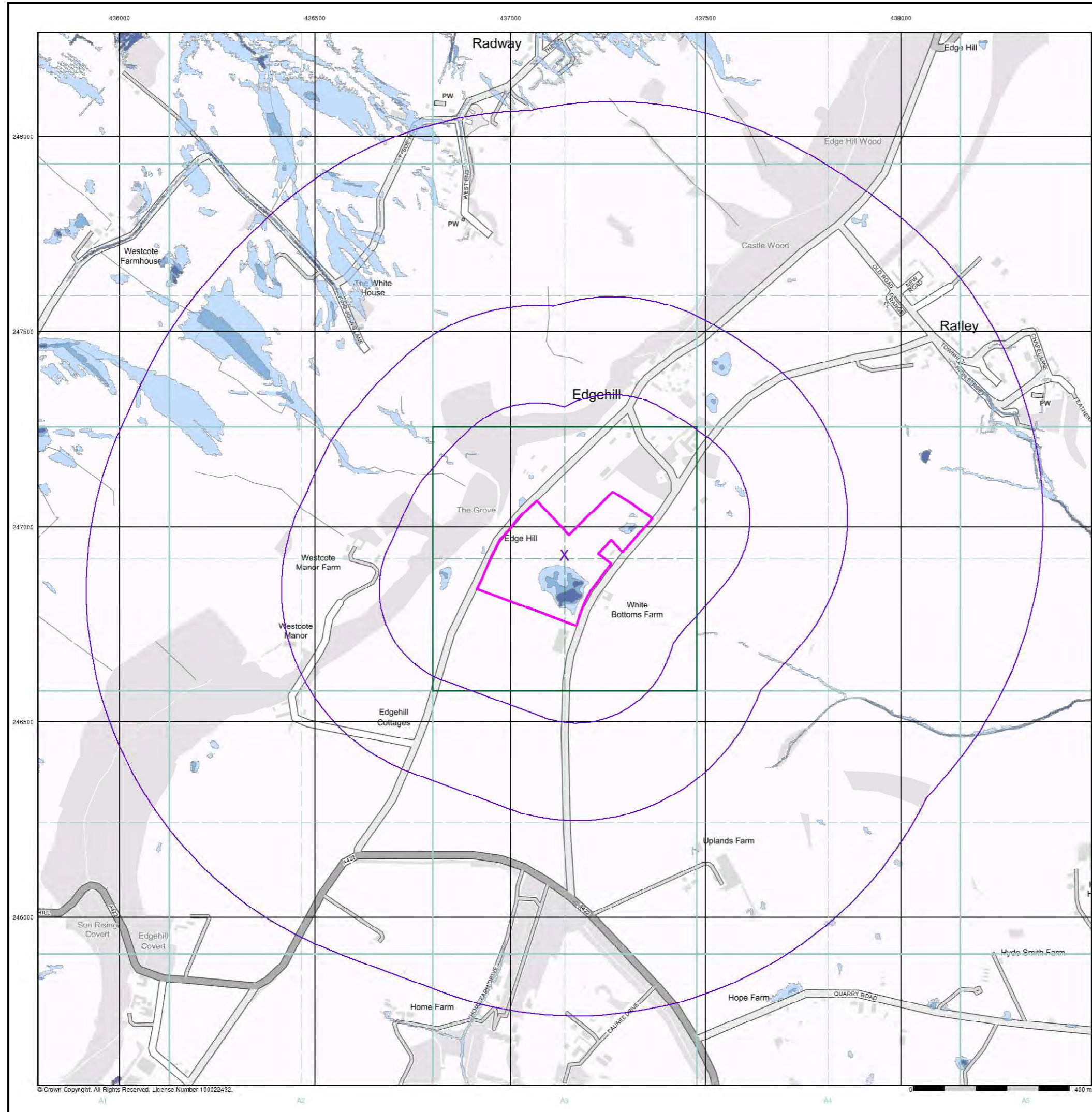
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 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Risk of Flooding from Surface Water

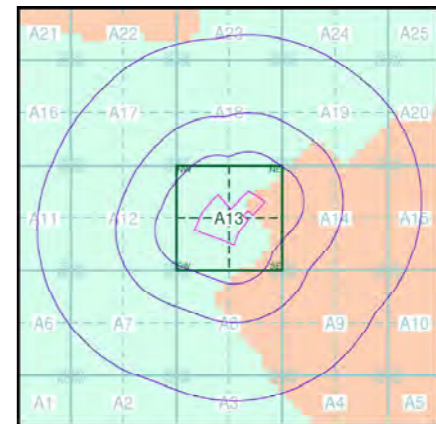
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

E/NRW Suitability Map - Slice A



Order Details

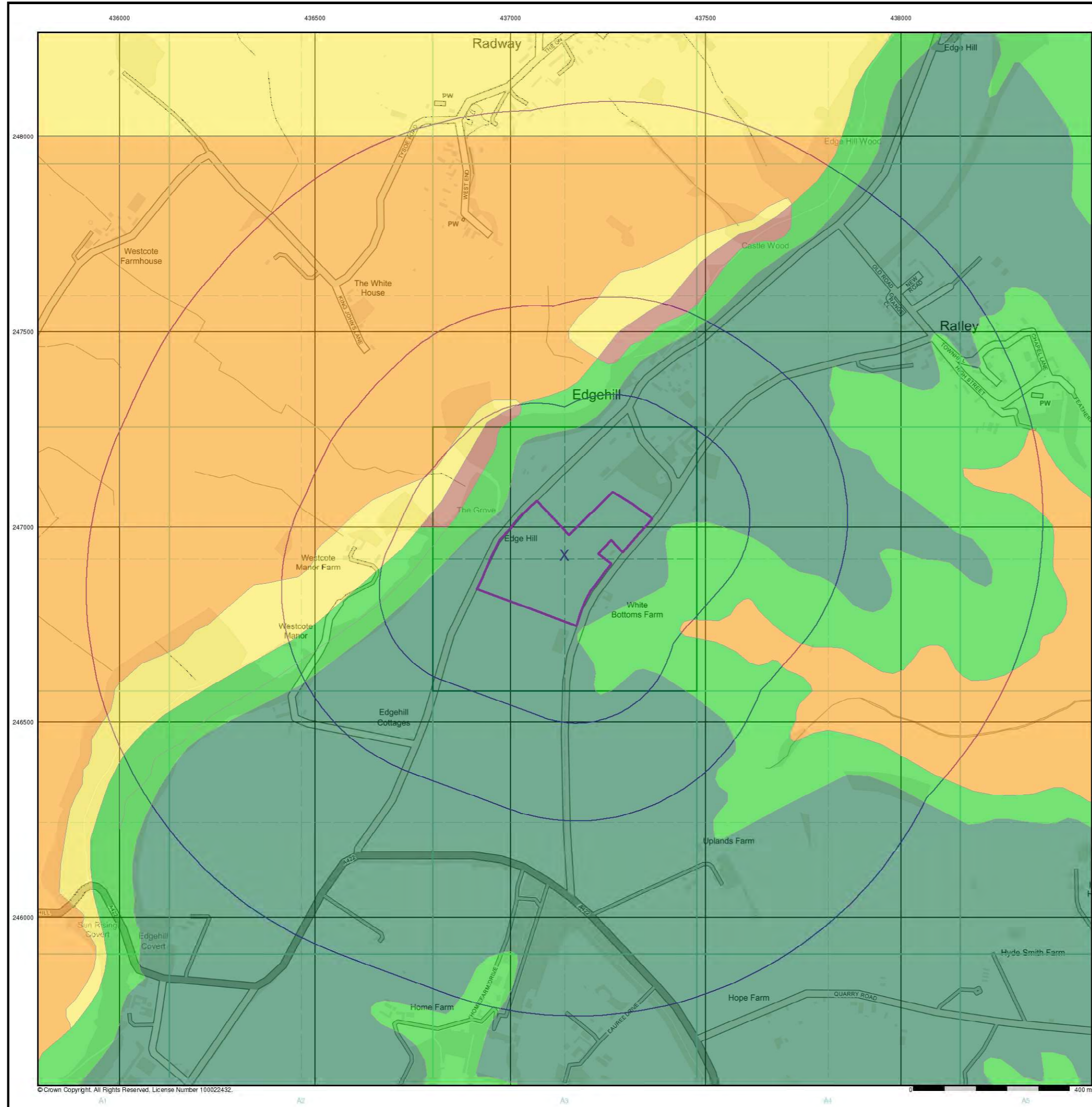
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 Search Buffer (m): 1000

Site Details

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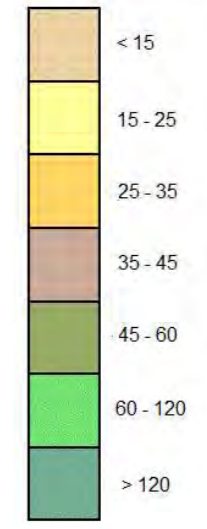


General

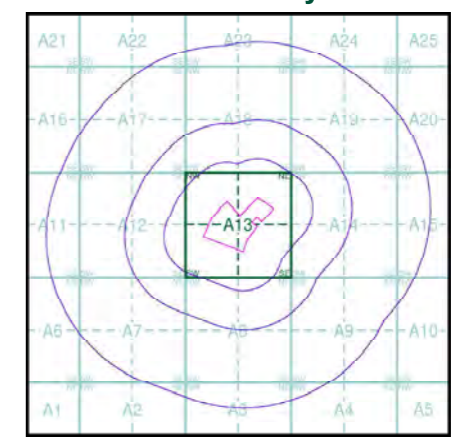
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

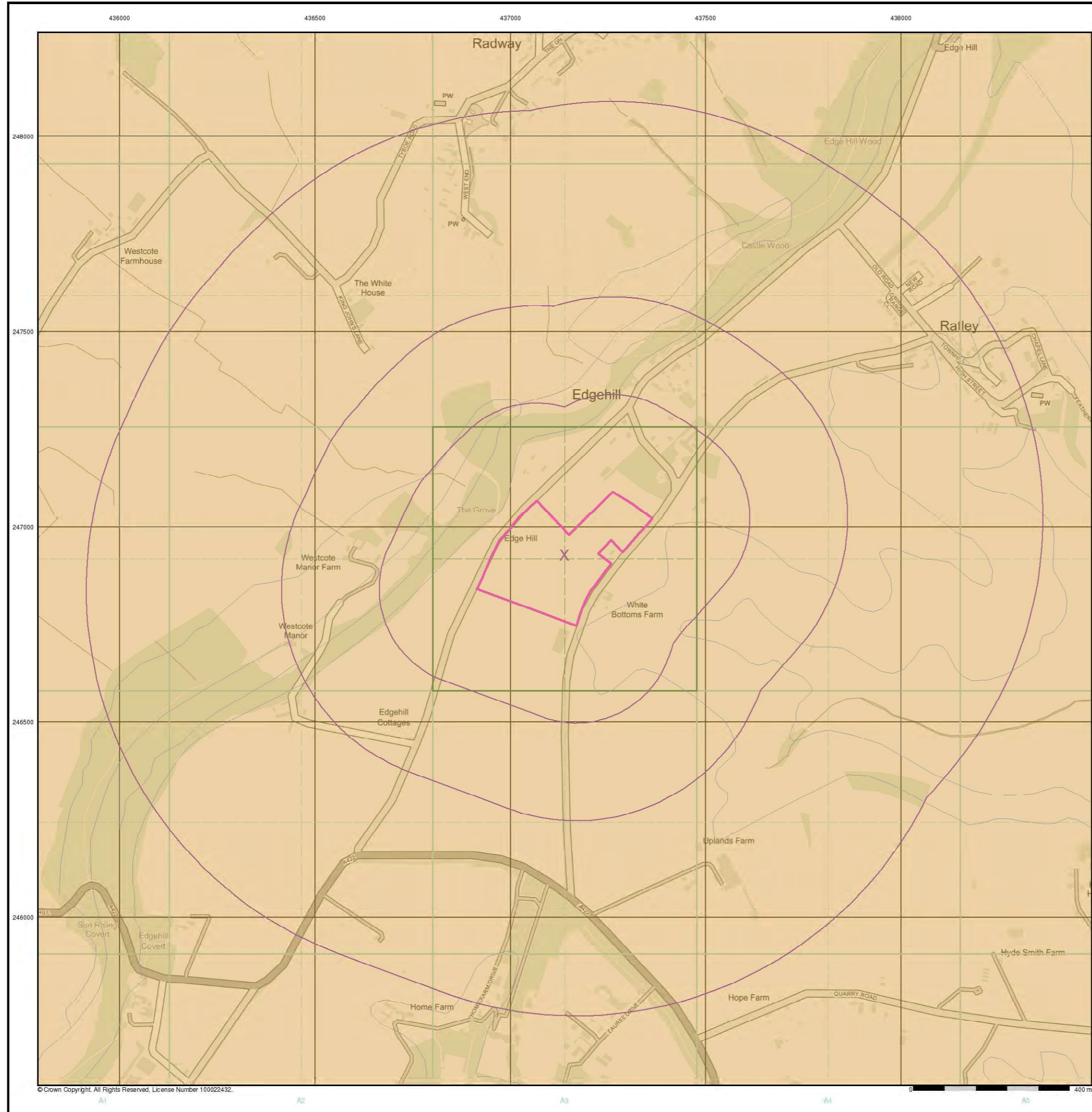
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 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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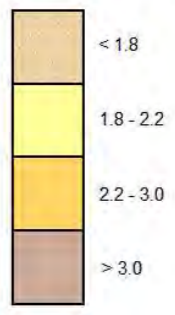


General

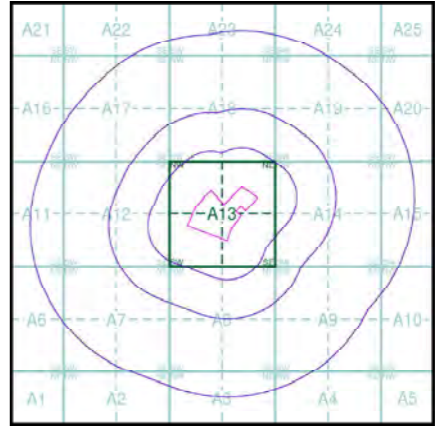
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

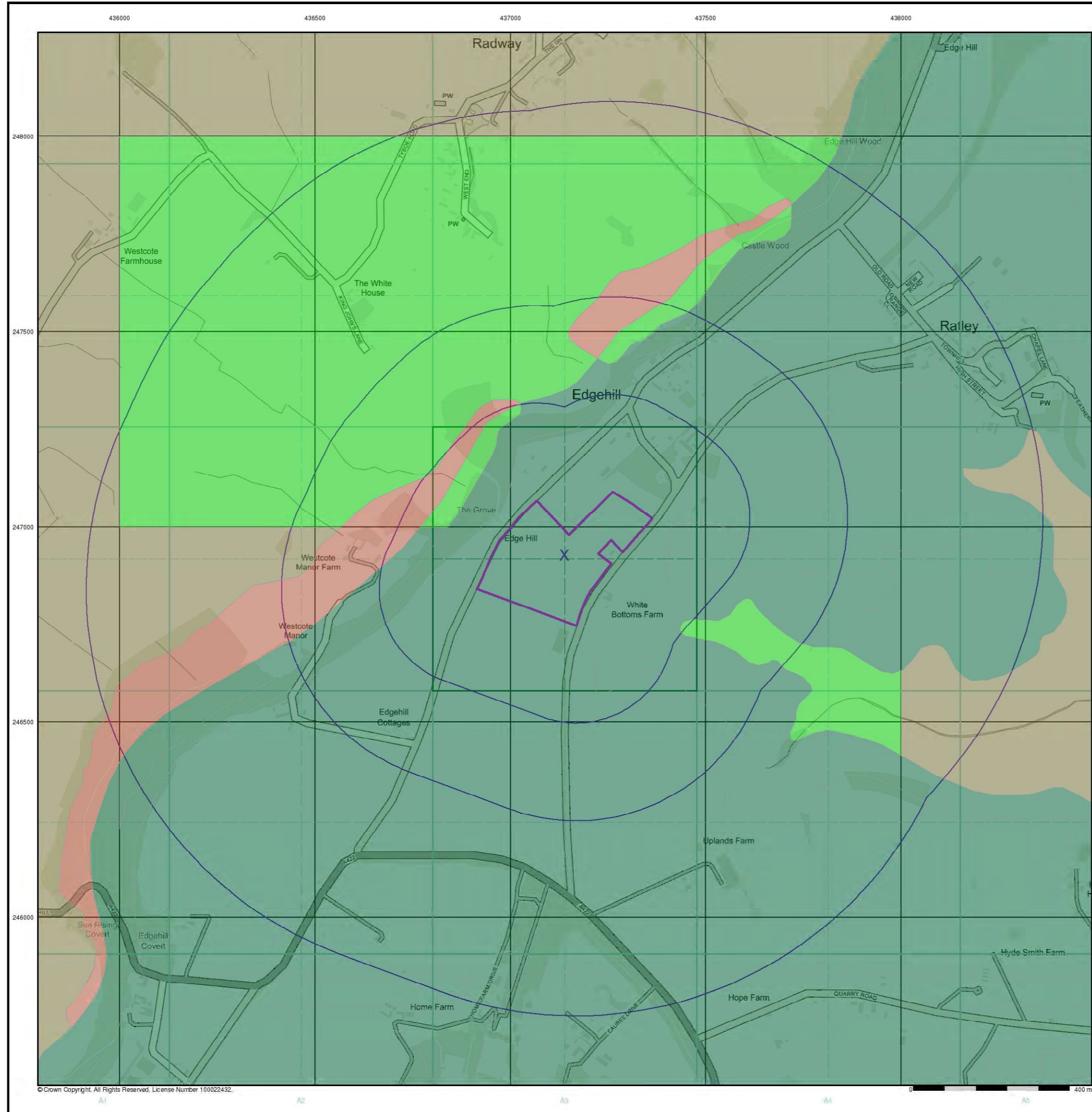
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Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



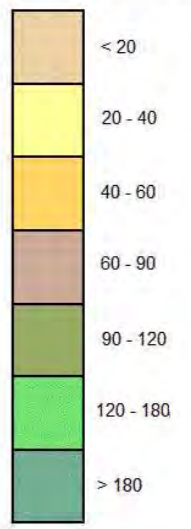
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



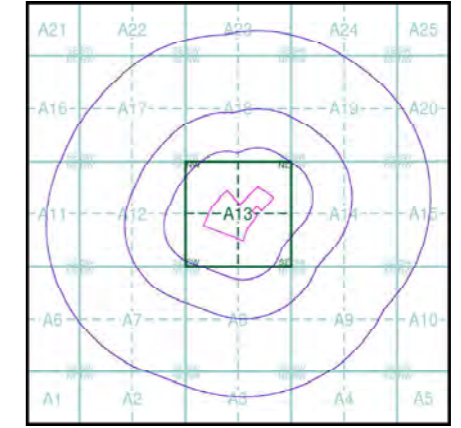
General
 Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



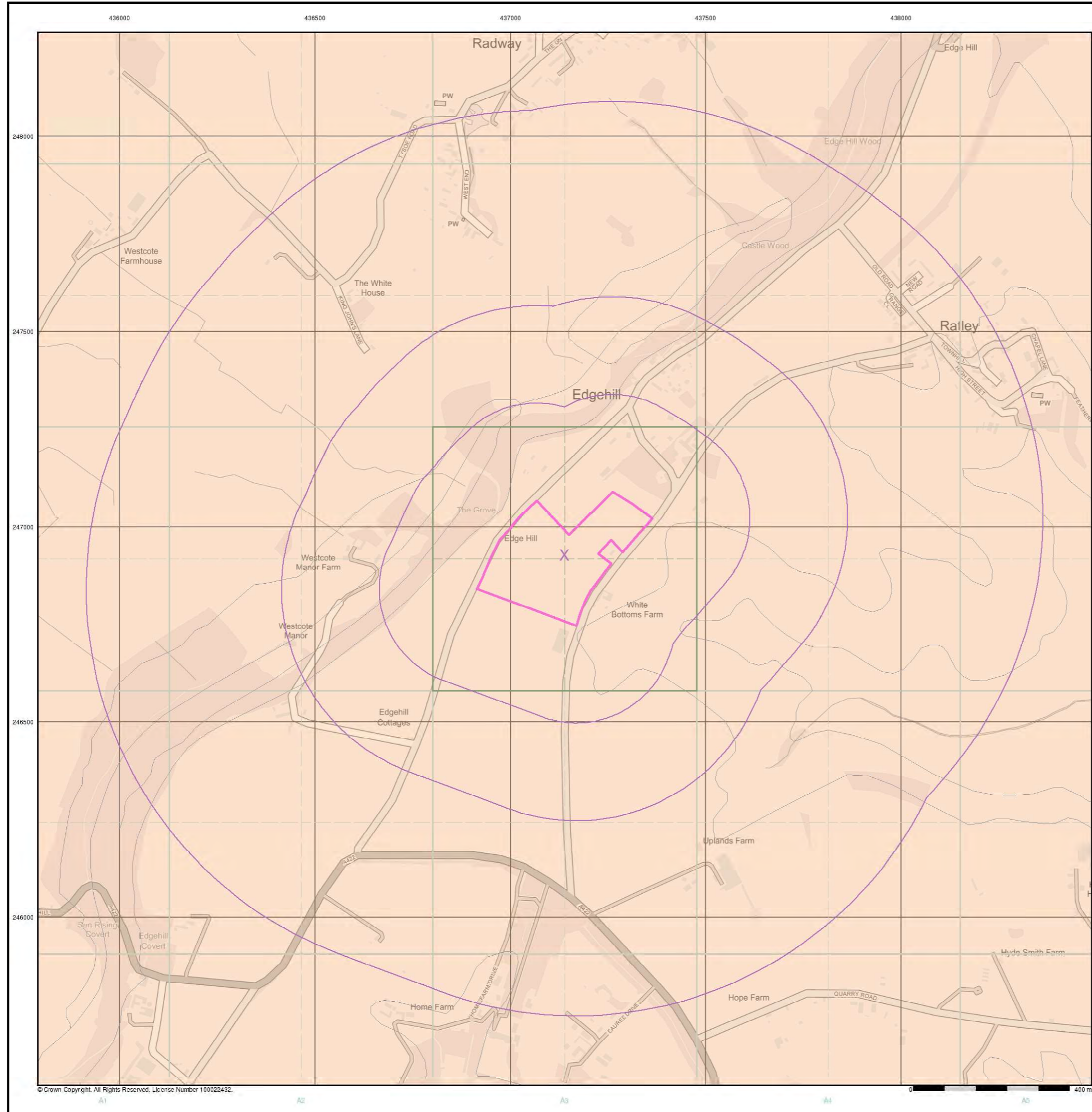
Estimated Soil Chemistry Chromium - Slice A



Order Details
 Order Details: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details
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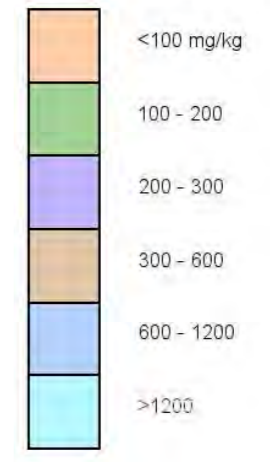


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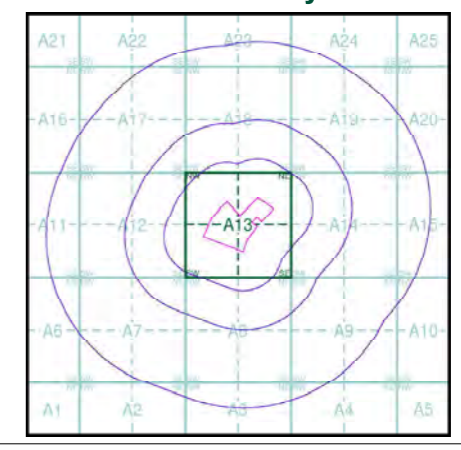
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- X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

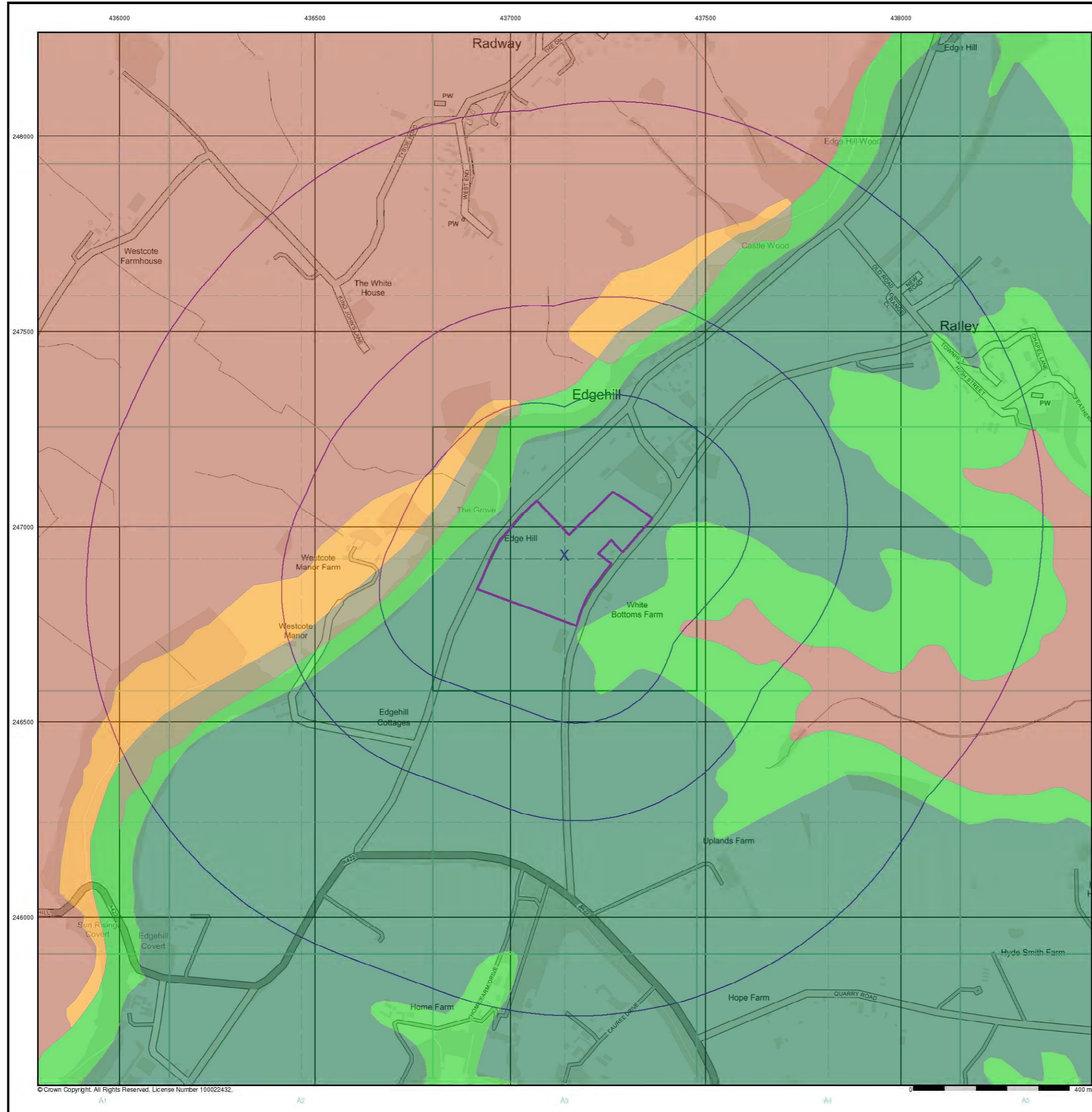
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Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



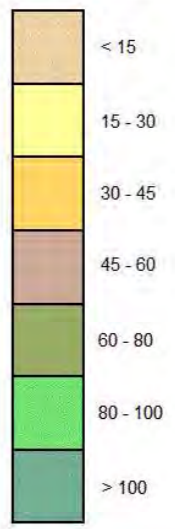
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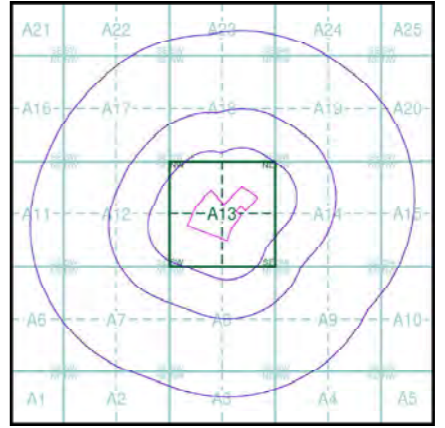
General
 Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A




Order Details
 Order Details: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000



Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH

Geology 1:50,000 Maps Legends





Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WHM	Whitby Mudstone Formation	Mudstone	Not Supplied - Toarcian
	MRB	Marlstone Rock Formation	Ferruginous Limestone and Ironstone	Not Supplied - Pliensbachian
	DYS	Dyrham Formation	Siltstone and Mudstone, Interbedded	Not Supplied - Pliensbachian
	CHAM	Charmouth Mudstone Formation	Mudstone	Not Supplied - Sinemurian



Geology 1:50,000 Maps

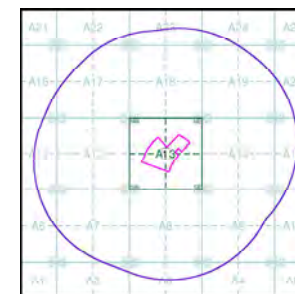
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	201
Map Name:	Banbury
Map Date:	1982
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

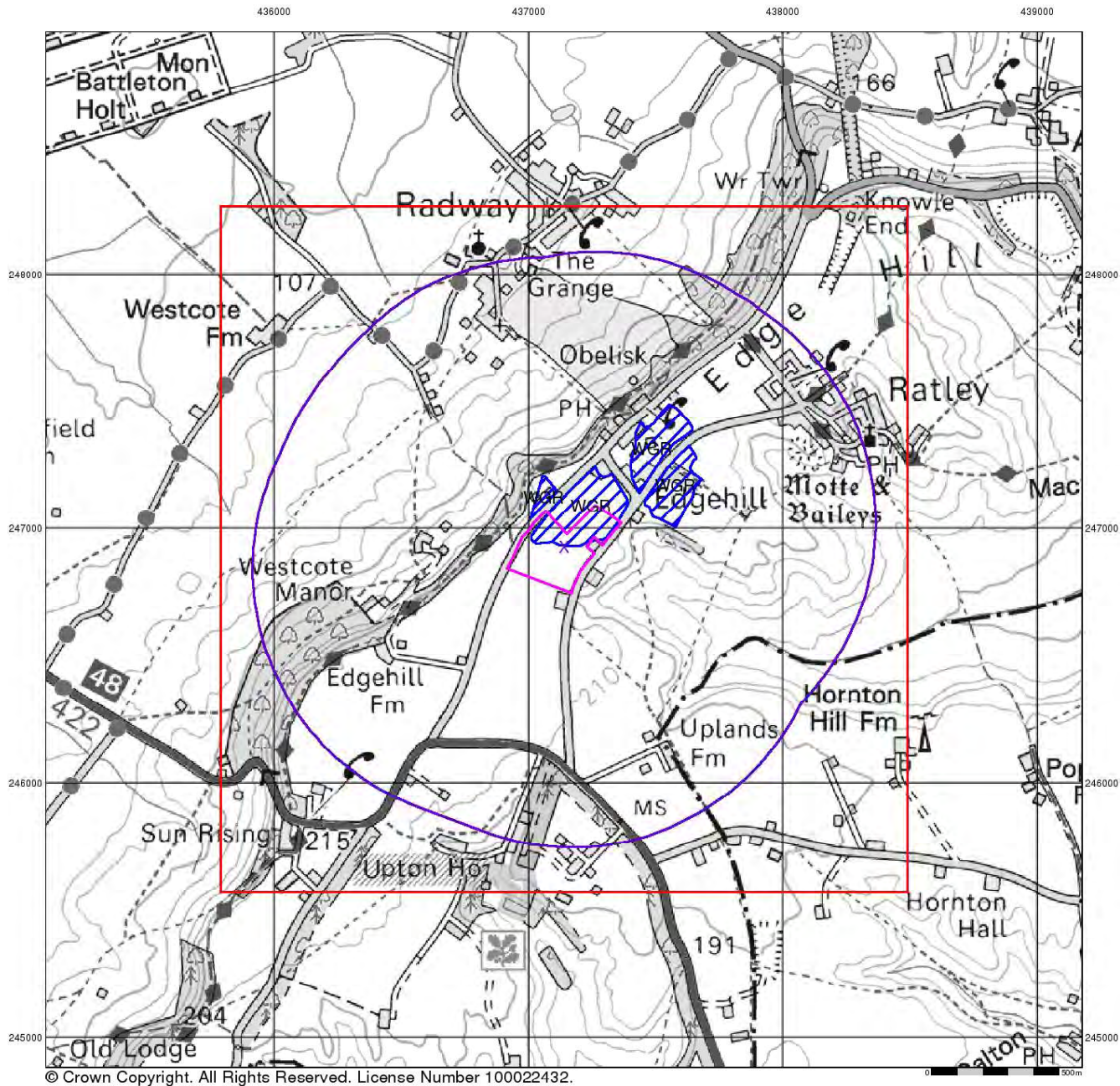
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Customer Reference:	19.05.011a
National Grid Reference:	437140, 246930
Slice:	A
Site Area (Ha):	7.65
Search Buffer (m):	1000

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Artificial Ground and Landslip

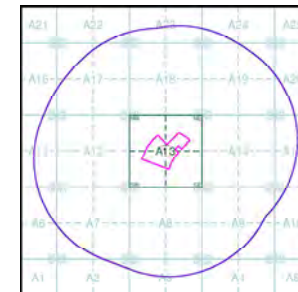
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



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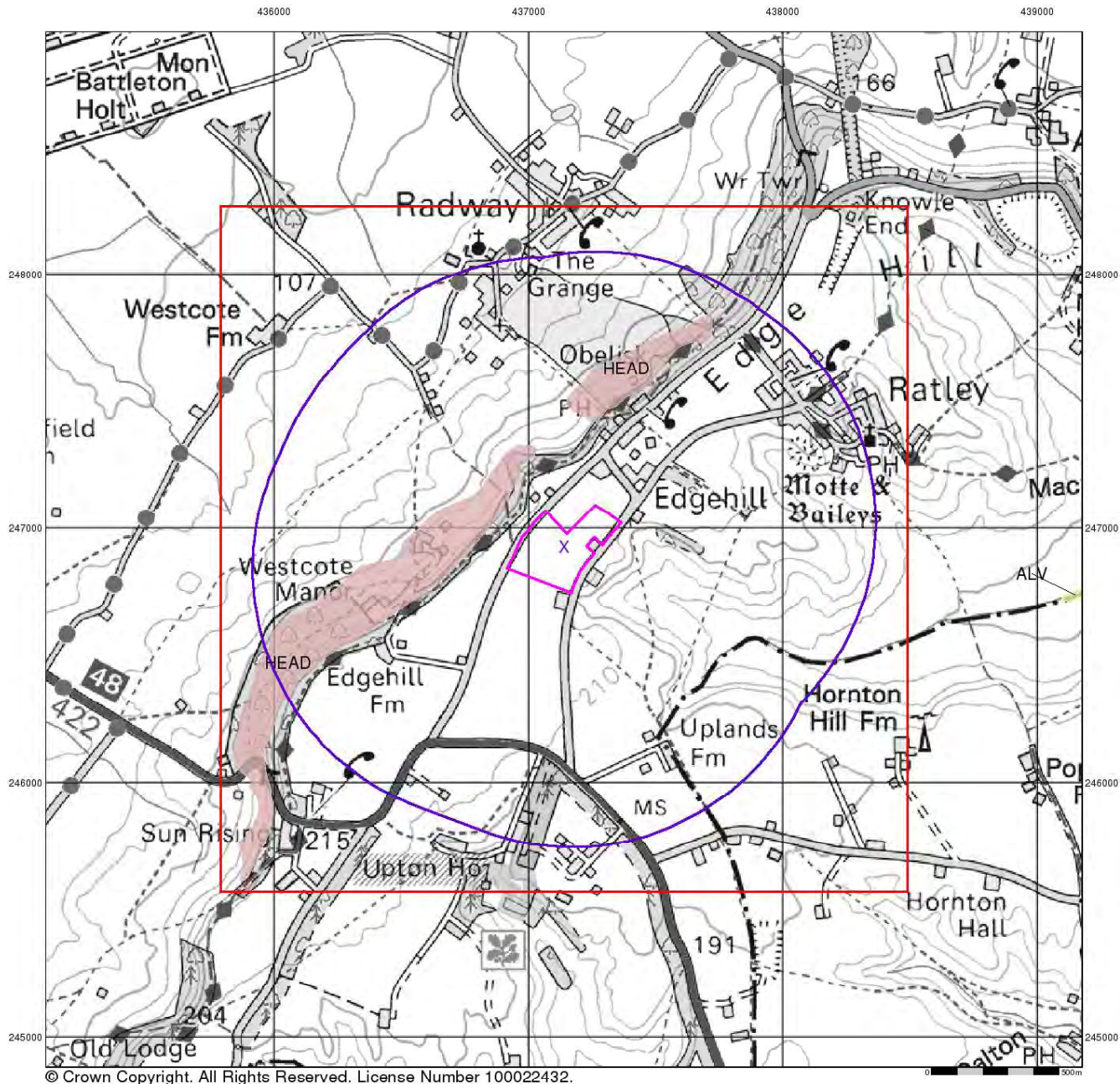
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 Search Buffer (m): 1000

Site Details:

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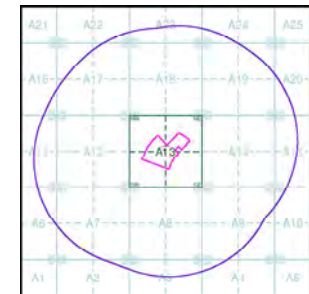
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

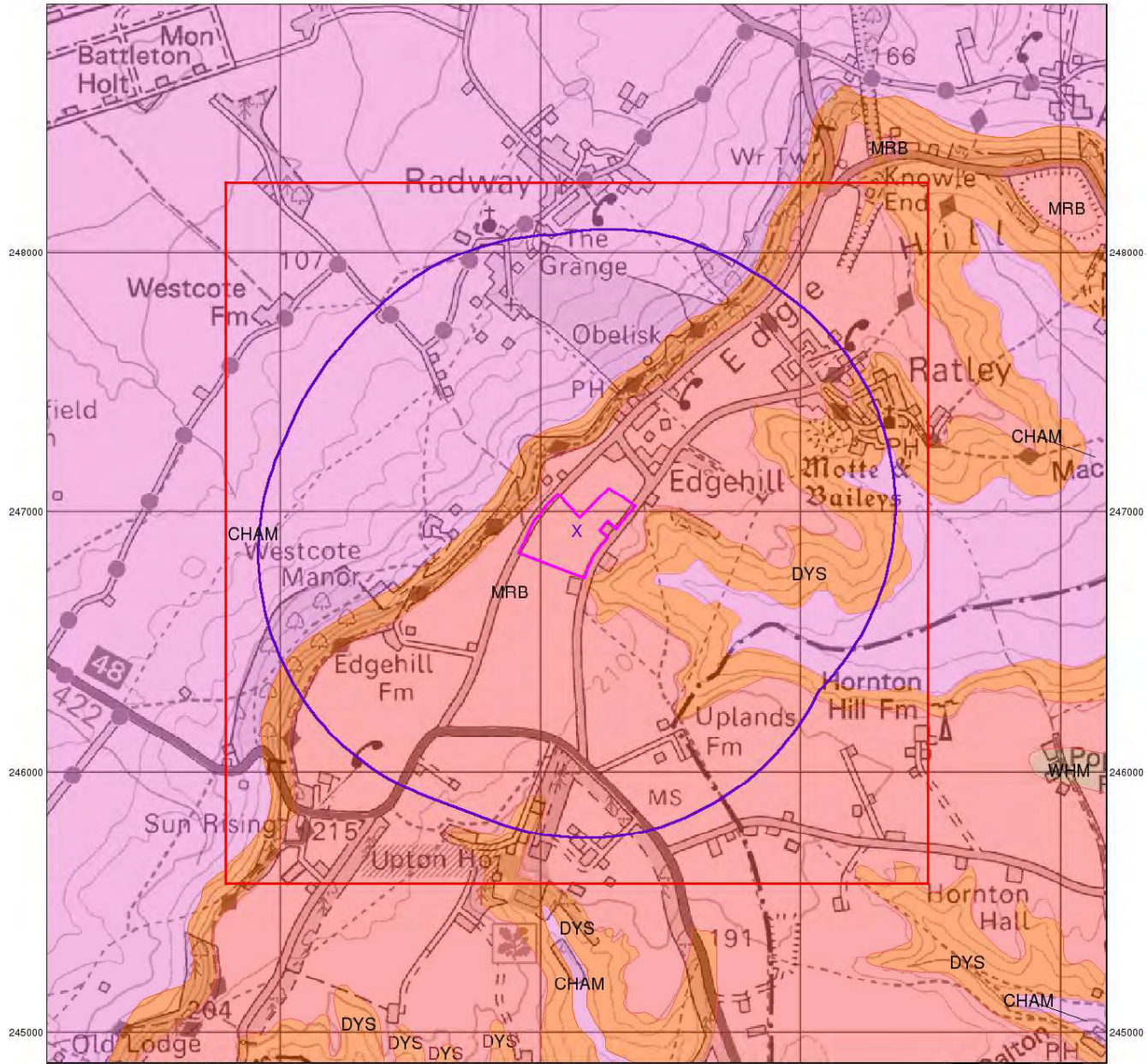
Site Details:

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436000 437000 438000 439000



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Bedrock and Faults

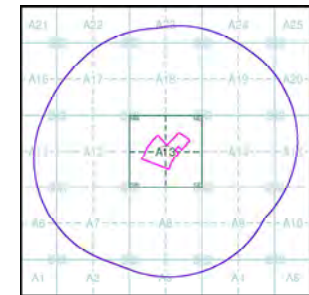
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number:	208690290_1_1
Customer Reference:	19.05.011a
National Grid Reference:	437140, 246930
Slice:	A
Site Area (Ha):	7.65
Search Buffer (m):	1000

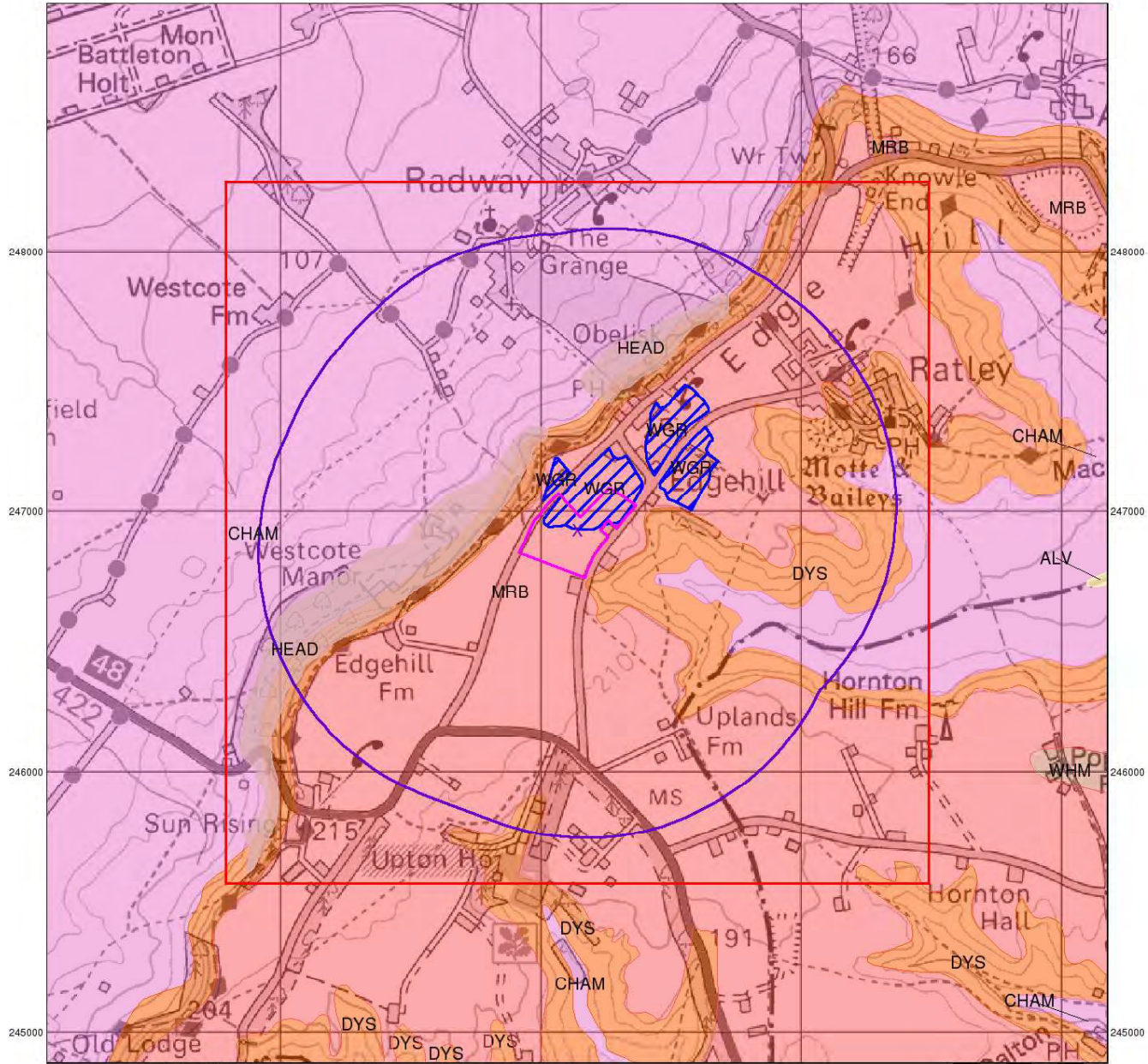
Site Details:

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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

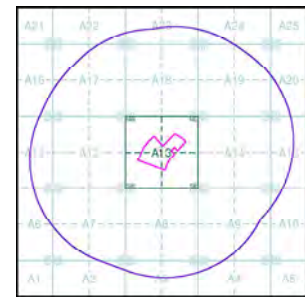
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
 Kingsley Dunham Centre
 Keyworth
 Nottingham
 NG12 5GG
 Telephone: 0115 936 3143
 Fax: 0115 936 3276
 email: enquiries@bgs.ac.uk
 website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details:

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Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

204401007_1_1

Customer Reference:

19.05.011a

National Grid Reference:

437140, 246930

Slice:

A

Site Area (Ha):

7.65

Search Buffer (m):

1000

Site Details:

Edgehill Quarry

Edgehill

BANBURY

OX15 6DH

Client Details:

Mrs J Taylor

Listers Geotechnical Consultants Ltd

Slapton Hill Barn

Blakesley Road

Slapton

Towcester

Northants

NN12 8QD

Report Section and Details	Page Number
Summary	-
<p>The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected.</p> <p>For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).</p>	
Mining and Natural Cavities Data	1
<p>The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities.</p> <p>Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.</p>	
Historical Land Use Information (1:2,500)	4
<p>The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative.</p> <p>For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.</p>	
Historical Land Use Information (1:10,000)	5
<p>The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses.</p> <p>For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.</p>	
Ground Stability Data (1:50,000)	6
<p>The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.</p>	
Historical Map List	8
<p>The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.</p>	
Data Currency	9
Data Suppliers	10
Useful Contacts	11

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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining_review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1		7	5	2
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability			n/a	n/a	n/a
Natural Cavities	pg 3			1	
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)	pg 4	1		n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying	pg 5	1	4		2
Heap, unknown constituents					
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits					
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 5		3		1
Potentially Infilled Land (Water)					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Salt Mining Related Features					
Subsidence Insurance Claims				n/a	n/a
Subsidence Investigations				n/a	n/a

Report Version v53.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Edge Hill Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 4560 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A13NE (N)	23	1	437180 247040
2	<p>BGS Recorded Mineral Sites</p> <p>Site Name: The Grove Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245970 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A13NW (NW)	33	1	436980 247024
3	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 10562 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A13NE (NE)	218	1	437439 247236
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245968 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	225	1	437390 247274
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245972 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	250	1	437412 247290
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245976 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	250	1	437412 247290

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245973 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	252	1	437412 247293
5	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Ratley Leys Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 10563 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A14NW (NE)	239	1	437550 247170
6	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245971 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	334	1	437446 247368
6	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245969 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	336	1	437444 247372
6	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245974 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	337	1	437447 247371
6	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245975 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	337	1	437447 247371

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	BGS Recorded Mineral Sites Site Name: Upton House Location: Edge Hill, Banbury, Warwickshire Source: British Geological Survey, National Geoscience Information Service Reference: 39610 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A8SW (S)	761	1	436970 246013
8	BGS Recorded Mineral Sites Site Name: Hornton Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 39603 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	784	1	437658 246136
	Coal Mining Affected Areas In an area which may not be affected by coal mining				
	Natural Cavities Cavity Type: Gulls/Fissures due to Cambering Solid Geology Detail: Lias Group, Lias Group, Lias Group Superficial Geology: No Details Detail:	A19SW (NE)	475	2	437500 247500
	Non Coal Mining Areas of Great Britain No Hazard				

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Extractive Industries or Potential Excavations from 1950-1980 Use: Stone Quarry First Map Published 1972 Date: Last Map Published Not Applicable Date:	A13NE (N)	0	-	437148 246963

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	General Quarrying Use: Not Supplied Date of Mapping: 1955 - 1982	A13NE (N)	0	-	437145 246963
11	General Quarrying Use: Not Supplied Date of Mapping: 1955	A13NW (NW)	3	-	437013 247018
12	General Quarrying Use: Not Supplied Date of Mapping: 1900	A13NW (NW)	65	-	436967 247059
13	General Quarrying Use: Not Supplied Date of Mapping: 1891 - 1982	A13NE (NE)	68	-	437422 247054
14	General Quarrying Use: Not Supplied Date of Mapping: 1891 - 1982	A13NE (NE)	115	-	437432 247113
15	General Quarrying Use: Not Supplied Date of Mapping: 1891	A8SW (S)	720	-	436981 246053
16	General Quarrying Use: Not Supplied Date of Mapping: 1891	A9SW (SE)	780	-	437646 246132
17	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NW (NW)	3	-	437013 247018
18	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NE (NE)	60	-	437417 247048
19	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NE (NE)	117	-	437425 247127
20	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A8SW (S)	720	-	436981 246053

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBCSB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
21	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
22	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
23	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	21	1	437229 246767
24	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	72	1	437291 246797
25	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	87	1	437441 246984
26	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	137	1	436928 247130
27	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	146	1	437283 246656
28	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	178	1	437377 246717
29	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	127	1	436889 247073
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
30	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	437229 246767
31	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	136	1	436893 247079
32	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	156	1	436938 247158
33	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (W)	162	1	436771 246914
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	111	1	436920 247075
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	131	1	436970 247155

Ground Stability Data (1:50,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Potential for Shrinking or Swelling Clay Ground Stability Hazards</p> <p>Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service</p>	A12SE (W)	143	1	436782 246905

The following mapping has been analysed for Historical Land Use Information (1:2,500):








1:2,500	Mapsheet	Published Date
Ordnance Survey Plan	SP3646	1972
Ordnance Survey Plan	SP3647	1972
Ordnance Survey Plan	SP3746	1972
Ordnance Survey Plan	SP3747	1972

The following mapping has been analysed for Historical Land Use Information (1:10,000):

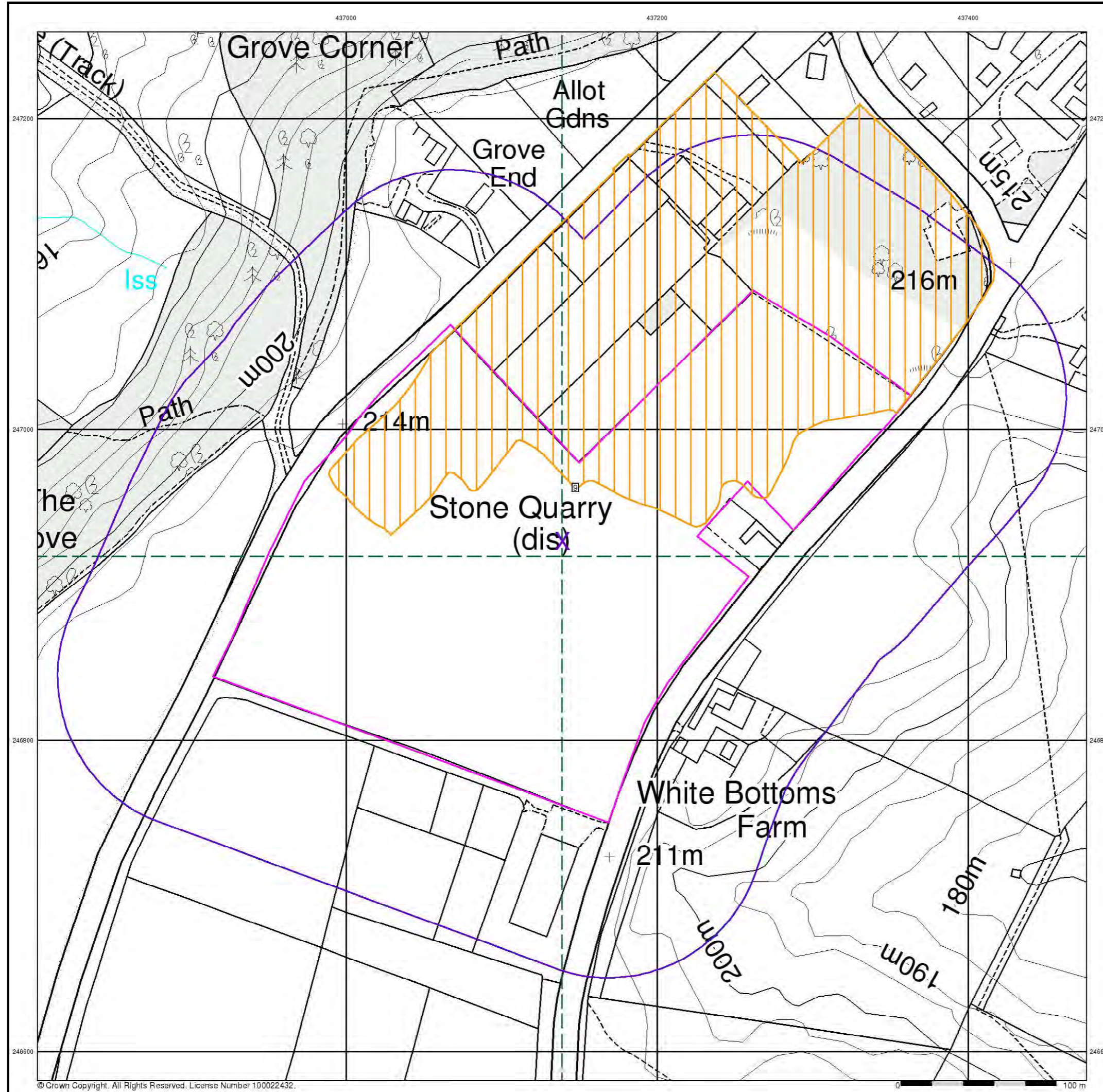
1:10,560	Mapsheet	Published Date
Oxfordshire	002_00	1885
Warwickshire	052_NW	1891
Warwickshire	052_SW	1891
Oxfordshire	002_SW	1900
Warwickshire	052_SW	1900
Warwickshire	052_NW	1906
Oxfordshire	002_SW	1923
Warwickshire	052_NW	1923
Warwickshire	052_SW	1923
Ordnance Survey Plan	SP34NE	1955
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	SP34NE	1982

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2019	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Man Made Mining Cavities Peter Brett Associates	October 2018	Bi-Annually
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural Cavities Peter Brett Associates	October 2018	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	March 2019	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Subsidence Insurance Claims SP Property Services	October 2018	Quarterly
Subsidence Investigations CET Structures Ltd	July 2018	Quarterly
Brine Subsidence Solution Area Johnson Poole & Bloomer	January 2015	Annual Rolling Update

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	
The Coal Authority	
Ove Arup	
Peter Brett Associates	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	<p>British Geological Survey - Enquiry Service</p> <p>British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG</p>	<p>Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk</p>
2	<p>Peter Brett Associates</p> <p>Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN</p>	<p>Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk</p>
-	<p>Landmark Information Group Limited</p> <p>Imperium, Imperial Way, Reading, Berkshire, RG2 0TD</p>	<p>Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk</p>



Historical Land Use Information (1:2,500)

General
 Specified Site Specified Buffer(s) Bearing Reference Point Map ID
 Several of Type at Location

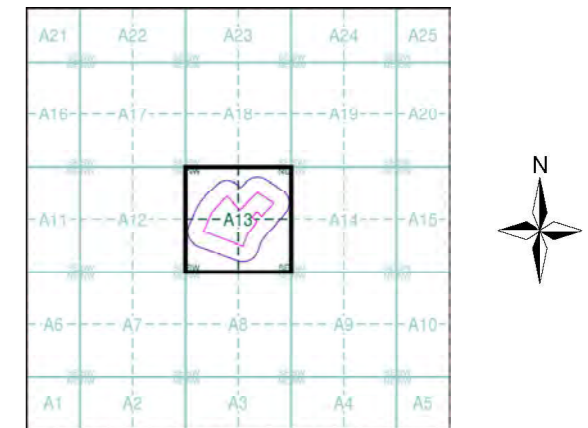
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	---	■

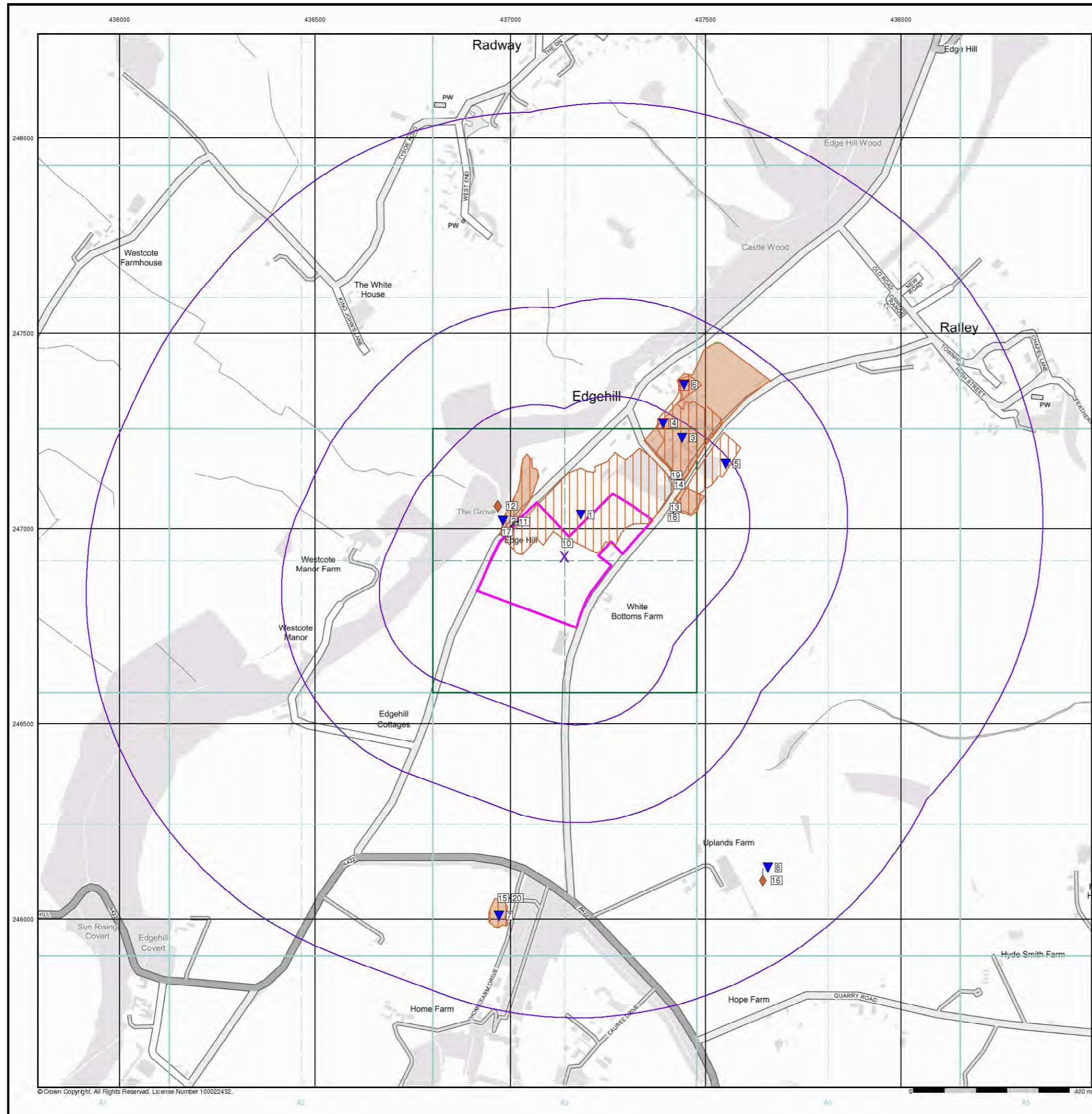
Mining and Ground Stability - Segment A13



Order Details
 Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Plot Buffer (m): 100

Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH

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Historical Land Use Information (1:10,000)

General
 Specified Site Specified Buffer(s) Bearing Reference Point Map ID
 Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts			
Disturbed Ground			
General Quarrying			
Heap, unknown constituents			
Mineral Railway			
Mining and Quarrying General			
Mining of Coal & Lignite			
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits			

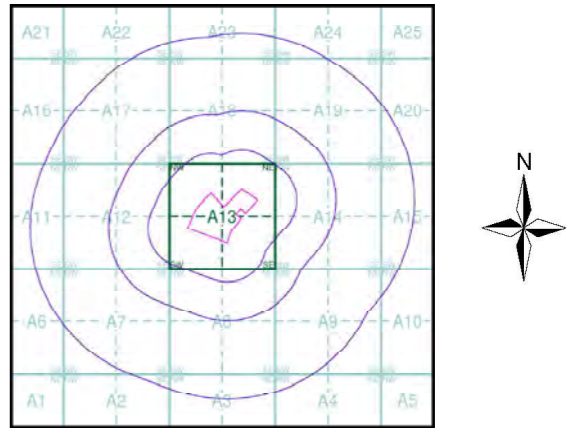
Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)			
Potentially Infilled Land (Water)			
Former Marsh			

Mining Data

- Potential Mining Area
- BGS Recorded Mineral Site

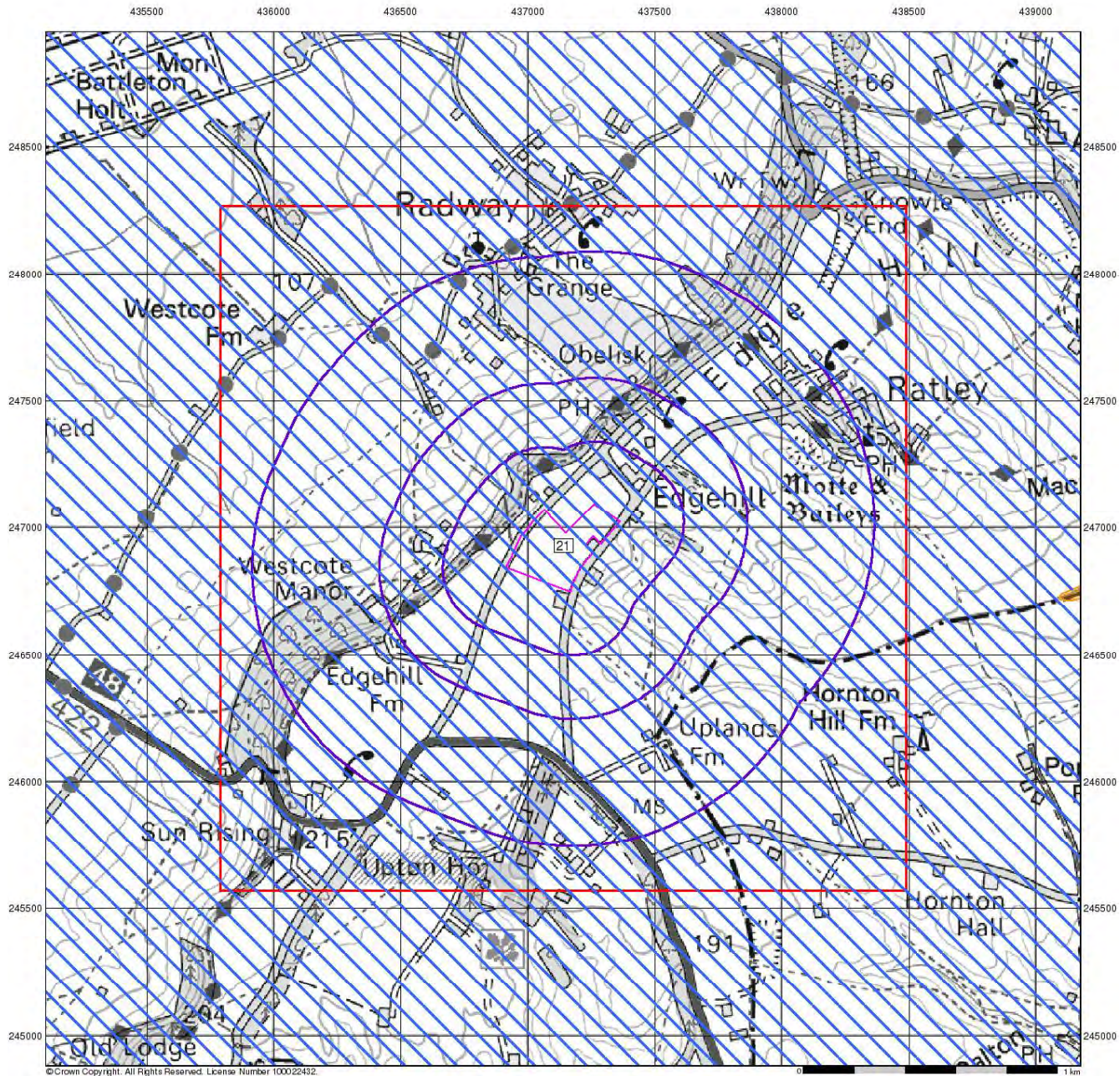
Mining and Ground Stability - Slice A



Order Details
 Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH

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



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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Potential for Compressible Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

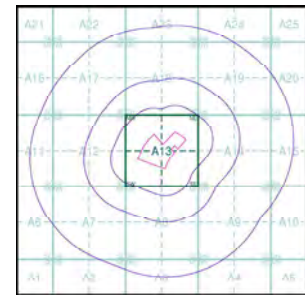
Potential for Collapsible Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Brine Pumping and Salt Mining

- | | Point | Polygon |
|-------------------------------|-------|---------|
| Brine Pumping Related Feature | | |
| Salt Mining Related Feature | | |

Mining and Ground Stability - Slice A



Order Details

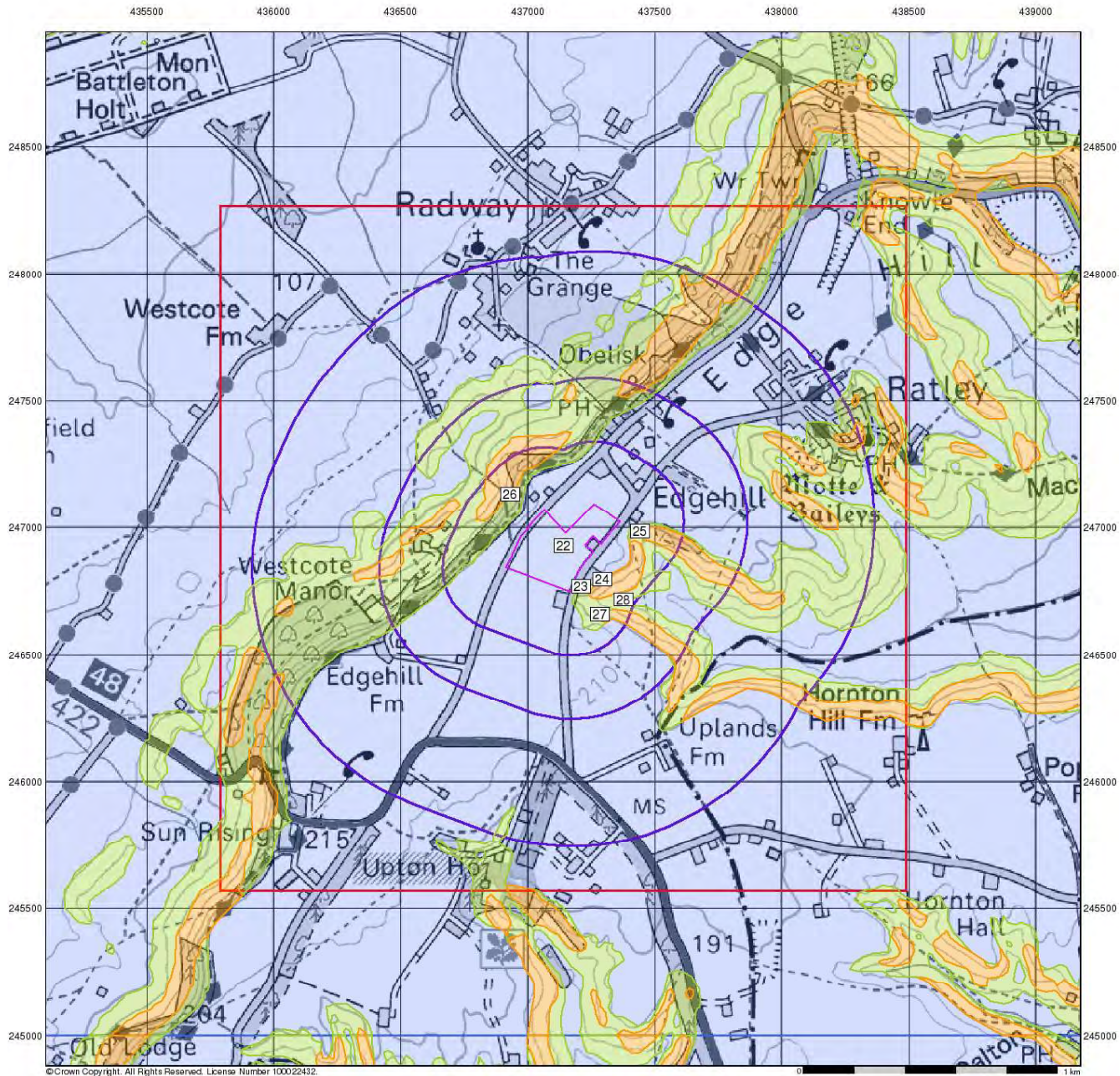
Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

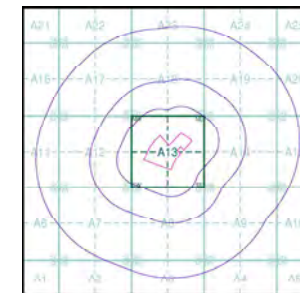
Potential for Landslide Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

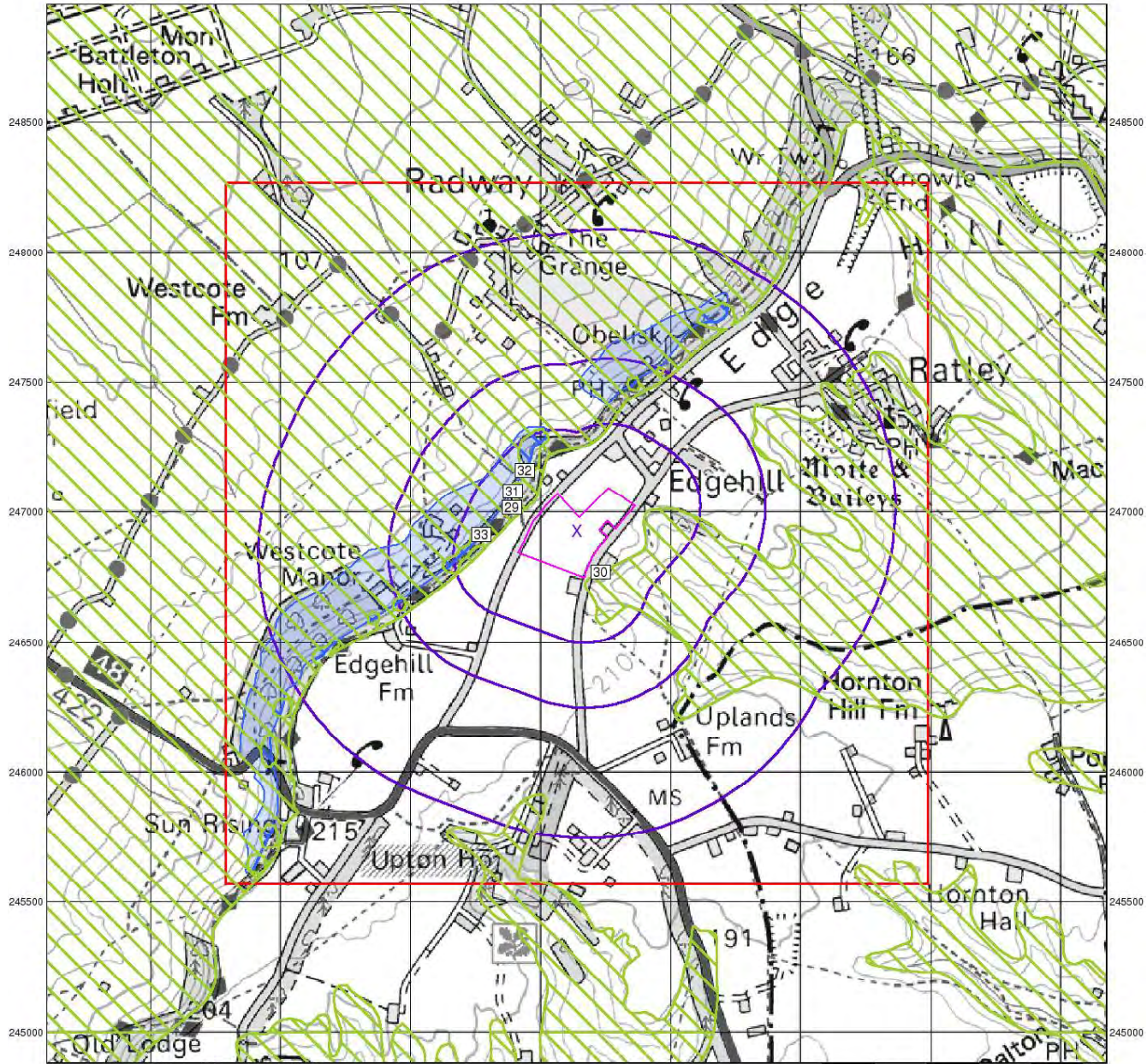
Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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435500 436000 436500 437000 437500 438000 438500 439000



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Ground Stability Data (1:50,000)

General
 Specified Site Specified Buffer(s) Bearing Reference Point
 Slice Map ID

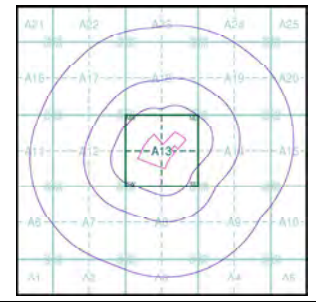
Potential for Running Sand Ground Stability Hazards

High Low
 Moderate Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

High Low
 Moderate Very Low

Mining and Ground Stability - Slice A



Order Details
 Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH

Landmark INFORMATION GROUP
 Tel: 0844 944 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



Eco Baughan 2000 Ltd

Phase 1 Desk Study and Hydrogeological Risk Assessment

**Edgehill Quarry
Edgehill
Banbury
Oxfordshire
OX15 6DH**

**Report No: 19.05.011
June 2019**



DOCUMENT RECORD

Report Title Phase 1 Desk Study and Hydrogeological Risk Assessment Report
Project Address Edgehill Quarry, Edgehill, Banbury, Oxfordshire, OX15 6DH
Project Number 19.05.011
Client Eco Baughan 2000 Ltd

Prepared By

Signed.....

Jane Taylor
Senior Geoenvironmental Engineer
MSci (Hons), MSc, MCIWEM

Checked By

Signed.....

Amanda David
Technical Director
BSc (Hons), MSc, FGS

For and on behalf of ListersGeo, trading name of Listers Geotechnical Consultants Ltd

Issue No	Date	Status
1	27 th June 2019	Draft
2	8 th November 2019	Final

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EXECUTIVE SUMMARY

Project Reference	19.05.011
Site Location	Edgehill Quarry, Edgehill, Banbury, Oxfordshire, OX15 6DH
OS Grid Reference	437140, 246930
Development Proposals	Quarry restoration to accommodate a mixed use development comprising Park Homes for permanent residential use, eco-lodges for recreational use and land set aside for ecological and biodiversity enhancement.
Current Site Usage	The site comprises a former quarry.
Existing Buildings	No permanent structures are present at the site.
Topography	The general area slopes down to the northwest and southeast with the site itself generally flat lying and excavated to approximately 3-4m below its natural elevation.
Vegetation	Minor vegetation of long-standing stockpiles has occurred.
Published Geology	The site is shown to be directly underlain by bedrock of the Marlstone Rock Formation over the Dyrham Formation. It is understood that the majority of the Marlstone Rock Formation will have been excavated during quarry operation.
Site History	The site was undeveloped prior to its use as a quarry since the 1950s. It is understood that quarrying ceased a number of years ago however screening of quarry waste has taken place at the site for the last two years.
Unexploded Ordnance	There is a low potential risk of encountering Unexploded Ordnance (UXO).
Hydrology	The nearest surface watercourse is an unnamed stream that issues from a spring approximately 160m northwest of the site and flows northwestwards.
Hydrogeology	The underlying Marlstone Rock Formation and Dyrham Formation are classified as Secondary Aquifers. There are five groundwater abstraction licences within 1km of the site, however the site is not within a designated Source Protection Zone (SPZ) for potable water supply.
Ground Conditions Encountered	Ironstone of the Marlstone Rock Formation was encountered from ground level to 0.5m and 0.6m bgl over the Dyrham Formation, proven to the base of the boreholes at 10m bgl.
Groundwater Encountered	Groundwater was not encountered during intrusive works however resting water levels of between 9.50m and 9.59m bgl were encountered during subsequent monitoring. It cannot be concluded whether water encountered represents groundwater or infiltrated rainwater at this stage.
Risks to Controlled Waters	There are considered to be no significant risks to Controlled Waters during or following the proposed restoration and redevelopment works.
Recommendations	Groundwater presence and elevation could be confirmed by way of surveying, rising head tests, and additional monitoring, if required. With regard to the Waste Recovery Permit (WRP), consideration should be to recycling facility design, environmental impacts such as dust and noise, and chemical acceptability criteria and sampling frequency. The proposed aftercare programme should include long-term gas monitoring, particularly within proposed residential areas. A Materials Management Plan (MMP) will need to be produced, in accordance with Definition of Waste: Code of Practice (DOWCOP).

This executive summary should be read in conjunction with the main report.

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- Exploratory Hole Location Plan - Existing Site Layout
- Exploratory Hole Location Plan - Proposed Site Layout
- Schematic Geological Cross-Section
- Site Photographs

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- Geology Report
- Mining and Ground Stability Report
- Historical Ordnance Survey and National Grid Maps

INTRODUCTION

A Phase 1 Desk Study and Hydrogeological Risk Assessment has been undertaken for quarry restoration works and a proposed mixed-use development at Edgehill Quarry, Edgehill, Banbury, Oxfordshire, OX15 6DH. A Site Location Plan is provided in Appendix A. The Ordnance Survey National Grid reference for the approximate centre of the site is 437140, 246930.

Instruction to undertake the works was received in stages, as follows:

- Intrusive works and factual report, instructed verbally by Andrew Baughan of Eco Baughan 2000 Ltd, on 9th May 2019
- Phase 1 Desk Study report, instructed by S B Rice Ltd, on behalf of the client, on 17th May 2019.
- Monitoring works and hydrogeological risk assessment, instructed by S B Rice Ltd, on behalf of the client, on 31st May 2019.

This report describes the desk study and intrusive site investigation activities carried out by ListersGeo in order to provide an evaluation of the ground conditions and hydrogeology of the site.

This report supplements a previous Infiltration Test report prepared by Subadra Consulting Ltd, report number IN19506 CL 001, dated May 2019, and information reported has been relied upon within this report to aid in assessment. This current report should be read in conjunction with the previous report for full details of the investigations undertaken at the site.

This report has been prepared for the sole use of the client and their professional advisors. This report shall not be relied upon by third parties without the express written authority of ListersGeo. If an unauthorised third party comes into possession of this report they must not rely on it and the authors owe them no duty of care and skill.

SCOPE OF THE INVESTIGATION

The scope of the investigation was to undertake a desk study and walkover survey, and provide an assessment of the hydrogeology of the site, with respect to the proposed quarry restoration works and redevelopment scheme.

It is understood that this information is required in support of the planning application for the development. As such, the findings of this report will require approval by the Local Authority as soon as possible to avoid delay to the development.

Following the brief, the report does not include any assessment of the engineering properties of the soils, or risk assessment with respect to the proposed infill materials.

PROPOSALS

It is proposed to infill the existing quarry with 400,000m³ of waste soils, processed at an on-site recycling facility. This is understood to comprise approximately 10,000m³ of site-derived soils currently stockpiles at the site, and 390,000m³ of imported demolition waste and soils.

Following infilling, restoration is proposed to comprise a mixed-use development comprising Park Homes for permanent residential use, eco-lodges for recreational use and land set aside for ecological and biodiversity enhancement. A proposed site layout plan is provided in Appendix A.

SITE INFORMATION AND WALKOVER SURVEY

A walkover survey of the site and its immediate surrounds was undertaken on the 20th May 2019, preceding the fieldwork. A selection of site photographs is presented in Appendix A along with a plan showing the existing site layout annotated with the salient features identified.

The site lies in a mixed residential and rural area and is currently occupied by a former quarry. Access to the site was afforded via the B4086 road to its west.

The site consists of a roughly L-shaped parcel of land, measuring approximately 380m by 260m and covering approximately 7.7 ha in area.

The general topography of the area slopes down to the northwest and southeast with the site itself generally flat lying. The existing quarry is reported to have been excavated to approximately 3-4m below its natural elevation.

The site is bordered by:

Direction	Feature
North	Undeveloped land with occasional commercial properties and residential housing beyond
East	Unnamed road with farmyard and agricultural land beyond
South	Agricultural land
West	B4086 road with agricultural land beyond

The site itself comprised a large, level expanse of open ground surrounded by steep semi-vegetated banks and rock faces, representing a former quarry. Numerous stockpiles of varying sizes were present within the site bounds, some of which comprised unscreened, semi-vegetated quarry waste and others which comprised recently segregated aggregate. A pile of scrap metal was noted to be present in the centre of the site adjacent to the remains of a former bonfire.

In the southwest of the site was a caravan, a shipping container, an above ground red diesel fuel tank, several gas canisters, and segregated piles of waste wood and textiles.

There was a portable office building in the southeast of the site, understood no longer to be in use, alongside a fenced-off area containing various old plant including diggers and HGVs.

Mobile screening plant were located in the northeast and northwest of the site with pallets of ready-packed aggregate of varying sizes along the northwestern boundary.

No obvious evidence of gross contamination or spills was observed at the site, including in the vicinity of the red diesel storage tank.

PREVIOUS WORK

Infiltration testing was previously undertaken by Subadra Consulting Ltd as detailed in letter report number IN19506 CL 001, dated May 2019. The salient points relevant to this report are included here, but the full report should be referred to for more detail.

Soakaway testing, carried out in accordance with the BRE Digest 365 (2016), was undertaken in two trial pits excavated at the site to a depth of 1.0m and 1.2m bgl. It is understood that this was carried out under the supervision of EAS Transport and Planning Ltd, reported to be the drainage consultants for the proposed works.

Ground conditions encountered were reported to comprise a thin layer of dense, light brown, gravelly, very silty sand over weak, red, grey, and brown, weathered mudstone. This was reported to represent Made Ground over the Marlstone Rock Formation but is considered by ListersGeo to be more likely to comprise residual unquarried Marlstone Rock Formation over weathered Dyrham Formation.

Infiltration rates of between 2.8m and 10m per day (3.2×10^{-5} m/s to 1.1×10^{-4} m/s) were reported with rates deteriorating with increased saturation.

DESK STUDY AND BACKGROUND INFORMATION

A desk study review of the site and its history has been undertaken to determine the former land usage and the potential for any historically derived sources of chemical contamination, as well as provide information to aid in assessment.

The information provided in the desk study is obtained from independent third-party sources but no guarantee can be given for the accuracy or completeness of the third-party data used. It should be appreciated that such data is not exhaustive and is constantly being updated and reviewed in light of new information and procedures. Therefore, improved practices, technology, and new information may affect the conclusions and hence this report should be referred back to ListersGeo for reassessment if new data comes to light, or changes in legislation/best practise is identified prior to development. Similarly, should the development commence after expiry of one year from publication of this report, then it is recommended that this report is referred back to ListersGeo for reassessment.

The desk study comprises a review of the following consultations and information sources:

- Environment Agency (EA)
- Natural England
- National Geoscience Information Service
- Public Health England
- Centre for Ecology & Hydrology
- British Geological Survey (BGS)
- Contemporary Trade Directories
- Historical Ordnance Survey maps
- Aerial Imagery
- Unexploded Ordnance (UXO) maps

Information from the above referenced sources has been utilised to develop a conceptual model of the site for use in the hydrogeological risk assessment.

A copy of the desk study information obtained from Landmark is presented in Appendix C of this report.

GEOLOGY

Published Geology

Reference to the British Geological Survey (BGS) 1:50,000 scale map sheet 201 for Banbury, dated 1982, and other published geological information on the area indicates that the site is directly underlain by bedrock geology, the Marlstone Rock Formation over Dyrham Formation of the Jurassic period.

The site itself is understood to have been quarried for the Marlstone Rock Formation and a further separate area of worked out ground is mapped a short distance north of the site.

A schematic geological cross-section of the site surround is provided in Appendix A.

Bedrock

The Marlstone Rock Formation is generally represented by interbedded ferruginous limestone and sandstone. In the site area it is anticipated to be approximately 5-10m in thickness, however approximately 3-4m is understood to have been quarried and only a minimal thickness, left to form the quarry floor, is anticipated to remain.

The Dyrham Formation is generally represented by grey and green grey, silty and sandy, nodular mudstone. Beneath the site it is likely to be in the region of 40m in thickness.

Historical Boreholes

The BGS holds records of exploratory holes historically put down during previous investigations. The records of one historical borehole, located approximately 350m north of the site, has been reviewed to aid in preliminary assessment of the ground conditions.

It encountered red sandy stone to approximately 8m underlain by clay to the base of the borehole at 17.7m below ground level (bgl). It is not reported whether groundwater was encountered.

HISTORY OF THE SITE

The history of the site has been established by reviewing available historical Ordnance Survey and National Grid maps and aerial imagery of the area. This has identified the following:

Time Period	Historical Usage of the Site	Historical usage of the Surrounding Area
1886	The site forms part of two fields with tracks crossing in the south and north of the site.	<p>The site is surrounded predominantly by agricultural fields with the village of Edgehill largely as present day, labelled as 'Ratley Grange'. The roads bounding the site to the east and west are shown in their current position, as is the barn immediately east of the site.</p> <p>A windmill (corn) is located approximately 30m northwest of the site.</p> <p>There are two quarries labelled to the north, with excavations shown to extend from approximately 100m to 400m northeast of the site.</p> <p>A small excavation is also marked approximately 10m west of the site but it is unlabelled.</p> <p>Two small 'old quarries' are shown approximately 760m south and 780m southeast of the site.</p>
1900 - 1905	The tracks are no longer shown.	<p>The quarries 100m northeast of the site are shown to have expanded.</p> <p>The small excavation to the west is labelled as 'Old Quarry'.</p>

Time Period	Historical Usage of the Site	Historical usage of the Surrounding Area
1922 - 1928		The windmill is no longer mapped. Continued quarry expansion is shown to the northeast.
1955	The northern part of the site is shown to form part of the quarry to the north of the site. The south of the site is still shown as undeveloped.	Significant expansion of the quarries in the northeast has occurred to the north, east, and south. The former 'old quarry' 10m west of the site is also shown to have expanded northwards.
1972 - 1993		The village is labelled as 'Edgehill'. The excavation to the west of the site appears to have been infilled and redeveloped to include some small buildings. Partial infilling and redevelopement of the quarry to the northeast is also indicated to have occurred, including residential properties. The small old quarry 760m south of the site appears to have been infilled.
1996	The quarry is shown to have extended southwards and is now covering two thirds of the site. A small building is shown in the north of the site.	The eastern extent of the quarry to the northeast is shown to have been infilled, part of which is labelled to comprise an orchard. Only a small area of excavation remains; labelled as disused. The portion of the quarry immediately north of the site itself is shown to have been infilled.
1999	Aerial imagery indicates the quarry to have extended further southwards, leaving only a narrow strip at the southern end unworked.	
2006	Aerial imagery shows the site with its current boundary.	The portion of the quarry immediately northwest of the site is shown to have been infilled and divided into several small field plots. A large building is present immediately adjacent to the southeastern corner of the site. The small old quarry 780m southeast of the site appears to have been infilled.
2017		Aerial imagery shows an area of parked lorries immediately adjacent to the northwest of the site.
2019	The site is shown with its existing boundary and is labelled as disused workings.	

INTERVIEWS

Dialogue with the current site operator informed that formal quarry operations at the site finished a number of years ago however screening of quarry waste was currently being undertaken and had been for the last two years.

UNEXPLODED ORDNANCE AND BOMB SITES

The Zetica bomb risk map shows that the site is located in an area where there is a low risk of unexploded ordnance. Low-risk regions are those with a bombing density of up to 15 bombs per 1,000 acres and there is a low potential for encountering UXO on the site. Works can normally proceed without any special precautions.

HYDROLOGY

The nearest surface watercourse is an unnamed stream that issues from a spring approximately 160m northwest of the site and flows northwestwards. Further streams issue from springs located 340m north, flowing northward, and 370m west, flowing to the northwest.

The EA's Catchment Data Explorer indicates that the site lies on the western edge of the 'Cherwell' Operational Catchment, with surface water feeding the Sor Brook, approximately 600m southeast of the site. The stretch of the Sor Brook closest to the site has an overall water body classification of 'Poor', as recorded in 2016, due to its ecology.

The Envirocheck data indicates that the site lies outside of any flood impact zones. However, this information does not constitute a site-specific Flood Risk Assessment (FRA), as the results of a site-specific FRA may differ to the information provided in the baseline desk study. It is therefore recommended that further enquiries are made to determine if a site-specific FRA is required to support the planning application/development at the site.

There are no potentially-active surface water abstraction licenses recorded to be located within 1000m of the site.

HYDROGEOLOGY

Information obtained from the EA indicates that the Marlstone Rock Formation is classified as a Secondary A Aquifer and the underlying Dyrham Formation is classified as a Secondary (Undifferentiated) Aquifer.

The aquifer designation data is based on geological mapping provided by the BGS. The maps are divided into two different types of aquifer designation:

- **Superficial (Drift)** - permeable unconsolidated (loose) deposits. For example, sands and gravels.
- **Bedrock** - solid permeable formations e.g. sandstone, chalk and limestone.

For each type there are classifications of Principal, Secondary A and Secondary B Aquifers, and Unproductive Strata, each with a decreasing rank of importance.

There are five records of potentially-active groundwater abstraction licenses located within 1000m of the site. All the abstractions are reported to be for general farming and domestic purposes and comprise wells located 240m southeast and 830m northeast of the site, and three springs located 310m to 410m north.

The Drinking Water Inspectorate (DWI) use the term domestic purposes to mean drinking, cooking, and washing in either domestic or commercial premises. It has therefore conservatively assumed that all of these abstractions may be intended for potable consumption.

According to information provided by the EA the site is outside of any Source Protection Zones (SPZ) for public potable water supply.

WASTE TREATMENT AND LANDFILL SITES

One current and two historical landfill disposal sites are recorded within 1000m of the site. A current and a historical landfill site are reported to have been on the north of the site itself, however may have been adjacent. Information reported about the current landfill indicates that a licence was granted in 1989 to accept brick and concrete rubble and clean soils, however the licence was never used. Another historical landfill site was located on a disused quarry approximately 100m northeast of the site. No further information is held.

Given that the quarry infill material is currently unknown, and hence the possibility of a functioning pathway cannot be discounted, it is considered possible that these landfill sites may pose a significant risk to the subject site, along with the quarry infill itself.

Reference to records from the BGS, the EA and the Local Authority indicates that there are no waste transfer, treatment, or management facilities within 1000m of the site area.

ENVIRONMENTAL PERMITS, INCIDENTS AND REGISTERS

There has been one recorded pollution incident to controlled waters within 1000m of the site; concerning a minor spillage of oils approximately 120m northeast of the site in January 1999.

There are no Integrated Pollution Control (IPC) licenses, Local Authority or Integrated Pollution Prevention and Control (IPPC) licenses within 2000m of the site.

There are two records of potentially-active discharge licenses located within 1000m of the site, as follows:

- One relating to a domestic property, approximately 590m northwest of the site, discharging treated sewage effluent to a tributary of the Radway Brook.
- One relating to the National Trust property, Upton House, approximately 950m south of the site, discharging treated sewage effluent to groundwater.

INDUSTRIAL USAGE SITES

There are two past or present trade directory entries that have been identified up to 250m from the site. These comprise an inactive and an active haulage company located at the same address approximately 80m north of the site.

The nearest active fuel filling station is identified to be in excess of 1km from the site.

The site was formerly used as a quarry. Contaminants associated with this usage may include fuels and oils resulting from spills or leaks from plant or plant refuelling.

WORKED OUT GROUND/MADE GROUND

Worked out ground is recorded at the site itself and from immediately north of the site, approximately 10m west of the site, from approximately 100m to 400m northeast of the site, approximately 760m south of the site and 780m southeast of the site. Evidence of infilling in these areas is shown for all of these areas with the exception of a small area approximately 180m northeast of the site.

RADON GAS

Desk study information indicates that the site lies within an area where more than 30% of homes exceed the action level of 200 Bq/m³ for radon gas. In accordance with BR 211, 'Radon: guidance on protective measures for new dwellings', full radon protection measures are therefore reported to be necessary in the construction of new dwellings or extensions on this site.

POTENTIAL GEOTECHNICAL HAZARDS

Geological

The risk of naturally occurring geotechnical hazards at the site is recorded in the Envirocheck report to be as follows:

Ground Stability Hazard	Hazard Potential	Potential Risk Strata
Landslides	Low to Moderate	Dyrham Formation
Shrinking and swelling clays	Low	Dyrham Formation
Collapsible deposits	Very Low	
Ground dissolution from soluble rocks	No Hazard	
Running sand	No Hazard	
Compressible deposits	No Hazard	

A potential risk also exists of gulls and cambering of the Marlstone Rock Formation over the Dyrham Formation on the valley sides.

Mining

The desk study information identified that the site does not lie within an area likely to be affected by coal mining or non-coal mining.

Natural Cavities

There is a record of natural cavities approximately 480m southwest of the site, reported as gulls/fissures, associated with the Marlstone Rock Formation.

BACKGROUND SOIL CHEMISTRY

Information from the BGS is provided in the following table listing the background soil chemistry of some commonly occurring inorganic elements in the natural soils in the site area:

Contaminant	Level in Rural Soil (mg/kg)
Arsenic	60 - >120
Cadmium	<1.8
Chromium	20 - >180
Lead	<100
Nickel	80 - >100

These concentrations indicate potentially elevated arsenic, nickel, and chromium concentrations in the area and that the concentration of arsenic in locally-derived soils, potentially proposed for infill, is likely to exceed published Generic Assessment Criteria (GAC) for a residential site.

POTENTIALLY SENSITIVE LAND USES

The site is located within the Cotswolds Area of Outstanding Natural Beauty (AONB) and within three broad nitrate vulnerable zones. Additionally, an area of Ancient Woodland extends from 50m northwest of the site.

No further potentially sensitive land uses are located within 500m of the site.

CONCEPTUAL SITE MODEL

A preliminary qualitative risk assessment has been carried out using the source-pathway-receptor principle to create a Conceptual Site Model (CSM). It is understood that the development proposals are to infill the existing quarry to accommodate a mixed-use development comprising Park Homes (conservatively assumed to include private gardens), eco-lodges for recreational use, and land set aside for ecological and biodiversity enhancement.

Potential sources of contamination and potential receptors have been assessed using the Contaminated Land Exposure Assessment (CLEA) Guidelines. This takes into account the fact that a complete pathway must exist between a potential source of contamination and a potential receptor for there to be considered a risk.

POTENTIAL SOURCES OF CONTAMINATION

The results of the desk study and walkover indicate that the following potential sources of contamination are present at, or in close proximity, to the site:

Soil/Groundwater

- On-site fill
- Former on-site and adjacent quarrying operations, including fuels and oils
- Elevated naturally-elevated arsenic concentrations

Ground Gas

- On-site proposed infilling operations (approximately 3-5m in thickness)
- Historical landfilling operations, immediately adjacent to the northwest and approximately 100m northeast of the site
- Naturally-generated radon gas

POTENTIAL RECEPTORS

The following receptors have been identified at or in close proximity of the site:

Human Health – Long Term Exposure

- End users of the site - the future residents and visitors
- Surrounding residents

Human Health – Short Term Exposure

- Construction workers

Controlled Waters

- Groundwater of the underlying and adjacent Marlstone Rock Formation (Secondary A Aquifer)

- Groundwater of the underlying Dyrham Formation (Secondary Undifferentiated Aquifer)
- Surface water of the unnamed stream, 160m northwest of the site

Infrastructure

- Buried substructures
- Water supply pipes

POTENTIAL PATHWAYS

It is considered that the following potential pathways may exist between the potential sources and receptors identified above.

Human Health

- Direct soil ingestion in areas of exposed soil
- Ingestion of soil attached to home-grown fruit and vegetables
- Ingestion of fruit and vegetables with contamination uptake
- Inhalation of indoor and outdoor gases, vapours, and/or dust
- Dermal contact with contaminated soil

Controlled Waters

- Migration of contaminants through the unsaturated zone
- Migration of contaminants through the groundwater
- Movement of contaminants through drains or services runs

Infrastructure

- Leachable or corrosive contaminants within the soil
- Leachable or corrosive contaminants within the groundwater

PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT

Based on the desk study research and the walkover survey, the following potentially-complete pollutant linkages have been assessed, both during and following restoration and development:

Source	Pathway	Receptor	Complete Linkage Potential
Potentially impacted soils and groundwater <i>- including Made Ground, arsenic, and hydrocarbons</i>	Ingestion - in areas of exposed soil or attached to and/or contained within homegrown produce	End users of the site - the future residents and visitors	Possible - risk dependant on contaminants in imported material.
		Construction workers	
		Surrounding residents	Unlikely, due to distance of receptors from site.
	Inhalation - indoor and outdoor gases, dusts, and/or vapours	End users of the site - the future residents and visitors	Possible - risk dependant on contaminants in imported material.
		Construction workers	
		Surrounding residents	
	Dermal contact - with areas of exposed soil and wind-blown dusts	End users of the site - the future residents and visitors	Possible - risk dependant on contaminants in imported material.
		Construction workers	
		Surrounding residents	
	Direct contact - corrosive contaminants with infrastructure	Buried substructures	Possible - risk dependant on contaminants in imported material.
Water supply pipes			
Migration of contaminants through the unsaturated zone, groundwater, or service runs	Groundwater - underlying Secondary Aquifers	Unlikely, based on likely low permeability strata and distance to known potable abstraction points.	
	Surface water - Unnamed stream - 160m NW		
Ground Gas	Migration of contaminants through the unsaturated zone or service runs	End users of the site - the future residents and visitors	Possible, given reported radon risk and nearby landfill sites.
		Construction workers	Unlikely, due to outdoor dispersion.
		Surrounding residents	Unlikely as a result of site.

GEOTECHNICAL CONCEPTUAL SITE MODEL

It is understood that Park Homes and single storey eco-lodges are proposed at the site. These are likely to place minimal loadings and shallow foundations are likely to be sufficient. Consideration should be made, however, to the potential for variable settlement of the infilled material with regard to foundations and service runs and flexible materials made be required.

Access roads across areas of infilled ground will need to be constructed on suitably compacted coarse-grained fill and be of an appropriate minimum pavement construction thickness as it is likely that it will be considered frost susceptible.

Given that the quarry is dry to a depth of approximately 3-5m bgl, it is unlikely that groundwater will flood excavations and/or affect stability during groundworks.



If Sustainable Drainage Systems (SuDS) are to be installed it may be pertinent to ensure that sufficient coarse-grained infill material is placed in their vicinity is in order to facilitate infiltration.

EXPLORATION AND TESTING

Three rotary boreholes were drilled at the site on 20th and 21st May 2019.

The positions of all exploratory holes undertaken at the site as part of this investigation can be seen on the Exploratory Hole Location Plans in Appendix A and the logs are provided in Appendix B.

The exploratory excavations were surveyed using a handheld GPS device to the nearest 5m. Elevations have not been provided.

SAMPLING STRATEGY

The investigation was undertaken in accordance with the scope of works agreed with the client's representative, S B Rice Ltd. The positions of the exploratory holes were selected by ListersGeo to form a triangle across the site.

METHODOLOGY

Although the site forms the base of a quarry, as a precaution, the proposed locations were scanned using a Cable Avoidance Tool prior to commencement of intrusive works in order to minimise the dangers from/to unrecorded buried services and a service avoidance pit was dug, using insulated hand tools, to a depth of around 1.2m bgl.

Boreholes, RO1 to RO3, were drilled utilising an openhole technique with a Beretta 44 rotary rig, at a diameter of 115mm, to a depth of 10m bgl. Metal casing was extended to a depth of 3m bgl in each of the boreholes, to avoid the collapse of the looser deposits within the upper part of the boreholes. Air mist flush was used in order to enable groundwater strikes to be recorded. On completion, all three of the boreholes were installed as monitoring wells with 50mm diameter slotted uPVC standpipe from 1.0m to 10.0m bgl. The slotted section of the standpipe was surrounded with pea gravel and sealed with expansive bentonite above and below. The standpipes were finished with raised stopcock covers.

Subsequent groundwater monitoring was undertaken on one occasion following the intrusive work.

Conclusions given in this report are based on data obtained from these sources but it should be noted that variations, which affect these conclusions, may inevitably occur between and beyond the test locations.

GROUND CONDITIONS

The intrusive investigation revealed that the general succession of strata was represented by a layer of Marlstone Rock Formation overlying the Dyrham Formation to the full depth of the investigation at 10m bgl.

The Ground Model for the site is as follows:

MARLSTONE ROCK FORMATION

The Marlstone Rock Formation was encountered at each borehole location from ground level to 0.5m and 0.6m bgl, with an average thickness of 0.57m and comprised ironstone (drillers description).

DYRHAM FORMATION

The Marlstone Rock Formation was encountered at each borehole location from either 0.5m or 0.6m bgl to the base of the borehole at 10m bgl, and comprised highly weathered, orange and grey, silty clay (drillers description).

GROUNDWATER

Groundwater was not encountered in any of the boreholes during the intrusive work down to 10m bgl, for the short time that the holes were open.

Subsequent monitoring carried out as part of the project recorded standing groundwater levels of between 9.50m and 9.59m bgl. As this equates to a minimal thickness of water in the standpipe it cannot be concluded that this represents the groundwater itself and may instead be a result of rainwater that has infiltrated into the monitoring well and was unable to drain away.

It is not possible to infer hydraulic gradient or groundwater flow direction due to lack of topographical elevation data.

CONTAMINATION

Soil

No obvious olfactory or visual evidence of soil contamination was observed during intrusive work.

Groundwater

No obvious olfactory or visual evidence of groundwater contamination was observed during monitoring.

HYDROGEOLOGICAL RISK ASSESSMENT

The following quantitative risk assessment has been carried out using the source-pathway-receptor principle. This takes into account the fact that a complete linkage must exist between a potential source of contamination and a potential receptor for there to be considered a risk.

The potential Controlled Waters receptors assessed at the site are:

- Groundwater of the underlying and adjacent Marlstone Rock Formation (Secondary A Aquifer)
- Groundwater of the underlying Dyrham Formation (Secondary Undifferentiated Aquifer)
- Surface water of the unnamed stream, 160m northwest of the site

The preliminary environmental risk assessment indicated that there were unlikely to be complete linkages with any of the identified potential Controlled Waters receptors.

During subsequent investigation, groundwater was not encountered during intrusive works and only in minimal quantities at the base of the boreholes during subsequent monitoring (at 9.5m bgl approximately 0.3m from the base of the monitoring wells). As such, based on this single monitoring visit, it is not possible to conclude whether this water was representative of a groundwater body or rainwater that has infiltrated into the monitoring well and not been able to drain away.

The following points have been made on the conservative assumption that the water encountered does indeed represent groundwater.

- The site is located on a topographical high of c.215m above Ordnance Datum (AOD) natural ground level (some 50m higher than the surrounding area), formed by the underlying Dyrham Formation (see cross-section in Appendix A). This infers a quarry floor elevation of c.210m AOD and approximate encountered water level of c.200m AOD. Given its protrusion above the surrounding area and underlying geology, it is likely that any groundwater encountered within the monitoring wells, and therefore the Dyrham Formation, would have represented a perched rather than continuous groundwater body.
- Nearby groundwater abstractions are located at a significantly lower elevation (well to southeast at c.180m AOD and springs to northwest at c.160-175m AOD), likely to be towards the base of the Dyrham Formation or underlying Charmouth Mudstone Formation, as are all of the nearby watercourses (Sor Brook to southeast at c.175m AOD and springs to northwest at c.160-175m AOD). This indicates that the continuous water table is likely to rest at 160-175m AOD; approximately 35-50m below the existing quarry floor and 40-55m below the likely final site levels following restoration.
- The presence of a perched water body some 25-45m above the continuous water table indicates that the geology is of low permeability and a pathway to the continuous groundwater body is unlikely to be present. This is supported by the infiltration rate in the order of 10^{-5} m/s recorded by Subadra (2019).

- Recycled material used to infill the site, be it imported or site-derived, will likely be subject to acceptance criteria with regard to human health as a minimum, as required by the regulators. This will mean that concentrations of potential contaminants are likely to be relatively low.
- Given the distance to continuous groundwater and the likely low concentrations of contaminants, any potential contaminants introduced through infilling operations are therefore unlikely to reach the aquifer in significant quantities, if at all. Regardless of groundwater flow direction, potential contaminants are therefore even less likely to reach the ultimate receptors of the groundwater abstractions and nearby surface water bodies over 160m from the site.

Given the above assessment, it is considered that during or following restoration and redevelopment of the site there is unlikely to be a significant risk to Controlled Waters in the vicinity of the site.

Irrespective of this, it would be pertinent to construct the on-site recycling facility in such a way to minimise impacts prior to confirmation of its acceptability for re-use including, but not restricted to, construction on an impermeable membrane protected by an appropriately thick layer of soil and graded towards bunded water collection sumps, as appropriate, in accordance with best practice procedures.

Evidence that the restoration activities have not adversely affected the environment is likely to be required as part of the Waste Recovery Permit (WRP) required for restoration operations with details of how pollution reduction is to be achieved required for the initial application process.

REGULATORY APPROVAL

The findings of this assessment will require approval by the Local Authority and Environment Agency prior to any development taking place in order to minimise delay, should further assessment or precautions during restoration be requested.

RECOMMENDATIONS

Although groundwater levels beneath the site were not confirmed, the findings of the investigation indicate that there is unlikely to be a significant risk to nearby Controlled Waters during or following restoration and redevelopment works.

Should further confirmation of groundwater presence and elevation be required, further siteworks are advised to comprise rising head testing, elevation surveying, and additional groundwater level monitoring of all three of the monitoring wells, particularly during wetter seasons when groundwater levels would be expected to rise.

With respect to the restoration activities, infilling is proposed to total 400,000m³ and as such a Bespoke WRP will be required for the operations. As part of the application process and overall operation of the scheme, details of the site construction and operating procedures will be required along with a management plan regarding reduction of pollution risks, in accordance with EA guidance (EPB2, 2018). It is therefore recommended that when preparing these documents, the following aspects are considered:

- Recycling facility design to minimise impacts from soils prior to confirmation of their acceptability for re-use, such as a bunded construction on an impermeable membrane protected by an appropriately thick layer of soil and graded towards bunded water collection sumps, as appropriate.
- Potential impacts of dust and noise on the surrounding residents and environment and possible positioning of environmental monitoring points around the recycling facility and site itself in order to minimise impact to the site surrounds.
- Sampling frequency and site-specific acceptability thresholds for the key contaminants to be tested, protective of human health and controlled waters, in order to prove their acceptability. These will need to be agreed with the regulators. It should be noted that it may be possible to zone the site with regard to acceptability criteria, with land set aside for ecological enhancement and deeper soils requiring less stringent criteria than the residential area, in order to widen the importation opportunities.
- The proposed aftercare monitoring programme designed to confirm both that the site has been returned to a satisfactory state and that the restoration is fit for purpose, in accordance with the WRP. This is recommended to include long-term gas monitoring in the residential areas, particularly in the vicinity of the Park Homes.

In addition to the above, a Materials Management Plan (MMP) will need to be produced to document the proposed material movements, in line with the Definition of Waste: Code of Practice (DOWCOP).

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14. EA, Form Guidance EPB: Application for an environmental permit - Part B2 general - New bespoke permit, EPB2 version 12, 2018.




APPENDIX A PLANS AND PHOTOGRAPHS

Extract of 1:50,000 Ordnance Survey Explorer Map



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Key:  Approximate Site Location



Listers Geotechnical Consultants Ltd www.listersgeotechnics.co.uk Tel: 01327 860060

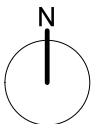
Title: Site Location Plan

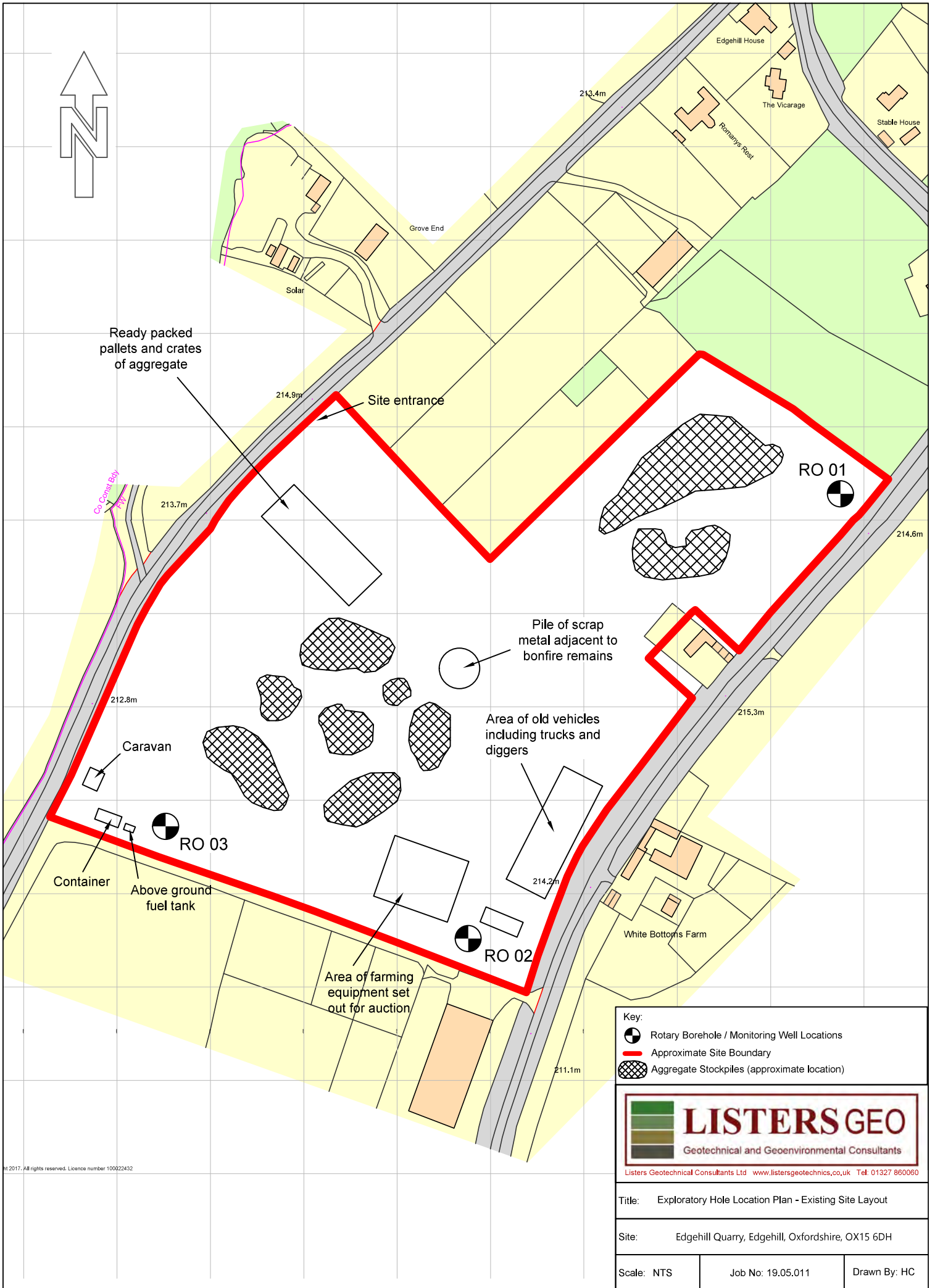
Site: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Scale: NTS

Job No: 19.05.011

Drawn By: HC





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Key:	
	Rotary Borehole / Monitoring Well Locations
	Approximate Site Boundary
	Aggregate Stockpiles (approximate location)



Listers Geotechnical Consultants Ltd www.listersgeotechnics.co.uk Tel: 01327 860060

Title: Exploratory Hole Location Plan - Existing Site Layout		
Site: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH		
Scale: NTS	Job No: 19.05.011	Drawn By: HC



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View of site entrance from centre of site (view to northwest)



View across site from southern site boundary with parked trucks in right of view (view to northeast)



Typical condition of excavation boundary (view of northeastern corner and



Typical condition of existing quarry floor



Caravan and fuel tank in southwestern corner (view to west)



Farming equipment set out for auction with southern boundary beyond (view to south)



Stockpiles of screened materials in centre of site



Packed pallets of screened aggregate in northwest of site (view to northwest)



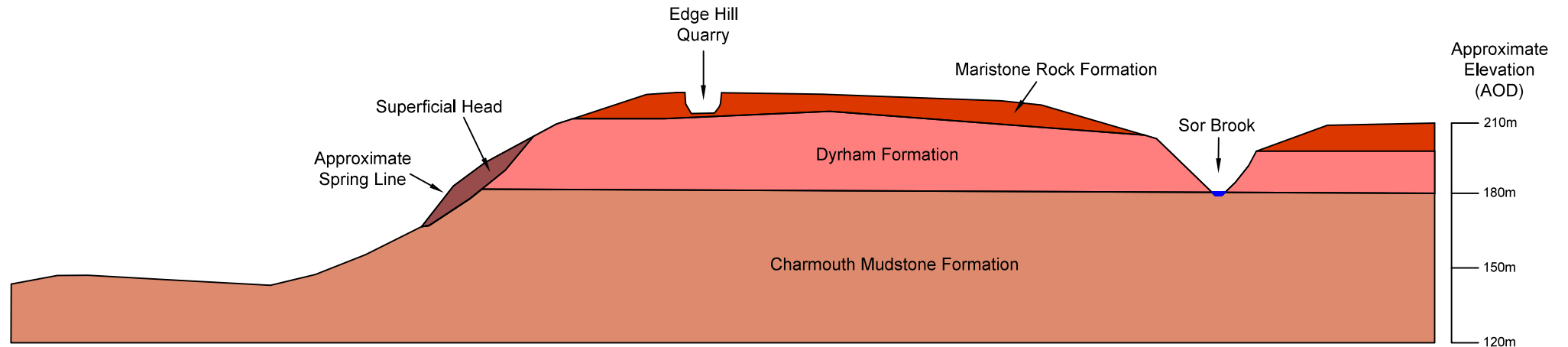
Segregated waste in southwest of site with fuel tank in right of view (view to south)



Stockpile of waste metal in centre of site with bonfire remains adjacent (view to north)

NW

SE



N.B. Not to scale. Vertical exaggeration approximately x3



Listers Geotechnical Consultants Ltd www.listersgeotechnics.co.uk Tel: 01327 860060

Title: Schematic Geological Cross-Section

Site: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Scale: NTS

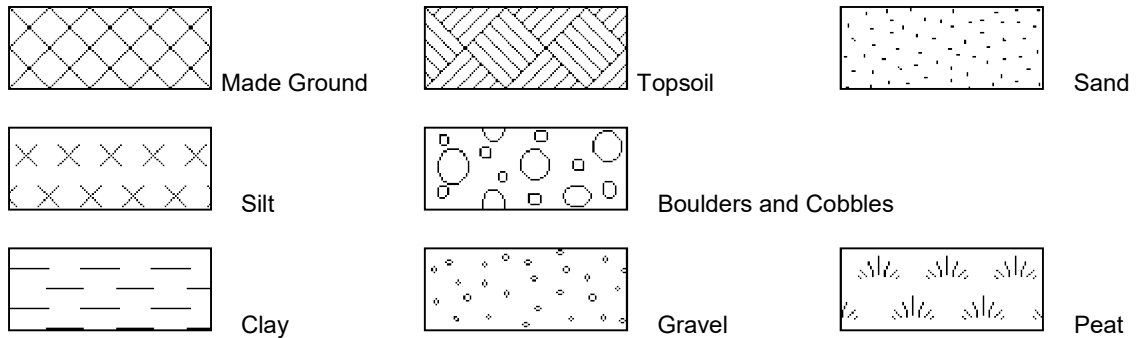
Job No: 19.05.011

Drawn By: HC

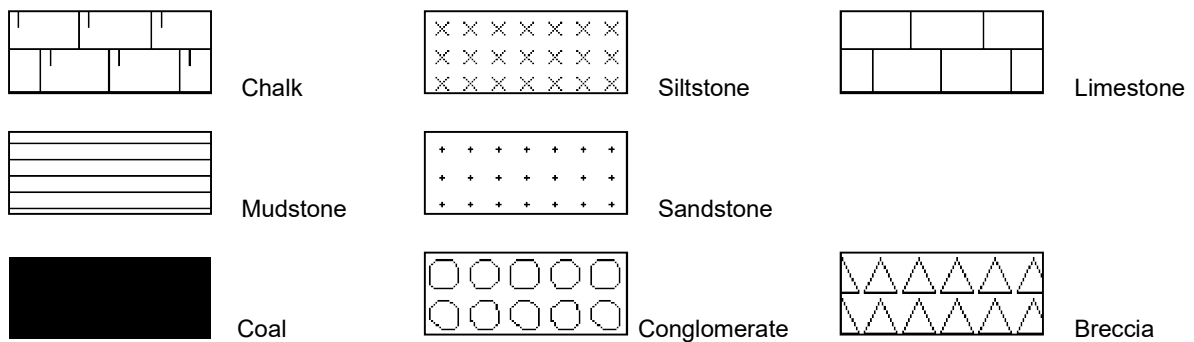


APPENDIX B FIELDWORK AND TESTING



LEGEND - Soils



LEGEND - Rocks (Sedimentary)



LOG ABBREVIATIONS

W	Water Sample		Water Strike
B	Bulk Sample		Water (Standing Level)
D	Disturbed Sample	PP	Pocket Penetrometer
J	Jar Sample	HV	Hand Vane
U	Undisturbed Sample	SPT	Standard Penetration Test
(No. of blows shown in brackets for U100 samples)		CPT	Cone Penetration Test
WAC	Waste Acceptance criteria Sample	CBR	California Bearing Ratio
		*	Extrapolated Value

Pocket penetrometer testing provides values of unconfined compressive strength. The results have been converted to an approximate equivalent shear strength which should be used with due circumspection. As the pocket penetrometer tends to overestimate shear strength, we have used an appropriate reduction factor.

LOG KEY

Rotary Borehole Log

Borehole No.

RO 01

Project Location: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Co-ords: 436330E - 247020N


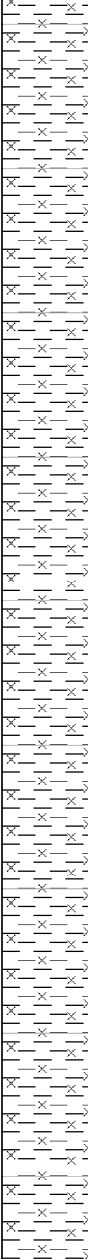
Project Number:
19.05.011

Level: N/A

Logged By:

Dates: 20/05/2019

Jane Taylor
to BS 5930:2015

Well	Water Strikes	Depth (m)	Samples and Testing		Coring (%)			Depth (m)	Level (m)	Legend	Stratum Description
			Type	Result	TCR	SCR	RQD				
1								0.60			MARLSTONE ROCK FORMATION Ironstone (drillers description)
								10.00			DYRHAM FORMATION Orange and grey silty CLAY. Highly weathered (drillers description)
End of Borehole at 10.00m											

<p>Rig Type: Beretta T44</p> <p>Borehole Diameter: 115mm</p> <p>Instrumentation: Standpipe installed to 10.0m</p> <p>Groundwater: None encountered</p> <p>Remarks: Co-ordinates provided to nearest 5m</p>	<p>Flushing Medium: Air/Mist</p> <p>Casing Depth: GL to 3m bgl</p>
---	--




Rotary Borehole Log

Borehole No.
RO 02

Project Location: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH


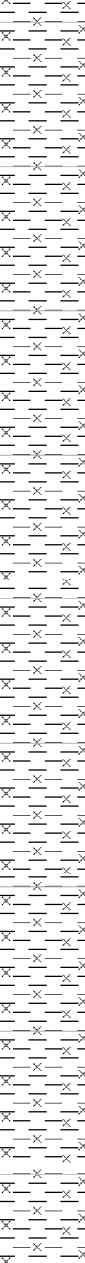
Co-ords: 437140E - 246780N

Project Number:
19.05.011

Level: N/A

Logged By:
Jane Taylor
to BS 5930:2015

Dates: 21/05/2019

Well	Water Strikes	Depth (m)	Samples and Testing		Coring (%)			Depth (m)	Level (m)	Legend	Stratum Description
			Type	Result	TCR	SCR	RQD				
1								0.60			MARLSTONE ROCK FORMATION Ironstone (drillers description)
								10.00			DYRHAM FORMATION Orange and grey silty CLAY. Highly weathered (drillers description)
End of Borehole at 10.00m											

<p>Rig Type: Beretta T44</p> <p>Borehole Diameter: 115mm</p> <p>Instrumentation: Standpipe installed to 10.0m bgl</p> <p>Groundwater: None encountered</p> <p>Remarks: Co-ordinates provided to nearest 5m</p>	<p>Flushing Medium: Air/Mist</p> <p>Casing Depth: GL to 3m bgl</p>
---	--






Rotary Borehole Log

Borehole No.

RO 03

Project Location: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Co-ords: 436960E - 246845N

Project Number:
19.05.011

Level: N/A

Logged By:

Dates: 21/05/2019

Jane Taylor
to BS 5930:2015

Well	Water Strikes	Depth (m)	Samples and Testing		Coring (%)			Depth (m)	Level (m)	Legend	Stratum Description
			Type	Result	TCR	SCR	RQD				
								0.50			MARLSTONE ROCK FORMATION Ironstone (drillers description)
								10.00			DYRHAM FORMATION Orange and grey silty CLAY. Highly weathered (drillers description)
End of Borehole at 10.00m											

Rig Type: Beretta T44
Borehole Diameter: 115mm
Instrumentation: Standpipe installed to 10.0m bgl
Groundwater: None encountered
Remarks: Co-ordinates provided to nearest 5m
Flushing Medium: Air/Mist
Casing Depth: GL to 3m bgl



Project: Edgehill Quarry, Edgehill, Oxfordshire, OX15 6DH

Date: 05/06/2019

Recorded by: RC

Equipment: Dip-meter

Groundwater monitoring

Hole ID	Ground level (m aOD)	Water depth (m bgl)	Water level (m aOD)	Depth of well base (m bgl)	Remarks
RO1	-	9.50	-	9.74	Top of standpipe = 0.25m above ground level
RO2	-	9.51	-	9.87	Top of standpipe = 0.48m above ground level
RO3	-	9.59	-	9.90	Top of standpipe = 0.40m above ground level

SUMMARY OF GROUNDWATER MONITORING - 05 Jun 19

Report No.
19.05.011



APPENDIX C

ENVIROCHECK DESK STUDY INFORMATION

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

204401007_1_1

Customer Reference:

19.05.011a

National Grid Reference:

437140, 246930

Slice:

A

Site Area (Ha):

7.65

Search Buffer (m):

1000

Site Details:

Edgehill Quarry

Edgehill

BANBURY

OX15 6DH

Client Details:

Mrs J Taylor

Listers Geotechnical Consultants Ltd

Slapton Hill Barn

Blakesley Road

Slapton

Towcester

Northants

NN12 8QD

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	11
Hazardous Substances	-
Geological	13
Industrial Land Use	19
Sensitive Land Use	20
Data Currency	21
Data Suppliers	27
Useful Contacts	28

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				4
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 2		Yes		
Pollution Incidents to Controlled Waters	pg 2		1		
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 2				4
River Quality	pg 3				1
River Quality Biology Sampling Points	pg 3				1
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 4		1	3	1 (*8)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 7	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 8		1	2	19

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 11	1	1		
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage		2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 11		3		1
Potentially Infilled Land (Water)					
Registered Landfill Sites	pg 12	1			
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 13	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 13	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 15		7	5	2
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities	pg 17			1	
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 17	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 17	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 18		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 18		Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 18	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 18	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 19		2		1
Fuel Station Entries					
Points of Interest - Commercial Services	pg 19		1		
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 19	1	2		1
Points of Interest - Public Infrastructure	pg 19				2
Points of Interest - Recreational and Environmental					
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 20		2		2
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty	pg 20	1			
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 20	3			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	0	1	437139 246928
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	111	1	436900 247050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (W)	126	1	436850 247000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	129	1	436800 246928
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	149	1	436850 247050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	170	1	436800 247000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	181	1	436850 247100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	282	1	436700 247050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	308	1	436650 247000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	320	1	436600 246928
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	361	1	437200 247450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	366	1	437150 247450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	411	1	437200 247500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	415	1	436500 246900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	416	1	437150 247500
1	Discharge Consents Operator: Mr & Mrs J Cave-Brown-Cave Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: An Stp Serving Sunnyside Sunnyside, King John'S Lane, Radway, Worcestershire, Cv35 0bt Authority: Environment Agency, Midlands Region Catchment Area: Mid Avon Catchment Reference: S/13/26526/S Permit Version: 1 Effective Date: 13th July 2005 Issued Date: 13th July 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Trib(Ditch) Radway Bk Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	587	2	436630 247460

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	<p>Discharge Consents</p> <p>Operator: The National Trust For Places Of Historic Interest Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Upton House near Edge Hill Warwickshire Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cawm.1027 Permit Version: 2 Effective Date: 21st December 2012 Issued Date: 21st December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 100m</p>	A3NW (S)	950	2	437100 245800
2	<p>Discharge Consents</p> <p>Operator: The National Trust For Places Of Historic Interest Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Upton House near Edge Hill Warwickshire Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cawm.1027 Permit Version: 1 Effective Date: 13th December 2004 Issued Date: 11th January 2005 Revocation Date: 20th December 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m</p>	A3NW (S)	950	2	437100 245800
2	<p>Discharge Consents</p> <p>Operator: The National Trust Property Type: SPORT, AMUSEMENT+RECREATION/GOLF CLUB/GYM/THEME PK/SPA Location: Upton House, Edge Hill, Warks Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTCU.0904 Permit Version: 1 Effective Date: 23rd October 1979 Issued Date: 23rd October 1979 Revocation Date: 13th December 2004 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Broken Ironstone Strata Status: Consent revoked or revised: New Consent issued (Section 37(1)) Positional Accuracy: Located by supplier to within 100m</p>	A3NW (S)	950	2	437100 245800
	Nearest Surface Water Feature	A13NW (NW)	157	-	436885 247104
3	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: EDGEHILL Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed incident Incident Date: 30th January 1999 Incident Reference: THWE1999042197 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m</p>	A13NE (NE)	117	2	437300 247200
4	<p>Registered Radioactive Substances</p> <p>Name: Avonvale Veterinary Group (Could Be Avonvale Veterinary Practice Ltd) Location: Ratley Lodge, Ratley, Banbury, Ox15 6dt Authority: Environment Agency, Thames Region Permit Reference: Bv4746 Dated: Not Supplied Process Type: Not Supplied Description: Not Supplied Status: Application has been determined by the EA Positional Accuracy: Automatically positioned to the address</p>	A19SE (NE)	775	2	438019 247433

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	<p>Registered Radioactive Substances</p> <p>Name: Avonvale Veterinary Group (Could Be Avonvale Veterinary Practice Ltd) Location: Ratley Lodge, Ratley, Banbury, Ox15 6dt Authority: Environment Agency, Thames Region Permit Reference: Bh8373 Dated: Not Supplied Process Type: Not Supplied Description: Not Supplied Status: Application has been determined by the EA Positional Accuracy: Automatically positioned to the address</p>	A19SE (NE)	775	2	438019 247433
4	<p>Registered Radioactive Substances</p> <p>Name: Avonvale Veterinary Group Location: Ratley Lodge, Ratley, BANBURY, Oxfordshire, OX15 6DT Authority: Environment Agency, Thames Region Permit Reference: Bw8496 Dated: 1st December 2003 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to an authorisation under S13 or S14 RSA in respect of a registration under S7 when Technetium 99M is used being =< 10 gigabecquerels Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address</p>	A19SE (NE)	795	2	438060 247405
4	<p>Registered Radioactive Substances</p> <p>Name: Avonvale Veterinary Group Location: Ratley Lodge, Ratley, BANBURY, Oxfordshire, OX15 6DT Authority: Environment Agency, Thames Region Permit Reference: Bh8667 Dated: 19th April 2000 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA in respect of a registration under S7 when Technetium 99M is used being =< 10 gigabecquerels Status: Authorisation superseded by a new application Positional Accuracy: Automatically positioned to the address</p>	A19SE (NE)	796	2	438060 247405
	<p>River Quality</p> <p>Name: Sor Bk GQA Grade: River Quality B Reach: Source - Bloxham Bk Estimated Distance (km): 22.7 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000</p>	A9NE (SE)	805	2	437980 246505
5	<p>River Quality Biology Sampling Points</p> <p>Name: Sor Brook Reach: Source To Bloxham Brook Estimated Distance: 22.70 Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Biology GQA Grade B - Good Year: 1995 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2000 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2002 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2003 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2004 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2005 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2006 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2007 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2008 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2009 GQA Grade: River Quality Biology GQA Grade A - Very Good</p>	A9NE (SE)	803	2	437990 246520

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	<p>Water Abstractions</p> <p>Operator: Mr M K L Grasby Licence Number: 28/39/14/0171 Permit Version: 100 Location: Whitebottoms Farm, Ratley (A) Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 2 Yearly Rate (m3): 827 Details: Middle Lias; Status: Revoked; Lapsed Or Cancelled Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th February 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A13SE (SE)	235	2	437400 246700
7	<p>Water Abstractions</p> <p>Operator: The Trustees Of Major M J P Starky Licence Number: 18/54/13/0037 Permit Version: 101 Location: Ratley Grange - Spring (2) Authority: Environment Agency, Midlands Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ratley Grange Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 14th August 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	313	2	437300 247400
8	<p>Water Abstractions</p> <p>Operator: The Trustees Of Major M J P Starky Licence Number: 18/54/13/0038 Permit Version: 101 Location: Ratway Grange - Underground Spring Authority: Environment Agency, Midlands Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ratway Grange Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 14th August 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SW (N)	335	2	437100 247400
9	<p>Water Abstractions</p> <p>Operator: The Trustees Of Major M J P Starky Licence Number: 18/54/13/0037 Permit Version: 101 Location: Ratley Grange - Spring (1) Authority: Environment Agency, Midlands Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ratley Grange Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 14th August 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	413	2	437300 247500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Water Abstractions Operator: Mr & Mrs J P Thorne Licence Number: 28/39/14/0007 Permit Version: 100 Location: Grange Farm, Ratley (A) Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 2 Yearly Rate (m3): 863 Details: Grange Farm, Ratley Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th July 1968 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	829	2	438100 247400
	Water Abstractions Operator: R I Hall Licence Number: 28/39/14/0166 Permit Version: Not Supplied Location: Glebe Farm, HORLEY Authority: Environment Agency, Thames Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: River Daily Rate (m3): 682 Yearly Rate (m3): 22730 Details: Status: Revoked; Lapsed Or Cancelled Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1669	2	439000 246700
	Water Abstractions Operator: Upton Farm Licence Number: 28/39/14/0303 Permit Version: 101 Location: Upton Estate, Banbury, Oxon Spring R Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton House Estate, Banbury, Oxon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1853	2	437300 244900
	Water Abstractions Operator: Upton Farm Licence Number: 28/39/14/0303 Permit Version: 101 Location: Upton Estate - C Authority: Environment Agency, Thames Region Abstraction: Household Water Supply: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton House Estate, Banbury, Oxon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1853	2	437300 244900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: J Rees, N Samuel & The Alliance Assurance Licence Number: 28/39/14/0303 Permit Version: 100 Location: Upton Estate, Banbury, Oxon Spring R Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton Estate, Banbury, Oxon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th December 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1853	2	437300 244900
	Water Abstractions Operator: J Rees, N Samuel & The Alliance Assurance Licence Number: 28/39/14/0303 Permit Version: 100 Location: Upton Estate, Banbury, Oxon Spring R Authority: Environment Agency, Thames Region Abstraction: Household Water Supply: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton Estate, Banbury, Oxon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th December 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1853	2	437300 244900
	Water Abstractions Operator: R B Waley-Cohen & Trustees Of The Bearsted Settlement Licence Number: 18/54/13/0151 Permit Version: 101 Location: Sun Rising, Warwickshire - Spring Authority: Environment Agency, Midlands Region Abstraction: Private Water Undertaking: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton House Estate, Warwickshire Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 4th August 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1SW (SW)	1885	2	435700 245400
	Water Abstractions Operator: R B Waley-Cohen, The Hon. Mrs R B Licence Number: 18/54/13/0151 Permit Version: 100 Location: Sun Rising, Warwickshire - Spring Authority: Environment Agency, Midlands Region Abstraction: Private Water Undertaking: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Upton House Estate, Warwickshire Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 28th March 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1SW (SW)	1885	2	435700 245400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: F Spencer Licence Number: 28/39/14/0164 Permit Version: Not Supplied Location: Poplars Farm, HORNTON Authority: Environment Agency, Thames Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 2 Yearly Rate (m3): 372 Details: Status: Revoked; Lapsed Or Cancelled Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(SE)	1967	2	439100 246100
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: <300 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13NE (N)	0	3	437139 247000
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: <300 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13NW (W)	0	3	437000 246928
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: <300 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13NE (NE)	0	3	437139 246928
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (NE)	0	3	437139 246928
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
11	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1308.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13NW (NW)	157	4	436885 247104
12	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 260.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18SE (N)	338	4	437185 247418
13	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 432.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12NE (W)	368	4	436573 246976
14	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 6.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Sor Brook Catchment Name: Thames Primacy: 1	A9NW (SE)	601	4	437647 246384
15	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 318.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Sor Brook Catchment Name: Thames Primacy: 1	A9NW (SE)	607	4	437653 246382
16	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 717.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Sor Brook Catchment Name: Thames Primacy: 1	A9NE (SE)	703	4	437894 246561
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12SW (W)	744	4	436212 246599
18	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 9.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12SW (W)	750	4	436204 246604

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18NW (N)	753	4	436897 247800
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 444.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A19NW (NE)	755	4	437585 247771
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 144.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12SW (W)	757	4	436195 246608
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 325.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12NW (W)	782	4	436193 247141
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18NW (N)	821	4	436897 247870
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 400.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11SE (W)	835	4	436091 246708
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 70.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18NW (N)	851	4	436907 247903
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 208.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A19NW (NE)	923	4	437656 247924
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11NE (W)	946	4	435991 247044

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11NE (W)	951	4	435988 247051
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 286.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11NE (W)	953	4	435986 247055
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 482.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11SE (W)	957	4	435981 246630
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A23SE (N)	988	4	437272 248077
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A23SE (N)	989	4	437271 248078

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Historical Landfill Sites Licence Holder: Not Supplied Location: Edgehill Name: Stone Quarry Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD28744 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: 385	A13NE (NE)	0	2	437201 247013
34	Historical Landfill Sites Licence Holder: Not Supplied Location: Edgecombe, Edgehill Name: Disused Quarry Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD28743 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: S70	A13NE (E)	104	2	437467 247029
	Local Authority Landfill Coverage Name: Stratford On Avon District Council - Has supplied landfill data		0	5	437139 246928
	Local Authority Landfill Coverage Name: Warwickshire County Council - Had landfill data but passed it to the relevant environment agency		0	6	437139 246928
	Local Authority Landfill Coverage Name: Cherwell District Council - Has supplied landfill data		609	7	437654 246380
	Local Authority Landfill Coverage Name: Oxfordshire County Council - Has supplied landfill data		609	8	437654 246380
35	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NW (NW)	3	-	437013 247018
36	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NE (NE)	60	-	437417 247048
37	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NE (NE)	117	-	437425 247127
38	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A8SW (S)	720	-	436981 246053

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	<p>Registered Landfill Sites</p> <p>Licence Holder: C & W Knight Licence Reference: 385 Site Location: Edge Hill Quarry, Kineton, Warwick, Warwickshire Licence Easting: 437200 Licence Northing: 247050 Operator Location: Fenny Compton, LEAMINGTON SPA, Warwickshire, CV3 30XT Authority: Environment Agency - Midlands Region, Lower Severn Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence not applicable (never used)Under Review Dated: 1st October 1989 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Accuracy: Not Applicable Authorised Waste: Brick & Concrete Rubble Clean Uncontam. Soil</p>	A13NE (NE)	0	2	437156 246960

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lias Group	A13NE (NE)	0	1	437139 246928
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: >120 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: >180mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: >100 mg/kg	A13NE (NE)	0	1	437139 246928
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 60 - 120 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: >180mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 80 - 100 mg/kg	A13SE (SE)	15	1	437229 246767
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 120 - 180 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 60 - 80 mg/kg	A13NW (NW)	127	1	436889 247073
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 60 - 120 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: >180mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 60 - 80 mg/kg	A13NW (W)	135	1	436839 247000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NW (NW)	181	1	436842 247099
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 120 - 180 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A13SE (SE)	236	1	437437 246750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 120 - 180 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 45 - 60 mg/kg Concentration:	A13NW (NW)	246	1	436812 247155
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 120 - 180 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 60 - 80 mg/kg Concentration:	A18SE (N)	328	1	437249 247417
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A18SE (N)	346	1	437223 247432
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 45 - 60 mg/kg Concentration:	A12NE (W)	383	1	436567 247000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 45 - 60 mg/kg Concentration:	A14SE (E)	747	1	438000 246632
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 60 - 120 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium >180mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 80 - 100 mg/kg Concentration:	A8SW (S)	851	1	437004 245913

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 45 - 60 mg/kg Concentration:	A23SE (N)	911	1	437139 248000
40	BGS Recorded Mineral Sites Site Name: Edge Hill Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 4560 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A13NE (N)	23	1	437180 247040
41	BGS Recorded Mineral Sites Site Name: The Grove Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245970 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	33	1	436980 247024
42	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 10562 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	218	1	437439 247236
43	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245968 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	225	1	437390 247274
43	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245972 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	250	1	437412 247290

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245976 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	250	1	437412 247290
43	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245973 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	252	1	437412 247293
44	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Ratley Leys Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 10563 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A14NW (NE)	239	1	437550 247170
45	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245971 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	334	1	437446 247368
45	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245969 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	336	1	437444 247372
45	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245974 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	337	1	437447 247371

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
45	BGS Recorded Mineral Sites Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245975 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	337	1	437447 247371
46	BGS Recorded Mineral Sites Site Name: Upton House Location: Edge Hill, Banbury, Warwickshire Source: British Geological Survey, National Geoscience Information Service Reference: 39610 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A8SW (S)	761	1	436970 246013
47	BGS Recorded Mineral Sites Site Name: Hornton Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 39603 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	784	1	437658 246136
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Natural Cavities Easting: 437500 Northing: 247500 Distance: 475 Quadrant Reference: A19 Quadrant Reference: SW Bearing Ref: NE Cavity Type: Gulls/Fissures due to Cambering Solid Geology Detail: Lias Group, Lias Group, Lias Group Superficial Geology No Details Detail:	A19SW (NE)	475	9	437500 247500
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	21	1	437229 246767
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	72	1	437291 246797
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	87	1	437441 246984
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	137	1	436928 247130
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	146	1	437283 246656
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	178	1	437377 246717
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	127	1	436889 247073
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	437229 246767
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	111	1	436920 247075
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	131	1	436970 247155
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	136	1	436893 247079
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SE (W)	143	1	436782 246905
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	156	1	436938 247158
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (W)	162	1	436771 246914
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Higher probability radon area (more than 30% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Radon Potential - Radon Protection Measures Protection Measure: Full radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	Contemporary Trade Directory Entries Name: M F Sabin Location: Grove End, Edgehill, Banbury, Oxfordshire, OX15 6DH Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	81	-	437087 247146
48	Contemporary Trade Directory Entries Name: A C Services Banbury Ltd Location: Grove End, Edgehill, Banbury, OX15 6DH Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	85	-	437086 247150
49	Contemporary Trade Directory Entries Name: Alan Parker Location: Office, Green Grounds Cottages, Upton House Est, Upton, Banbury, Oxfordshire, OX15 6HL Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SE (SW)	928	-	436661 245946
50	Points of Interest - Commercial Services Name: A C Services Banbury Ltd Location: Grove End, Edgehill, Banbury, OX15 6DH Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (N)	85	10	437086 247150
51	Points of Interest - Manufacturing and Production Name: Stone Quarry Location: OX15 Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A13SW (SW)	0	10	437113 246906
52	Points of Interest - Manufacturing and Production Name: Quarry (Stone) Location: OX15 Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	24	10	437192 247053
53	Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: OX15 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A14NW (NE)	196	10	437504 247158
54	Points of Interest - Manufacturing and Production Name: J V White & Sons Location: Upton, Banbury, OX15 6HJ Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A9SW (SE)	654	10	437482 246173
55	Points of Interest - Public Infrastructure Name: Graveyard Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	772	10	436815 247796
55	Points of Interest - Public Infrastructure Name: Graveyard Location: CV35 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	772	10	436815 247796

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	Ancient Woodland Name: Not Supplied Reference: 1410751 Area(m ²): 43373.18 Type: Plantation on Ancient Woodland	A13NW (NW)	47	11	436953 247017
57	Ancient Woodland Name: Not Supplied Reference: 1410752 Area(m ²): 32120.95 Type: Plantation on Ancient Woodland	A13NW (NW)	74	11	437001 247106
58	Ancient Woodland Name: Knowle End Wood Reference: 1107784 Area(m ²): 193125.69 Type: Plantation on Ancient Woodland	A19SW (NE)	514	11	437536 247523
59	Ancient Woodland Name: Not Supplied Reference: 1410750 Area(m ²): 61652.74 Type: Plantation on Ancient Woodland	A7NW (SW)	551	11	436436 246569
60	Areas of Outstanding Natural Beauty Name: Cotswolds Multiple Areas: N Total Area (m2): 2041091141.36 Designation Date: 30th August 1966 Source: Natural England	A13NE (NE)	0	11	437139 246928
61	Nitrate Vulnerable Zones Name: Cherwell (Ray To Thames) And Woodeaton Brook Nvz Description: Surface Water Source: Environment Agency, Head Office	A13NE (NE)	0	3	437139 246928
62	Nitrate Vulnerable Zones Name: River Avon (To Confluence With River Severn) Nvz Description: Surface Water Source: Environment Agency, Head Office	A13NE (N)	0	3	437139 246950
63	Nitrate Vulnerable Zones Name: Balscote Description: Groundwater Source: Environment Agency, Head Office	A13NE (NE)	0	3	437139 246928

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Stratford-on-Avon District Council - Environmental Services Cherwell District Council - Environmental Health Department	April 2014 October 2014	Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Midlands Region Environment Agency - Thames Region	January 2019 January 2019	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Midlands Region Environment Agency - Thames Region	March 2013 March 2013	Annual Rolling Update Annual Rolling Update
Integrated Pollution Controls Environment Agency - Midlands Region Environment Agency - Thames Region	October 2008 October 2008	Variable Variable
Integrated Pollution Prevention And Control Environment Agency - Midlands Region Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region	January 2019 January 2019 January 2019	Quarterly Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Stratford-on-Avon District Council - Environmental Health Department Cherwell District Council - Environmental Health Department	August 2014 October 2014	Variable Variable
Local Authority Pollution Prevention and Controls Stratford-on-Avon District Council - Environmental Health Department Cherwell District Council - Environmental Health Department	August 2014 October 2014	Annual Rolling Update Not Applicable
Local Authority Pollution Prevention and Control Enforcements Stratford-on-Avon District Council - Environmental Health Department Cherwell District Council - Environmental Health Department	August 2014 October 2014	Variable Variable
Nearest Surface Water Feature Ordnance Survey	January 2019	
Pollution Incidents to Controlled Waters Environment Agency - Midlands Region Environment Agency - Thames Region	December 1999 September 1999	Not Applicable Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Midlands Region Environment Agency - Thames Region	July 2015 March 2013	Annual Rolling Update Annual Rolling Update
Prosecutions Relating to Controlled Waters Environment Agency - Midlands Region Environment Agency - Thames Region	March 2013 March 2013	Annual Rolling Update Annual Rolling Update
Registered Radioactive Substances Environment Agency - Midlands Region Environment Agency - Thames Region	June 2016 June 2016	
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - West Area	January 2019 January 2019 January 2019 January 2019	Quarterly Quarterly Quarterly Quarterly

Agency & Hydrological	Version	Update Cycle
Water Abstractions Environment Agency - Midlands Region Environment Agency - Thames Region	January 2019 January 2019	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Midlands Region Environment Agency - Thames Region	October 2017 October 2017	Quarterly Quarterly
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	Annually
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	January 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2019	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2019	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2019	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2019	Quarterly
Flood Defences Environment Agency - Head Office	February 2019	Quarterly
OS Water Network Lines Ordnance Survey	January 2019	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability Environment Agency - Head Office	October 2013	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	July 2018	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Midlands Region Environment Agency - Thames Region	October 2008 October 2008	Not Applicable Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - West Area	July 2018 July 2018 July 2018 July 2018	Quarterly Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - West Area	January 2019 January 2019 January 2019 January 2019	Quarterly Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Cherwell District Council - Environmental Health Department Oxfordshire County Council Stratford-on-Avon District Council Warwickshire County Council	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Cherwell District Council - Environmental Health Department Oxfordshire County Council Stratford-on-Avon District Council Warwickshire County Council	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - Thames Region - West Area	March 2003 March 2003 March 2003	Not Applicable Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - Thames Region - West Area	March 2003 March 2003 March 2003	Not Applicable Not Applicable Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Lower Severn Area Environment Agency - Thames Region - West Area	March 2003 March 2003 March 2003	Not Applicable Not Applicable Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Cherwell District Council Oxfordshire County Council Stratford-on-Avon District Council Warwickshire County Council	February 2016 February 2016 February 2016 July 2007	Variable Variable Variable Annual Rolling Update
Planning Hazardous Substance Consents Cherwell District Council Oxfordshire County Council Stratford-on-Avon District Council Warwickshire County Council	February 2016 February 2016 February 2016 July 2007	Variable Variable Variable Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2019	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	April 2019	Quarterly
Fuel Station Entries Catalist Ltd - Experian	May 2019	Quarterly
Gas Pipelines National Grid	July 2014	
Points of Interest - Commercial Services PointX	November 2018	Quarterly
Points of Interest - Education and Health PointX	November 2018	Quarterly
Points of Interest - Manufacturing and Production PointX	November 2018	Quarterly
Points of Interest - Public Infrastructure PointX	November 2018	Quarterly
Points of Interest - Recreational and Environmental PointX	November 2018	Quarterly
Underground Electrical Cables National Grid	December 2015	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	August 2018	Bi-Annually
Areas of Adopted Green Belt Cherwell District Council Stratford-on-Avon District Council	March 2019 March 2019	As notified As notified
Areas of Unadopted Green Belt Cherwell District Council Stratford-on-Avon District Council	March 2019 March 2019	As notified As notified
Areas of Outstanding Natural Beauty Natural England	August 2018	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	March 2019	Bi-Annually
Marine Nature Reserves Natural England	January 2018	Bi-Annually
National Nature Reserves Natural England	August 2018	Bi-Annually
National Parks Natural England	April 2017	Bi-Annually
Nitrate Vulnerable Zones Environment Agency - Head Office Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December 2017 October 2015	Bi-Annually
Ramsar Sites Natural England	April 2019	Bi-Annually
Sites of Special Scientific Interest Natural England	March 2019	Bi-Annually
Special Areas of Conservation Natural England	August 2018	Bi-Annually
Special Protection Areas Natural England	April 2019	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Stratford-on-Avon District Council Elizabeth House, Church Street, Stratford Upon Avon, Warwickshire, CV37 6HX	Telephone: 01789 267575 Fax: 01789 260808 Website: www.stratford.gov.uk
6	Warwickshire County Council PO Box 43, Shire Hall, Warwick, Warwickshire, CV34 4SX	Telephone: 01926 410410 Website: www.warwickshire.gov.uk
7	Cherwell District Council - Environmental Health Department Bodicote House, Bodicote, Banbury, Oxfordshire, OX15 4AA	Telephone: 01295 252535 extn 4511 Fax: 01295 270028 Website: www.cherwell-dc.gov.uk
8	Oxfordshire County Council County Hall, New Road, Oxford, Oxfordshire, OX1 1ND	Telephone: 01865 792422 Fax: 01865 810106 Email: environmental.services@oxfordshire.gov.uk Website: www.oxfordshire.gov.uk
9	Peter Brett Associates Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN	Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk
10	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
11	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

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

Mrs J Taylor, Listers Geotechnical Consultants Ltd, Slapton Hill Barn, Blakesley Road, Slapton, Towcester, Northants, NN12 8QD

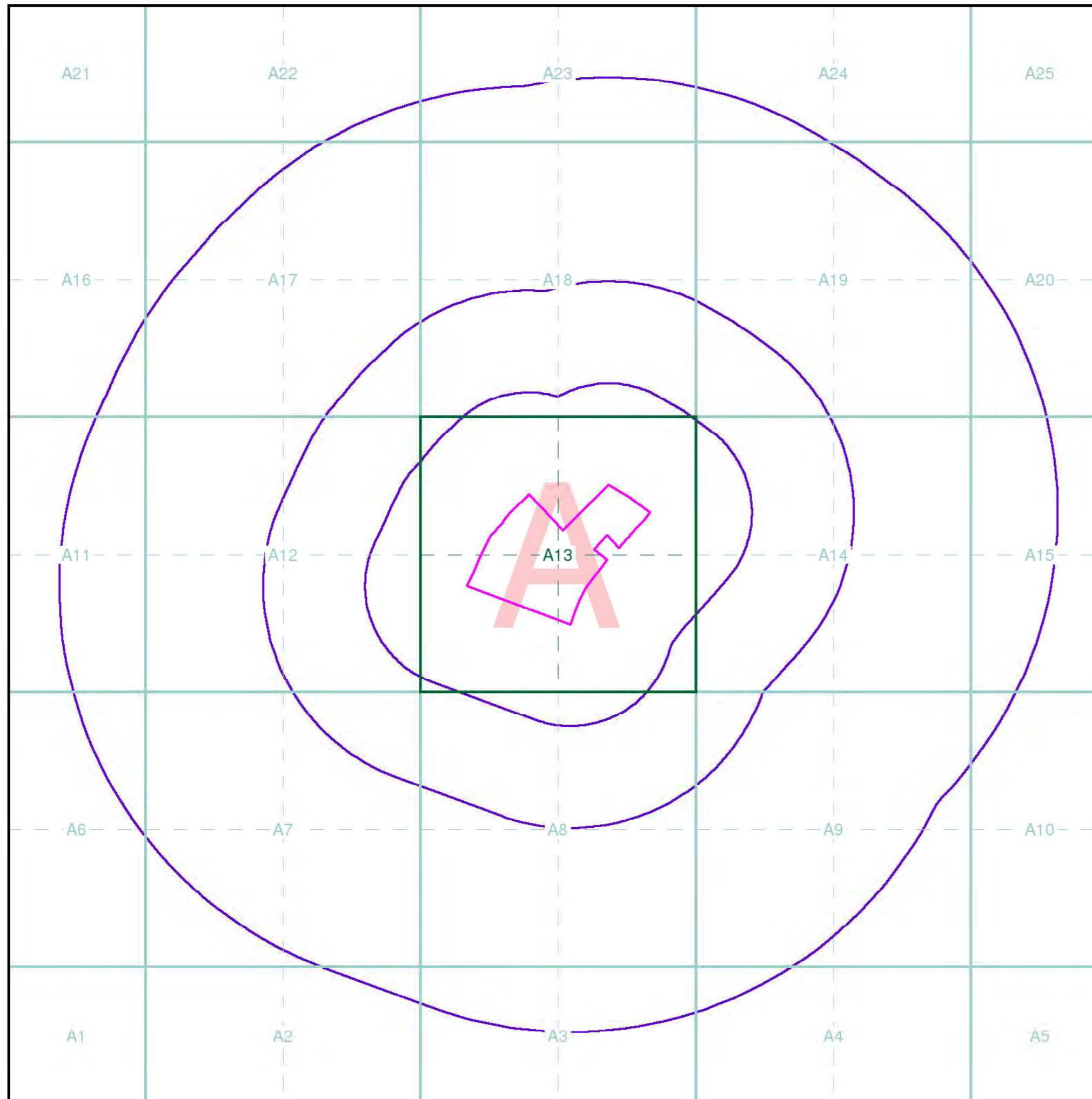
Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437130, 246920
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

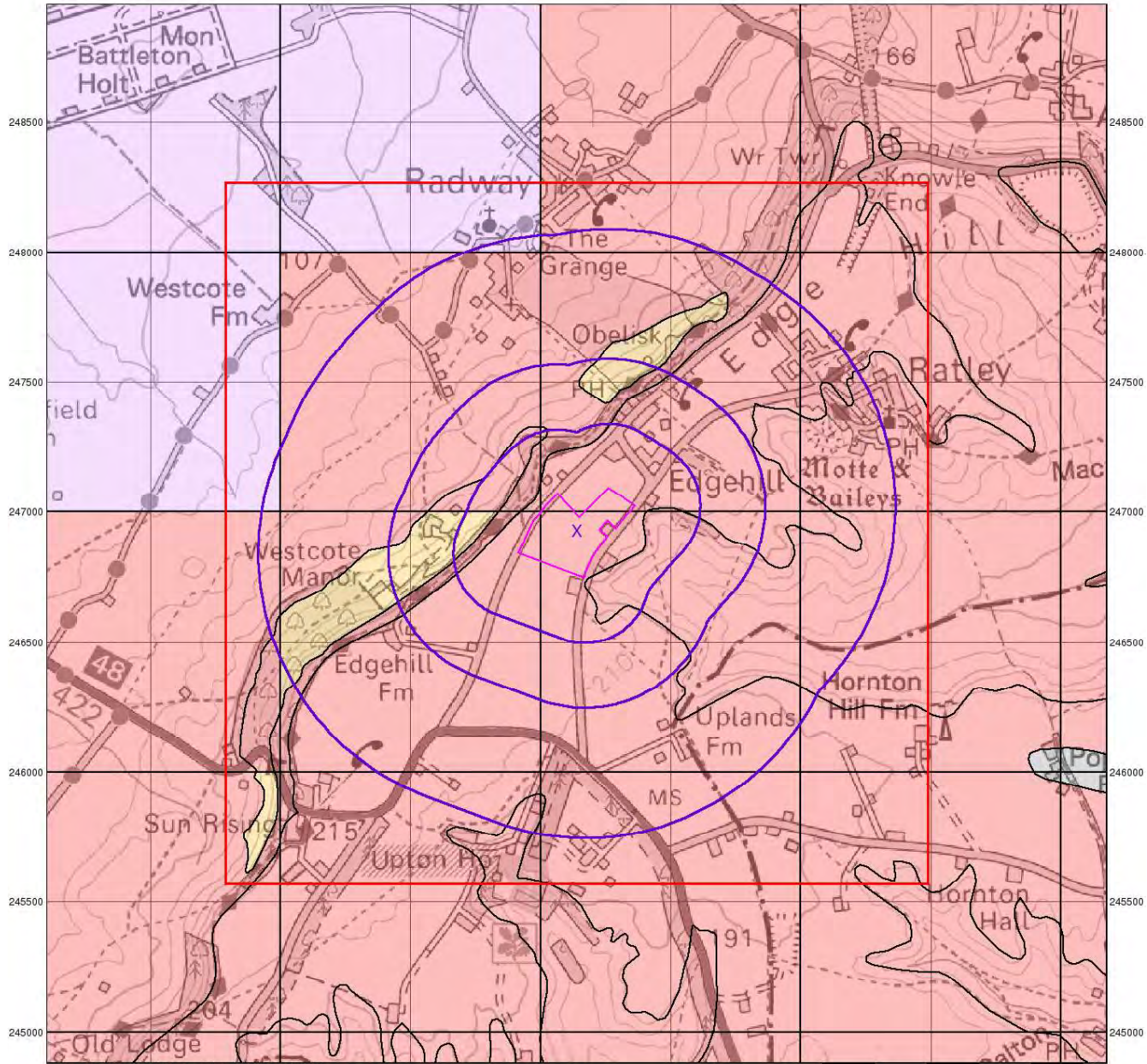
Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH

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



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0 1 km



Groundwater Vulnerability

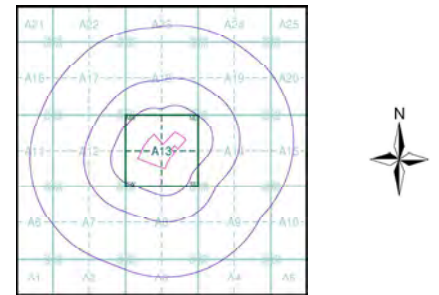
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- | Bedrock Aquifers | Superficial Aquifers |
|---|---|
| High Vulnerability, Principal Aquifer | High Vulnerability, Principal Aquifer |
| High Vulnerability, Secondary Aquifer | High Vulnerability, Secondary Aquifer |
| Medium Vulnerability, Principal Aquifer | Medium Vulnerability, Principal Aquifer |
| Medium Vulnerability, Secondary Aquifer | Medium Vulnerability, Secondary Aquifer |
| Low Vulnerability, Principal Aquifer | Low Vulnerability, Principal Aquifer |
| Low Vulnerability, Secondary Aquifer | Low Vulnerability, Secondary Aquifer |
| Unproductive Aquifer | |
| Soluble Rock | |

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

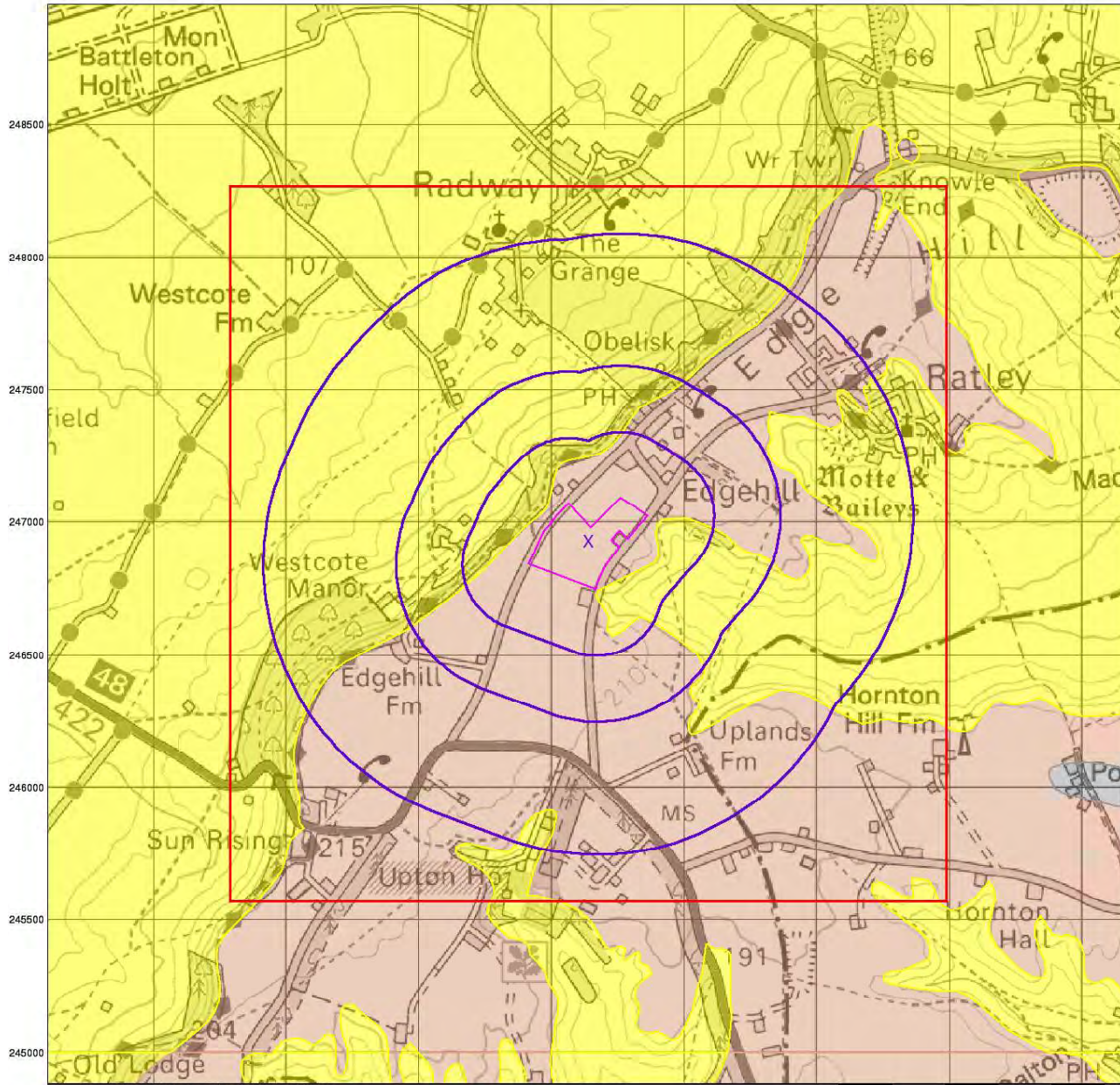
Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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0 1 km



Bedrock Aquifer Designation

General

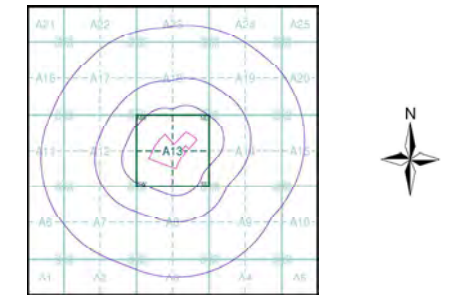
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

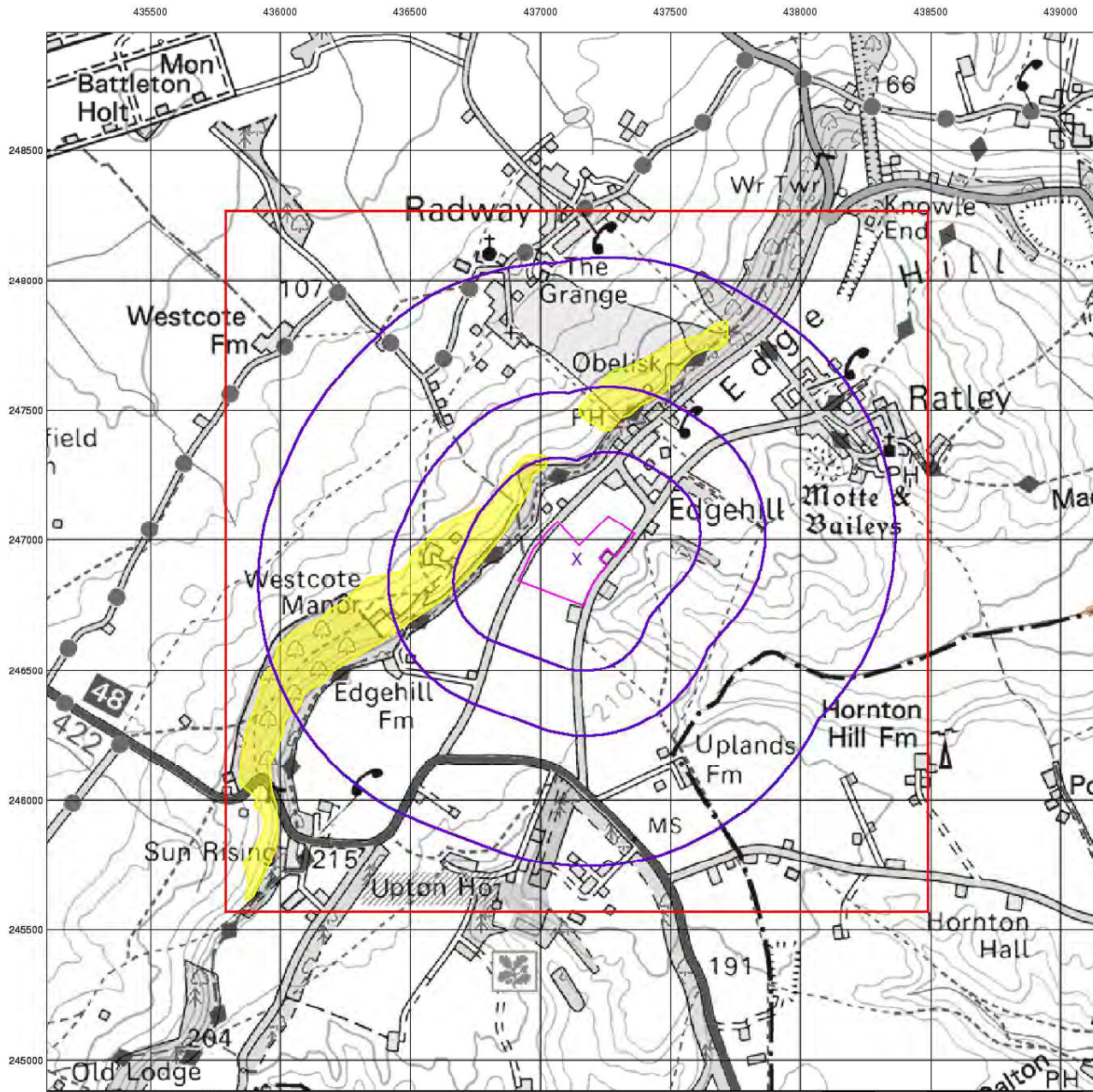
Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

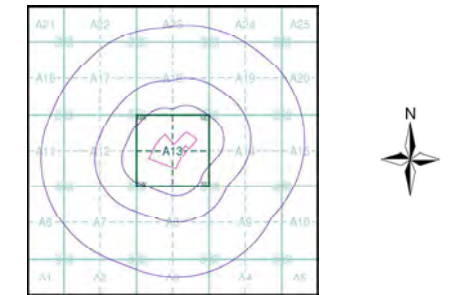
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

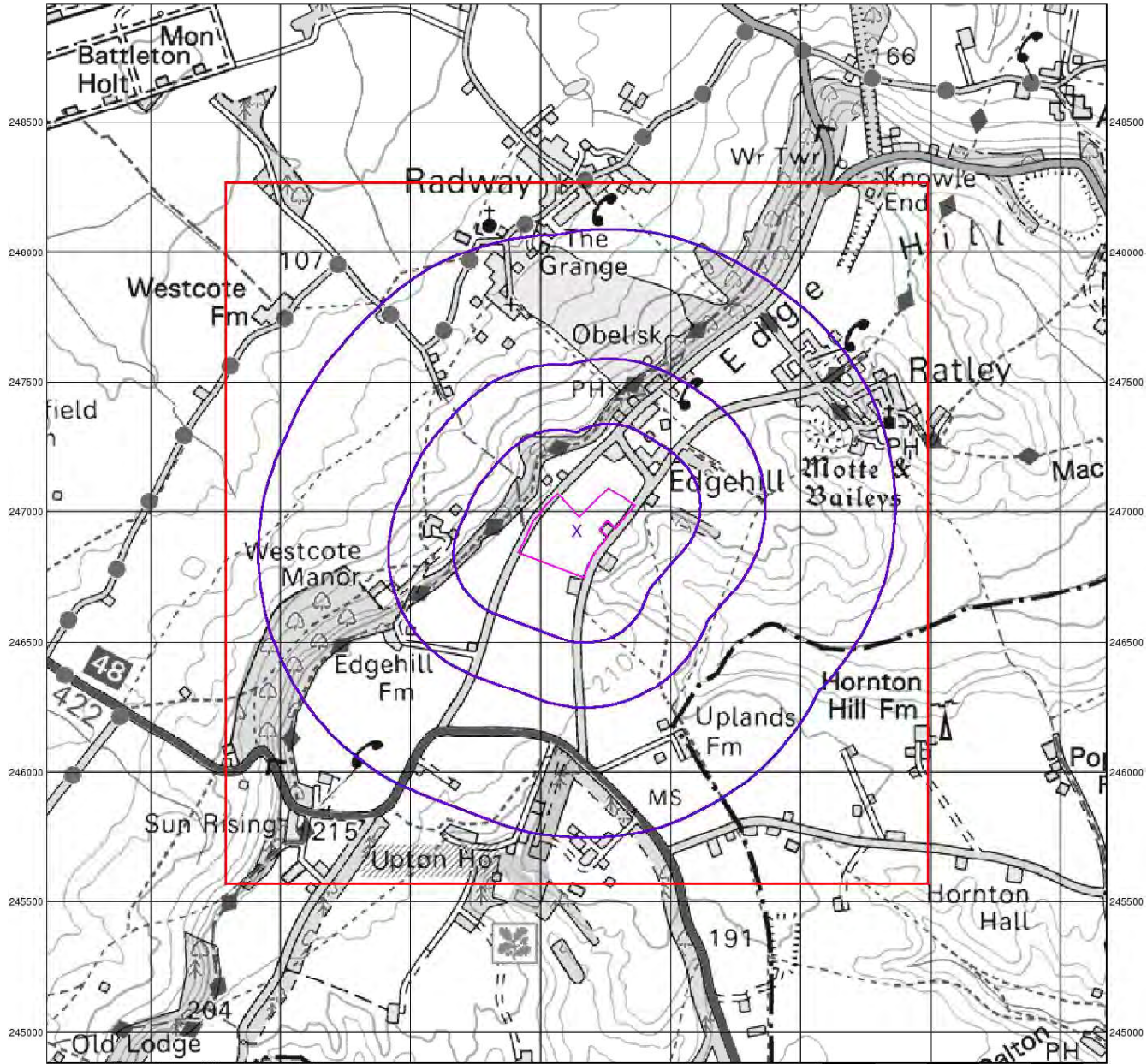
Site Details

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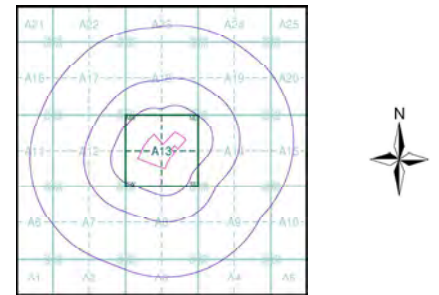
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Source Protection Zones

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Agency and Hydrological**
- Inner zone (Zone 1)
 - Inner zone - subsurface activity only (Zone 1c)
 - Outer zone (Zone 2)
 - Outer zone - subsurface activity only (Zone 2c)
 - Total catchment (Zone 3)
 - Total catchment - subsurface activity only (Zone 3c)
 - Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



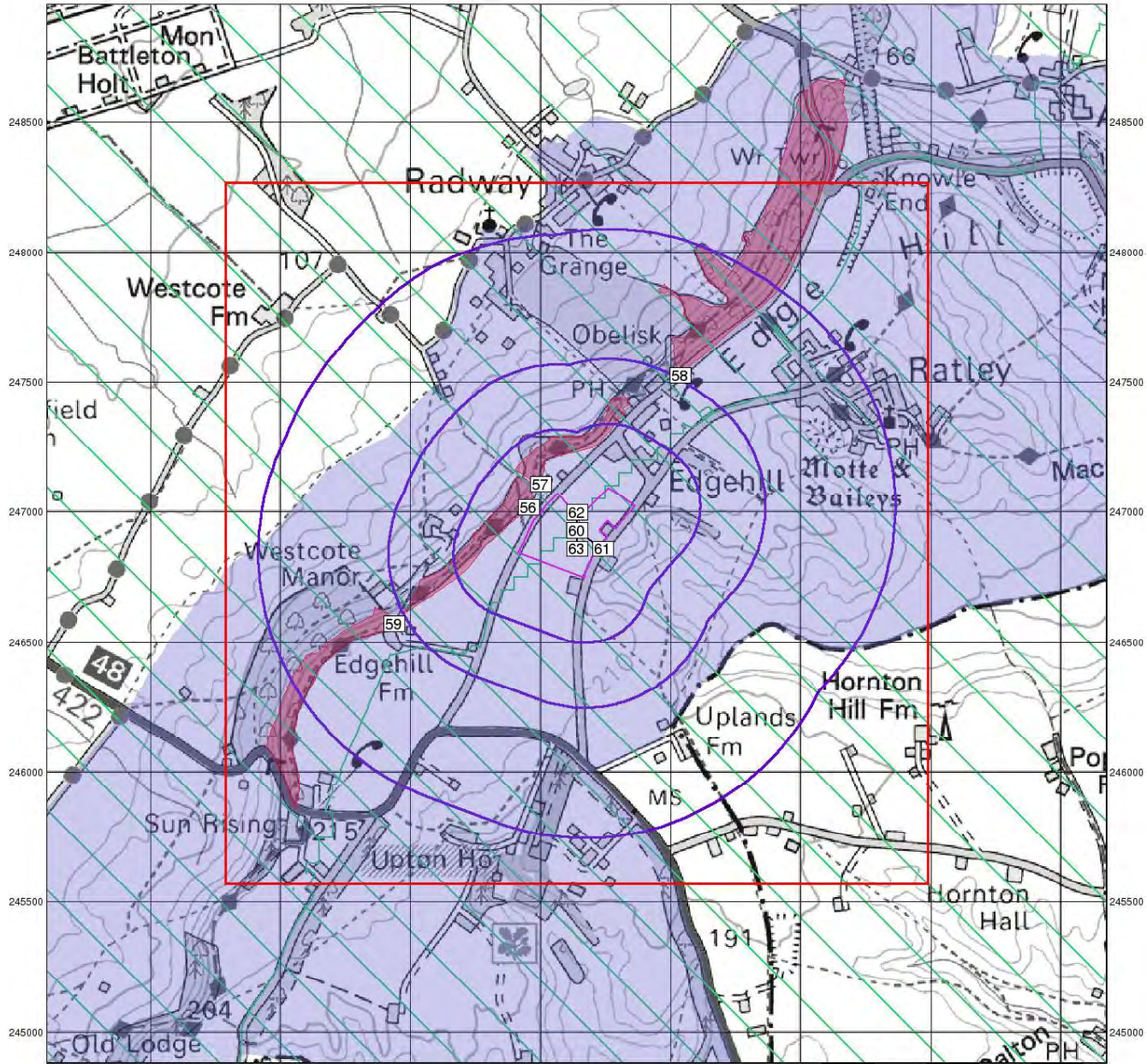
Order Details

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 Slice: A
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 Search Buffer (m): 1000

Site Details
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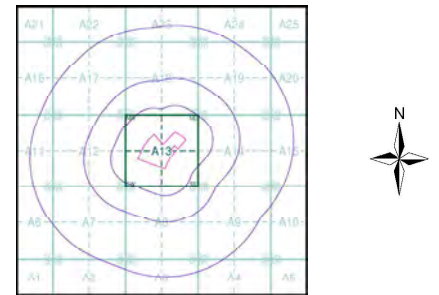
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Sensitive Land Uses

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Sensitive Land Uses**
- Ancient Woodland
 - Area of Adopted Green Belt
 - Area of Unadopted Green Belt
 - Area of Outstanding Natural Beauty
 - Environmentally Sensitive Area
 - Forest Park
 - Local Nature Reserve
 - Marine Nature Reserve
 - National Nature Reserve
 - National Park
 - Nitrate Sensitive Area
 - Nitrate Vulnerable Zone
 - Ramsar Site
 - Site of Special Scientific Interest
 - Special Area of Conservation
 - Special Protection Area
 - World Heritage Sites

Site Sensitivity Context Map - Slice A



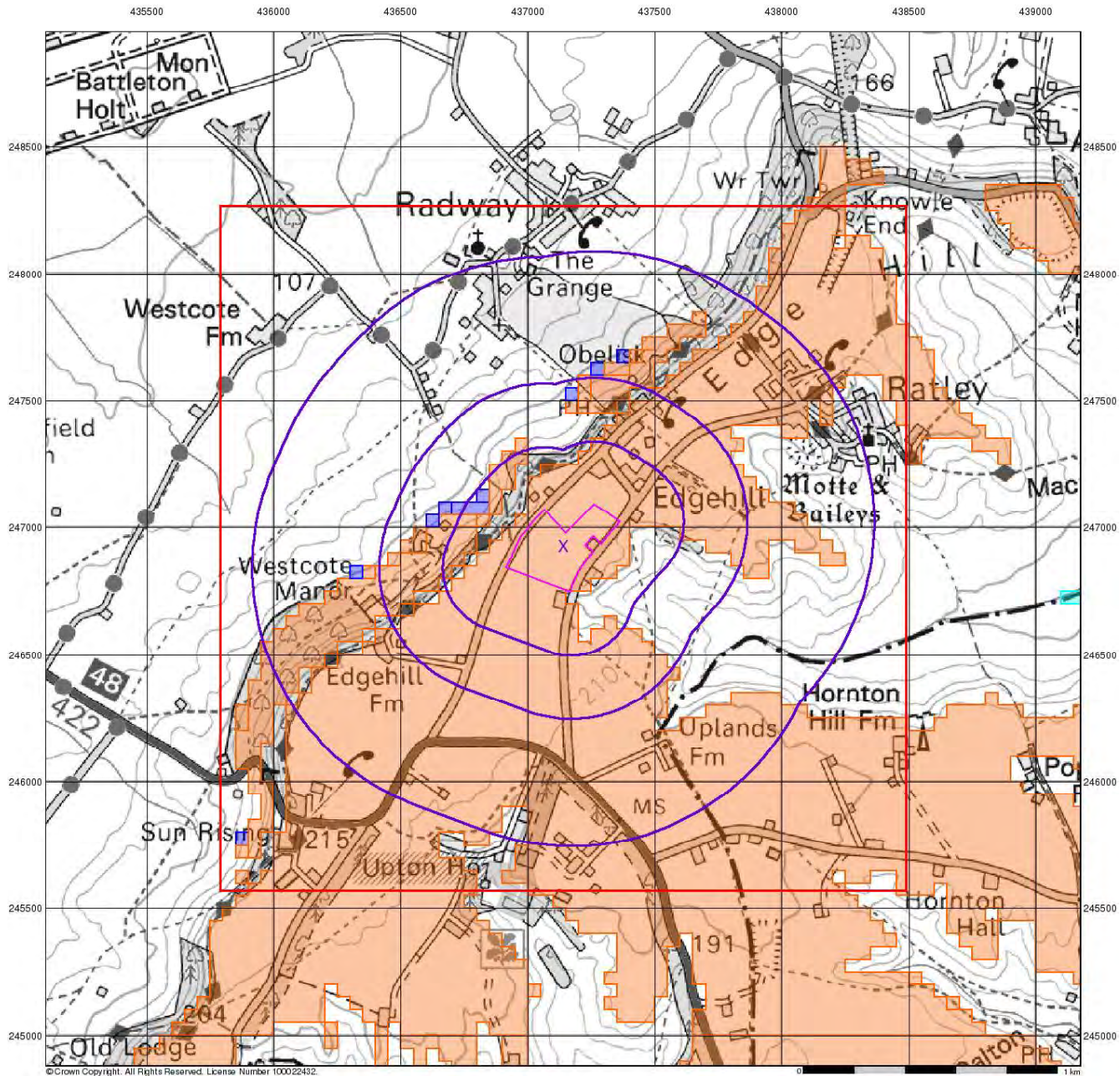
Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH





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BGS Flood GFS Data

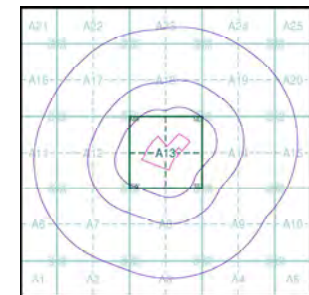
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

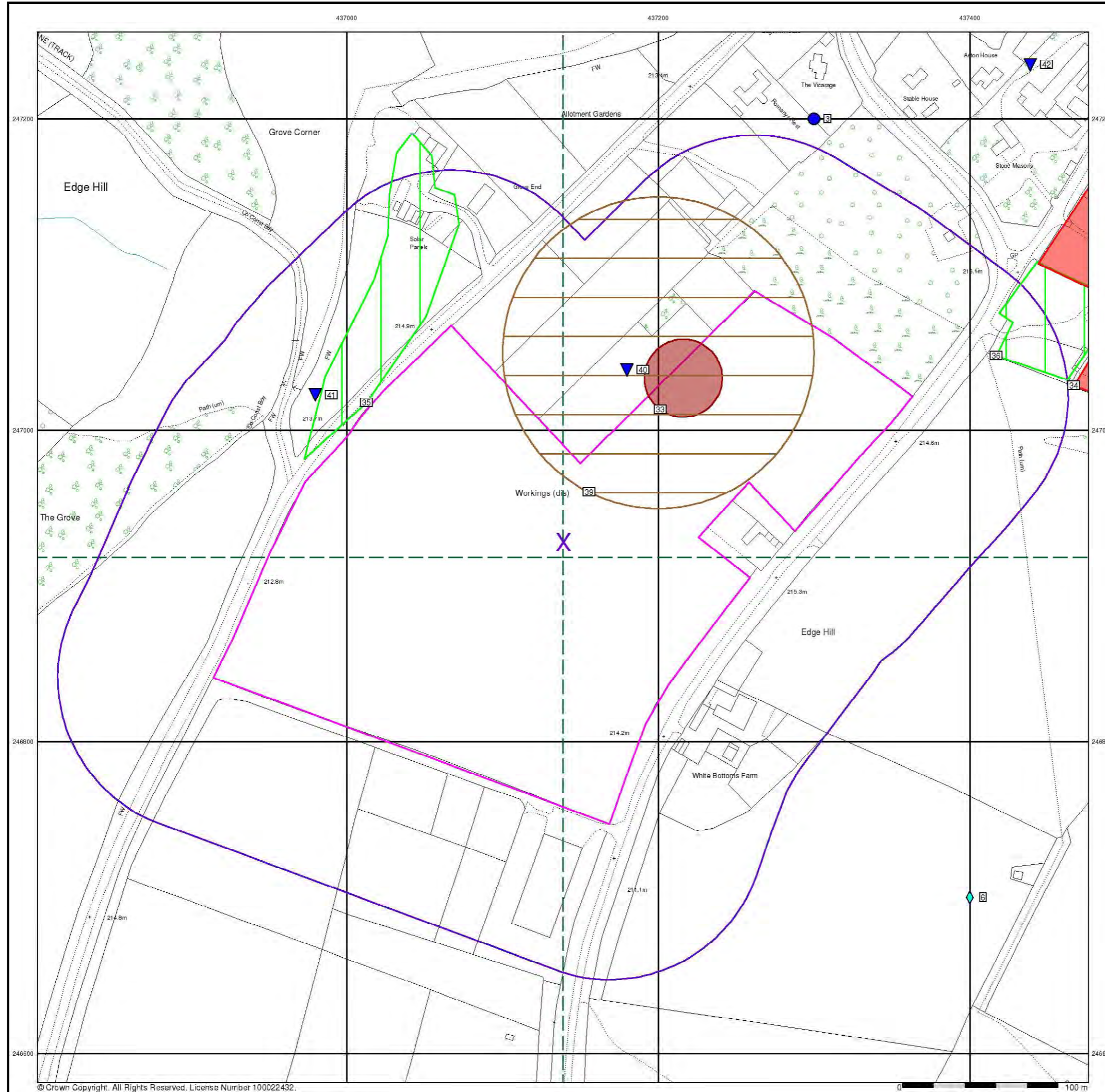
Order Number: 204401007_1_1
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 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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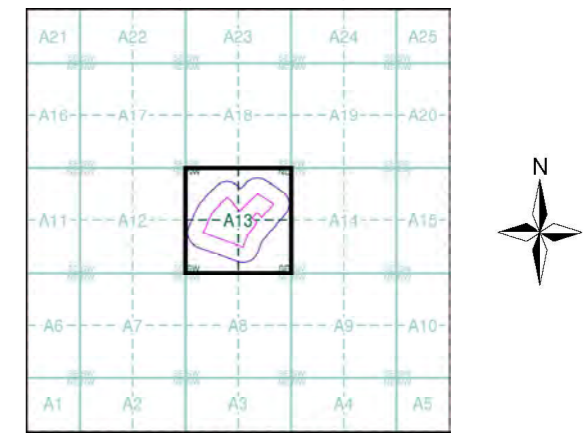


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- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Severalty of Type at Location
 - Pylon
 - Overhead Transmission Line
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention and Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A13



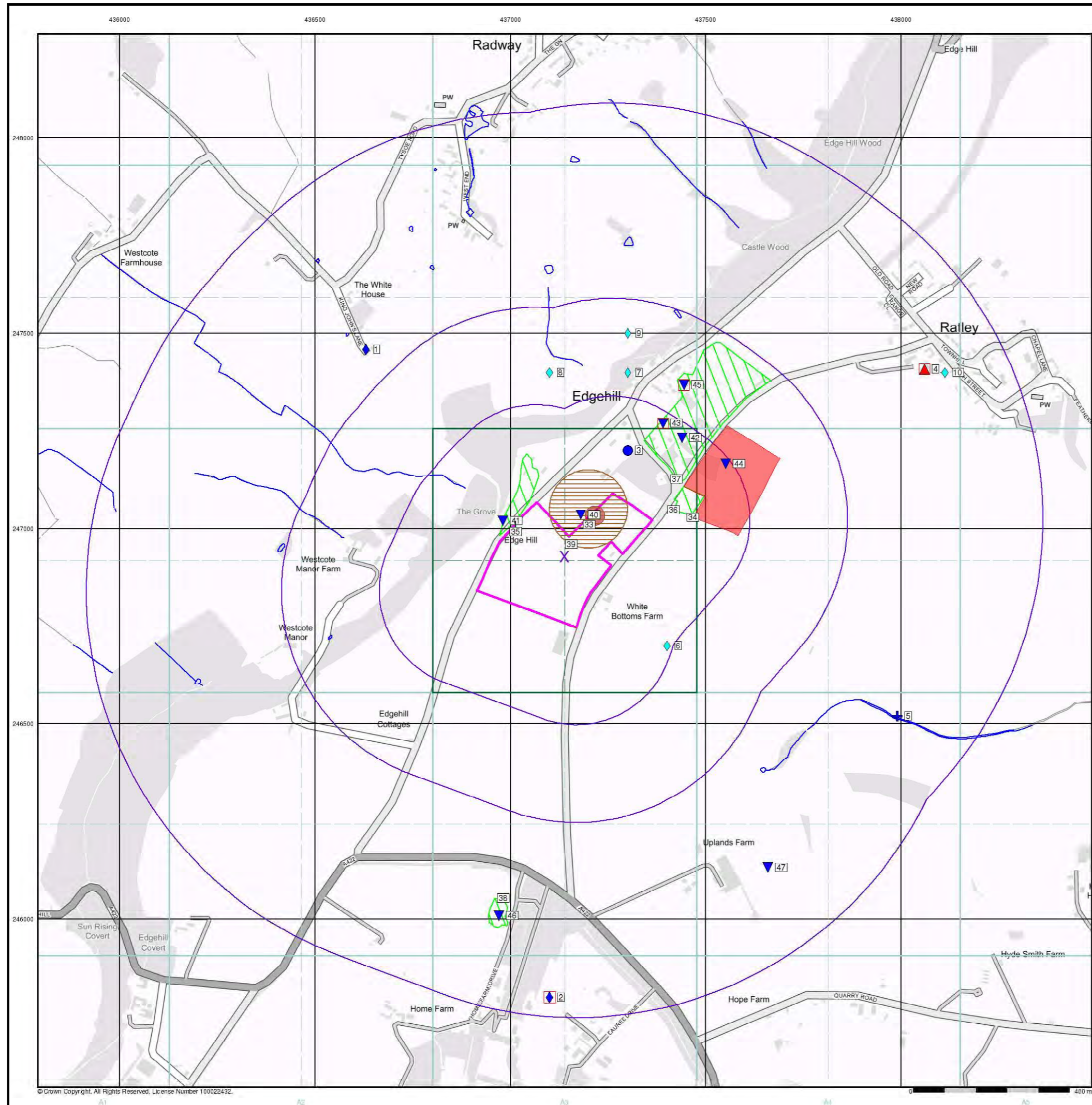
Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Plot Buffer (m): 100

Site Details
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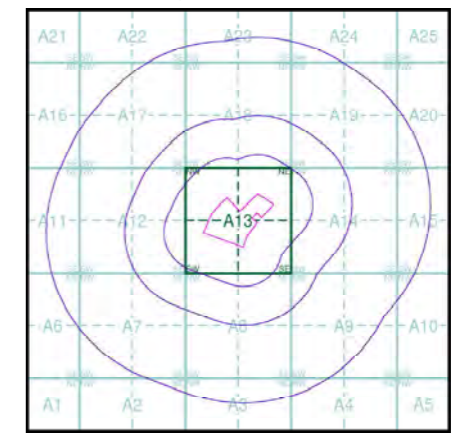
Landmark
 INFORMATION GROUP

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



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site

Site Sensitivity Map - Slice A

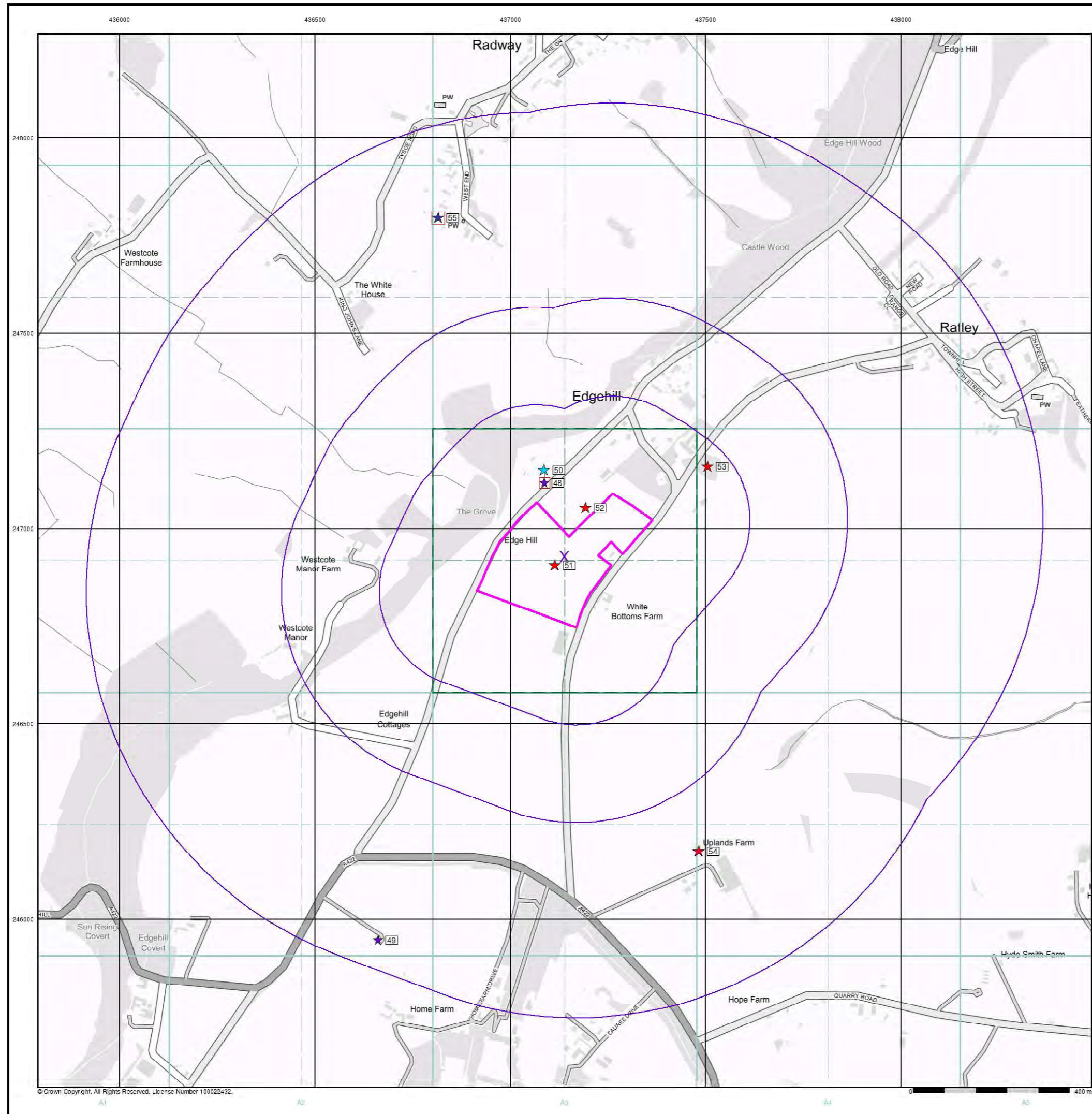


Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH

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

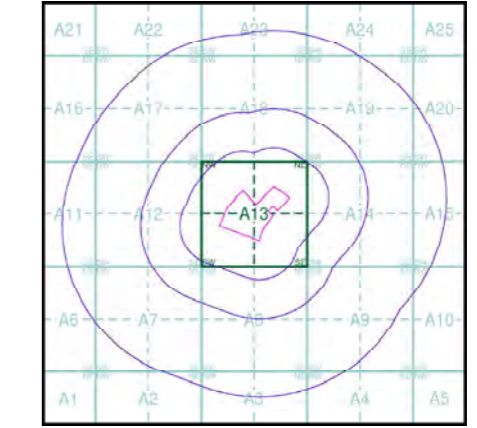


Industrial Land Use Map

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID

- Industrial Land Use**
- ★ Contemporary Trade Directory Entry
 - ★ Fuel Station Entry
 - Gas Pipeline
 - ★ Points of Interest - Commercial Services
 - ★ Points of Interest - Education and Health
 - ★ Points of Interest - Manufacturing and Production
 - ★ Points of Interest - Public Infrastructure
 - ★ Points of Interest - Recreational and Environmental
 - Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

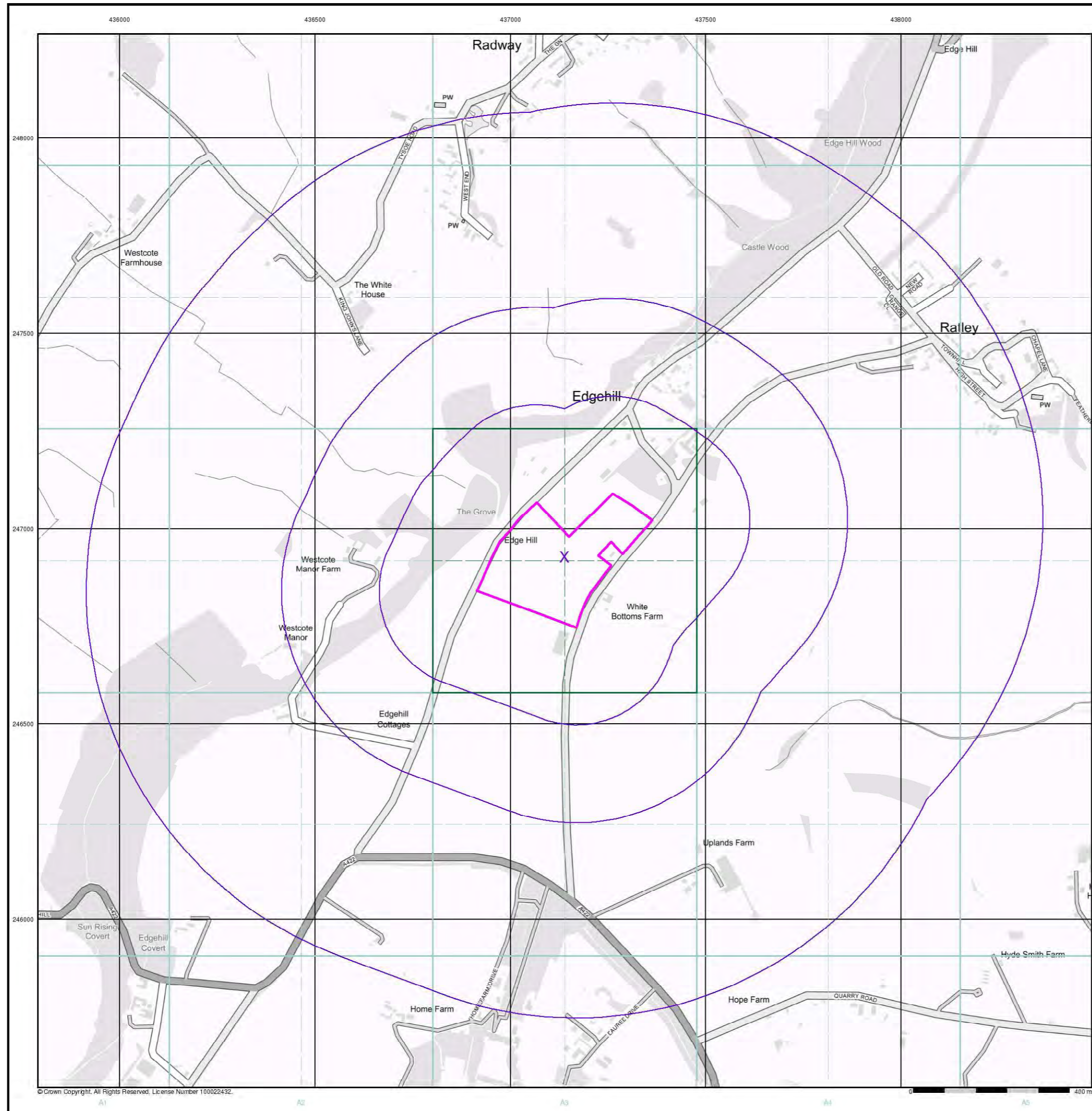
Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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



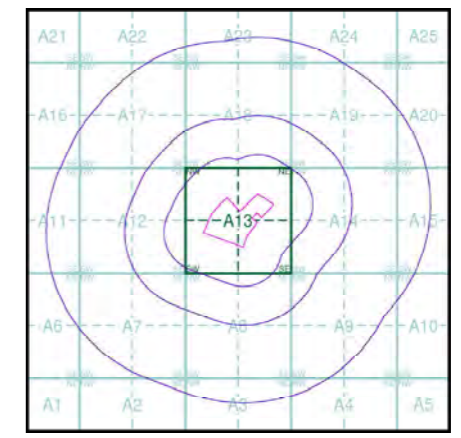
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

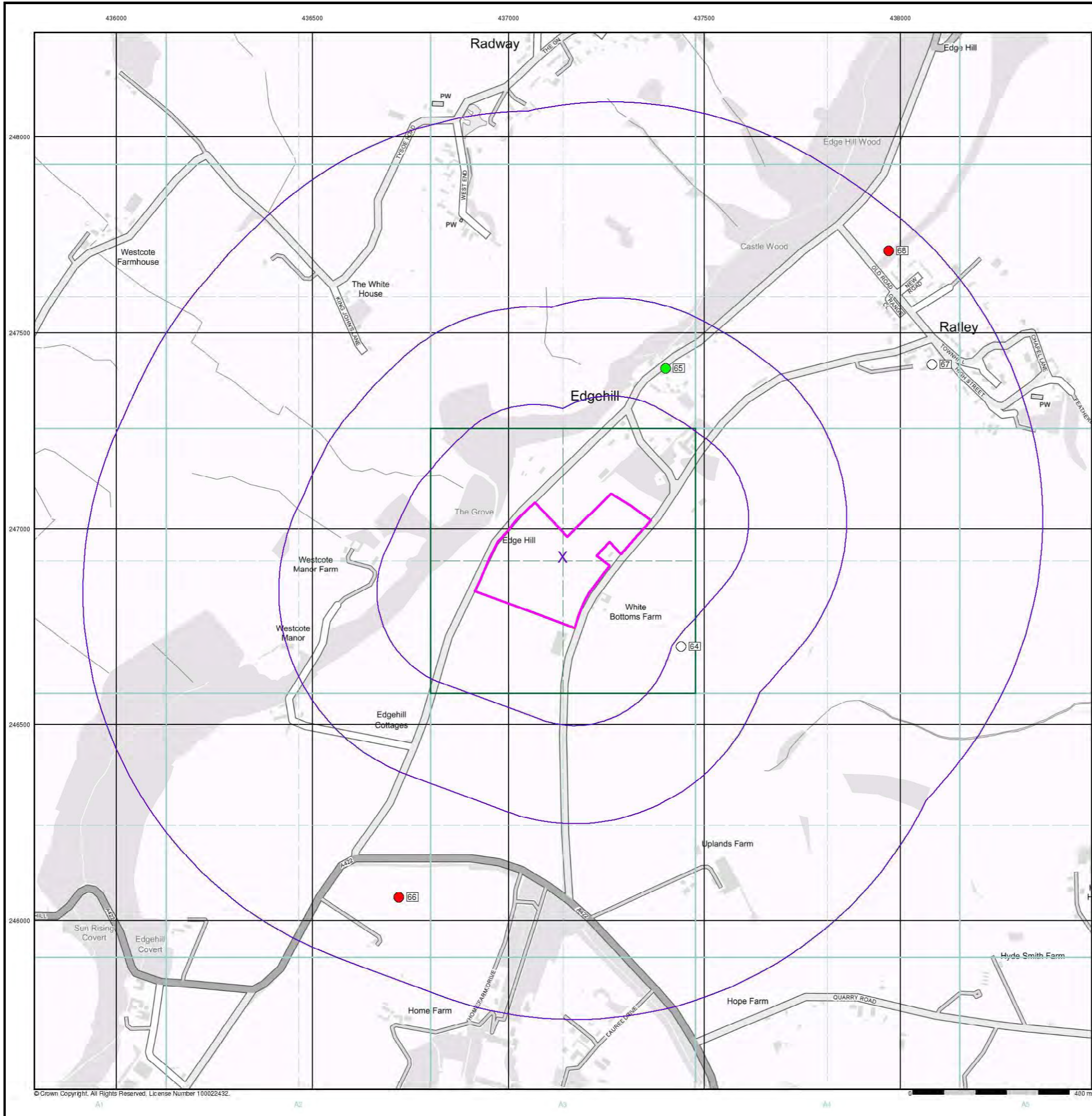
Site Details

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General

- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Map ID
- Several of Type at Location

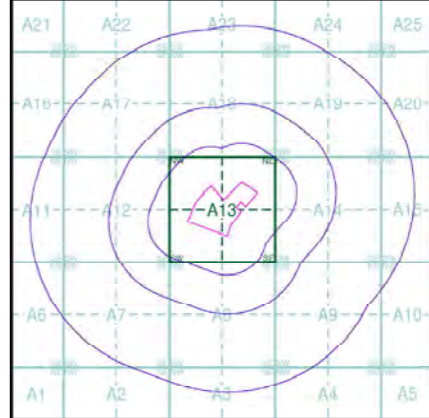
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

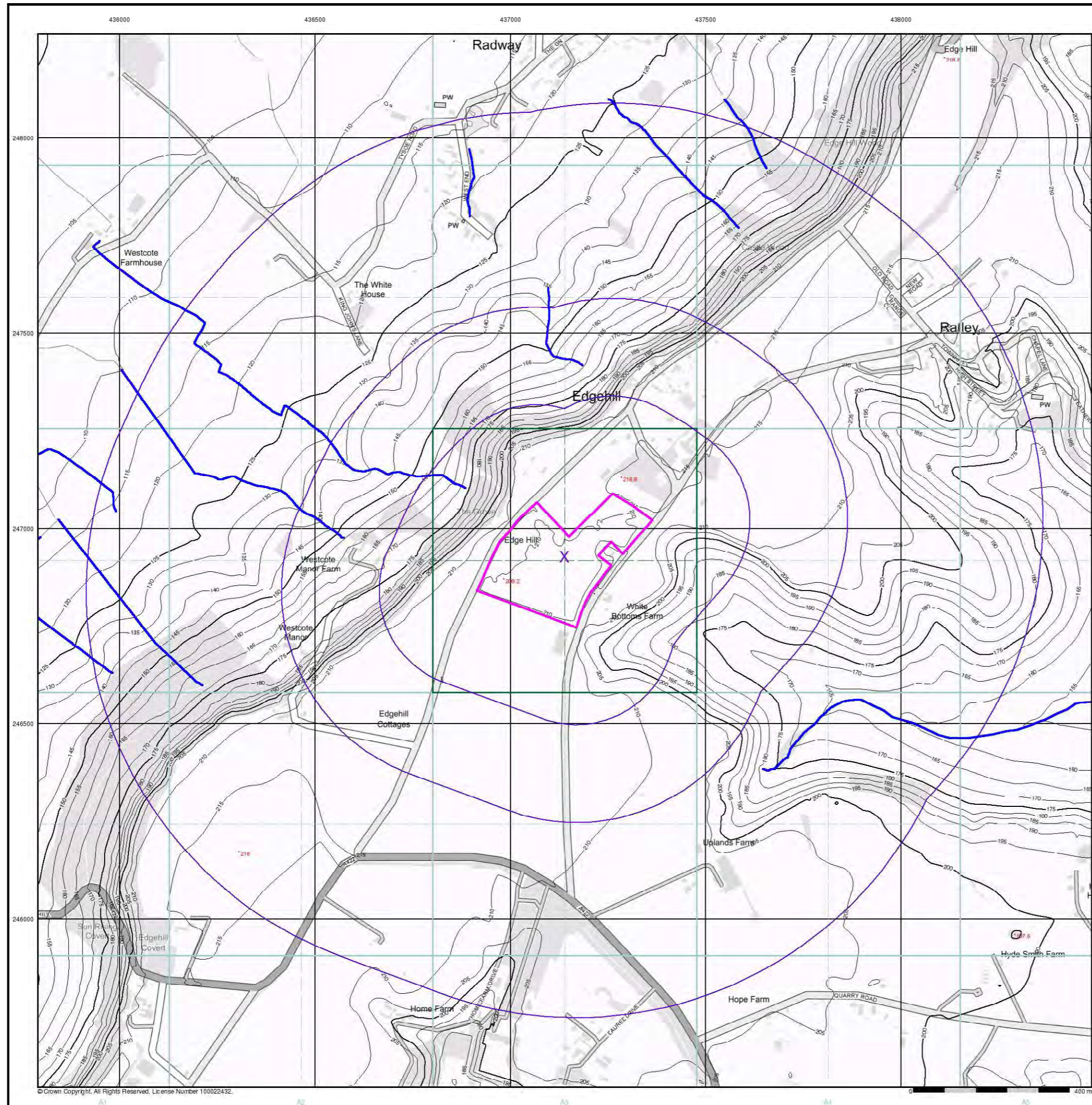
Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

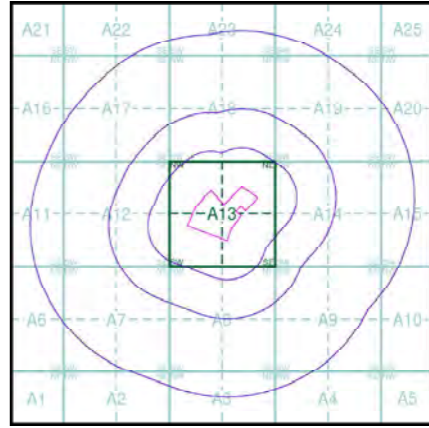
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foresore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- Standard Contour MLW Mean Low Water
- Master Contour MHW Mean High Water
- Spot Height

OS Water Network Map - Slice A



Order Details

- Order Number: 204401007_1_1
- Customer Ref: 19.05.011a
- National Grid Reference: 437140, 246930
- Slice: A
- Site Area (Ha): 7.65
- Search Buffer (m): 1000

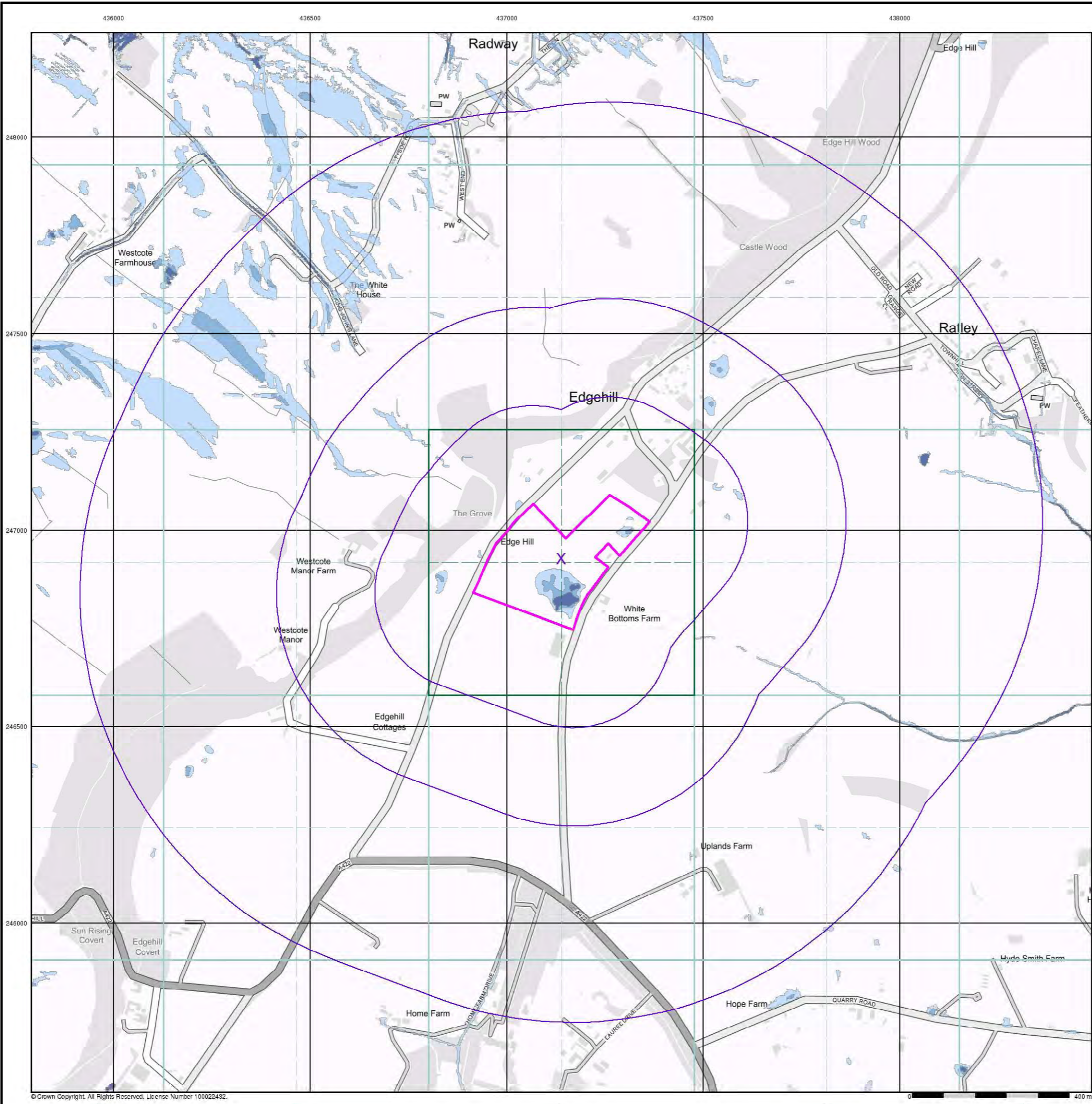
Site Details

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

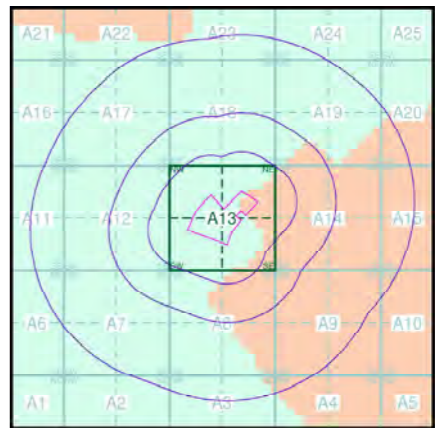
Risk of Flooding from Surface Water

- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

- See the suitability map below
- National to county
 - County to town
 - Town to street
 - Street to parcels of land
 - Property

E/NRW Suitability Map - Slice A



Order Details

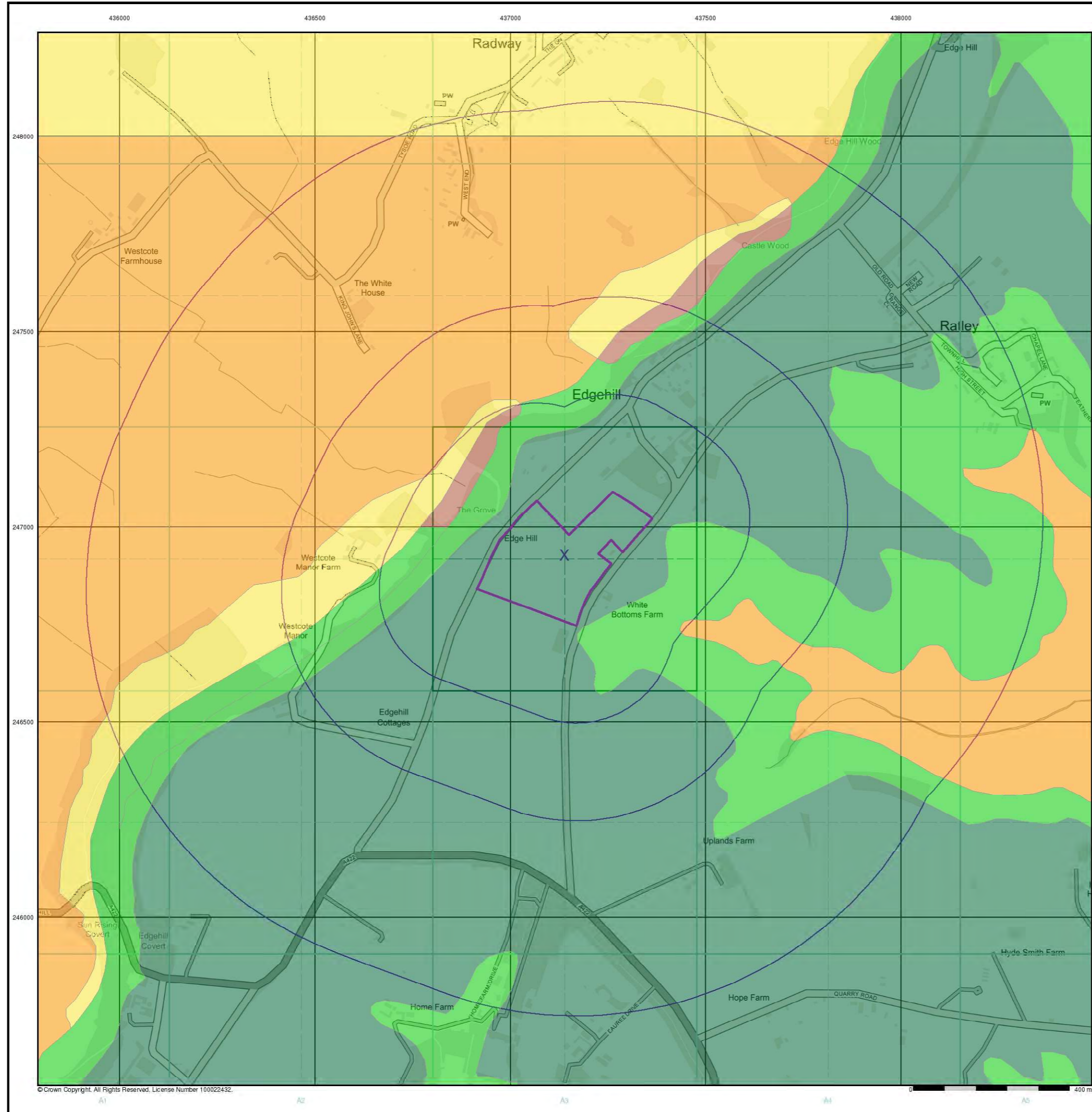
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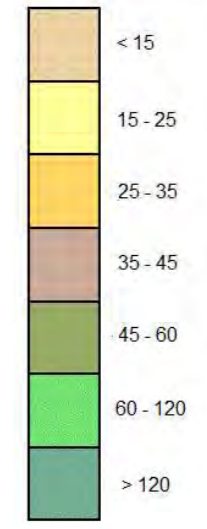


General

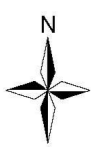
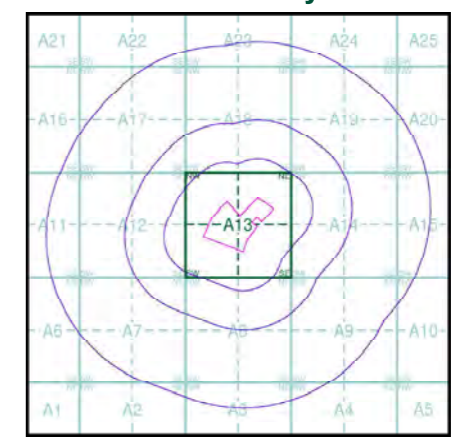
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

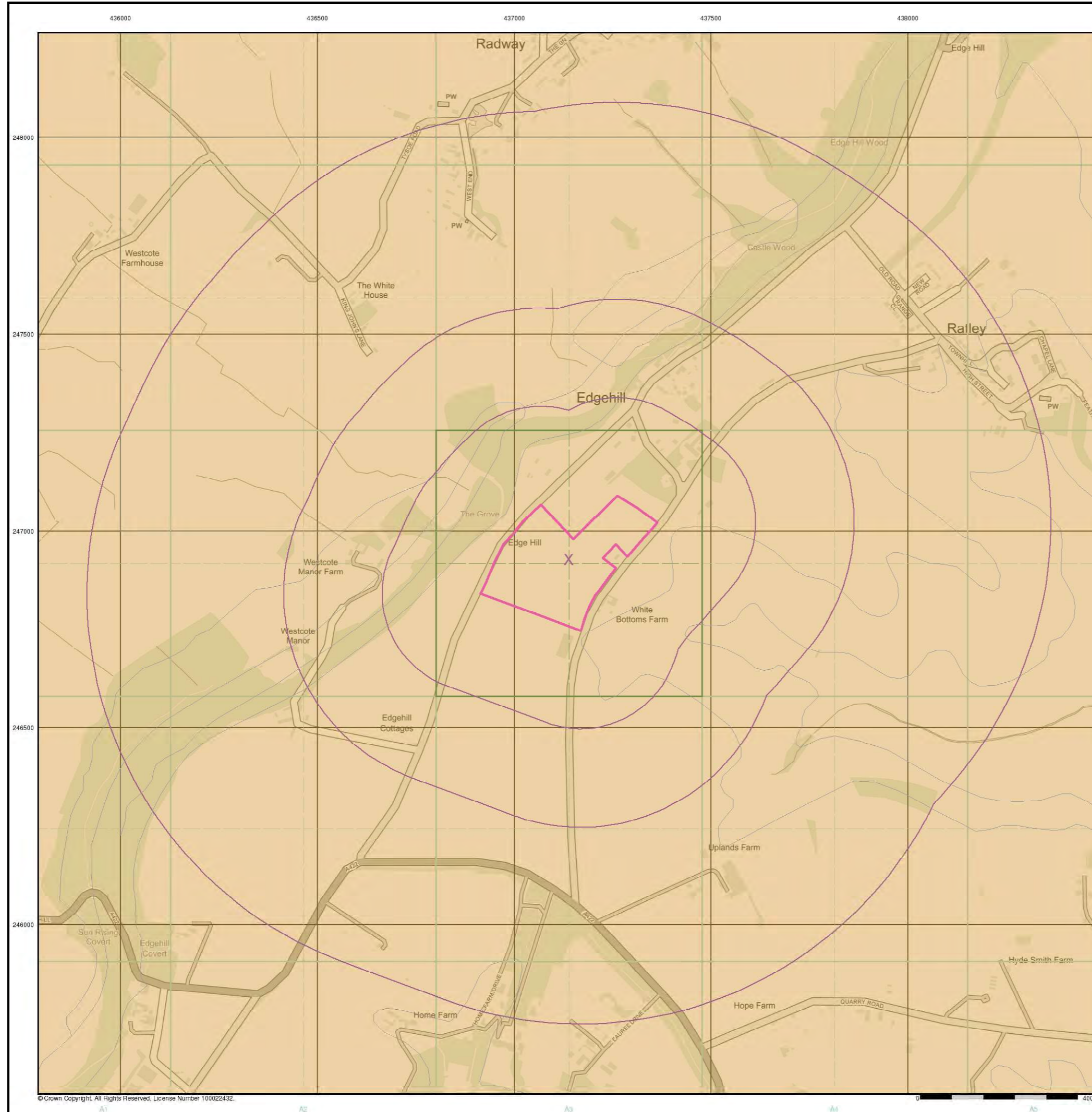
Order Details: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

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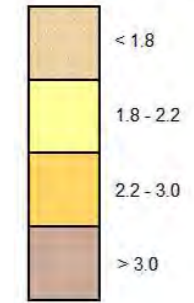


General

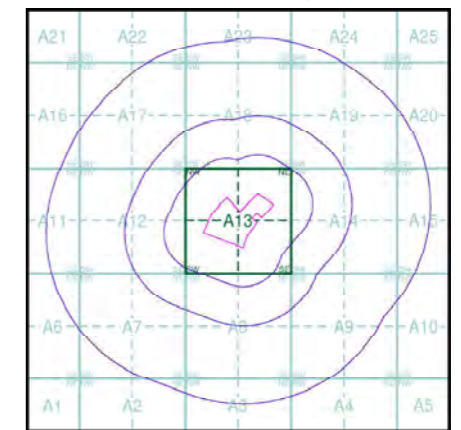
Specified Site
 Specified Buffer(s)
 Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

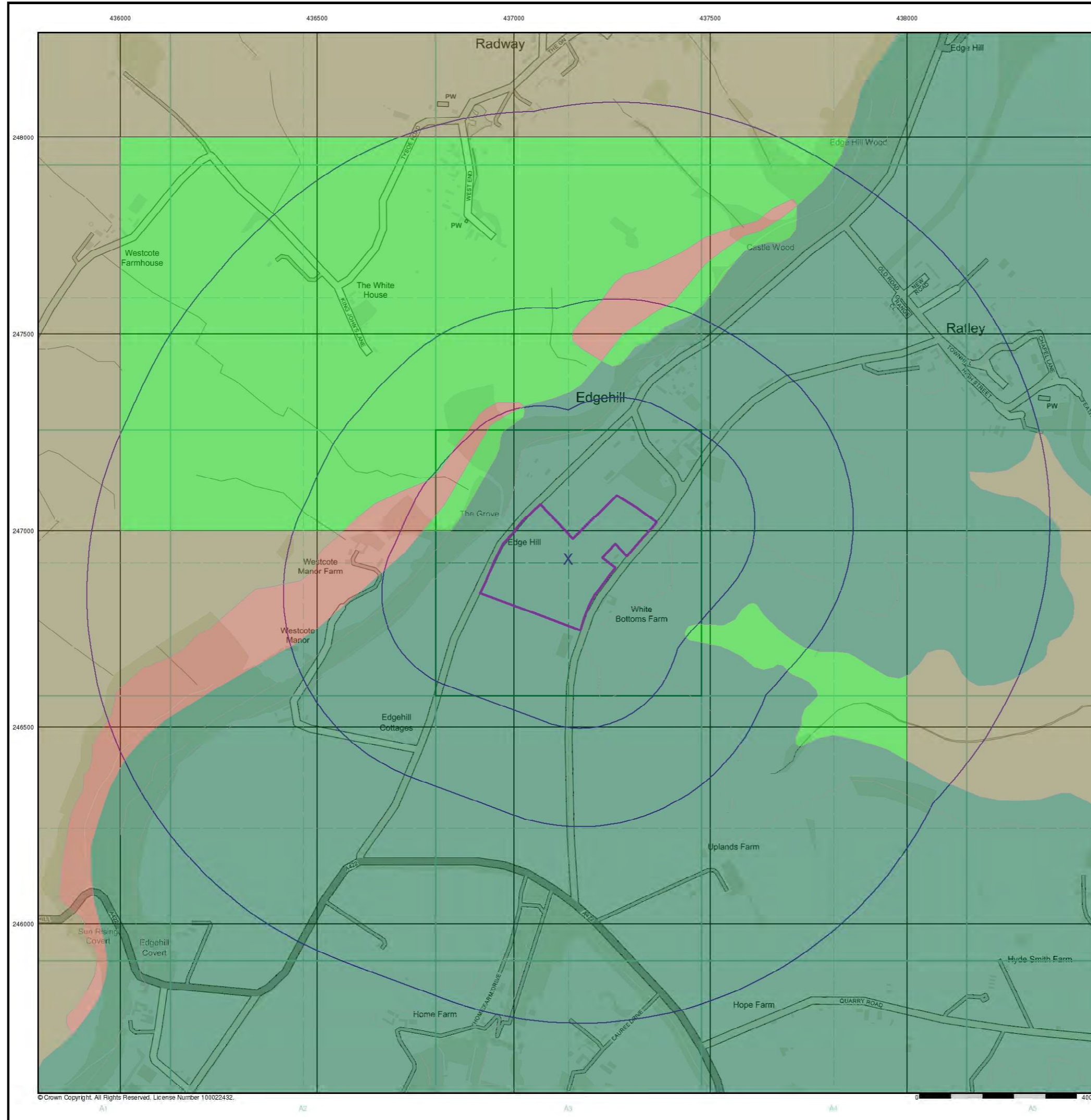
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 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

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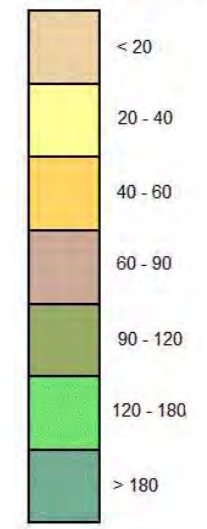


General

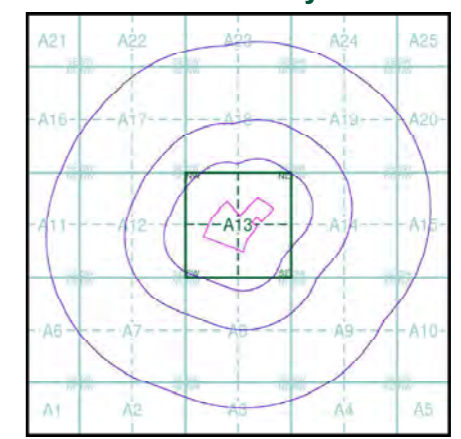
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

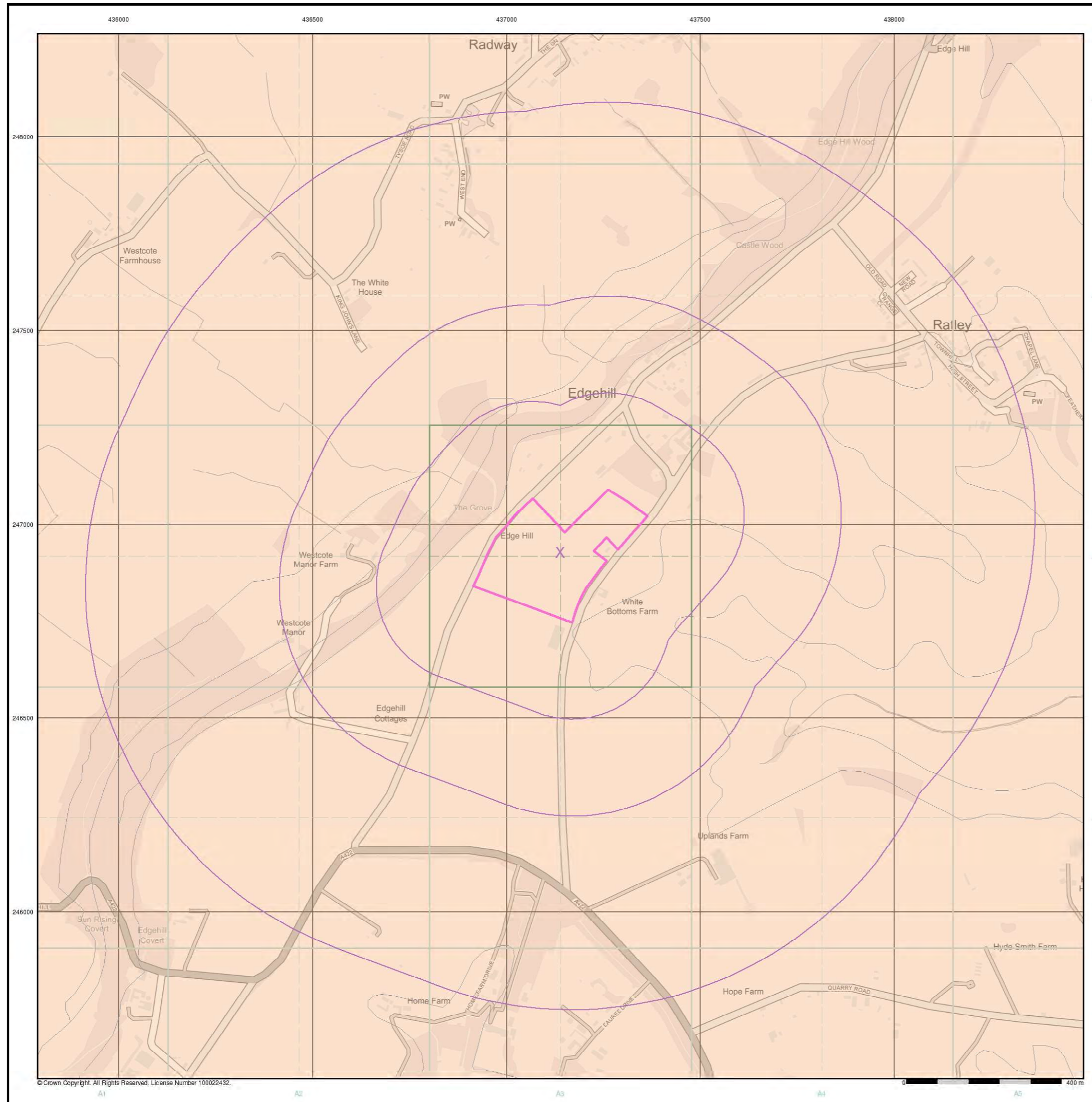
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 National Grid Reference: 437140, 246930
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 Site Area (Ha): 7.65
 Search Buffer (m): 1000

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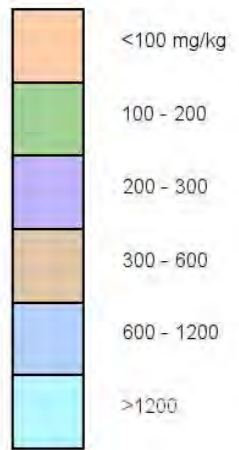


General

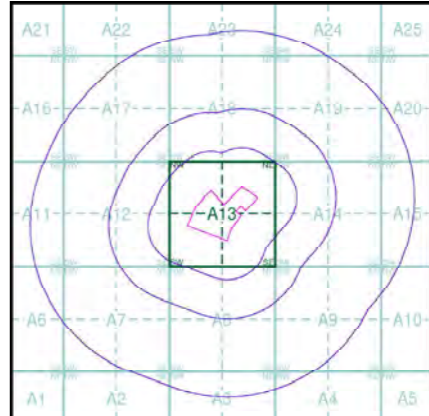
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

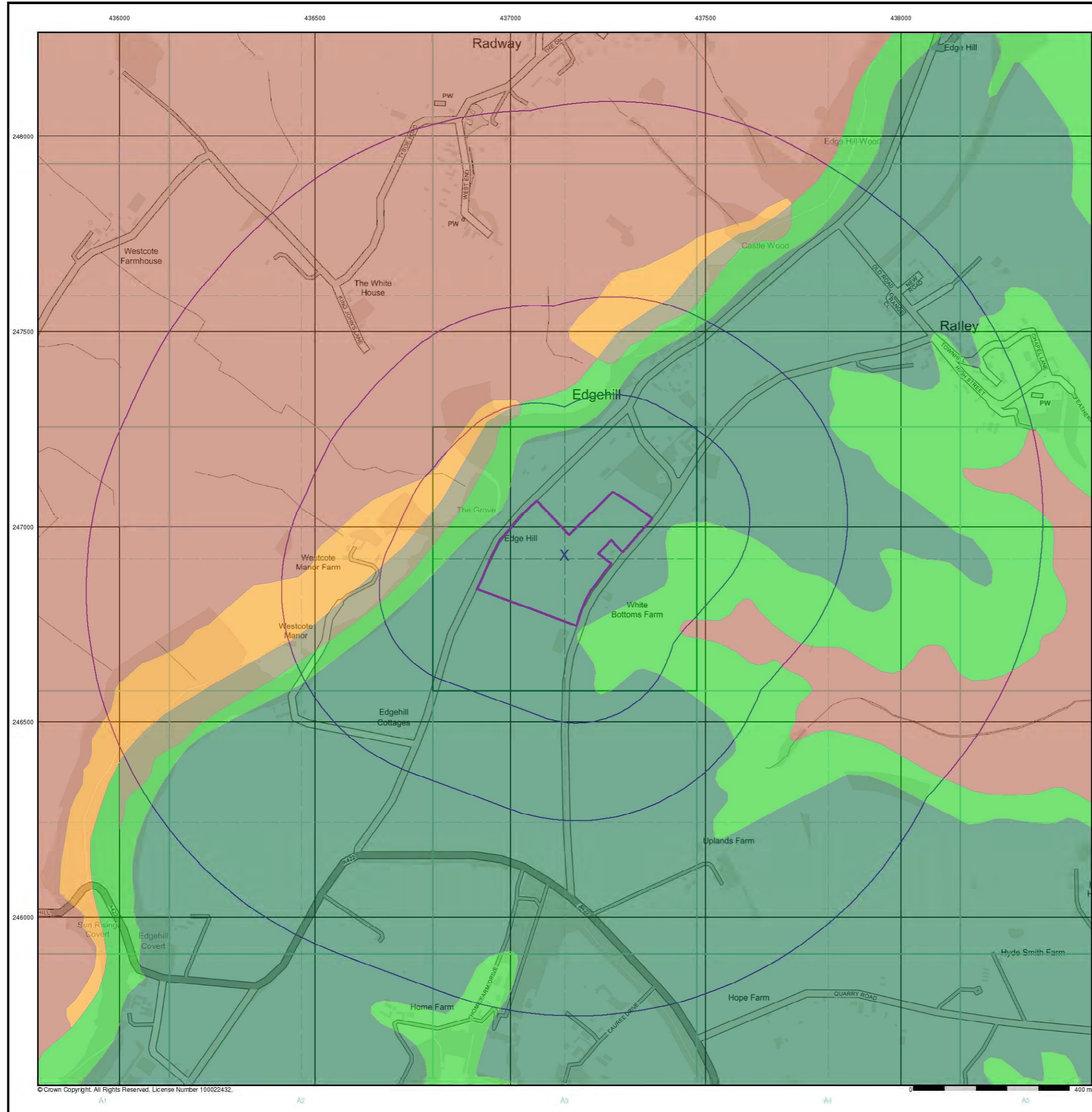
Site Details

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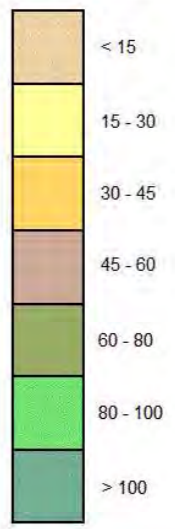
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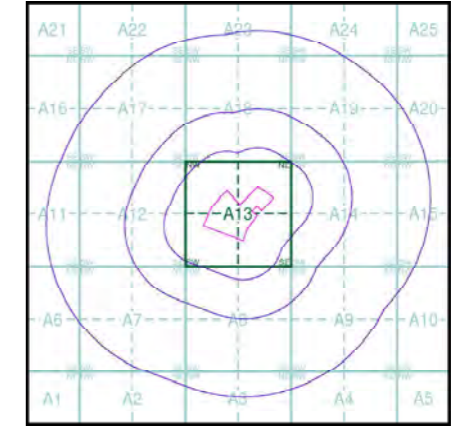
General
 Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A




Order Details
 Order Details: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details
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Geology 1:50,000 Maps Legends





Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WHM	Whitby Mudstone Formation	Mudstone	Not Supplied - Toarcian
	MRB	Marlstone Rock Formation	Ferruginous Limestone and Ironstone	Not Supplied - Pliensbachian
	DYS	Dyrham Formation	Siltstone and Mudstone, Interbedded	Not Supplied - Pliensbachian
	CHAM	Charmouth Mudstone Formation	Mudstone	Not Supplied - Sinemurian



Geology 1:50,000 Maps

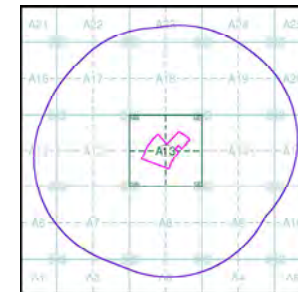
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	201
Map Name:	Banbury
Map Date:	1982
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

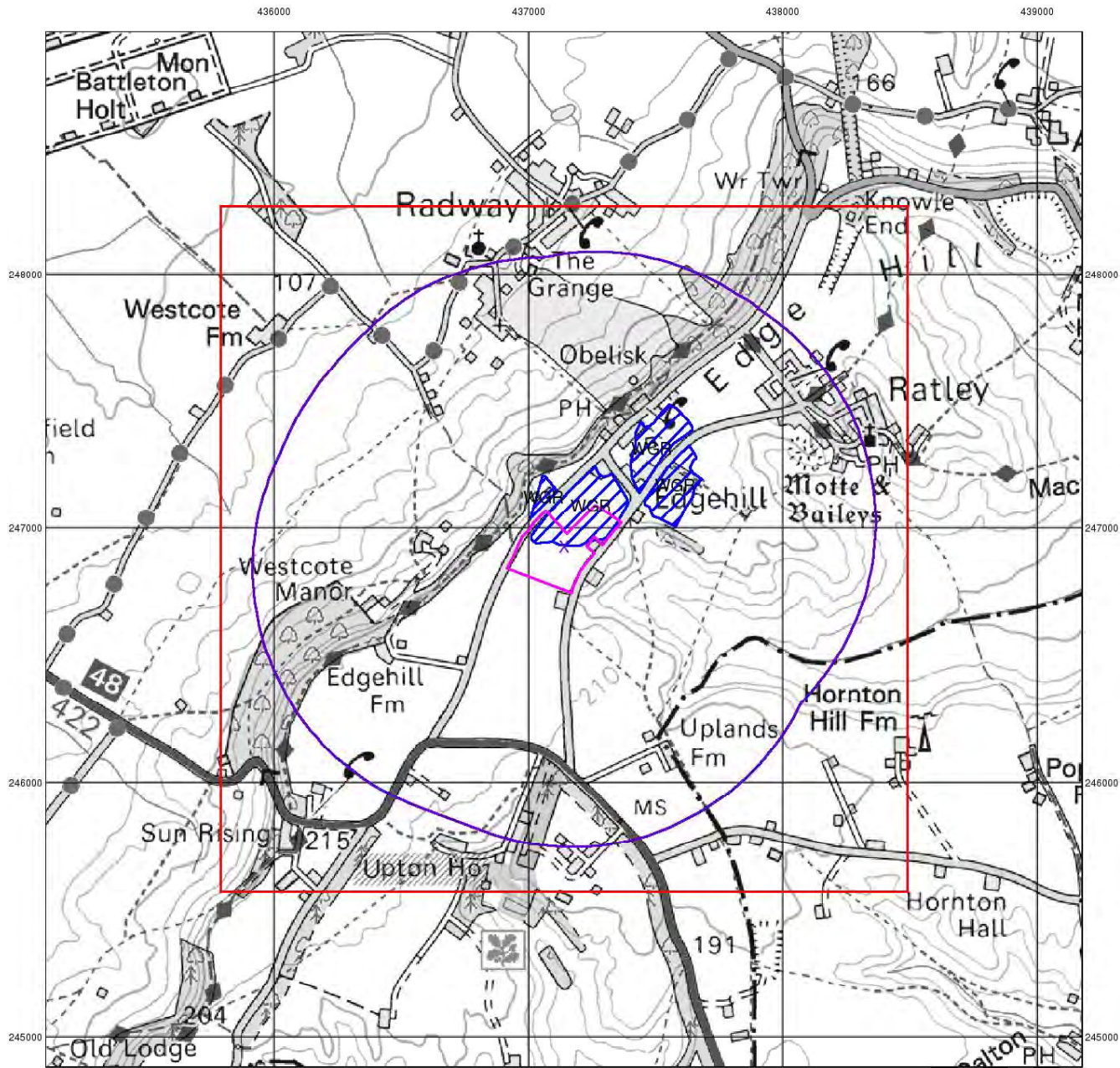
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Customer Reference:	19.05.011a
National Grid Reference:	437140, 246930
Slice:	A
Site Area (Ha):	7.65
Search Buffer (m):	1000

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Artificial Ground and Landslip

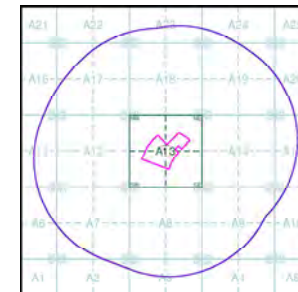
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

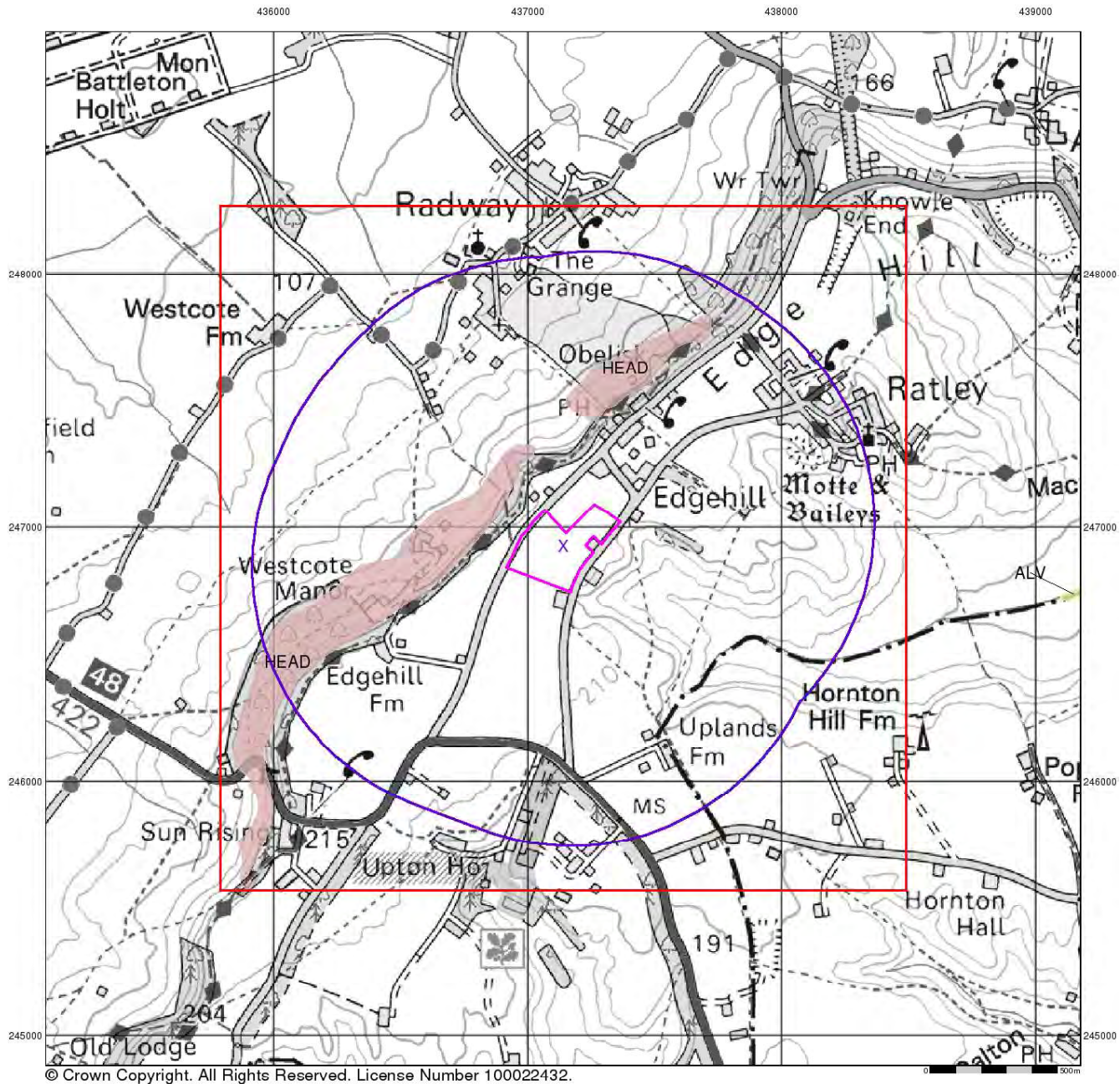
Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

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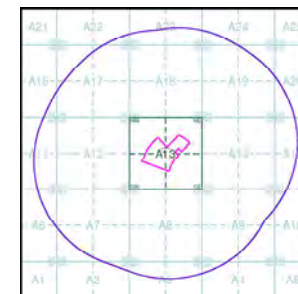
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

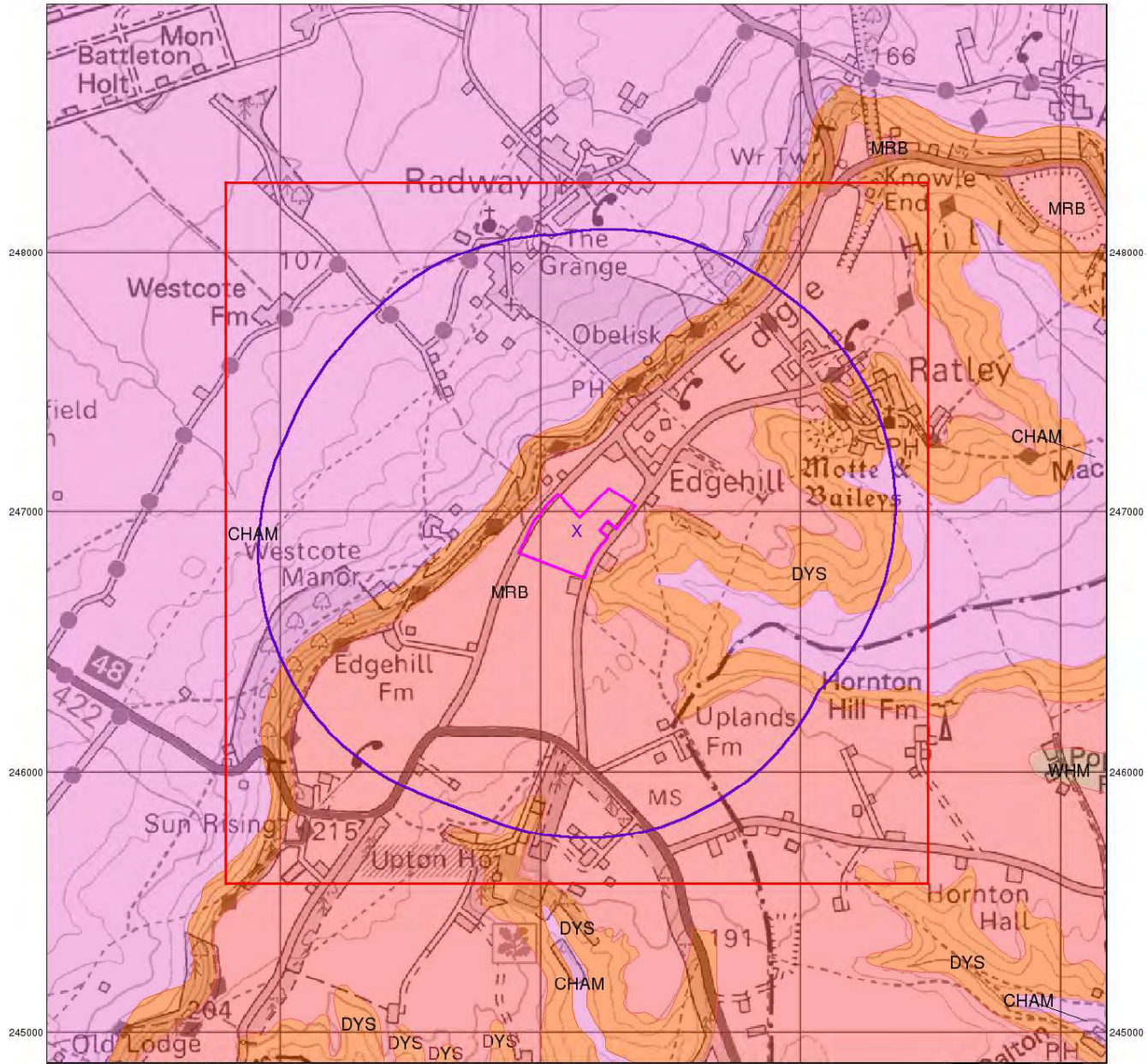
Site Details:

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436000 437000 438000 439000



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Bedrock and Faults

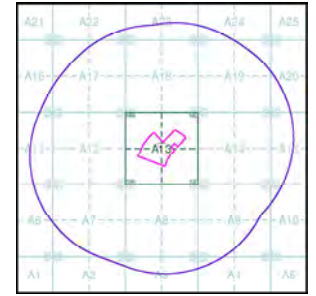
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

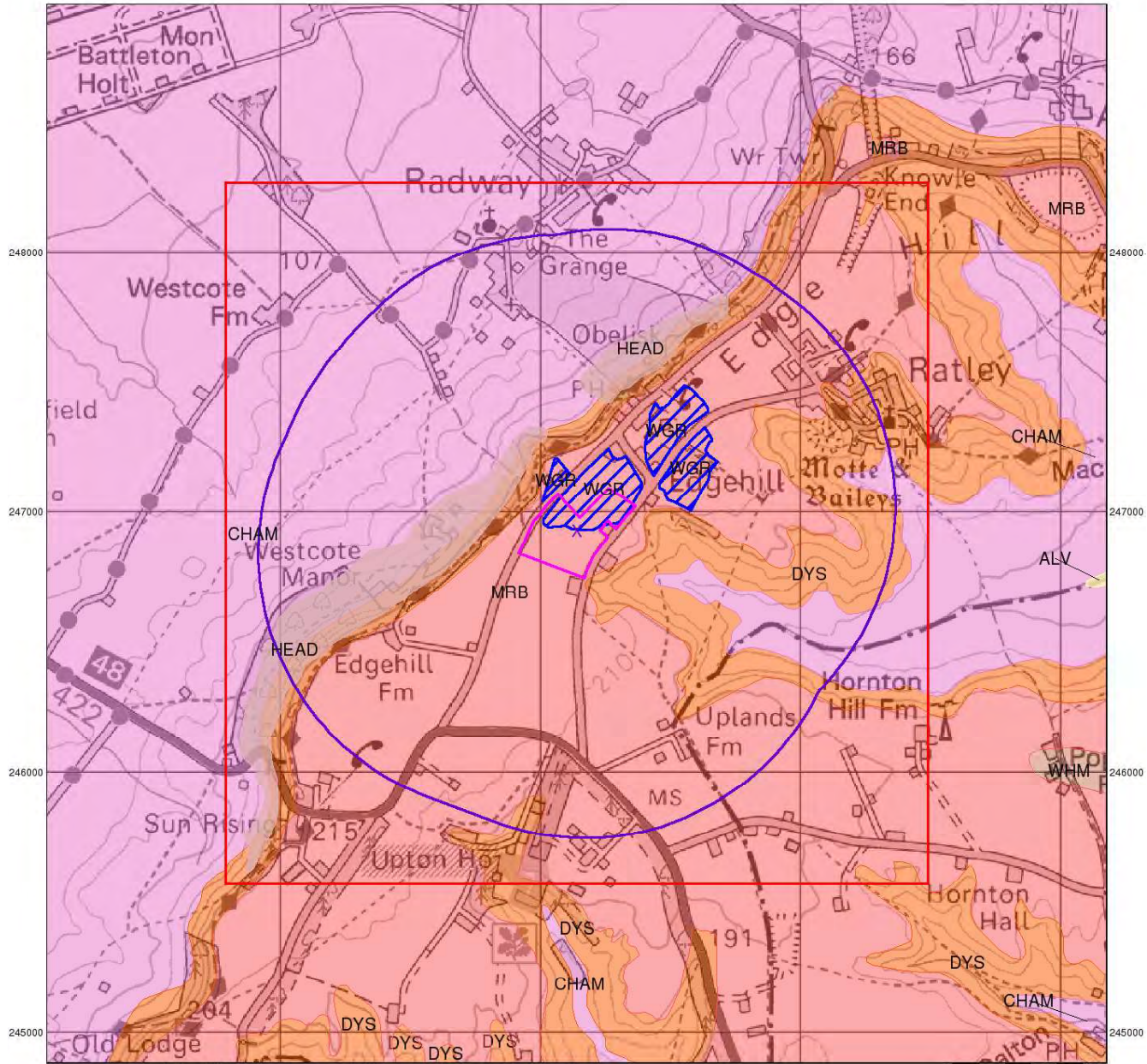
Site Details:

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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

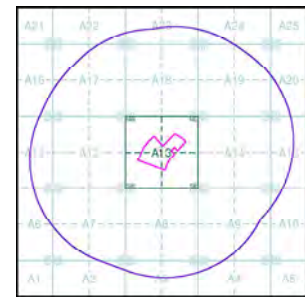
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
 Kingsley Dunham Centre
 Keyworth
 Nottingham
 NG12 5GG
 Telephone: 0115 936 3143
 Fax: 0115 936 3276
 email: enquiries@bgs.ac.uk
 website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 208690290_1_1
 Customer Reference: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
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Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

204401007_1_1

Customer Reference:

19.05.011a

National Grid Reference:

437140, 246930

Slice:

A

Site Area (Ha):

7.65

Search Buffer (m):

1000

Site Details:

Edgehill Quarry

Edgehill

BANBURY

OX15 6DH

Client Details:

Mrs J Taylor

Listers Geotechnical Consultants Ltd

Slapton Hill Barn

Blakesley Road

Slapton

Towcester

Northants

NN12 8QD

Report Section and Details	Page Number
Summary	-
<p>The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected.</p> <p>For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).</p>	
Mining and Natural Cavities Data	1
<p>The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities.</p> <p>Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.</p>	
Historical Land Use Information (1:2,500)	4
<p>The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative.</p> <p>For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.</p>	
Historical Land Use Information (1:10,000)	5
<p>The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses.</p> <p>For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.</p>	
Ground Stability Data (1:50,000)	6
<p>The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.</p>	
Historical Map List	8
<p>The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.</p>	
Data Currency	9
Data Suppliers	10
Useful Contacts	11

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The brine subsidence data relating to the Droitwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining_review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1		7	5	2
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability			n/a	n/a	n/a
Natural Cavities	pg 3			1	
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)	pg 4	1		n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying	pg 5	1	4		2
Heap, unknown constituents					
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits					
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 5		3		1
Potentially Infilled Land (Water)					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Salt Mining Related Features					
Subsidence Insurance Claims				n/a	n/a
Subsidence Investigations				n/a	n/a

Report Version v53.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Edge Hill Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 4560 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A13NE (N)	23	1	437180 247040
2	<p>BGS Recorded Mineral Sites</p> <p>Site Name: The Grove Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245970 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A13NW (NW)	33	1	436980 247024
3	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 10562 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A13NE (NE)	218	1	437439 247236
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245968 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	225	1	437390 247274
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245972 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	250	1	437412 247290
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245976 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	250	1	437412 247290

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245973 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	252	1	437412 247293
5	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Ratley Leys Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 10563 Type: Opencast Status: Ceased Operator: Hornton Quarries Ltd. Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A14NW (NE)	239	1	437550 247170
6	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245971 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	334	1	437446 247368
6	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245969 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	336	1	437444 247372
6	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245974 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	337	1	437447 247371
6	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Baugh Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 245975 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p>	A18SE (NE)	337	1	437447 247371

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	BGS Recorded Mineral Sites Site Name: Upton House Location: Edge Hill, Banbury, Warwickshire Source: British Geological Survey, National Geoscience Information Service Reference: 39610 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A8SW (S)	761	1	436970 246013
8	BGS Recorded Mineral Sites Site Name: Hornton Quarry Location: Edge Hill, Banbury, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 39603 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Jurassic Geology: Marlstone Rock Formation Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	784	1	437658 246136
	Coal Mining Affected Areas In an area which may not be affected by coal mining				
	Natural Cavities Cavity Type: Gulls/Fissures due to Cambering Solid Geology Detail: Lias Group, Lias Group, Lias Group Superficial Geology: No Details Detail:	A19SW (NE)	475	2	437500 247500
	Non Coal Mining Areas of Great Britain No Hazard				

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Extractive Industries or Potential Excavations from 1950-1980 Use: Stone Quarry First Map Published 1972 Date: Last Map Published Not Applicable Date:	A13NE (N)	0	-	437148 246963

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	General Quarrying Use: Not Supplied Date of Mapping: 1955 - 1982	A13NE (N)	0	-	437145 246963
11	General Quarrying Use: Not Supplied Date of Mapping: 1955	A13NW (NW)	3	-	437013 247018
12	General Quarrying Use: Not Supplied Date of Mapping: 1900	A13NW (NW)	65	-	436967 247059
13	General Quarrying Use: Not Supplied Date of Mapping: 1891 - 1982	A13NE (NE)	68	-	437422 247054
14	General Quarrying Use: Not Supplied Date of Mapping: 1891 - 1982	A13NE (NE)	115	-	437432 247113
15	General Quarrying Use: Not Supplied Date of Mapping: 1891	A8SW (S)	720	-	436981 246053
16	General Quarrying Use: Not Supplied Date of Mapping: 1891	A9SW (SE)	780	-	437646 246132
17	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NW (NW)	3	-	437013 247018
18	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NE (NE)	60	-	437417 247048
19	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A13NE (NE)	117	-	437425 247127
20	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1982	A8SW (S)	720	-	436981 246053

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBCSB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
21	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
22	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
23	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	21	1	437229 246767
24	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	72	1	437291 246797
25	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	87	1	437441 246984
26	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	137	1	436928 247130
27	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	146	1	437283 246656
28	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	178	1	437377 246717
29	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	127	1	436889 247073
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
30	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	437229 246767
31	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	136	1	436893 247079
32	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	156	1	436938 247158
33	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (W)	162	1	436771 246914
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	437139 246928
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	111	1	436920 247075
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	131	1	436970 247155

Ground Stability Data (1:50,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Potential for Shrinking or Swelling Clay Ground Stability Hazards</p> <p>Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service</p>	A12SE (W)	143	1	436782 246905

The following mapping has been analysed for Historical Land Use Information (1:2,500):








1:2,500	Mapsheet	Published Date
Ordnance Survey Plan	SP3646	1972
Ordnance Survey Plan	SP3647	1972
Ordnance Survey Plan	SP3746	1972
Ordnance Survey Plan	SP3747	1972

The following mapping has been analysed for Historical Land Use Information (1:10,000):

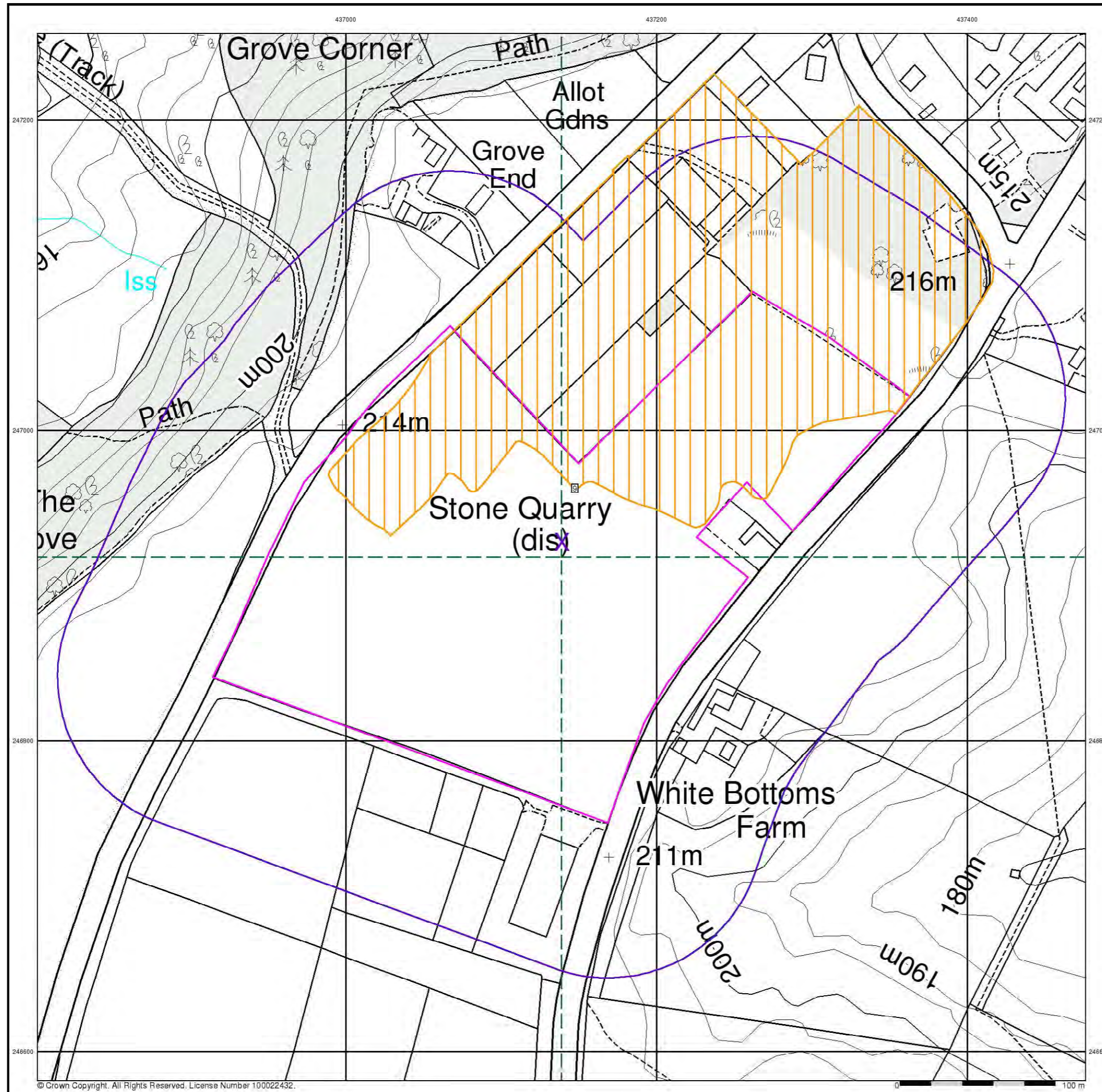
1:10,560	Mapsheet	Published Date
Oxfordshire	002_00	1885
Warwickshire	052_NW	1891
Warwickshire	052_SW	1891
Oxfordshire	002_SW	1900
Warwickshire	052_SW	1900
Warwickshire	052_NW	1906
Oxfordshire	002_SW	1923
Warwickshire	052_NW	1923
Warwickshire	052_SW	1923
Ordnance Survey Plan	SP34NE	1955
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	SP34NE	1982

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2019	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Man Made Mining Cavities Peter Brett Associates	October 2018	Bi-Annually
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural Cavities Peter Brett Associates	October 2018	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	March 2019	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Subsidence Insurance Claims SP Property Services	October 2018	Quarterly
Subsidence Investigations CET Structures Ltd	July 2018	Quarterly
Brine Subsidence Solution Area Johnson Poole & Bloomer	January 2015	Annual Rolling Update

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	
The Coal Authority	
Ove Arup	
Peter Brett Associates	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	<p>British Geological Survey - Enquiry Service</p> <p>British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG</p>	<p>Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk</p>
2	<p>Peter Brett Associates</p> <p>Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN</p>	<p>Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk</p>
-	<p>Landmark Information Group Limited</p> <p>Imperium, Imperial Way, Reading, Berkshire, RG2 0TD</p>	<p>Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk</p>



Historical Land Use Information (1:2,500)

General

□ Specified Site
 ○ Specified Buffer(s)
 X Bearing Reference Point
 □ Map ID
□ Several of Type at Location

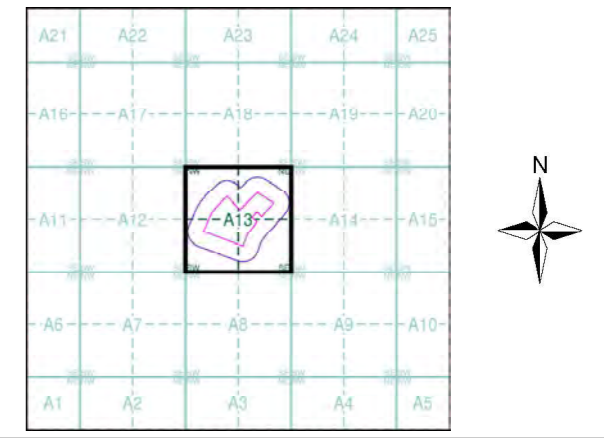
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	□
Extractive Industries Activity from 1893 - 1915	▲	—	□
Extractive Industries Activity from 1906 - 1937	▲	—	□
Extractive Industries Activity from 1924 - 1949	▲	—	□
Extractive Industries Activity from 1950 - 1980	▲	—	□

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	---	□

Mining and Ground Stability - Segment A13



Order Details

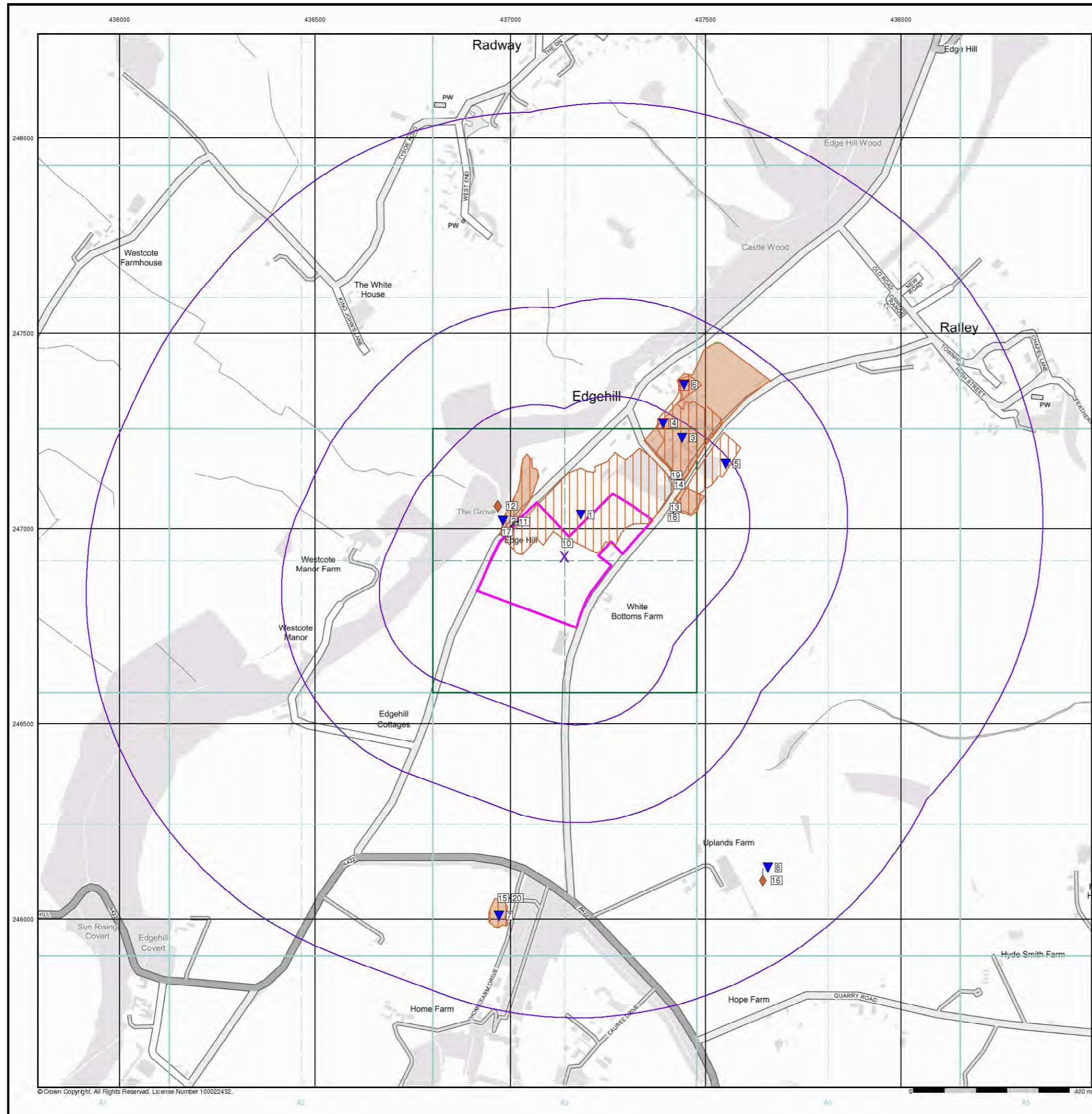
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 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Plot Buffer (m): 100

Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH

Landmark
 INFORMATION GROUP

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

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Historical Land Use Information (1:10,000)

General
 Specified Site Specified Buffer(s) Bearing Reference Point Map ID
 Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts			
Disturbed Ground			
General Quarrying			
Heap, unknown constituents			
Mineral Railway			
Mining and Quarrying General			
Mining of Coal & Lignite			
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits			

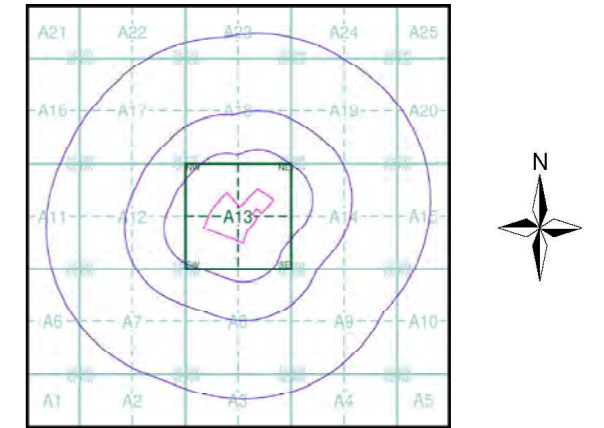
Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)			
Potentially Infilled Land (Water)			
Former Marsh			

Mining Data

- Potential Mining Area
- BGS Recorded Mineral Site

Mining and Ground Stability - Slice A

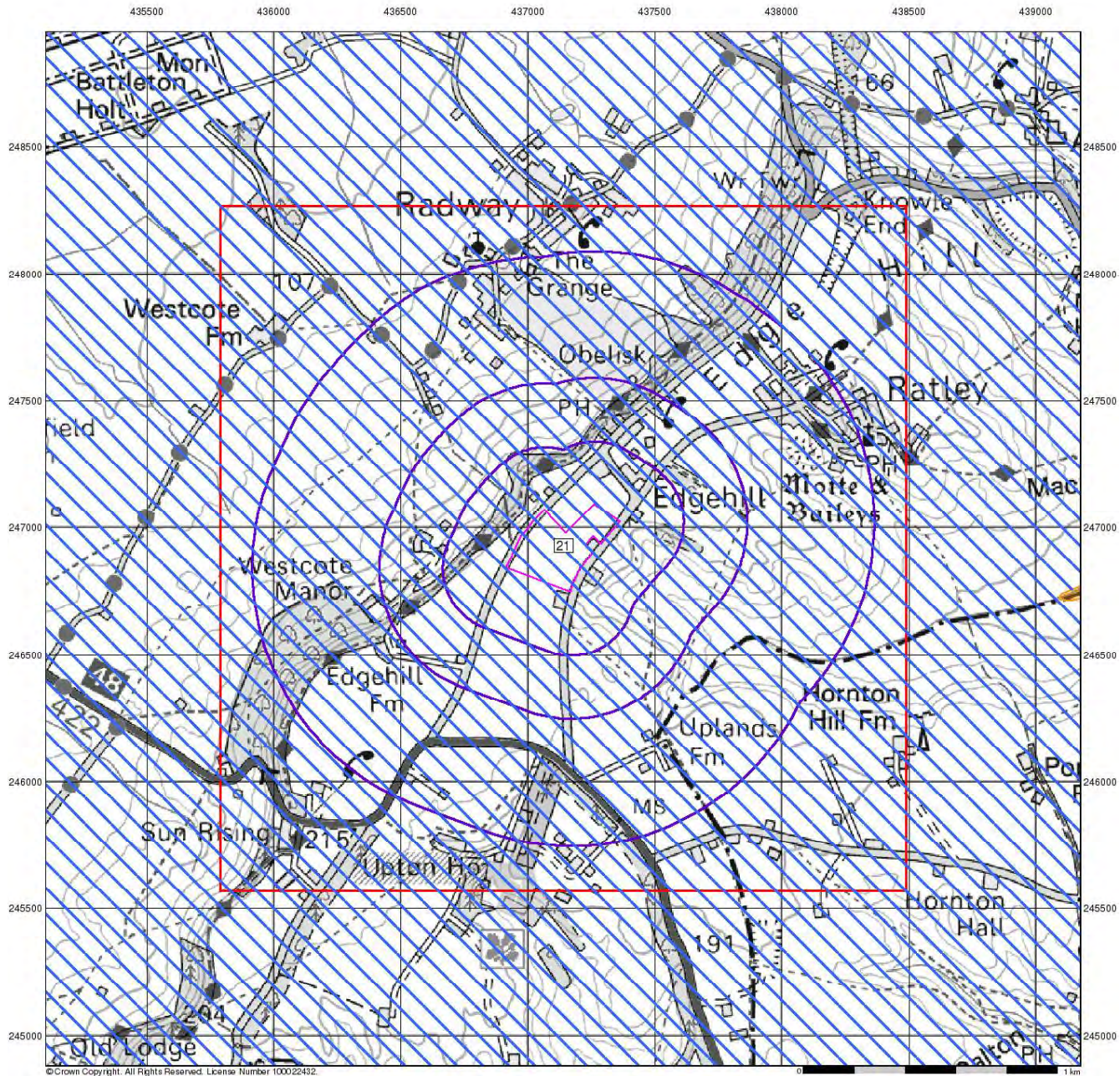


Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH

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



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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Potential for Compressible Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

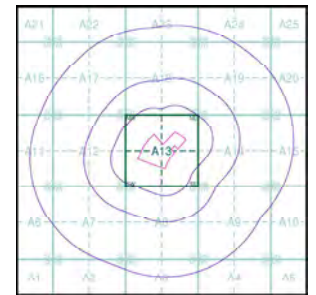
Potential for Collapsible Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Brine Pumping and Salt Mining

- | | Point | Polygon |
|-------------------------------|-------|---------|
| Brine Pumping Related Feature | | |
| Salt Mining Related Feature | | |

Mining and Ground Stability - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

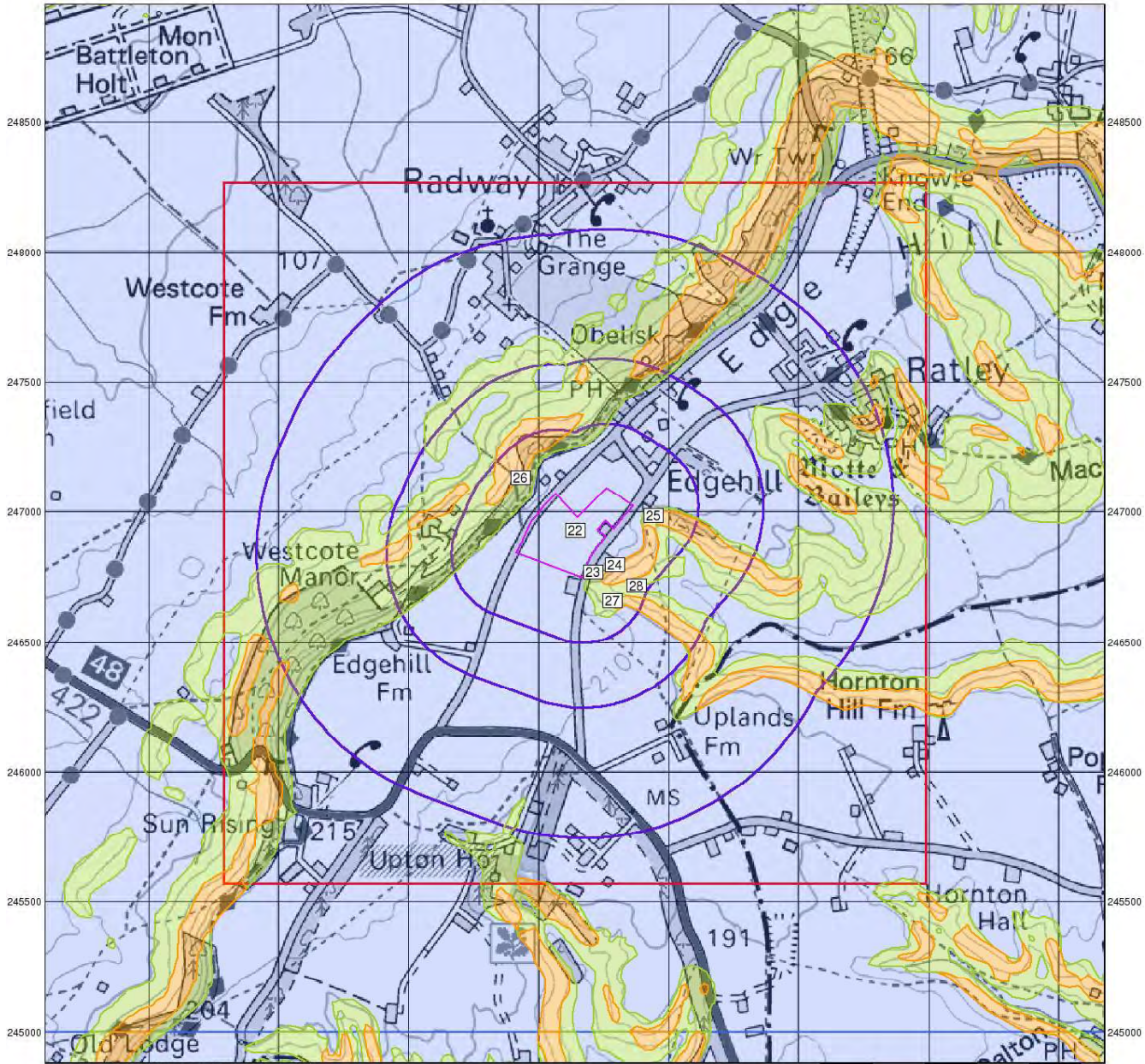
Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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 Fax: 0844 844 9951
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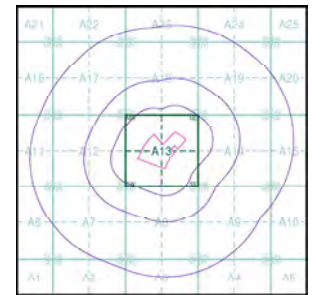
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Ground Stability Data (1:50,000)

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Potential for Landslide Ground Stability Hazards**
- High
 - Moderate
 - Low
 - Very Low
- Potential for Ground Dissolution Stability Hazards**
- High
 - Moderate
 - Low
 - Very Low

Mining and Ground Stability - Slice A



Order Details

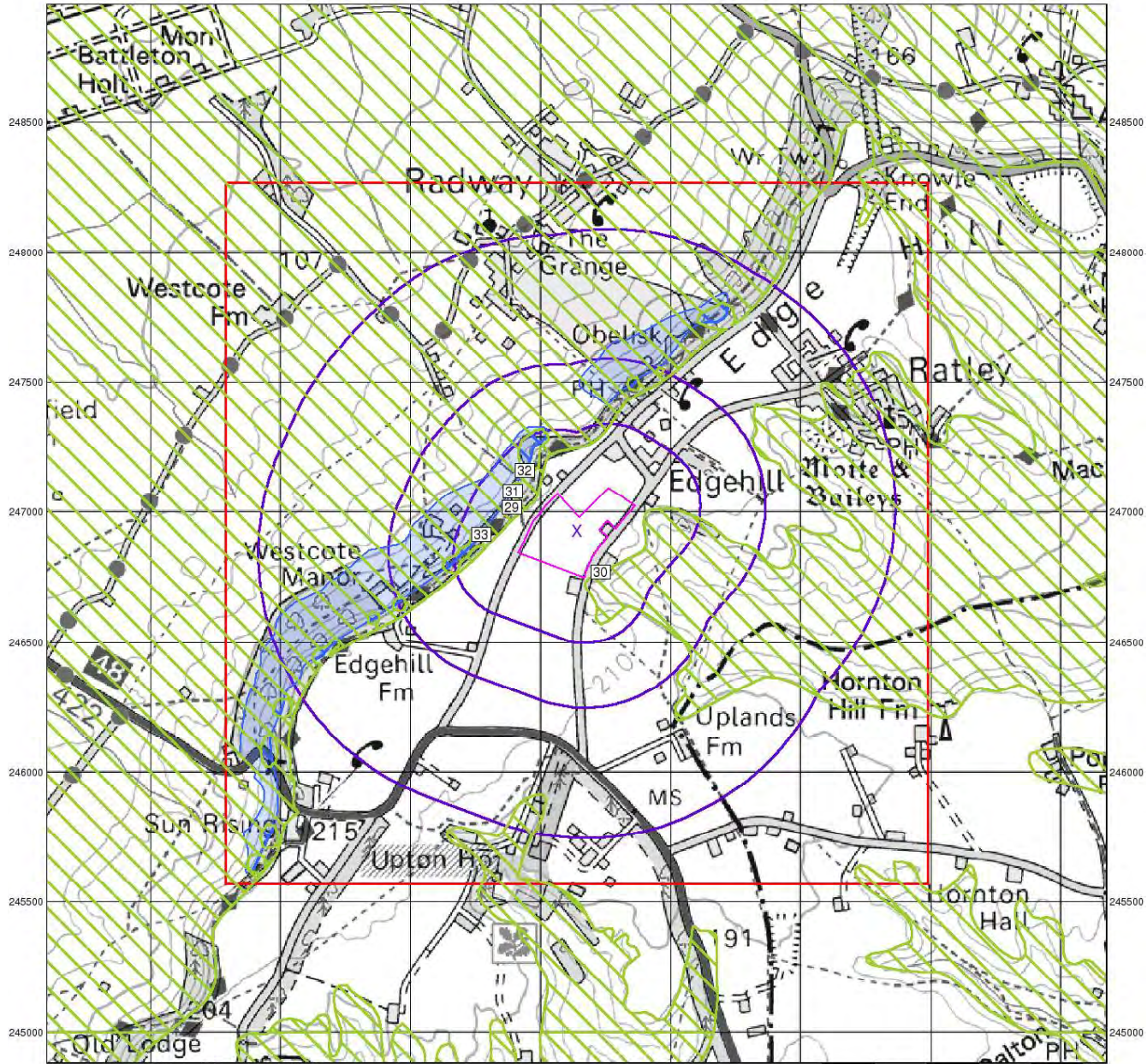
Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details
 Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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Ground Stability Data (1:50,000)

General
 Specified Site (pink outline) Specified Buffer(s) (purple circles) Bearing Reference Point (X)
 Slice (red rectangle) Map ID (square icon)

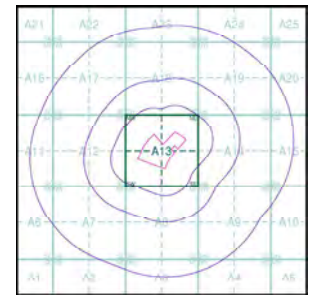
Potential for Running Sand Ground Stability Hazards

- High (Red square)
- Moderate (Orange square)
- Low (Green square)
- Very Low (Blue square)

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High (Red diagonal lines)
- Moderate (Orange diagonal lines)
- Low (Green diagonal lines)
- Very Low (Blue diagonal lines)

Mining and Ground Stability - Slice A



Order Details

Order Number: 204401007_1_1
 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	-285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Borough Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Coppice		
	Bracken		Heath
	Rough Grassland		
	Marsh		Reeds
	Saltings		
	Building		Glasshouse
	Sloping Masonry		Pylon
	Electricity Transmission Line		Pole
	Cutting		Embankment
	Standard Gauge Multiple Track		
	Standard Gauge Single Track		
	Siding, Tramway or Mineral Line		
	Narrow Gauge		
	Geographical County		
	Administrative County, County Borough or County of City		
	Municipal Borough, Urban or Rural District, Burgh or District Council		
	Borough, Burgh or County Constituency Shown only when not coincident with other boundaries		
	Civil Parish Shown alternately when coincidence of boundaries occurs		
	BP, BS Boundary Post or Stone		Pol Sta Police Station
	Ch Church		PO Post Office
	CH Club House		PC Public Convenience
	F E Sta Fire Engine Station		PH Public House
	FB Foot Bridge		SB Signal Box
	Fn Fountain		Spr Spring
	GP Guide Post		TCB Telephone Call Box
	MP Mile Post		TCP Telephone Call Post
	MS Mile Stone		W Well

1:10,000 Raster Mapping

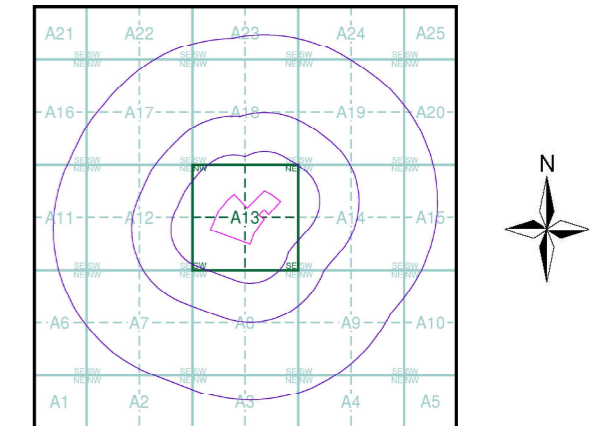
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	MHW(S) Mean high water (springs)		MLW(S) Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Oxfordshire	1:10,560	1885	2
Warwickshire	1:10,560	1886	3
Oxfordshire	1:10,560	1900	4
Warwickshire	1:10,560	1906	5
Oxfordshire	1:10,560	1923	6
Warwickshire	1:10,560	1923	7
Warwickshire	1:10,560	1923	8
Oxfordshire	1:10,560	1928	9
Ordnance Survey Plan	1:10,000	1955	10
Ordnance Survey Plan	1:10,000	1982	11
10K Raster Mapping	1:10,000	1999	12
10K Raster Mapping	1:10,000	2006	13
VectorMap Local	1:10,000	2019	14

Historical Map - Slice A



Order Details

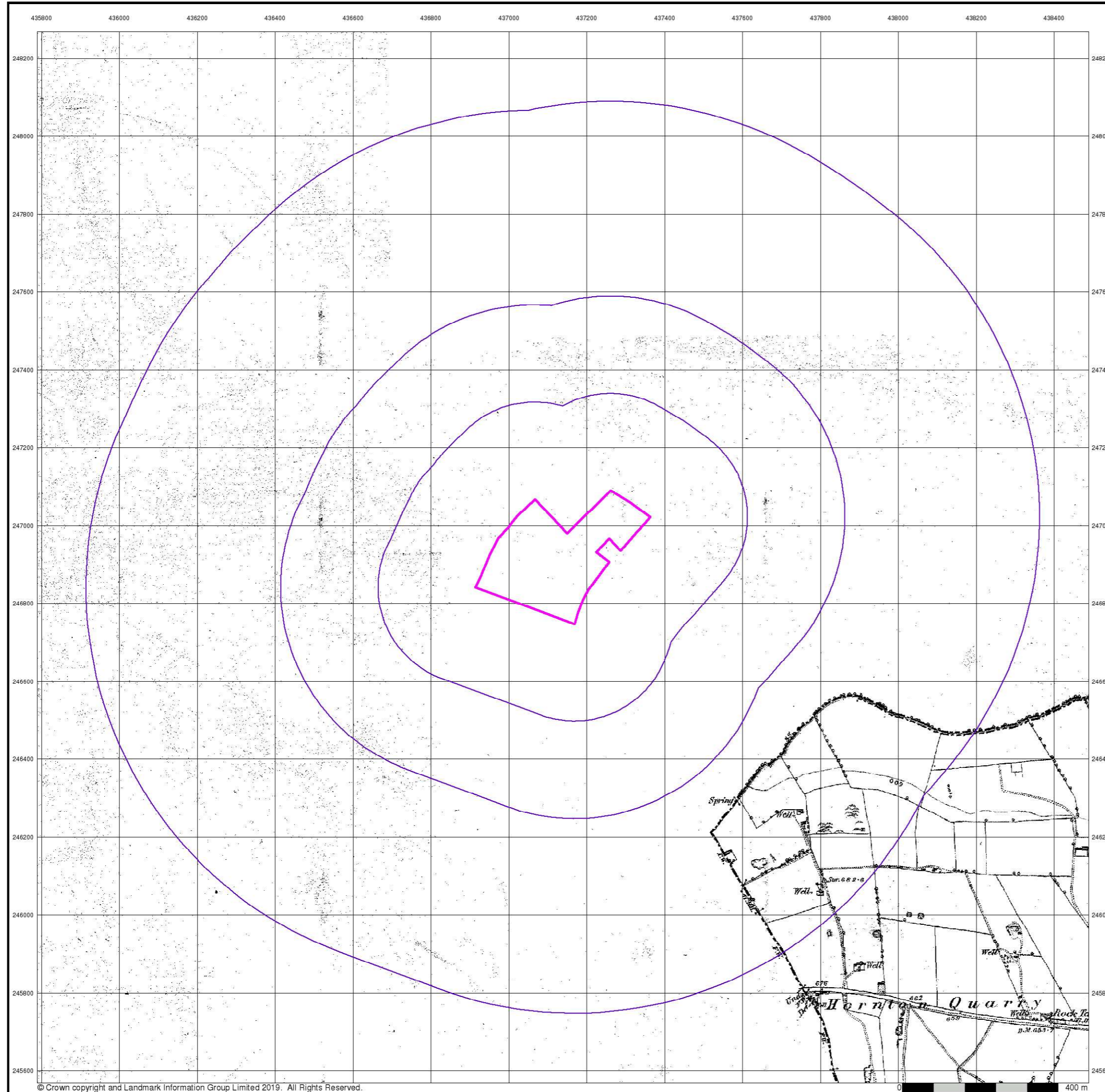
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 Customer Ref: 19.05.011a
 National Grid Reference: 437140, 246930
 Slice: A
 Site Area (Ha): 7.65
 Search Buffer (m): 1000

Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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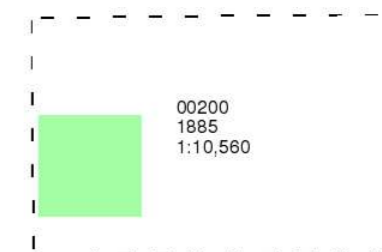
Oxfordshire

Published 1885

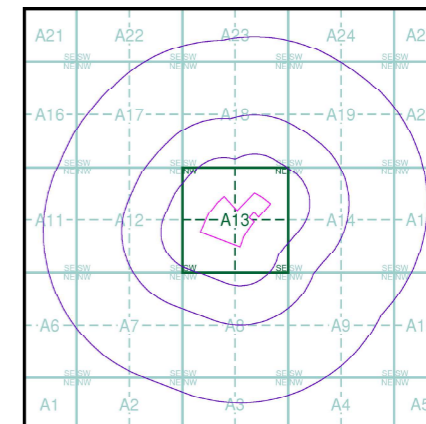
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



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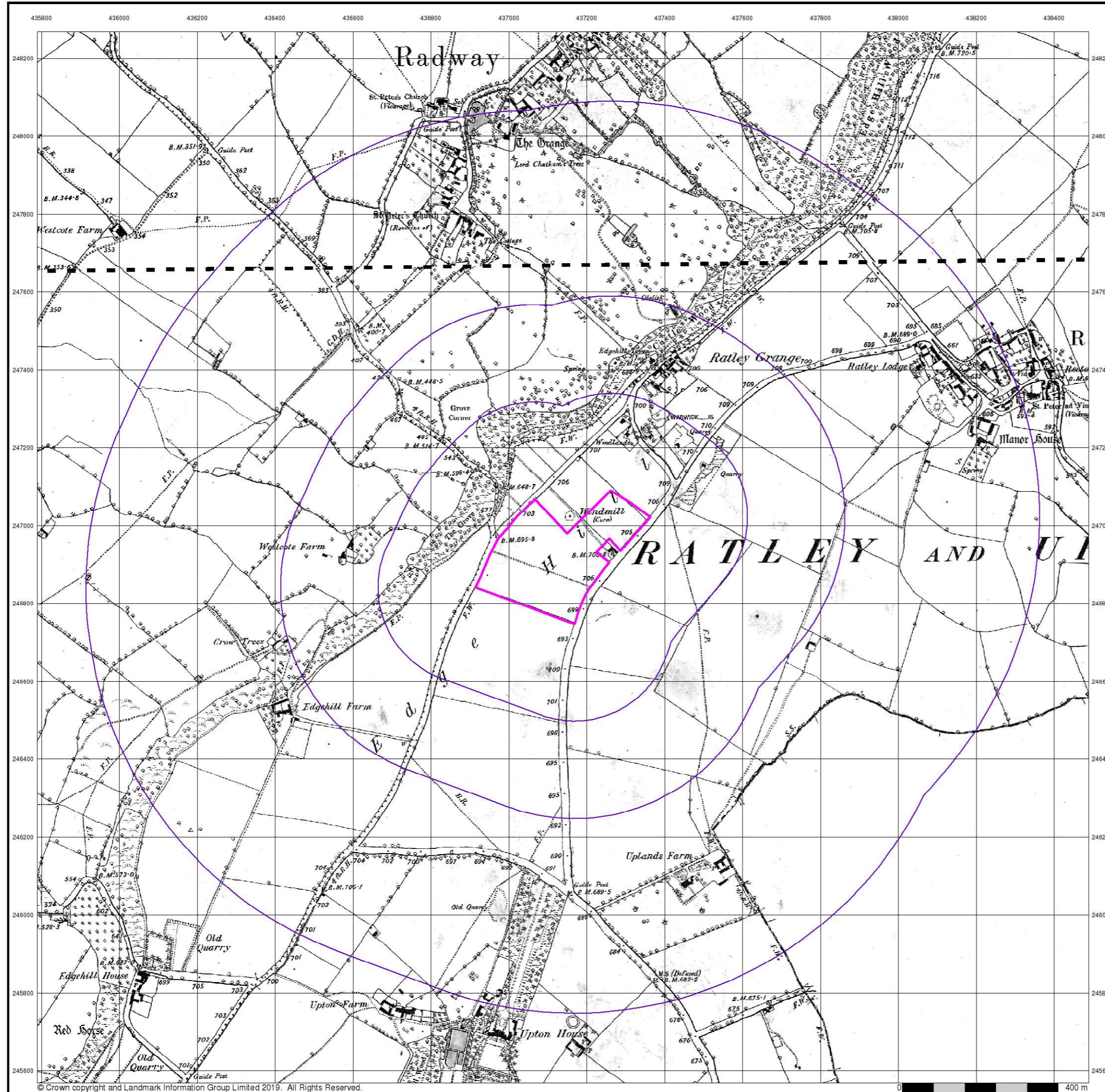
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 Search Buffer (m): 1000

Site Details

Edgehill Quarry, Edgehill, BANBURY, OX15 6DH



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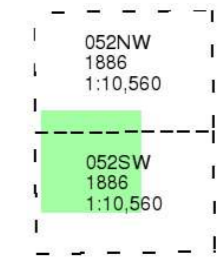
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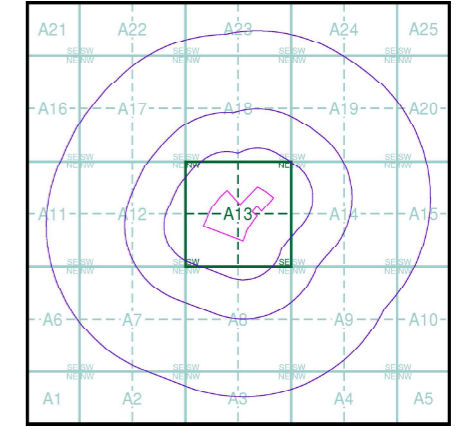
Warwickshire
Published 1886
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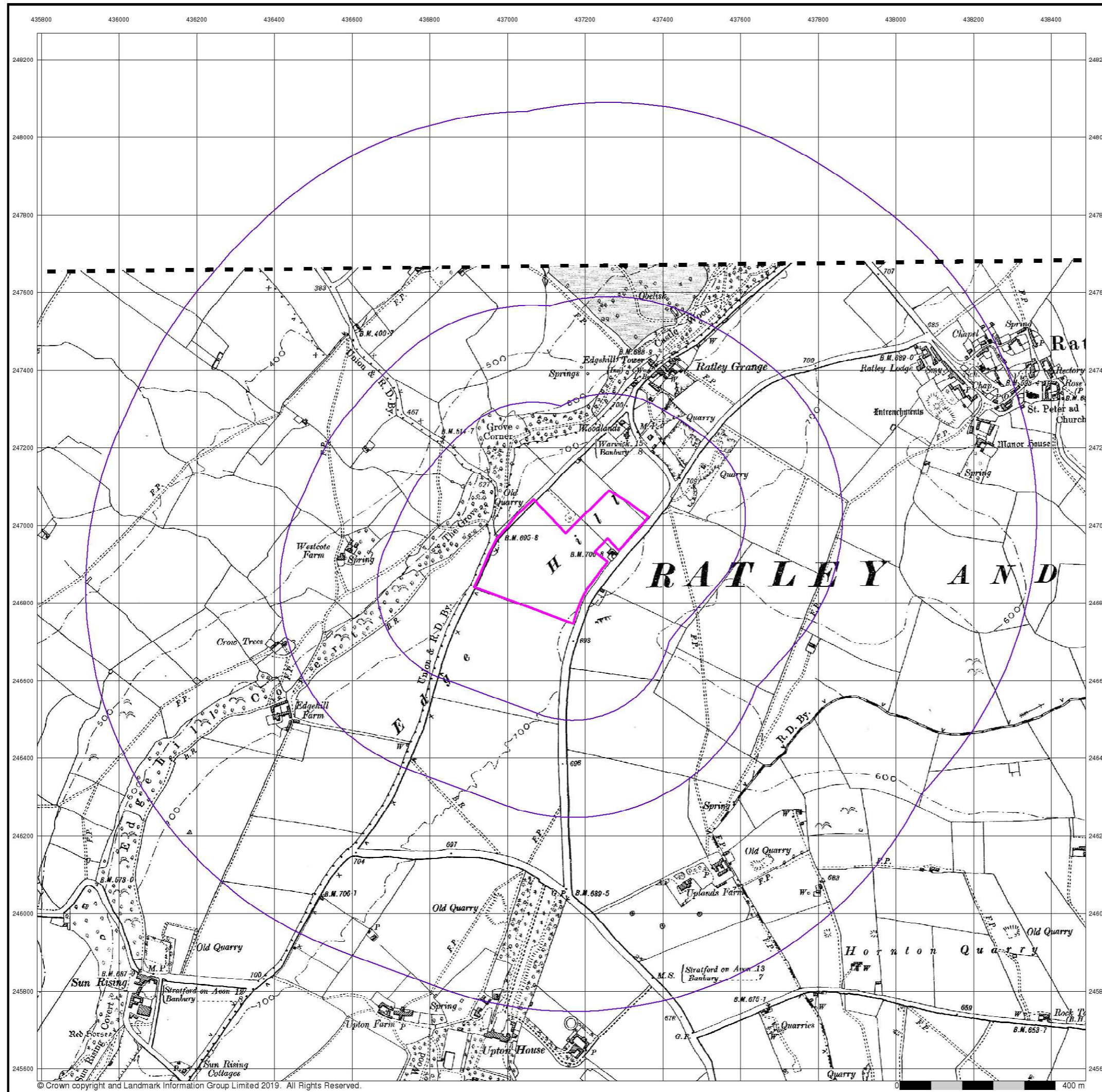
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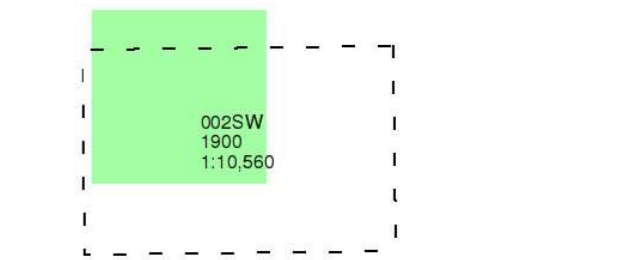
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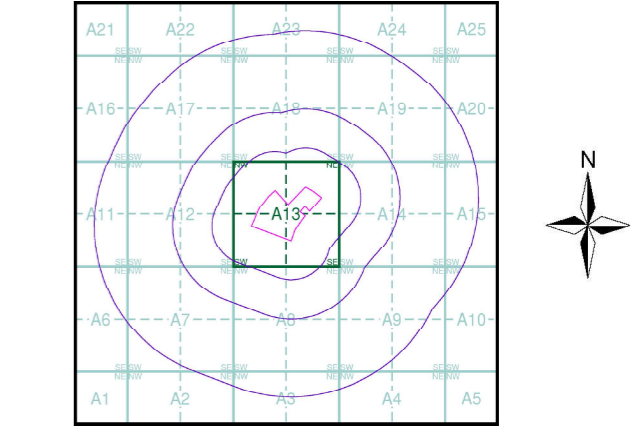
Oxfordshire
Published 1900
Source map scale - 1:10,560

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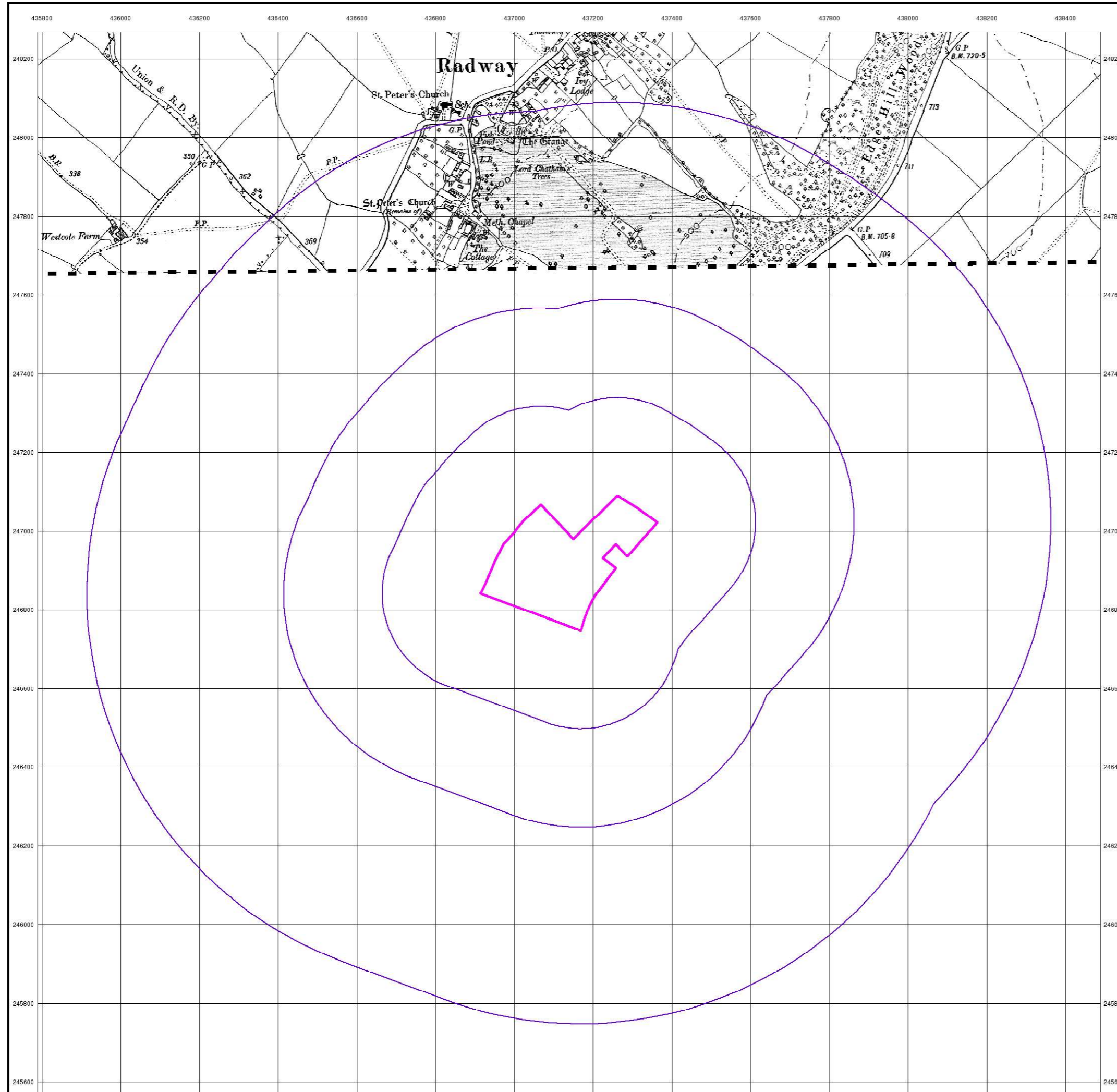
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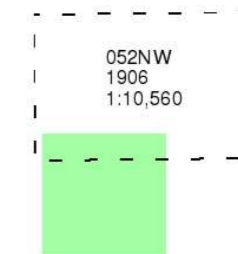
Warwickshire

Published 1906

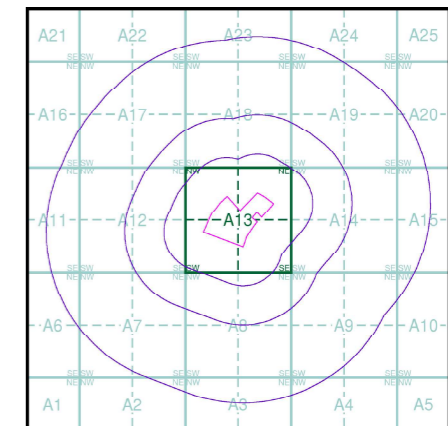
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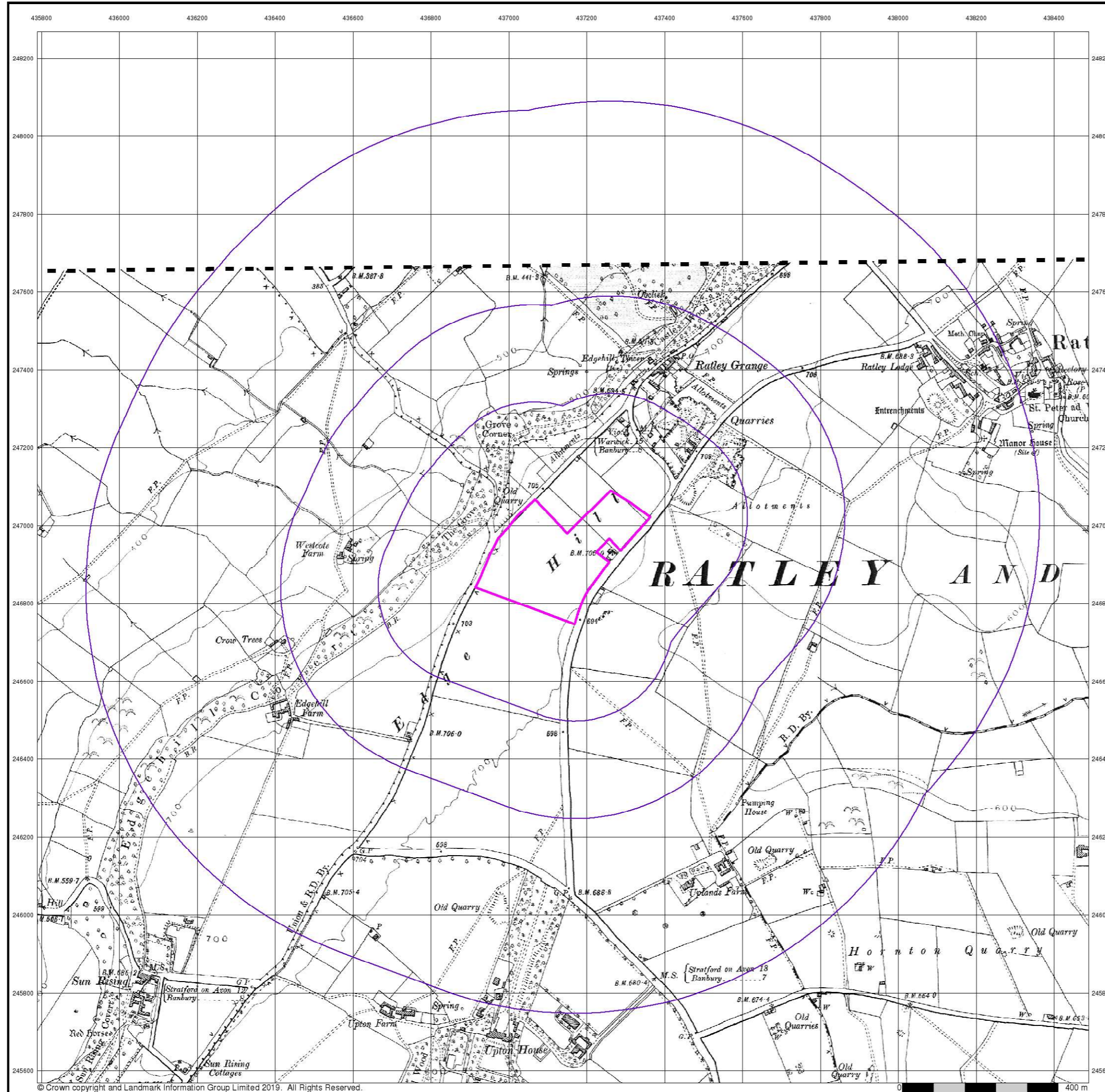
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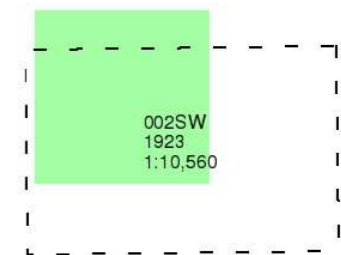
Oxfordshire

Published 1923

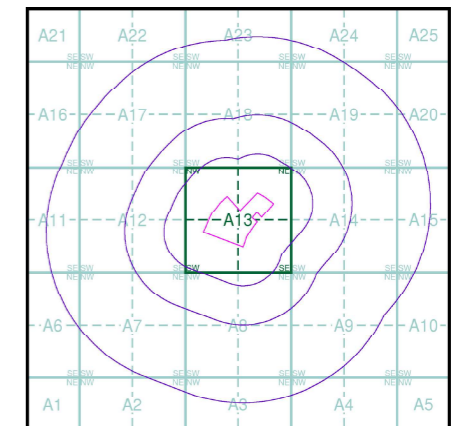
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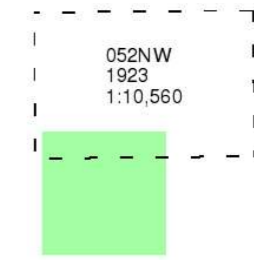
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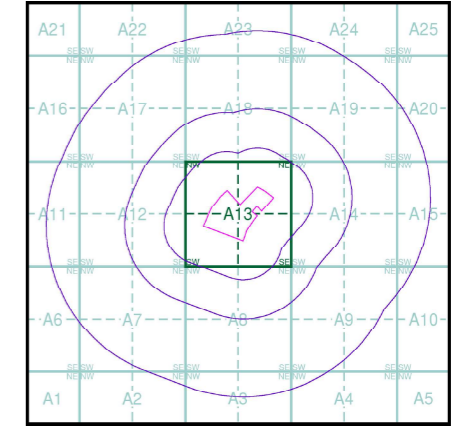
Warwickshire
Published 1923
Source map scale - 1:10,560

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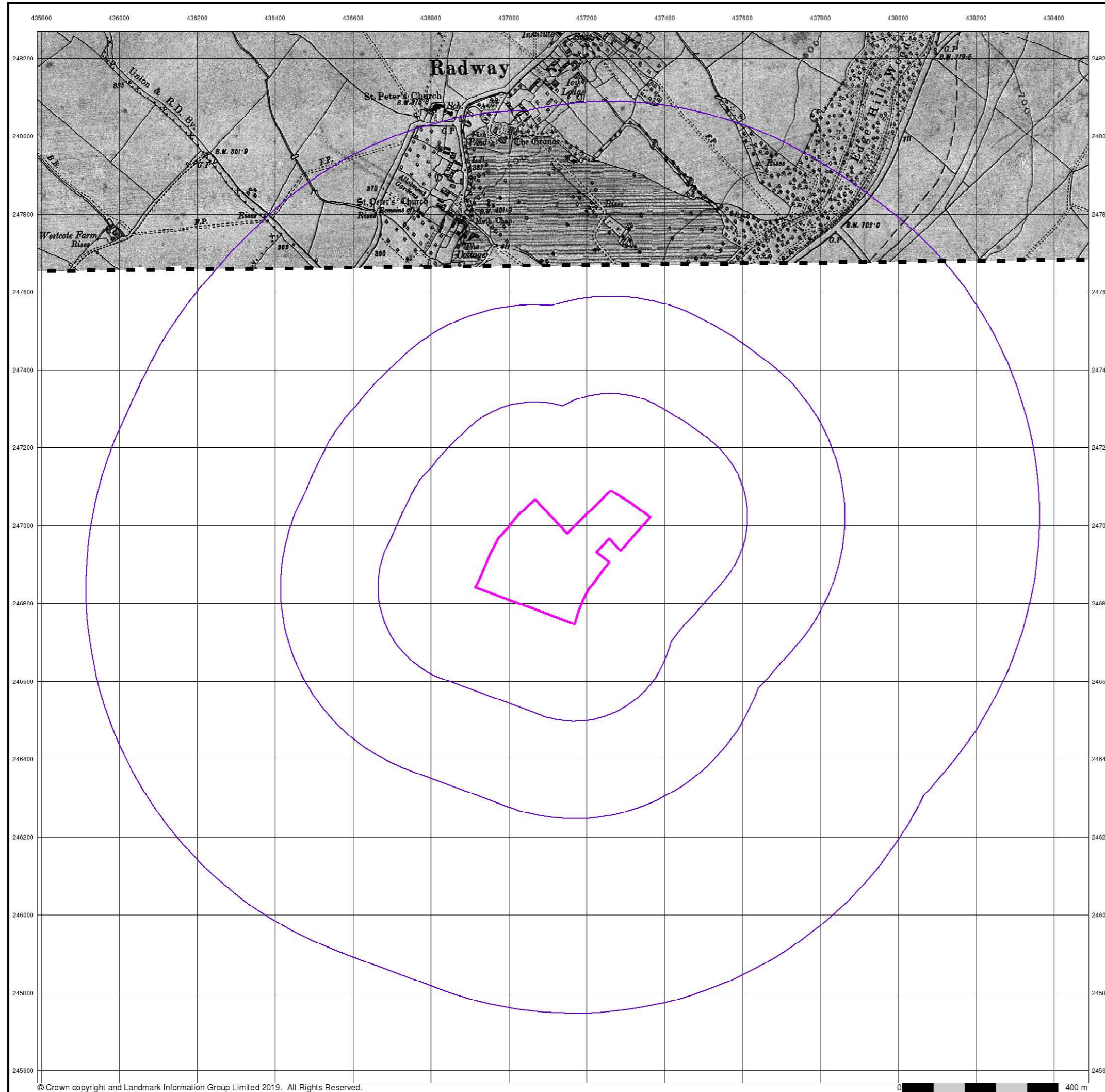
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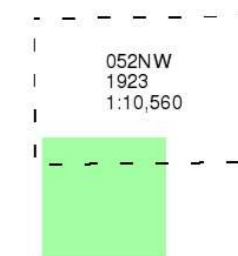
Warwickshire

Published 1923

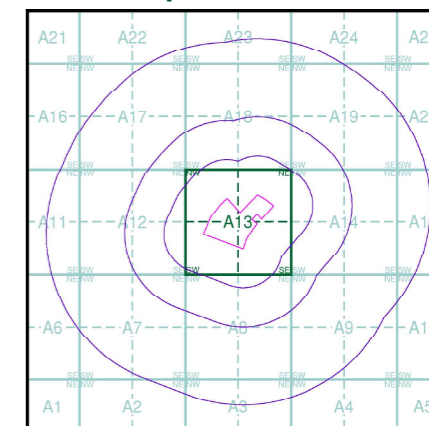
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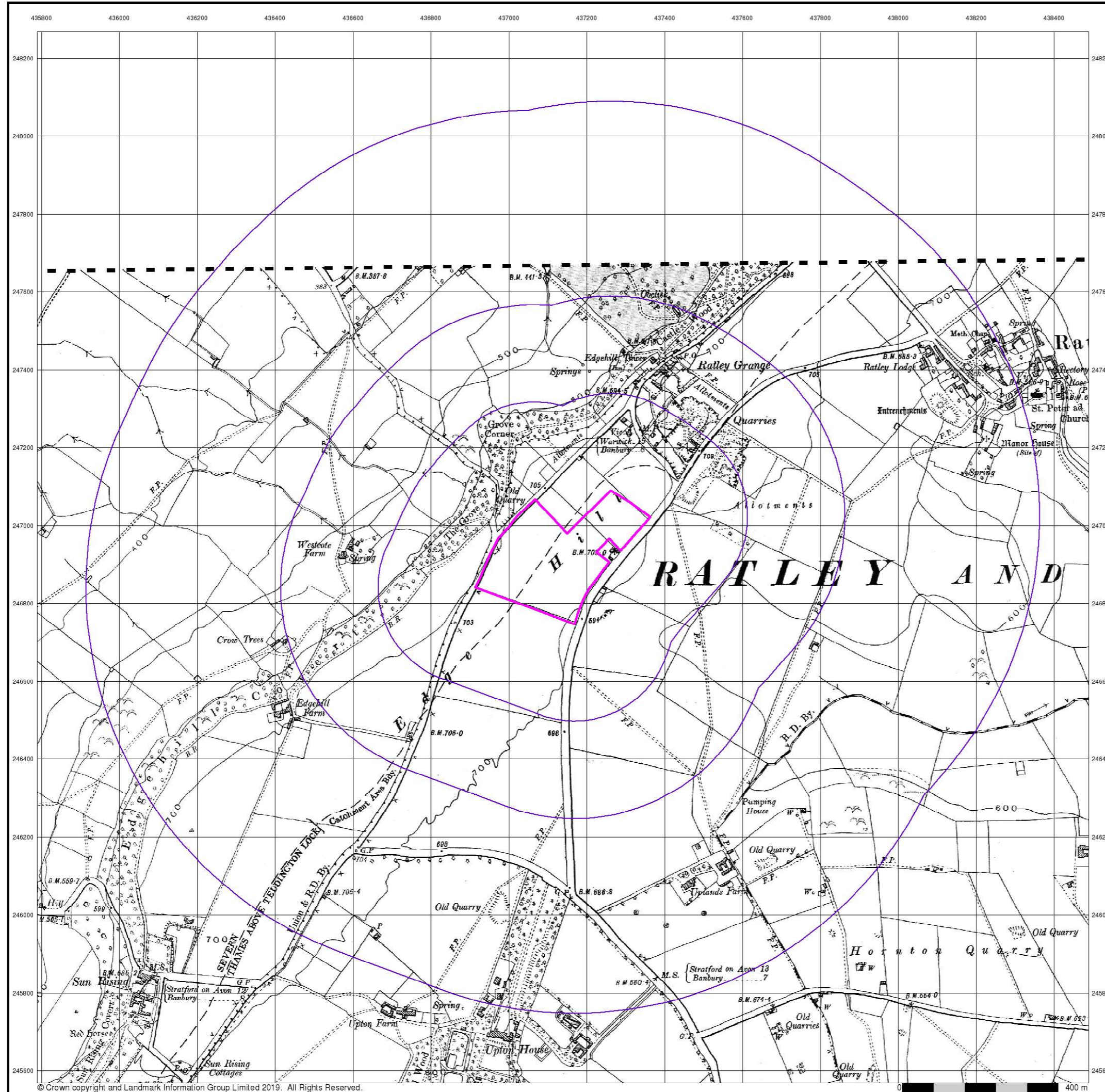
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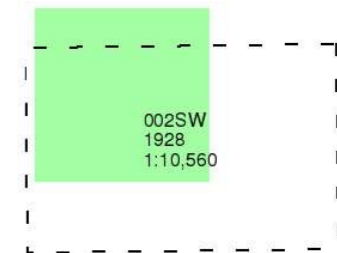
Oxfordshire

Published 1928

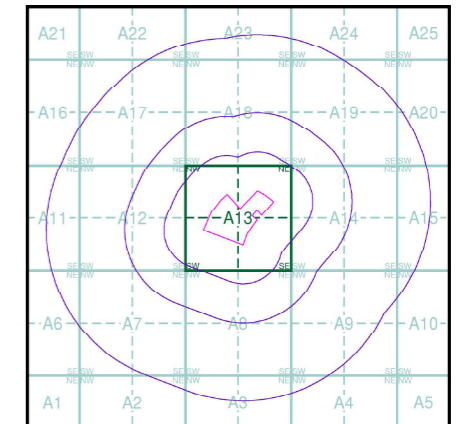
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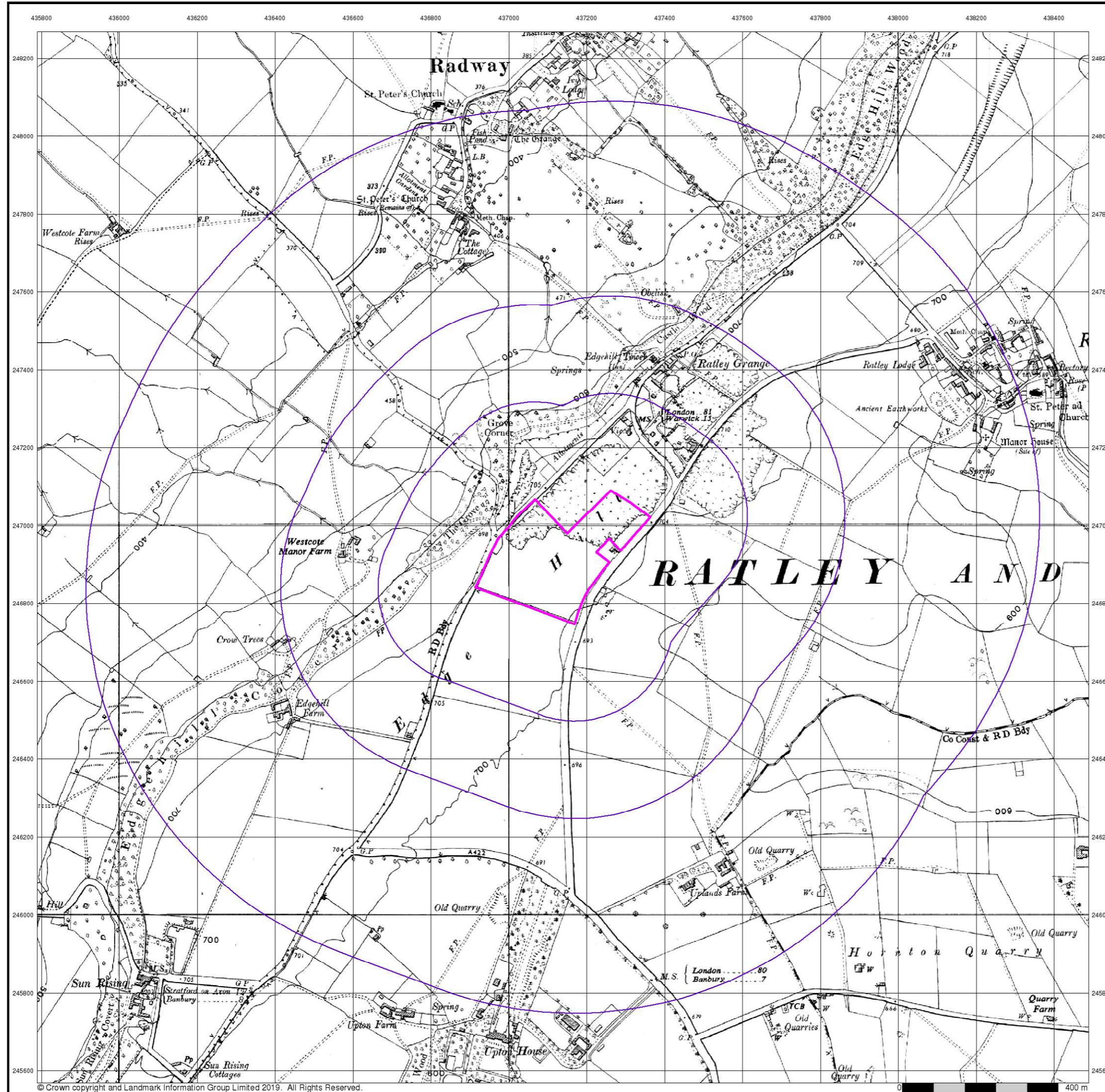
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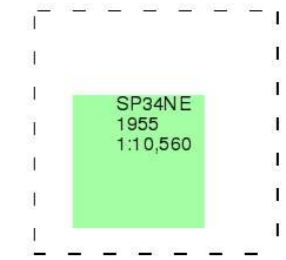
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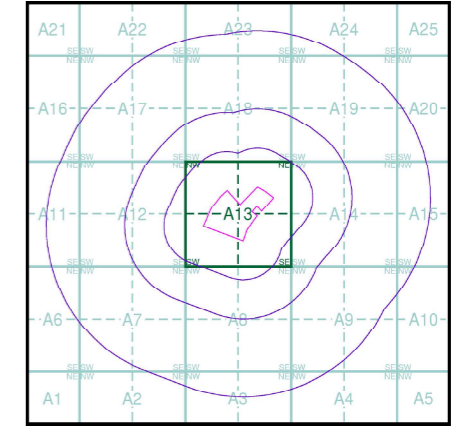
Ordnance Survey Plan
Published 1955
Source map scale - 1:10,000

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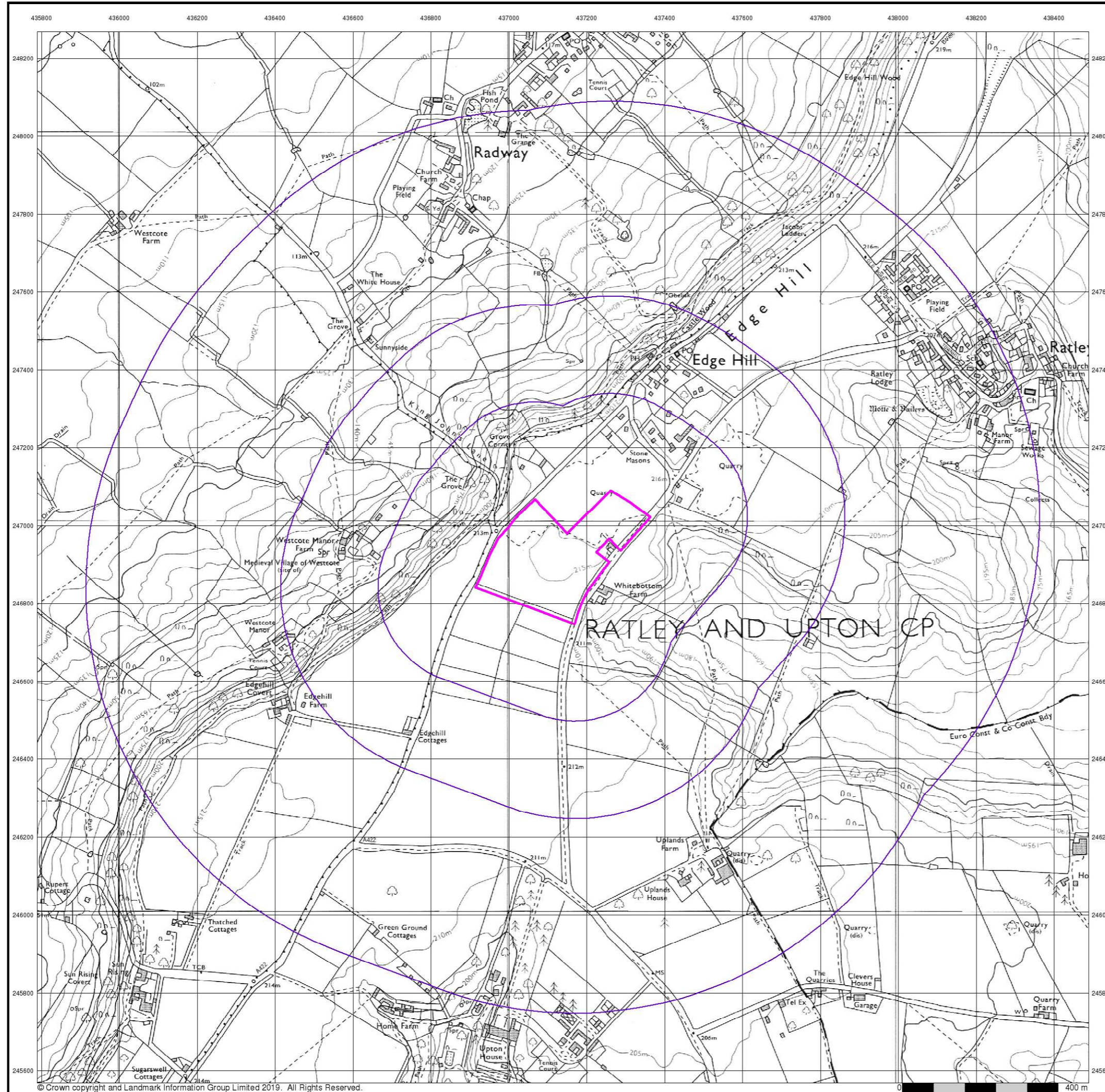
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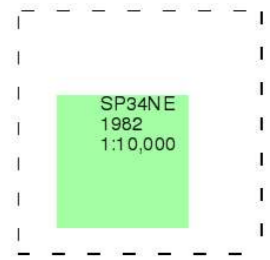




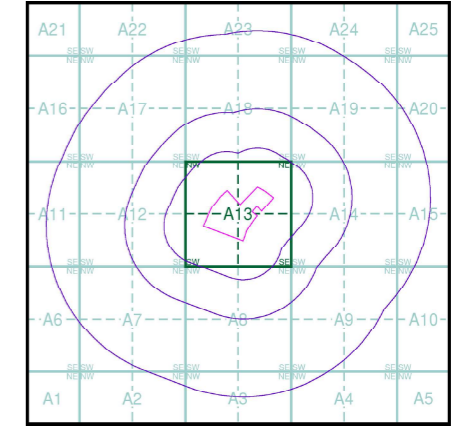
Ordnance Survey Plan
Published 1982
Source map scale - 1:10,000

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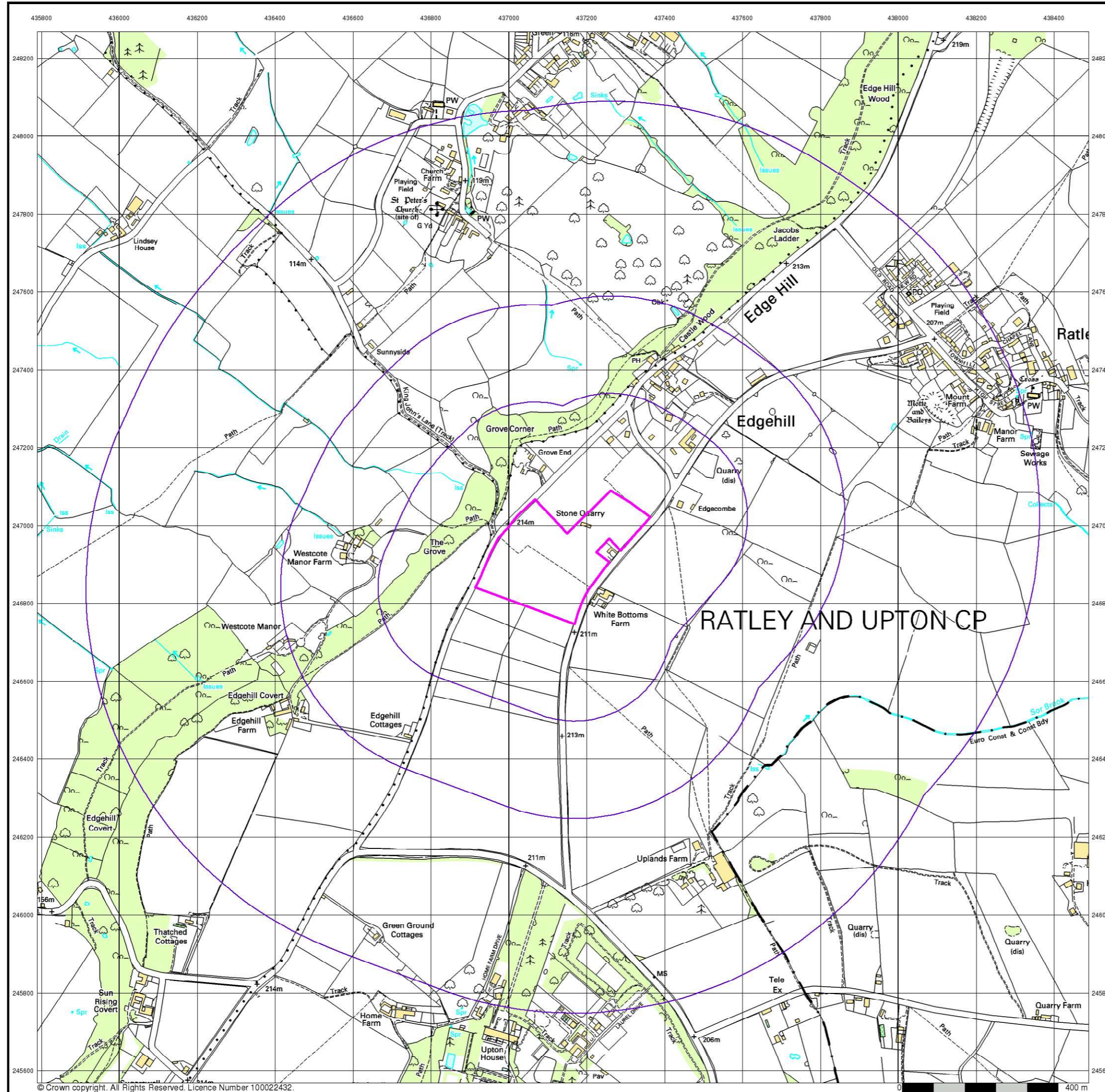
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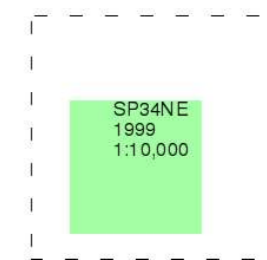
10k Raster Mapping

Published 1999

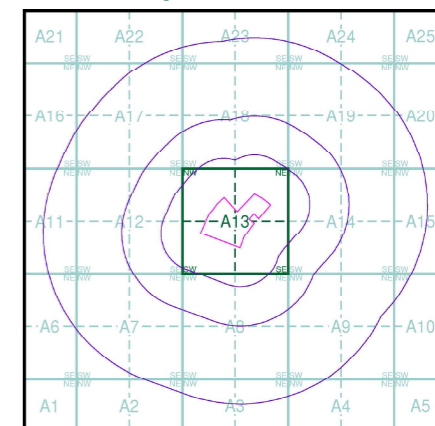
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

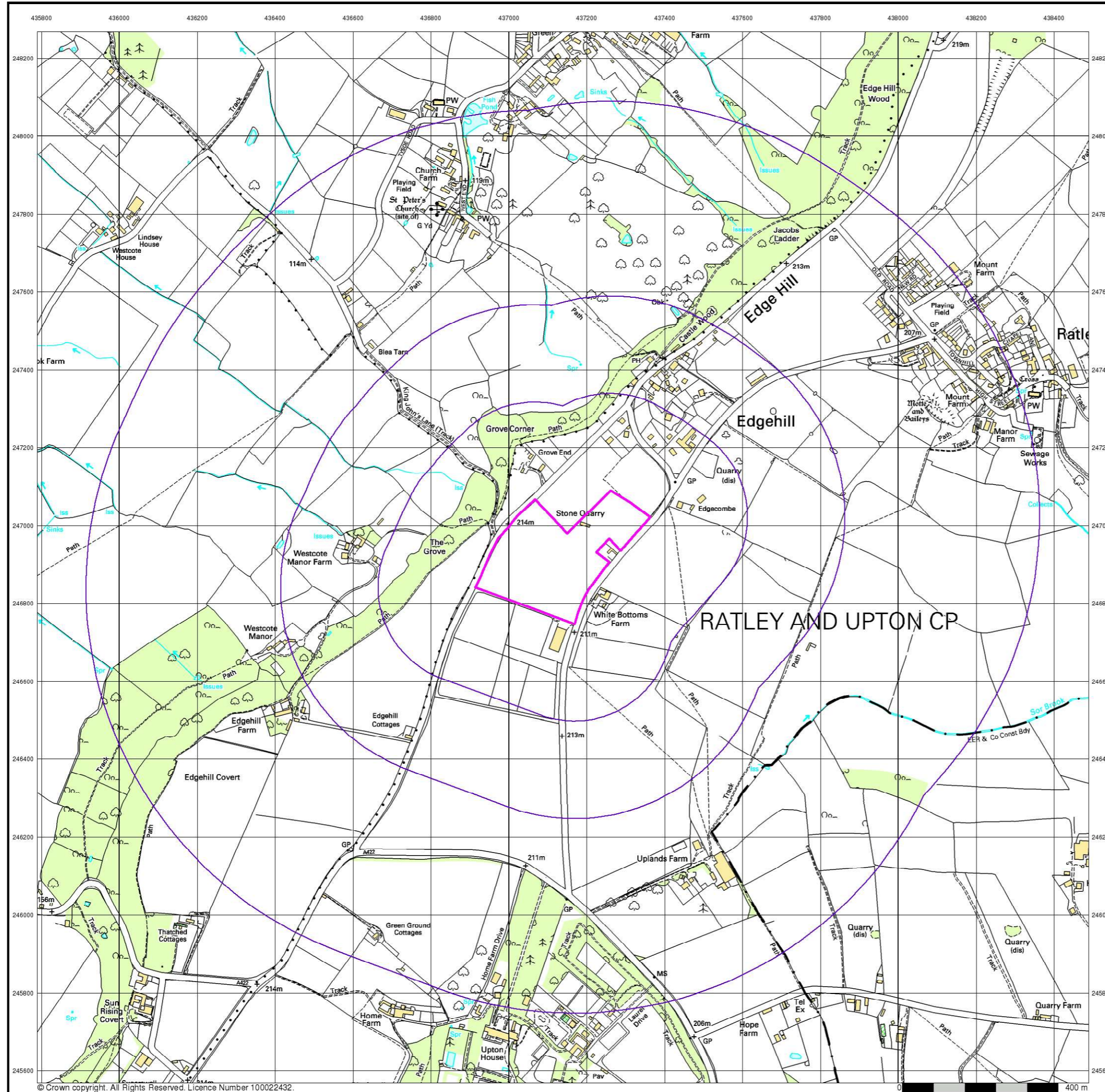
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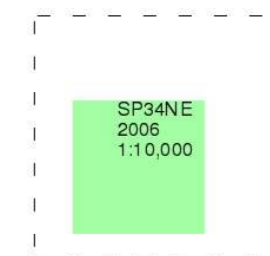
10k Raster Mapping

Published 2006

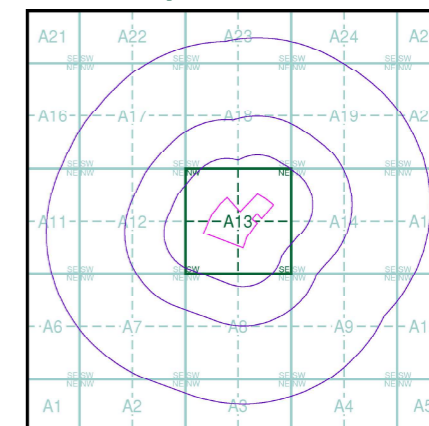
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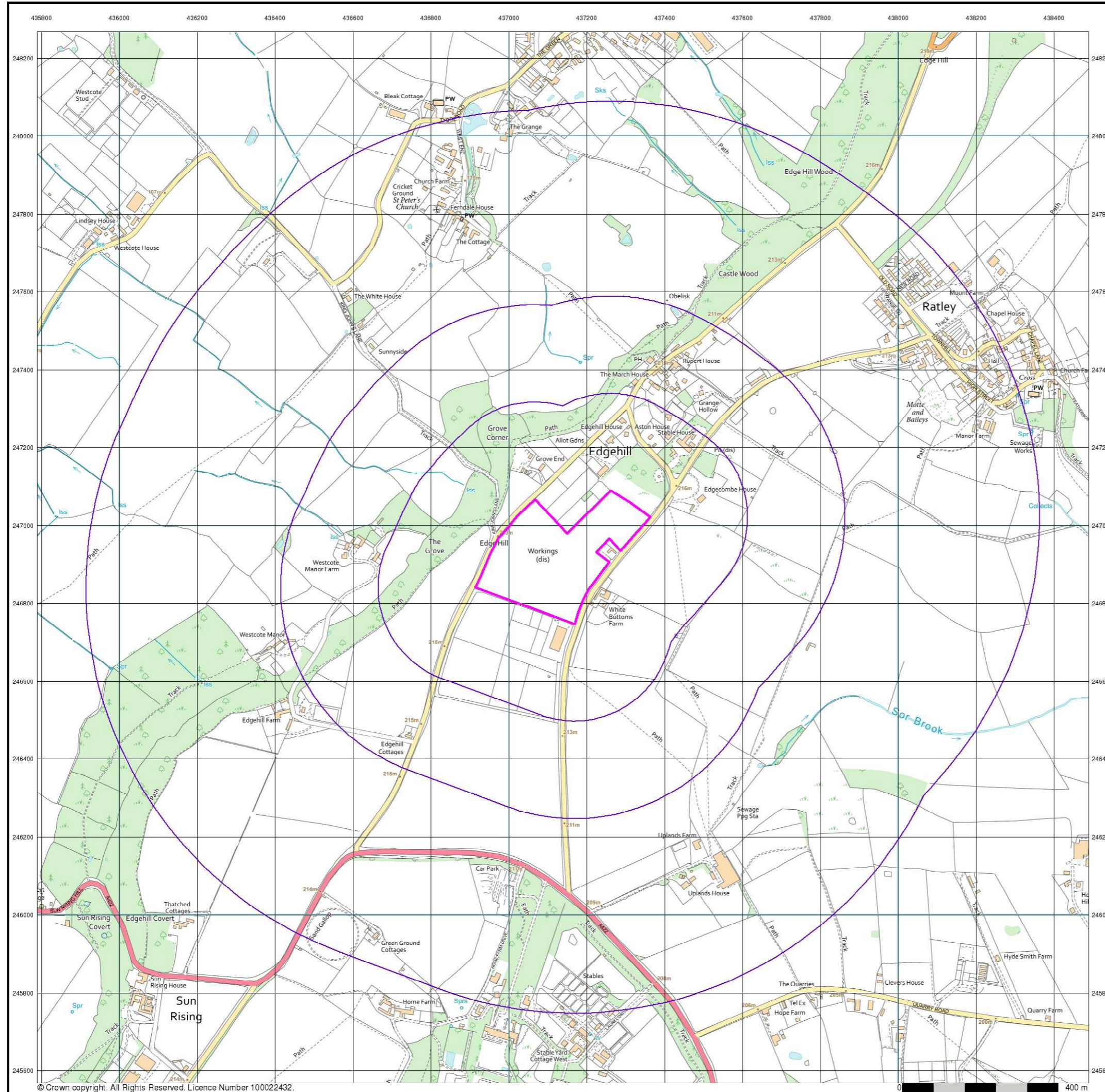
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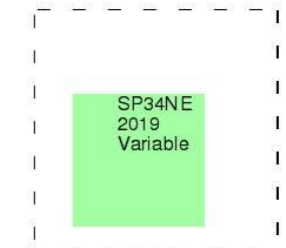
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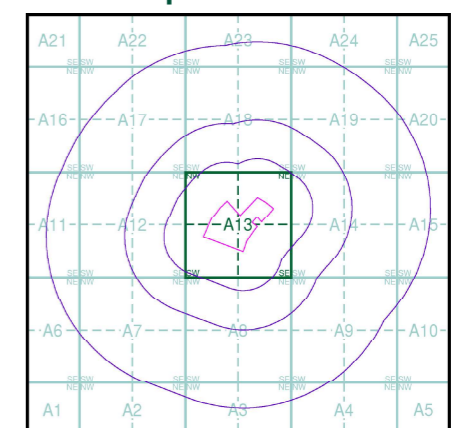
VectorMap Local
Published 2019
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)



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WASTE RECOVERY PLAN

Edgehill Quarry, Edgehill, Banbury, OX15 6DH

Boddington Demolition Limited

Version:	1.3	Date:	10 January 2023		
Doc. Ref:	043-006 -A_WRP	Author(s):	CG/IA	Checked:	CG
Client No:	043	Job No:	006		



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Waste, Planning & Environmental Consultants



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<i>Version</i>	<i>Issue date</i>	<i>Author</i>	<i>Checked</i>	<i>Description</i>
1.0	14/01/2022	IA	--	Internal draft
1.1	12/07/2022	EC		Updates
1.2	23/09/2022	EC	CG	Updated based on discussions with AB
1.3	10/01/2022	EC	CG	Updated based on comments from EA

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Appendix III – List of waste codes

1 **Introduction**

1.1 **General**

1.1.1 This Waste Recovery Plan has been prepared for submission to the Environment Agency (EA) in order to justify the classification of the importation of soils for the consented restoration of the quarry at Edgehill Quarry, Edgehill, Banbury, OX15 6DH to provide 10 Recreational Ecopods.

1.1.2 Oaktree Environmental Ltd have been engaged to act as consultants for Boddington Demolition Limited and to assist in the preparation of this Waste Recovery Plan. Contact details for Oaktree Environmental are as follows:

<i>Oaktree Environmental Ltd</i>	<i>Contact:</i>	<i>Chris Greenwood</i>
<i>Lime House, 2 Road Two</i>	<i>Position:</i>	<i>Principal Consultant</i>
<i>Winsford Industrial Estate</i>	<i>Tel:</i>	<i>01606 558833</i>
<i>Cheshire, CW7 3QZ</i>	<i>E-mail:</i>	<i>cq@oaktree-environmental.co.uk</i>

1.2 **Site Details**

1.2.1 The consented works are located on Edgehill Quarry, Edgehill, Banbury, OX15 6DH. The permit boundary is shown in green on Drawing No. 043/006/01. The National Grid Reference for the approximate centre of the site is SP 37128 46922. The proposed permit boundary is shown at Appendix I.

1.2.2 The site consists of a former limestone quarry. Prior to the commencement of quarrying activities in the 1950s the site was underdeveloped. Quarrying activities have ceased and quarry waste has been screened at the site since 2017.

1.2.3 Planning permission for the infilling of a redundant quarry with inert soils and clays to include a temporary soils and aggregates recycling and recovery facility and the restoration of the quarry to provide 10 recreational Ecopods was issued by Warwickshire County Council on 23rd February 2022 (Planning Permission Reference

SDC/20CM009). A copy of this planning permission is presented at Appendix II to this Waste Recovery Plan.

1.2.4 The Planning permission is the subject of a Section 106 agreement made on the 25th January 2022 in respect of the access to the site from the public highway.

1.2.5 An agricultural barn which is also under the control of the operator is situated adjacent to the eastern boundary of the quarry as shown at Appendix I. The operator intends to change the use of the land within the curtilage of the barn to residential under permitted development rights. Nevertheless, it is considered that the quarry to the east of the barn in its current condition would prevent the valuation of the land at a value commensurate with residential land use. It is considered currently that the curtilage of the agricultural barn would be valued with the quarry in its current condition commensurate with an agricultural land use, notwithstanding the potential to establish residential use the permitted development rights.

1.2.6 The quarry will be infilled for the following purposes:

- Amenity – The infilled quarry will provide an area for the construction of a suitable substrate (EcoPod recreational dwellings).
- Safety. The infilled quarry will be constructed to reduce the risk of dangers to users of the area.
- Visual – The infilled quarry has been designed to ensure that the restored site enhances/increase the biological and ecological value.
- Drainage – the infilled quarry will improve the drainage of the area.
- Ecology – the restoration scheme will provide an area for ecological benefits.
- Increase in value of the land comprising the curtilage of the adjacent barn. The restored landform will allow the land to be valued commensurate with a residential land use taking into account the presence of the barn and permitted development rights.

1.2.7 The temporary soils and aggregates facility will be in operation for the following purposes:

- Commercial advantage – for the operator benefit from the area by enabling aggregate recycling to be in operation.
- Comply with the waste hierarchy - Recycling as much material as possible instead of sending it for recovery at the quarry void.

1.2.8 The site is not situated within a Source Protection Zone (SPZ) for public potable water supply. The site is within a drinking water safeguard zone for surface water.

1.2.9 **The volume of waste material which will be imported in order to facilitate the consented restoration of the quarry the subject of the Environmental Permit will be 350,000m³.**

1.3 **Environmental Permitting Status**

1.3.1 The restoration of the quarry will be undertaken using imported suitable materials from the local catchment. As coarser materials such as sands and gravels are typically re-used or recycled in accordance with the waste hierarchy, it is anticipated that the infilled quarry will be constructed predominantly using cohesive materials such as subsoils or clays.

1.3.2 The works will be undertaken in accordance with a bespoke environmental permit - for the use of waste in a deposit for a recovery operation (Construction, reclamation, restoration, or improvement of land other than by mobile plant).

2 Construction Details

2.1 General

2.1.1 The existing topography at the site along with cross sections of the consented landform are shown on Drawing No. BAUGEQ-1-4-001 and the consented landform is shown on Drawing No. BAUGEQ-1-1-003 a copy of each of which is presented at Appendix I.

2.2 Soils Handling

2.2.1 All topsoil resources present at the quarry will be handled in accordance with the Department of Environment, Food and Rural Affairs guidance document entitled "Construction Code of Practice for the Sustainable Use of Soils on Construction Sites" dated September 2009. Following the construction of the infilled quarry the topsoil will be replaced over the quarry surface in order to form a suitable grass growing medium. The topsoil layer will be augmented as necessary with non-waste imported topsoil material taking account of the increased surface area which the topsoil layer will need to cover following the restoration of quarry. The topsoil layer will either be transferred directly as a non-waste material to the site or will have met the end of waste criteria prior to importation to the site.

2.2.2 Any soils will be placed in dry weather conditions and when the soil is in a dry and friable condition. Compaction of soils will be avoided to prevent damage to the soil structure, reduction in available oxygen, reduction in surface water infiltration and erosion. Any topsoils and subsoils placed at the site will be ripped with a tined subsoiler or a winged tine subsoiler to a depth of 500 mm and stones >100 mm will be picked.

2.2.3 Any works involving the movement and working of imported soil material will be carried out in accordance with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites published by DEFRA.

2.2.4 A 360° excavator will be used to deposit and spread the imported soils. A disc harrow or spring tine cultivator will be used to break up any soil clods which have not settled after the placement of soil.

2.2.5 Following the placement of any imported soil material the surface layer of the final profile will be ripped at a tine spacing of 300 mm, or less, to a depth of 300 mm to aid drainage, prevent compaction and provide a sustainable growing medium for the grassed surface of the bund.

2.3 **Site Management**

2.3.1 The site will be regulated in accordance with this Waste Recovery Plan under a bespoke EP following the issuing of which the importation of suitable waste materials for the works will commence.

2.3.2 The permitted activities will be assigned a Technically Competent Manager with the appropriate Certificate of Technical Competence (COTC) who will be legally qualified to oversee all aspects of the site restoration works to ensure that they are carried out effectively and in accordance with the EP and other relevant environmental regulations. The site will be inspected every day by the site manager who will be fully conversant with the planning permission and the Environmental Permit for the site. All details of defects, problems and repairs carried out will be recorded in the site diary which will be available for inspection by the Local Planning Authority (“LPA”) and the Environment Agency (EA) on request.

2.3.3 All operations on site will be carried out in accordance with the relevant requirements of the Health and Safety at Work Act 1974 and the company health and safety policy. Conditions of site use for employees, visitors and contractors will be available to all visitors who will be required to sign in and out of the site when making visits for any purposes. Visitors will be escorted round the site in an authorised vehicle as necessary. Anyone not complying with the conditions of site use will be asked to leave the site immediately. The Police will be contacted as necessary in the event of a violation of

criminal law which could potentially endanger site users, the surrounding environment or be a breach of the planning and/or permitting conditions for the site.

2.4 **Plant /Equipment Summary**

2.4.1 The engineering works and temporary soils and aggregates sorting area are temporary in nature and will require, as a minimum, the use of 2 items of plant for the movement, placement and of materials. One plant operator qualified to operate both machines will be on site whilst restoration materials are being received. A summary of the plant to be used for the construction operation is presented in the table below:

Table 1: List of Plant & Equipment

ITEM	NUMBER	FUNCTION
<i>360° excavator</i>	<i>1</i>	<i>Material movement movement/compaction/ soil stripping/replacement</i>
<i>Dozer</i>	<i>1</i>	<i>Levelling of landform / placement of material</i>
<i>Dump truck</i>	<i>1</i>	<i>Transport of material to placement areas if inaccessible by road going wagons</i>
<i>Bowser</i>	<i>1</i>	<i>Dust suppression / conditioning of moisture content of material</i>

The above list may be subject to change. Additional plant will be hired to cover any busy periods.

2.4.2 The suitable waste materials will be delivered to site in 8-wheeled tipper vehicles with a load capacity of 20 tonnes which will be used for recording quantities.

2.4.3 The following documents will be stored at the quarry site office:

- i) The Planning, Design & Access Statement;
- ii) The Environmental Permit;
- iii) The site's Environmental Management System (to be agreed with the EA);
- iv) Site diary (to record all inspections / visitors to the site);

- v) Record forms for waste in/out and carrier details;
- vi) Waste transfer notes for all incoming loads; and,
- vii) Accident Book

3 Waste Recovery Plan

3.1 Waste recovery activity – financial gain by using non-waste materials

3.1.1 The site in its current condition comprises a former hence is not suitable for the consented afteruse comprising 10 Ecopods. The site also is adjacent to the curtilage of the barn under the control of the operator and is considered in its current condition to be suppressing the value of the land to that commensurate with agricultural land where permitted development rights would otherwise result in the land being valued commensurate with residential use.

3.1.2 As discussed above, only the minimum amount of material necessary to construct the consented landform will be imported.

3.1.3 Alternative proposals that use less waste were factored out during the planning processes as deemed unviable. This was due to enough material needing for the restoration works to reach a level of what they were historically.

3.1.4 If waste could not be used to restore the quarry, it would be reasonable that the quarry was restored using primary or secondary non-waste materials to allow for the establishment of the 10 Ecopods to be run for commercial benefit and to secure the increase in the value of the land within the curtilage of the barn under the control of the operator. Based on the availability of secondary materials due to recent and ongoing earthworks programmes in the surrounding areas, it is considered likely that there is a stable supply of granular secondary materials. It is considered therefore that if waste could not be used, the earthworks the subject of this environmental permit application the applicant would seek to undertake the works using non-waste materials.

3.1.5 The applicant is the operator of the quarry, the intended owner and operator of the Ecopods upon their completion and the owner of the barn to the east of the quarry. As such, the operator will benefit from the financial gain in respect of the establishment and operation of the Ecopods and the increase in the value of the land

within the curtilage of the barn. The applicant will undertake and have full responsibility for the works and as such will meet the legal definition of an operator.

- 3.1.6 Based on information provided by the operator, it is anticipated that once the landform is established, each Ecopod will cost approximately £50,000 to construct and bring into use. The operator anticipates the commercial operation letting out the Ecopods throughout the year will have an annual turnover of £500,000, with annual profits of approximately £200,000.
- 3.1.7 The area of the curtilage of the barn shown on Drawing No. 043-006-01 is approximately 0.100 Ha. Based on the UK Government Land Value Estimates for Policy Appraisal 2019¹ agricultural land in the Coventry and Warwickshire area at £24,000 per hectare and residential land in the Stratford-upon-Avon District Council area is valued at £4,130,000 per hectare. It is therefore calculated that the increase in land value as a result of the scheme will be £410,600 for the 0.1 hectare curtilage.
- 3.1.8 The site benefits from a SR2010 No12: Treatment of waste to produce soil <75,000 environmental permit (Ref: KB3209LD) hence there is no need for the operator to obtain additional authorisation in order to import and recycle aggregates in order to undertake the work. There would therefore be no additional licencing costs associated with establishing the recycling operations at the site.
- 3.1.9 Were the operator to undertake the works using non-waste materials, the operator would use the existing recycling plant at the quarry which is under its control and recycle generally gravelly or sandy wastes to meet the criteria for Class 1A material. The operator would recover all costs for haulage of waste to the site from the waste producer consistent with the principles of the waste hierarchy. The operator would also add charge to the waste producer for the haulage to and disposal at a suitably permitted facility for the estimated 5% to 10% fines residue from the process which

¹ <https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2019>

can not be recycled into Class 1A material. The operator estimates that the recycling operation to produce Class 1A material suitable for infilling the quarry and place and compact it within the quarry can be undertaken at a cost of £45 per load of 20 tonnes (or 11.36m³ assuming a conversion factor for granular material of 1.76tonnes/m³). It is therefore calculated that the cost of undertaking the works using non-waste materials is £3.96 per m³ or £1,386,000 in total for the recycling of 350,000m³ of waste gravelly and sandy material.

3.1.10 It is therefore considered that the costs of undertaking the work using non-waste materials would be recovered fully by the operator within a period of six years following the completion of the consented landform and construction of the Ecopods, with the potential for realising the increase in the value of the curtilage of the barn within a period of a year of commencing the restoration of the quarry area within the vicinity of the barn.

3.1.11 It is considered that if the operator were to attempt to sell the site and adjoining land under its control without completing the consented restoration, it is extremely unlikely that the property could be sold without a significant discount. If the completed restoration scheme was not to be completed as a result of the refusal of this environmental permit application, it would be reasonable that any prospective buyer would assume that there was a significant regulatory risk associated with the full implementation of the planning permission, and therefore would not seek to acquire the quarry and surrounding land under the control of the operator without a significant discount, which would be far in excess of the cost of restoring the site using non-waste materials.

3.1.12 It is concluded on this basis, that if this waste recovery environmental permit application were to be unsuccessful, the property owner would have no reasonable alternative but to restore the site using non-waste materials in order to protect the value of the land and the substantive investment which has been made in respect of the quarry to date.

- 3.1.13 Any reference to secondary materials in this waste recovery plan assumes that the secondary materials have either never been defined as waste under the Waste Framework Directive or that the materials have met the criteria for end of waste and not subsequently been discarded. As such, any secondary materials referred to in this waste recovery plan will not comprise waste.
- 3.1.14 No secondary non-waste materials will be accepted at the site without confirmation that the supplier has a suitable quality management system, an appropriate environmental permit and can declare as necessary that the grading of the secondary material meets a relevant standard such as the highways specification.
- 3.1.15 Notwithstanding the above, it is considered that there is a general planning obligation on the part of the operator to restore the quarry in a high standard and a beneficial after use consistent with saved policy M9 of the Warwickshire County Council Minerals Local Plan, which is referenced in the site planning permission. The site planning permission was issued also with appropriate references to landscape character, natural environment and historic environment local policies along with local policies requiring the protection of the Cotswold AONB protection and enhancement of the natural and built environment and reinstatement restoration and aftercare. It is therefore concluded that the scheme has been considered in the context of all factors relevant to the volume of material required to be imported and deemed acceptable. It is likely that a proposal to import any material more or less to the site would compromise the aims of one or more of the above policies. Hence would be unlikely to be approved by the local authority.

3.2 **Purpose of the work**

- 3.2.1 The earthworks proposed will be undertaken for a specific purpose and will restore the quarry to a condition whereby it will provide a suitable landform for the construction of the Ecopods and establishment of the associated commercial operation and will provide a suitable surrounding for the curtilage of the barn under the control of the operator. As discussed above, the operator will be effectively compelled to restore the quarry order to protect the value of the land and viability of the consented Ecopods.

Therefore, as discussed above it is considered that the quarry will be restored irrespective of whether waste can be used hence any waste which is used to construct the bunds under an environmental permit will be moved upwards through the waste hierarchy as it will be used in substitution of either primary or secondary non-waste materials.

3.3 **Quantity of waste used**

- 3.3.1 Only the volume of material necessary to achieve the beneficial aim of constructing the consented restored landform will be used. The restored quarry will have an acceptable visual impact within the area and in keeping with the surrounding landscape. The Landscape Visual Impact Assessment which accompanied the Planning Application Reference SDC/20CM009 is reproduced at Appendix III.
- 3.3.2 Due to the quarry's proximity to the site of the historic battle of Edge Hill, the landscape impacts of the consented landform taking into account the impact on the surrounding historic landscape have been the subject of rigorous assessment through the planning process. It is unlikely that agreement with the local authority to construct a landscape which is significantly different to the original ground levels at the site could be secured. It therefore considered that the 350,000m³ of material the subject of this WRP is the minimum amount of material required to secure the benefit of restoring the quarry in character with and with maximum amenity benefit the site surroundings.
- 3.3.3 Any surplus material from the wider quarrying works at the property will be used insofar as possible to restore the quarry. Therefore, as much site derived material as possible is being used in order to minimise the volume of material to be imported.

4 Classification of Waste and Waste Acceptance

4.1 Waste types

4.1.1 It is intended that the restoration works are carried out using predominantly excavated materials from local construction, demolition and excavation sites in order to achieve a profile on which to establish the surrounding Ecopods in keeping with the surrounding landscape.

4.1.2 The waste types to be used for the construction works will be limited to the following EWC codes: 01 01 02, 01 04 08, 01 04 09, 02 04 01, 10 12 08, 10 13 14, 17 01 01, 17 01 02, 17 01 03, 17 01 07, 17 05 04, 19 12 09, 19 12 12 and 20 02 02 in accordance with Table 2.5 of Bespoke Environmental Permit. The list of EWC codes along with their associated descriptions is presented at Appendix IV.

4.1.3 The following conversion factors will be used as necessary in order to calculate the volume of material imported to the site based on tonnage.

Waste code	Conversion factor (tonnes/m ³)	Justification
01 01 02, 02 04 01, 17 05 04 and 20 02 02	1.60	Waste codes assumed to comprise predominantly clay hence approximate average density for clay
01 04 08, 01 04 09, 10 12 08, 10 13 14, 17 01 01, 17 01 02, 17 01 03, 17 01 07, 19 12 09 and 19 12 12	1.76	Waste codes assumed to comprise predominantly sand or gravel hence approximate average density for ballast
The sum of the volumes of waste codes 01 01 02, 02 04 01, 17 05 04 and 20 02 02 (in tonnes) divided by 1.60, plus the sum of the volumes of the remaining waste codes (in tonnes) divided by 1.76 will not exceed 350,000m ³ .		

4.1.4 The majority of wastes will be accepted under codes: 17 05 04 and 20 02 02 (*i.e.* excavated soils and stones). The remaining wastes which are largely of coarser grade materials may be utilised as necessary in order to aid drainage.

4.1.5 Suitable materials, placement and compaction suitable materials shall meet the requirements of the following fill materials classified in Table 6/1 of the Specification for Highway Works²:

- a) General Granular Fill (Class 1a – 1c);
- b) General Cohesive Fill (Class 2a – 2e);
- c) Landscape Fill (Class 4);
- d) Selected Granular Fill (Class 6F2, 6F5, 6H).

4.1.6 These classes cover a full grading range. Oversize material (max. 350mm diameter) will be permitted provided they do not comprise more than 50% of the total material input by weight.

4.1.7 The waste importation operations will be controlled by a reputable waste haulier/operator or by the operator as necessary in order to ensure the works are carried out according to the procedures outlined in this Waste Recovery Plan. The following section details the acceptance procedures to be adopted for all wastes received at the site in order to ensure the wastes are fit for purpose and to fully assess any associated pollution risks.

4.2 **Waste importation and acceptance**

4.2.1 The waste importation operations will be controlled by site operators to ensure the quarry is restored in accordance with the following procedures.

4.2.2 Guidance will be given by the site operator to all employees, sub-contractors, other waste carriers and customers regarding the waste types which are acceptable at the site (*i.e.* a copy of the relevant authorisations for the site such as the Environmental Permit and Planning Permission). Where waste is brought in under sub-contractor or

² Manual of contract documents for highway works. Volume 1. Specification for highway works. Series 600. Earthworks. February 2016 amendment. The Stationary Office.

is delivered by other known hauliers then the carrier registration details will be taken. All haulage operators bringing waste to the site will be periodically checked with the Environment Agency to ensure that they are registered. The procedures below will be followed prior to the receipt of soils on site.

4.2.3 For the protection of the operator and site supervisor any loads containing soil from an industrial site/area must be accompanied by written documentation to demonstrate that the soil is not contaminated by way of waste analysis.

4.2.4 To ensure compliance with the permit requirements (basic characterisation of the waste) and that only clean loads are accepted, the following information will be requested from waste producers (if relevant) at the start of each contract. The operator reserves the right to refuse such loads and contact the Environment Agency where necessary (prior to acceptance of the loads) to ensure that the load is acceptable.

- a) A site investigation report, including borehole logs (if available).
- b) Waste analyses (if available), including leachability tests.
- c) Name and address of the site from which the waste was excavated/ produced.
- d) Detailed waste description including EWC code.

4.2.5 All incoming vehicles are required to report to a designated representative of the site operator. The details of the load will be recorded and the duty of care note/company documentation will be further checked by the operator to ensure that the load is acceptable at the site, including a visual check prior to the vehicle proceeding to the tipping area. Any deviation from the procedures or problems with any loads will result in tipping facilities being suspended for the offending company. Loads which are not acceptable within the above terms will be rejected and returned to the producer.

4.2.6 The nature of bulk loads makes full inspection difficult until the load is deposited. If unauthorised waste is discovered the load will not be tipped and will be rejected by the operator and returned to the producer. If the load is acceptable the driver will be

instructed to deposit it at the working area. If the load is unacceptable after visual inspection, it will be reloaded and removed from the site.

4.2.7 The following details will be recorded for every load of waste deposited at the site:

- a) The date and time of delivery.
- b) The name and address of the waste producer.
- c) The type and quantity of waste (in tonnes).
- d) The carrier's name/driver name.
- e) Vehicle registration No.
- f) Signature of person inspecting the waste.

4.2.8 The details will be recorded on specific forms and/or controlled waste transfer notes.

4.2.9 The following details will be recorded for all deposits of unauthorised waste at the site and will be forwarded to the Environment Agency at the discretion of the operator:

- a) Date and time of deposit.
- b) A description of the waste.
- c) The quantity of waste (in tonnes or cubic metres).
- d) Name, address and telephone No. of waste producer.
- e) The carrier's name, registration number and vehicle registration.
- f) Reason for the rejection of waste and action taken.

4.3 **Non-conforming/Rejected Material**

4.3.1 If any unacceptable materials are found they will be placed in a designated rejected waste skip. Unauthorised waste will be removed to a suitably authorised facility and accompanied by the necessary paperwork.

5 Meeting quality standards

5.1 Design, construction and suitability for purpose

5.1.1 Existing ground levels and proposed profiles and cross sections in respect of the quarry restoration are shown on the drawings presented at Appendix I. The proposed construction details in respect of the quarry restoration are described in Section 2.

5.1.2 A watching brief will be maintained during placement of the materials and the placement of the topsoil layer in order to verify that the fill and soils meet the specification that the finished restoration comprises a stable, which is suitable for the establishment of the consented Ecopods and associated commercial operations, and surrounding suitable for the maximisation of the value of the land within the curtilage of the barn.

5.2 Environmental impacts of the finished scheme

5.2.1 The wastes which will be imported to the site will be limited to those waste codes listed at Appendix IV and will not comprise hazardous waste. Strict waste acceptance procedures are described in Section 4.2. Based on the composition of the wastes which will be accepted at the site and the procedures in place to minimise the risk that unsuitable waste will be imported to the site it is considered that there is no significant risk that the finished scheme will increase the risk of pollution to air, land or water.

5.2.2 The restored quarry will drain to the surrounding ground consistent with the existing drainage arrangements at the site. It is therefore concluded that the construction of the quarry restoration using waste materials will not increase flood risk elsewhere.

5.2.3 The finished quarry restoration will be vegetated as soon as practicable following its construction and the re-placement of topsoil. The slope angles will be constructed so as to minimise the risk of slope instability, whilst minimising insofar as is feasible the volume of material used. As such, considered that there is no significant risk that the finished scheme will increase the risk due to soil erosion at the quarry or to surrounding land or water receptors.

5.3 **Gas monitoring**

5.3.1 The site boundary comprises an area of approximately 77,235m². The volume to be imported of 350,000m³ is therefore the equivalent to an average depth of approximately 4.53m across the site. As shown at Appendix I the thickness of waste across the majority of the site will be less than 4m with the exceptions of the southern edge of the quarry, the south western corner of the quarry, the north western corner of the quarry and the central part of the eastern edge of the quarry.

5.3.2 The materials to be imported to the site will comprise strictly inert materials and as such will not contain putrescible matter or other organic materials in quantities which may give rise to ground gas generation. As such it is proposed that the environmental permit application the subject of this WRP is accompanied by a qualitative ground gas risk assessment in which gas spike monitoring surveys and the installation of gas monitoring wells are considered as appropriate in the context of the risk posed due to ground gas within the consented landform to nearby sensitive receptors.

5.4 **Engineering work**

5.4.1 As discussed above the placement of waste at the site in accordance with this Waste Recovery Plan will not pose a significant risk of pollution to air land or water. The site is the subject of a full Hydrogeological Risk Assessment included 12 months of continuous monitoring data which will be included with the permit application. It is nevertheless considered unlikely that it will be necessary to construct an engineered attenuation layer or other engineering measures at the base or side of the waste mass in order to mitigate any risks to groundwater or surface water. The environmental permit application will be accompanied by a qualitative ground gas risk assessment in which any engineering measures considered necessary for the control or monitoring of ground gas risk will be specified.

5.5 **Aftercare monitoring**

5.5.1 It is considered that only wastes which will be physically and chemically stable will be deposited in accordance with this WRP and no monitoring except the verification by

the operator as necessary of the engineering properties of the materials placed and any gas monitoring which may be specified by the ground gas risk assessment is necessary. Aftercare monitoring following the completion of the works in respect of ground gas will be specified as appropriate as part of the environmental permit application.

5.6 **Criteria for surrender**

5.6.1 Following the completion of the works the subject of this Waste Recovery Plan the area over which waste has been deposited will be suitable for the establishment of the Ecopods. Once the works have been undertaken in accordance with this Waste Recovery Plan, taking into account any ground gas monitoring which may be specified in the environmental permit for the aftercare phase it is considered that the criteria for permit surrender will have been met and that the permit may be surrendered.

5.7 **Planning permission**

5.7.1 Planning permission for the works the subject of this Waste Recovery Plan is presented at Appendix II which includes the permissions to construct the temporary soils and aggregates recycling and recovery facility and restoration of the quarry to provide 10 recreational Ecopods.

5.8 **Changes to the works**

5.8.1 The Environment Agency will be notified of any changes to the works as described in this Waste Recovery Plan. The waste recovery plan will be updated as necessary to reflect changes to the operations such as the acceptance of waste types other than those specified in this Waste Recovery Plan. No changes to the operations will be implemented without written agreement with the Environment Agency.

6 Conclusion

- 6.1.1 This document has been produced in order to in order to justify the classification of the importation of soils to construct the approved quarry restoration at Edgehill Quarry, Edgehill, Banbury, OX15 6DH as a waste recovery operation.
- 6.1.2 The design of the quarry restoration is such that it will not have an unacceptable visual impact on the surrounding area taking into account the historical value of the landscape in the vicinity of the site.
- 6.1.3 Where possible, surplus material derived from quarry operations will be used to create the consented landform.
- 6.1.4 It is concluded that if waste materials could not be used to construct the consented landform, the operator would seek to undertake the works using primary or secondary materials. The operator would benefit financially from both the revenue generated from the operation of the consented Ecopods and the increase in the value of the land within the curtilage of the barn which is also under the control of the applicant.
- 6.1.5 It is concluded that the financial gain from using non-waste materials would be realised in part within a year of commencing the site operations within the vicinity of the barn and realised completely within a period of 6 years of bringing the consented Ecopods into use.
- 6.1.6 The consented operations at the property meet all criteria required for recovery of waste materials hence it is concluded that an environmental permit can be issued for the operations to be undertaken as a waste recovery activity.

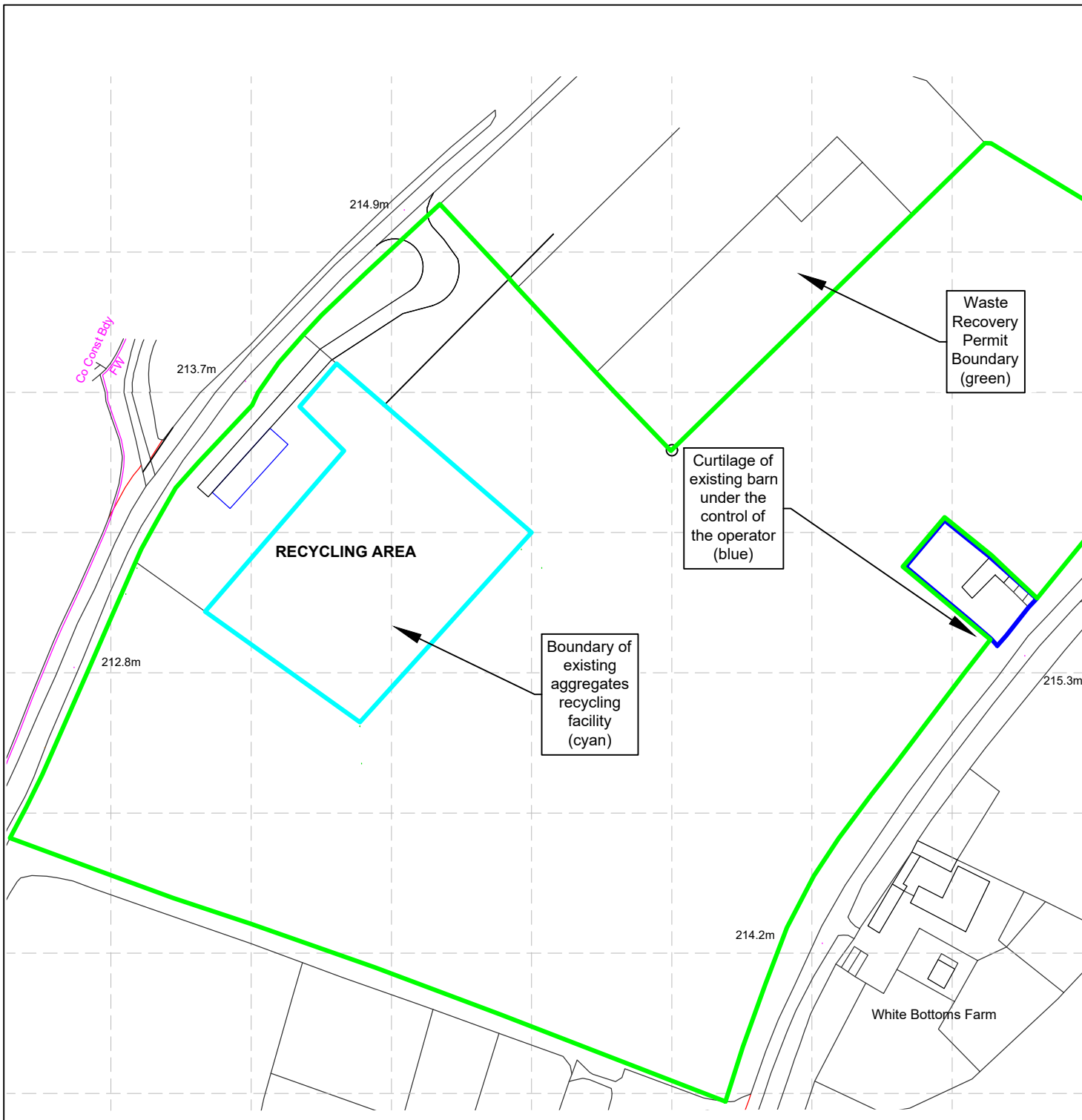
Appendix I

Drawings

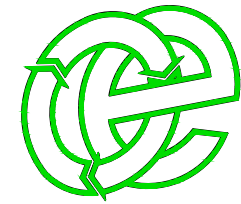
NOTES
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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	26.09.22	CG	Initial drawing



Oaktree Environmental Ltd
 Waste, Planning and Environmental Consultants



DRAWING TITLE
 PERMIT BOUNDARY PLAN

CLIENT
 Boddington Demolition Ltd

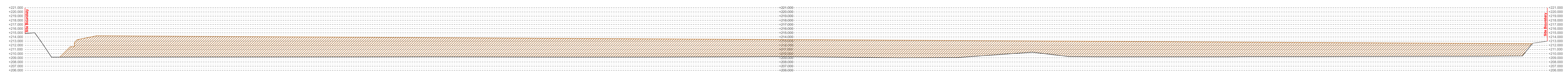
PROJECT/SITE
 Edgehill Quarry, Edgehill, Banbury

SCALE @ A4 1:2,000	CLIENT NO 043	JOB NO 006
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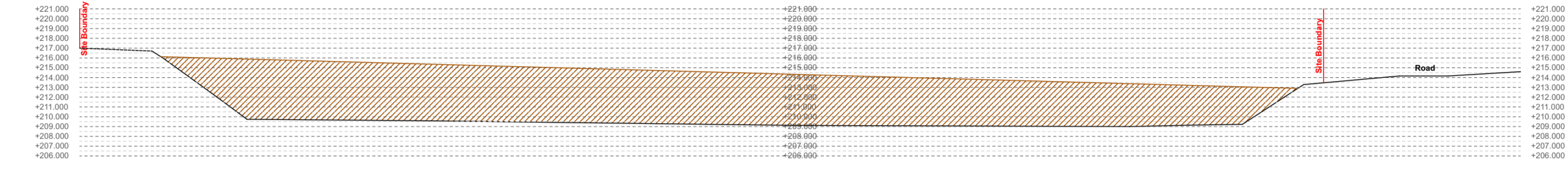
DRAWING NUMBER 043-006-01	REV -	STATUS Issued
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DRAWN BY CG	CHECKED CG	DATE 26.09.22
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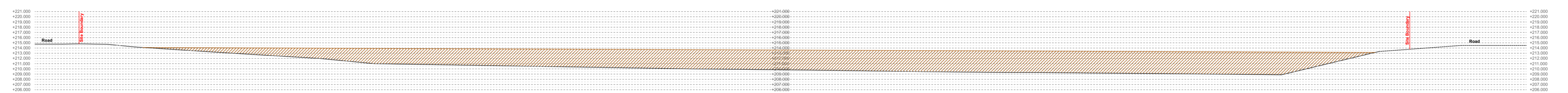
Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
 t: 01606 558833 | e: sales@oaktree-environmental.co.uk



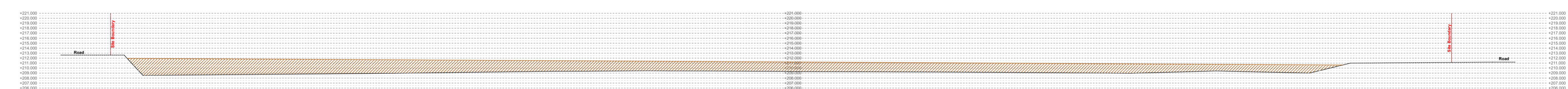
SITE SECTION A-A



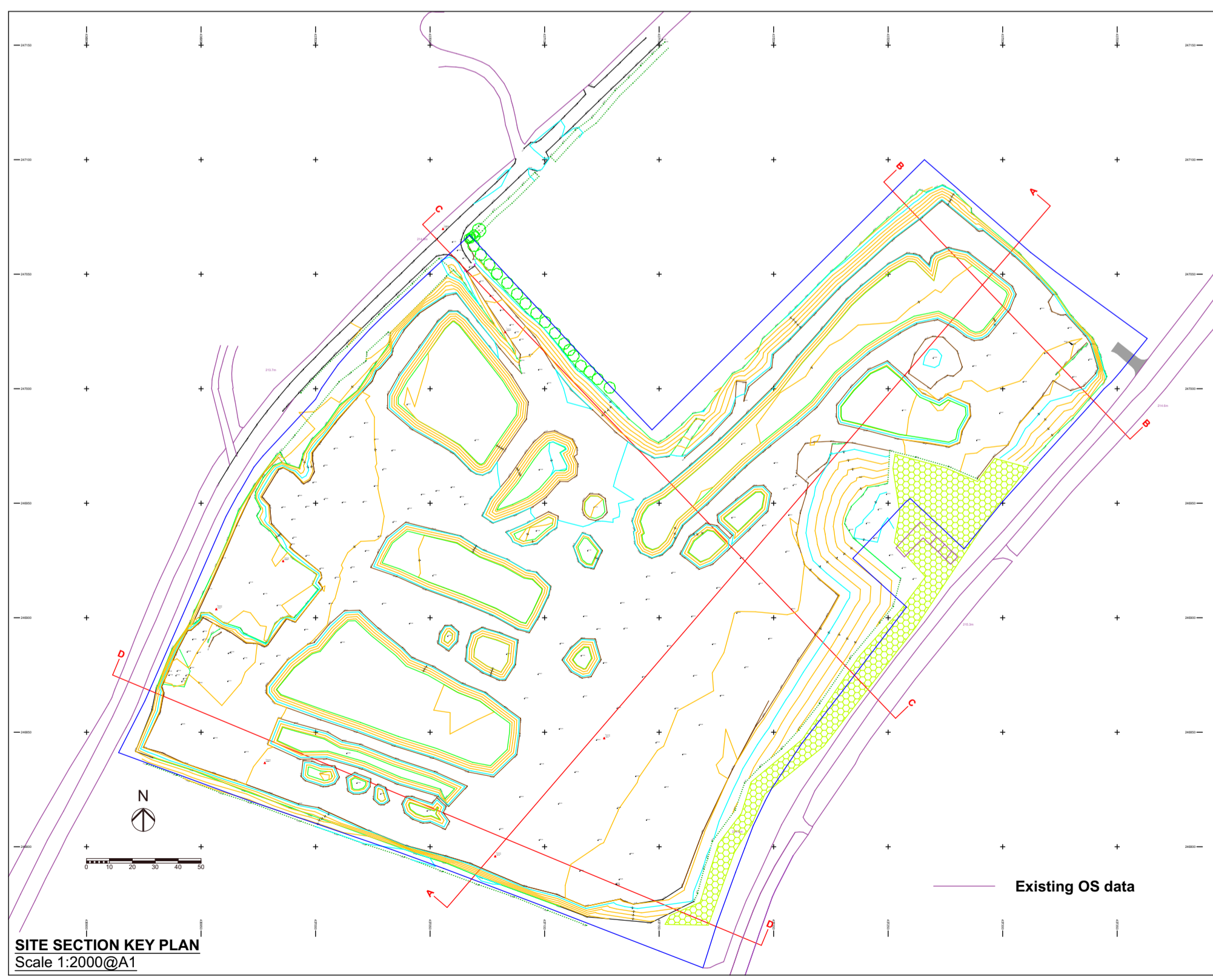
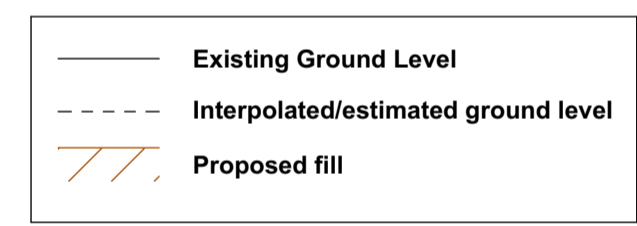
SITE SECTION B-B



SITE SECTION C-C



SITE SECTION D-D



SITE SECTION KEY PLAN
Scale 1:2000@A1

NOTES

- 1) This drawing has been produced/issued for the specific use as stated in the drawing status below. The drawing should only be used therefore for matters concerning the identified use.
- 2) Until technical approval, consents and/or licensing has been obtained from the relevant authority, it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given, it is entirely at their own risk.
- 3) All dimensions and/or levels to be checked on site prior to works proceeding.

CHARTERED SURVEYORS SBRice Treath Trewartha Road Praa Sands Penzance TR20 9ST 07557 880 112 stephen@sbrice.co.uk www.sbrice.co.uk	
Client:	ANDREW P BAUGHAN
Project Ref:	BAUGEQ
Project Title:	'EDGEHILL QUARRY RESTORATION' Edgehill Quarry, Edgehill, Banbury, Warwickshire, CV15 8DH.
Drwg Title:	PROPOSED QUARRY RESTORATION SITE SECTIONS (topo courtesy of HD Surveying, 21st June 2019)
Drwg Status:	PLANNING
Drawn by:	DJJ
Date:	27.06.2019
Scale:	1:500@A1
Rev:	B
<small>Registered in England & Wales no: 06018937 VAT reg no: 127 6836 89</small> <small>© this drawing and details depicted are the copyright of SBRice Ltd and may not be reproduced in any form except by written permission.</small>	

NOTES

- 1) This drawing has been produced/issued for the specific use as stated in the drawing status below. The drawing should only be used therefore for matters concerning the identified use.
- 2) Until technical approval, consents and/or licensing has been obtained from the relevant authority, it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given, it is entirely at their own risk.
- 3) All dimensions and/or levels to be checked on site prior to works proceeding.



CHARTERED SURVEYORS

SBRice
 Fresh
 Foreatha Road
 Pinn Sands
 Pencoed
 TR20 9ST
 stephen@sbriice.co.uk
 www.sbriice.co.uk

Client: **ANDREW P BAUGHAN**

Project Ref: **BAUGEQ**

Project Title: **'EDGEHILL QUARRY RESTORATION'**
 Edgehill Quarry, Edgehill,
 Banbury, Warwickshire, CV15 8DR

Drwg Title: **PROPOSED QUARRY RESTORATION PLAN**

Drwg Status: **PLANNING**

Drawn by: **DJJ** Drwg No: **BAUGEQ-1-1-003**

Date: **18.04.2019** Scale: **1:1000@A1** Rev: **L**

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Appendix II

Planning Permission Reference SDC/20CM009

**PERMISSION WITH
CONDITIONS**

REF: SDC/20CM009



**TOWN & COUNTRY PLANNING ACT 1990
THE TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT
PROCEDURE) (ENGLAND) ORDER 2015**

NOTICE OF DECISION OF COUNTY PLANNING AUTHORITY

To: Mr Stephen Rice, SB Rice Ltd, Treath Trewartha Road, Praa Sands, Penzance TR20 9ST

The **WARWICKSHIRE COUNTY COUNCIL**, having considered the application for infilling of redundant quarry with inert soils and clays to include temporary soils and aggregates recycling and recovery facility and restoration of the quarry to provide 10 No. Recreational EcoPods at Edgehill Quarry, Edgehill, Banbury, OX15 6DH [Grid ref: 437128.246922] made by you on behalf of Mr Andrew Baughan Boddington Demolition Ltd Oak Farm Priors Hardwick Road Upper Boddington Daventry NN1 6DW and deposited with the County Council on 18 June 2020

HEREBY GIVE YOU NOTICE that **PERMISSION** is **GRANTED** for the above mentioned development subject to the following conditions:

COMMENCEMENT DATE

1. The development hereby permitted shall be commenced no later than 3 years from the date of this permission.

Reason: To comply with the provisions of Section 51 of the Planning and Compulsory Purchase Act 2004.

GENERAL OPERATIONS

2. The development hereby permitted shall be carried out in accordance with the details submitted with application reference no. SDC/20CM009 and in accordance with drawing numbers:

- BAUGEQ-1-1-003 Rev. L,
- BAUGEQ-1-1-004 Rev. B,
- BAUGEQ-1-1-006 Rev. C,
- BAUGEQ-1-1-008 Rev. D,
- BAUGEQ-1-4-001 Rev. B,

BAUGEQ-1-5-001 Rev. B,

and any other details or samples approved in accordance with the conditions attached to this planning permission, except to the extent that any modification is required or allowed by or pursuant to these conditions.

Reason: In order to define the exact details of the planning permission granted and to secure a satisfactory standard of development.

Infilling and Soils and Aggregates Recycling and Recovery Facility

3. No development shall take place unless the County Planning Authority has first been informed in writing of the date of commencement.

Reason: In order to secure a timely restoration of the site to protect the amenities of local residents.

4. The delivery of waste materials to the site and infilling of the quarry void shall cease no later than 12 years from the date of commencement.

Reason: In order to secure a timely restoration of the site to protect the amenities of local residents.

5. The Soils and Aggregates Recycling and Recovery Facility shall cease operation and all plant, machinery and infrastructure shall be removed from the site no later than 12 years from the date of commencement.

Reason: In order to secure a timely restoration of the site to protect the amenities of local residents.

6. All physical works associated with the restoration of the site in accordance with drawing number BAUGEQ-1-1-003 Rev L shall be completed no later than 12 years from the date of commencement.

Reason: In order to secure a timely restoration of the site.

7. The development hereby permitted shall not commence until the existing vehicular access to the site from the public highway C69 Edge Hill Lane has been widened in general accordance with drawing number BAUGEQ-1-1-009.

Reason: In the interests of highway safety.

8. The development hereby permitted shall not commence until the existing vehicular access to the site from the public highway C69 Edge Hill Lane has been surfaced with a bound macadam material, and wheel washing facilities have been provided, in general accordance with drawing number BAUGEQ-1-1-004 Rev A.

Reason: In the interests of highway safety.

9. The development hereby permitted shall not commence until visibility splays have been provided to the vehicular access to the site from the public highway C69 Edge Hill Lane in accordance with drawing number BAUGEQ-1-1-006 Rev C. No structure, tree or shrub shall be erected, planted or retained within the splays exceeding, or likely to exceed at maturity, a height of 0.6 metres above the level of the public highway carriageway.

Reason: In the interests of highway safety.

10. The development hereby permitted shall not be commenced until full details of the infrastructure, plant and machinery to be provided within the Soils and Aggregates Recycling and Recovery Facility (SARF) have been submitted to and approved in writing by the County Planning Authority. The submitted details should include full details of:

- the entrance gates and boundary treatment at the site access,
- construction details of the internal access road,
- wheel wash,
- weighbridge,
- the type and specification of the plant processing plant and equipment to be operated on site,
- storage bays,
- single storey welfare facilities and office,
- external lighting and
- parking area for HGVs and staff cars.

Following approval, no waste material shall be accepted on site until the SARF has been developed in accordance with the approved details. The approved infrastructure, plant and machinery shall be retained on site and in good working order for the duration of the development.

Reason: In order to secure satisfactory development of the site and to protect the amenity of the area and nearby occupiers.

11. No waste material shall be accepted on site until the 7 metre high (above the quarry floor so that the resulting height is at least 2 metres above the surrounding ground level) earth bund shown on drawing number BAUGEQ-1-1-004 Rev. B, has been constructed around the Soils and Aggregates Recycling and Recovery Facility (SARF).

Reason: In order to secure satisfactory development of the site and to protect the amenity of the area and nearby occupiers.

12. The development hereby permitted shall not commence until a detailed Landscape and Ecological Management Plan has been submitted to and approved in writing by the County Planning Authority. The Plan shall include details of planting including species used and sourcing of plants. The Plan shall also include details of habitat enhancement and creation measures and arrangements for the maintenance and management of planting and habitats. Such approved measures shall thereafter be implemented in full.

Reason: To ensure a net biodiversity gain in accordance with NPPF.

13. The development hereby permitted shall not commence until a Construction and Environmental Management Plan (CEMP) has been submitted to and approved in writing by the County Planning Authority. The submitted CEMP shall include details concerning pre-commencement checks for badger, reptiles and breeding birds and appropriate working practices and safeguards for wildlife that are to be employed whilst works are taking place on site. The agreed CEMP shall thereafter be implemented in full.

Reason: To ensure that protected species are not harmed by the development.

14. The development hereby permitted shall not be commenced until a detailed dust management plan has been submitted in writing to the County Planning Authority for approval. The submitted plan shall, as a minimum, include the measures identified in DustScan AQ report dated August 2019. The approved dust management plan shall be implemented in full for the duration of the development.

Reason: To minimise the impacts, relating to the generation of dust, on the amenities of the area.

15. Six months prior to the start and finish of works at each stage of the development as indicated in the noise report a schedule of works shall be submitted in writing to the County Planning Authority for approval. The development shall be undertaken in accordance with the approved schedule of works.

Reason: In order to limit the noise impact on nearby residential properties.

16. The development hereby permitted shall not be commenced until a detailed noise monitoring scheme, to monitor compliance with Condition 29, has been submitted in writing to the County Planning Authority for approval. Noise monitoring shall be undertaken, as a minimum, upon the commencement of operations within the Soils and Aggregates Recycling and Recovery Facility (SARF), the commencement of operations at each stage of infilling of the quarry void, when infill materials in each stage are within 1 metre of surrounding ground levels and when the planning authority considers there to be reasonable cause. The monitoring shall be undertaken at the most appropriate receptor for a period of at least 2 hours when the site is operating normally.

Reason: In order to limit the noise impact on nearby residential properties.

17. The development hereby permitted shall not be commenced until a detailed plan identifying post restoration site levels has been submitted to and approved in writing by the County Planning Authority. Following approval, the site shall be infilled and restored in accordance with the approved levels.

Reason: In order to define the exact details of the planning permission granted and to secure a satisfactory standard of development.

18. No waste material other than inert soils, clays, concrete, stones and rubble shall be accepted on the site

Reason: In order to define the exact details of the planning permission granted and to secure a satisfactory standard of development.

19. The delivery of waste to the site, export of materials from the site, operation of the Soils and Aggregates Recycling and Recovery Facility and infilling and restoration of the site shall not be carried out except between the following hours:

0800 – 1800 hours Monday to Friday

There shall be no operations or uses on Saturdays, Sundays and Public Holidays.

Reason: In order to protect the amenity of nearby residents.

20. No vehicle shall enter or leave the site other than via the existing access off the Edgehill Lane (C69).

Reason: In the interests of highway safety.

21. No heavy goods vehicles (“HGVs”) associated with the development shall enter or exit the site unless via Edgehill Lane (C69) from its junction with the A422, turning right when entering and left when exiting the site, and not through the village of Edgehill. Signage shall be erected at the site entrance and maintained in place for the duration of the development permitted by this planning permission, advising drivers of HGVs exiting the quarry to turn left only out of the site.

Reason: In the interests of highway safety and residential amenity.

22. No more than 22 HGV movements (each entry or departure constituting one movement) shall take place per day during the operations hereby permitted.

Reason: In the interests of highway safety.

23. No mud or debris shall be carried onto the public highway. To facilitate this the site access road shall be maintained in a clean condition at all times. In the event that material is inadvertently deposited it shall be removed immediately.

Reason: In order to protect the amenity of the area.

24. All loaded lorries entering and leaving the site shall be sheeted or netted as appropriate.

Reason: In order to protect the amenity of the area.

25. At no time during operations undertaken on site for the purpose of the development hereby approved shall any operations take place which, despite the use of the dust control measures, would give rise to airborne dust levels sufficient to cause nuisance to habitable properties located within the vicinity of the site.

Reason: In order to protect the amenity of the area and nearby residents.

26. Operations shall be suspended when wind conditions are or are likely to result in visible dust being carried towards off site receptors.

Reason: In order to protect the amenity of the area and nearby residents.

27. An adequate piped supply of water to the site, to aid in dust suppression, shall be maintained on site for the duration of the development.

Reason: In order to protect the amenity of the area and nearby residents.

28. Dust suppression equipment such as road washers and water bowsers shall be available to use on site at all times for the duration of the development.

Reason: In order to protect the amenity of the area and nearby residents.

29. The noise level from the development hereby permitted including any plant and equipment and operations thereon shall not exceed 46dB LAeq 1 hour at any point 3 metres from the nearest façade of any nearby residential property. Noise shall be measured in accordance with BS7445.

Reason: In order to limit the noise impact on nearby residential properties.

30. Machinery and vehicles used on the site shall be maintained and silenced to comply with the best practicable standard.

Reason: In order to protect the amenity of the area and nearby residents.

31. The development hereby permitted may not commence until a scheme for the remote monitoring of the site entrance via a web camera is submitted to and approved in writing by the County Planning Authority. The Scheme as approved shall be implemented before the operations hereby permitted commence.

Reason: In order to secure satisfactory development of the site and to protect the amenity of the area and nearby occupiers.

EcoPods

32. No EcoPods shall be installed or erected on site until full design details, including scale drawings, construction materials, visual appearance and method of construction and installation, have been submitted to and approved in writing by the County Planning Authority. Following approval, the EcoPods shall be installed and retained in accordance with the approved details.

Reason: In order to define the exact details of the planning permission granted and to secure a satisfactory standard of development.

33. No EcoPods shall be installed or erected on site until a detailed surface water drainage scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the development, have been submitted to and approved in writing by the County Planning Authority. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed. The scheme to be submitted shall:

- Demonstrate that the surface water drainage system(s) are designed in accordance with CIRIA C753 The SuDS Manual
- Include detailed design (plans, network details and calculations) in support of any surface water drainage scheme, including details of any attenuation system, and outfall arrangements.
- Demonstrate the performance of the drainage system for a range of return periods and storm durations inclusive of the 1 in 1 year, 1 in 2 year, 1 in 30 year, 1 in 100 year and 1 in 100 year plus climate change return periods.
- Demonstrate the proposed allowance for exceedance flow and associated overland flow routing.

Reason: To prevent the increased risk of flooding.

34. No occupation or subsequent use of the EcoPods shall take place until a detailed maintenance plan has been submitted to and approved in writing by the County Planning Authority. The submitted plan shall give details on how surface water systems shall be maintained and managed for the lifetime of the development. Such approved plan shall thereafter be implemented for the lifetime of the development.

Reason: To ensure the future maintenance of the sustainable drainage structures.

35. No EcoPod on the site shall be occupied until the public highways D6434 Edge Hill and D6433 Quarry Road have been improved so as to provide for footways and footpaths linking the proposed EcoPods to the existing footway on Quarry Lane in general accordance with drawing number BAUGEQ-1-1-003 Rev L. The pedestrian access to the site and footpaths and footways within the site shall thereafter be kept available and maintained in a condition fit for use by occupiers of the EcoPods at all times when the EcoPods are occupied.

Reason: In the interests of highway safety.

36. No EcoPod on the site shall be occupied until a pair of bus stops, each incorporating hardstanding and a bus stop pole with flag and timetable case, have been provided in the public highway D6433 Quarry Road in accordance with a scheme approved in writing by the County Planning Authority.

Reason: In order to improve accessibility and reduce reliance on transport by car.

37. No EcoPod on the site shall be occupied until the existing vehicular access to the site from the public highway C69 Edge Hill Lane has been remodelled in general accordance with drawing number BAUGEQ-1-1-006 Rev C.

Reason: In the interests of highway safety.

38. No EcoPod on the site shall be occupied until all parts of the existing accesses within the public highway not included in the means of access hereby permitted for use following restoration have been closed and the verge has been reinstated in accordance with the standard specification of the Highway Authority.

Reason: In the interests of highway safety.

39. The development hereby permitted shall not be occupied until a scheme for the provision of adequate water supplies and fire hydrants necessary for firefighting purposes at the site has been submitted to and approved in writing by the County Planning Authority. The approved scheme shall be implemented in full prior to occupation of any Eco-Pod.

Reason: In the interests of Public Safety from fire and the protection of Emergency Fire Fighters.

40. The use of the site hereby permitted following restoration shall be restricted to the stationing of the approved Eco-Pods only and shall not be used for the permanent stationing of any caravans, motorhomes or campervans, as defined in the Caravan Sites and Control of Development Act 1960 and the Caravan Sites Act 1968

Reason: In order to ensure the satisfactory development of the application site, to safeguard the visual amenity of the locality, the Cotswolds AONB and in the interests of highway safety and to ensure that the accommodation is not used for permanent residential occupation which, given the countryside location would represent an unsustainable form of development in accordance with Policies CS.5, CS.9, CS.11, CS.15, CS.22, CS.24, CS.26 and AS.10 of the Stratford on Avon Core Strategy (2011-2031).

41. The Eco-Pods hereby permitted to be stationed on the site shall only be used for holiday accommodation and shall not be occupied at any time as a person's sole or main place of residence.

Reason: In order to ensure the satisfactory development of the application site, to safeguard the visual amenity of the locality, the Cotswolds AONB and in the interests of highway safety and to ensure that the accommodation is not used for permanent residential occupation which, given the countryside location would represent an unsustainable form of development in accordance with Policies CS.5, CS.9, CS.11, CS.15, CS.22, CS.24, CS.26 and AS.10 of the Stratford on Avon Core Strategy (2011-2031).

42. The Eco-Pods hereby permitted shall not be stationed or positioned anywhere on the site apart from on the identified pitches set out on approved drawing BAUGEQ-1-1-003 Rev.L – Proposed Quarry Restoration Plan.

Reason: To define the permission in line with the approved landscaping (in order to allow it to establish effectively) and layout submitted and to ensure that the development meets the

design quality and environmental requirements of Policies CS.5, CS.9, CS.11 and AS.10 of the Stratford-on-Avon Core Strategy (2011-2031).

43. There shall be no more than 10 Eco-Pods present on the site at any time.

Reason: In order to ensure the satisfactory development of the application site, to safeguard the visual amenity of the locality and in the interests of highway safety and to ensure that the development would represent an appropriate scale and not an unsustainable form of development in accordance Policies CS.5, CS.9, CS.11, CS.15, CS.22, CS.24, CS.26 and AS.10 of the Stratford-on-Avon Core Strategy (2011-2031).

44. Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) Order 2015 (or any Order revoking or re-enacting that Order with or without modification) no development included in Part 5, Class A of Schedule 2 to that Order shall be carried out on the site without planning permission being granted in writing by the County Planning Authority.

Reason: In order to ensure the impact of the development on the amenity of nearby properties, the Cotswolds AONB and the character and appearance of the locality is acceptable in accordance with Policies CS.5, CS.9, CS.11 and CS.15 of the Stratford-on-Avon Core Strategy (2011-2031). There is a need to remove temporary use rights in order to ensure that the impact of any future change in the activities within the site, even those occurring on a temporary basis, can be formally controlled.

45. No floodlighting, security lighting or other external means of illumination of the site shall be provided, installed or operated in or on any part of the site, whether before or after restoration, except in accordance with a detailed scheme (which shall provide for lighting that is low level, hooded and directional) which has been submitted to and approved in writing by the County Planning Authority. Any such scheme shall be implemented in accordance with the approved details and retained thereafter.

Reason: In order to safeguard the natural environment, amenities of nearby occupiers, the Cotswolds AONB and the character and appearance of the locality, having regard to Policies AS.10, CS.5, CS.6, CS.9 and CS.11 of the Stratford-on-Avon District Core Strategy 2011-2031.

46. The use of the site as holiday accommodation hereby permitted shall not be commenced until the internal roads and parking areas have been laid out in accordance with the approved details shown on plan no. BAUGEQ-1-1-003 Rev.L – Proposed Quarry Restoration Plan. Thereafter, the internal roads and parking space(s) shall be maintained and retained for such purposes and shall not be used for any other purpose than for the parking and manoeuvring of vehicles used by persons working at or visiting the site and shall be kept permanently free from any other forms of obstruction.

Reason: To ensure that safe, adequate and convenient on-site parking spaces are provided and thereafter retained in the interests of public safety and convenience, having regard to Policy CS.26 of the Stratford-on-Avon District Core Strategy 2011-2031.

47. The use of the site as holiday accommodation hereby permitted shall not be commence until the soft landscaping detailed on plan no. BAUGEQ-1-1-008 Rev.D – Proposed Landscaping Plan has been fully implemented. The soft landscaping shall thereafter be protected, maintained and managed in accordance with the approved details.

Reason: To safeguard and enhance the character and amenity of the area, to provide ecological, environmental and bio-diversity benefits, and to enhance the setting within the

immediate locality, having regard to Policies CS.5, CS.6, CS.9, CS.11 and AS.10 of the Stratford-on-Avon District Core Strategy 2011-2031.

48. There shall be no public address system operated within the Eco-Pod site hereby permitted.

Reason: In the interests of minimising harm and disturbance to the Cotswolds AONB, the new areas of planting and wildlife habitats, and the general character and appearance of the landscape having regard to Policies CS.5, CS.6, CS.9 and CS.11 of the Stratford-on-Avon District Core Strategy (2011-2031).

Notes:

- a. Condition numbers 7, 8, 9, 35, 36, 37 and 38 require works to be carried out within the limits of the public highway. The applicant/developer must enter into a Highway Works Agreement made under the provisions of Section 278 of the Highways Act 1980 for the purposes of completing the works. The applicant/developer should note that feasibility drawings of works to be carried out within the limits of the public highway which may be approved by the grant of this planning permission should not be construed as drawings approved by the Highway Authority, but they should be considered as drawings indicating the principles of the works on which more detailed drawings shall be based for the purposes of completing an agreement under Section 278.

An application to enter into a Section 278 Highway Works Agreement should be made to the Planning & Development Group, Communities Group, Warwickshire County Council, Shire Hall, Warwick, CV34 4SX.

In accordance with Traffic Management Act 2004 it is necessary for all works in the Highway to be noticed and carried out in accordance with the requirements of the New Roads and Streetworks Act 1991 and all relevant Codes of Practice. Before commencing any Highway works the applicant / developer must familiarise themselves with the notice requirements, failure to do so could lead to prosecution.

Applications should be made to the Street Works Manager, Budbrooke Depot, Old Budbrooke Road, Warwick, CV35 7DP. For works lasting ten days or less ten days, notice will be required. For works lasting longer than 10 days, three months' notice will be required.

- b. Section 163 of the Highways Act 1980 requires that water will not be permitted to fall from the roof or any other part of premises adjoining the public highway upon persons using the highway, or surface water to flow – so far as is reasonably practicable – from premises onto or over the highway footway. The developer should, therefore, take all steps as may be reasonable to prevent water so falling or flowing.

DEVELOPMENT PLAN POLICIES RELEVANT TO THIS DECISION

Minerals Local Plan for Warwickshire – saved policies (Adopted February 1995)

Policy M9 – Site Restoration Stratford-on-Avon District Core Strategy (Adopted July 2016)

Policy CS.1 – Sustainable Development

Policy CS.4 – Water Quality and Flood Risk

Policy CS.5 – Landscape Character

- Policy CS.6 – Natural Environment
- Policy CS.8 – Historic Environment
- Policy CS.9 – High Quality Design
- Policy CS.11 – Cotswold Area of Outstanding Natural Beauty
- Policy CS.22 – Economic Development
- Policy AS.10 – Countryside and Villages
- Policy CS.24 – Tourism & Leisure Warwickshire Waste Core Strategy (Adopted July 2013)
- Policy CS1 – Waste Management Capacity
- Policy CS2 – Spatial Waste Planning Strategy for Warwickshire
- Policy CS4 – Small scale waste sites
- Policy CS7 – Proposals for disposal facilities
- Policy DM1 - Protection and enhancement of the Natural and Built Environment
- Policy DM2 - Managing Health, Economic and Amenity Impacts of Waste Development
- Policy DM3 - Sustainable Transportation
- Policy DM8 – Reinstatement, restoration and aftercare

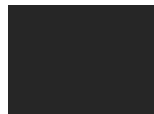
STATEMENT REQUIRED BY ARTICLE 35(2) OF THE TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015

In considering this application the County Council has complied with paragraph 38 contained in the National Planning Policy Framework 2019.

DATED 23 February 2022



Application of signature approved by Peter Endall



415/22

Shire Hall
Warwick
CV34 4RL

**IT IS IMPORTANT THAT YOU READ THE
NOTES AT THE END OF THIS NOTICE**

NOTES:

Appeals to the Secretary of State

1. If you are aggrieved by the decision of your local planning authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State for the Environment in accordance with Section 78 of the Town and Country Planning Act 1990.
2. If an enforcement notice is served relating to the same or substantially the same land and development as in your application and if you want to appeal against your local planning authority's decision on your application, then you must do so within:

28 days of the date of service of the enforcement notice, or
6 months of the date of this notice,

whichever period expires earlier.
3. If you want to appeal against your local planning authority's decision then you must do so within 6 months of the date of this notice.
4. Appeals must be made using a form which you can get from the Secretary of State at Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN or online at www.gov.uk/government/organisations/planning-inspectorate
5. The Secretary of State can allow a longer period for giving notice of an appeal, but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of an appeal.
6. The Secretary of State need not consider an appeal if it seems to the Secretary of State that the Local Planning Authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.
7. In practice, the Secretary of State does not refuse to consider appeals solely because the local planning authority based their decision on a direction given by the Secretary of State.

Purchase Notices

8. If either the local planning authority or the Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that the owner can neither put the land to a reasonably beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.
9. In these circumstances the owner may serve a purchase notice on the Council (that is where the land is situated in a National Park, the National Park authority for that Park, or in any other case the district council (or county council which is exercising the functions of a district council in relation to an area for which there is no district council), London borough council or Common Council of the City of London in whose area the land is situated). This notice will require the Council to purchase the owner's interest in the land in accordance with the provisions of Chapter I of Part 6 of the Town and County Planning Act 1990.

Appendix III

Landscape visual impact assessment

Boddington Demolition Limited

Edgehill Quarry, Edgehill, Banbury, Oxon, OX15 6DH

**Addendum to Landscape and Visual Impact Assessment (October 2019) prepared
by The Landscape Partnership**

Prepared by:

SBRice Ltd

May 2020

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1.0 INTRODUCTION

- 1.1 This addendum has been prepared by SBRice Limited to accompany the resubmission of a planning application for the infilling of a redundant quarry with inert soils and clays at Edgehill to include a temporary Soils and Aggregate Recycling and Recovery Facility (SARF) and the restoration of the quarry to provide 4 no. affordable dwellings and 10 no. recreational EcoPods.
- 1.2 The application is a resubmission of a previous application (SDC/19CM023) which was withdrawn in March 2020.
- 1.3 The revised application includes a number of changes which include:
- The removal of 29 park homes and replacement with four conventional bungalows to be clad in Hornton stone.
 - An increase in EcoPods for recreational use from 6 to 10.
 - An extension in the operational period for the infilling from 6 to 12 years.
 - A reduction in volume of inert clays and soils required for the restoration from 400,000m³ to 350,000m³ and a slight variation to the reprofiled finished levels within the quarry with some areas reducing in restored height by up to 500mm. The restored levels around the perimeter of the quarry will remain the same as previously.

2.0 ADDENDUM TO LVIA

2.1 Section 2 Methodology and Assumptions

- 2.2 The proposed revisions to the scheme include a reduction in the amount of material required for the infilling of the former quarry void and a reduction in the scale of the built development following infilling.
- 2.3 The methodology and assumptions therefore remain relevant to the revised proposal and require no alteration.

2.4 Site Location and Setting

2.5 The revised proposal makes no changes to the site location and setting.

2.6 Landscape Character

2.7 The revised proposal makes no changes to the previous assessment of landscape character.

2.8 Site Features

2.9 The revised proposal makes no changes to the site features.

2.10 Views

2.11 The views that were previously assessed remain relevant to the revised proposal.

2.12 Proposed Development

2.13 The revised proposal makes no significant changes to the proposed infilling and recycling operation other than the amount of material to be used for the infilling has been reduced from 400,000m³ to 350,000m³ and the period of operation will be extended from 6 to 12 years.

2.14 Following infilling the previous proposal included the construction of 29 park homes for residential use along with access roads and parking. The revised proposal does not include any of this infrastructure. On part of the area that was due to be occupied by the 29 park homes and access roads, the revised proposal allows for the construction of four two bedroomed bungalows accessed from the eastern access into the site via a small loop road. The bungalows will be clad in Hornton stone and the proposed landscaping and planting scheme has been slightly amended to include more landscaping and planting in place of the previously proposed park homes, thus providing even more screening for the proposed bungalows. The bungalows would sit no higher in the landscape than the previously proposed park homes.

2.15 The EcoPods for recreational use would increase from 6 to 10, the EcoPods are also located within an extensively planted area and would not be visible outside of the boundaries of the site.

2.16 All other proposed development remains the same to that previously assessed in the LVIA.

3.0 EFFECTS ON LANDSCAPE CHARACTER AND LANDSCAPE FEATURES

3.1 The revised scheme proposes less built development than previously proposed, as such the conclusions reached with regard to the effect on landscape character and landscape features in the previous report remain relevant with no changes required.

4.0 EFFECTS ON VIEWS

4.1 The report concluded that the park homes and EcoPods proposed in the previous scheme would not be visible above the surrounding vegetation and that therefore the proposed built development following infilling would have no adverse impact on views.

4.2 The report therefore requires no amendment.

5.0 EFFECTS ON THE COTSWOLDS AONB AND OTHER DESIGNATIONS

5.1 The report concluded that the previous proposal would not affect views from the Battle of Edgehill site, the Conservation Areas of Ratley and Radway, the Scheduled Monuments of Manor Farm and Nadbury Camp and the Registered Parks and Gardens of Upton House and Radway Grange due to the variations in landform arising from the escarpment, the head of the River Sor tributary valleys and the site's location set back on the plateau, together with the presence of intervening mature woodland and hedgerows around the site, on the edge of Edgehill and along the escarpment.

5.2 The report also concluded that the proposed development would not affect the AONB but would retain and not harm its special qualities. As the most significant impact following post infilling, i.e. the park homes, have been removed from the revised proposal, the revised scheme would have less of an impact on the landscape. The four stone clad bungalows which are located on part of the site previously occupied by the park homes, will have a much lesser impact than the total park home scheme may have done.

5.3 However, the report concluded that, due to the existing mature vegetation around the perimeter of the site and the proposed landscaping scheme, the park home development itself would not have had an adverse impact on the AONB.

5.4 It is therefore concluded that the revised scheme would only have less of an impact and therefore

the conclusions reached in the report remain relevant to the revised scheme.

6.0 SUMMARY AND CONCLUSIONS

- 6.1 As the revised scheme proposes less built development than the previous scheme, the summary and conclusions reached in the report remain wholly relevant to the revised proposal and do not require any amendment.

Landscape and Visual Impact Assessment

for

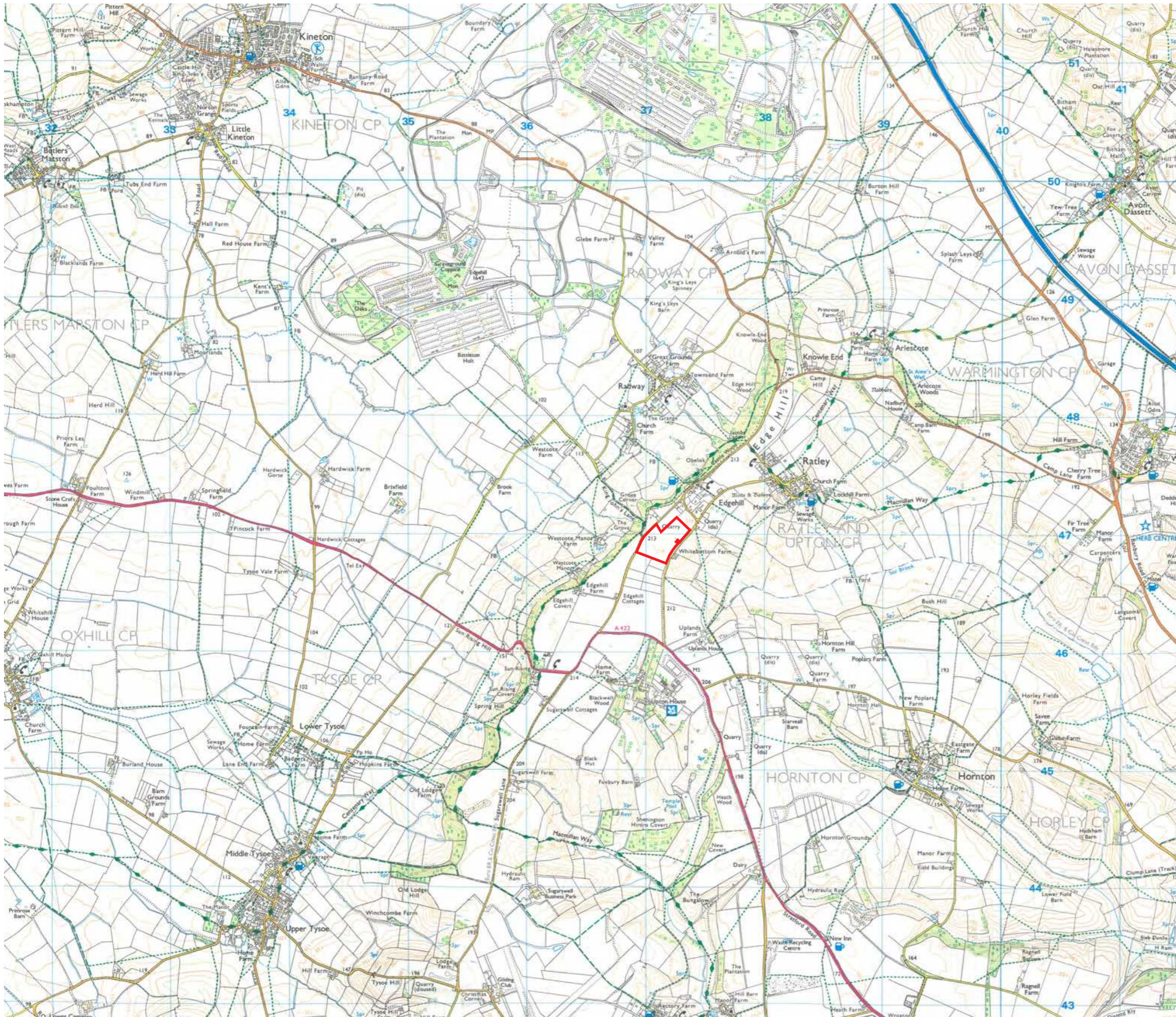
Edgehill Quarry

on behalf of

Andrew Baughan

APPENDIX 2: FIGURES AND VIEWPOINTS

June 2019



Key
 Site Boundary

B19017 - Edgehill Quarry, Nr. Banbury

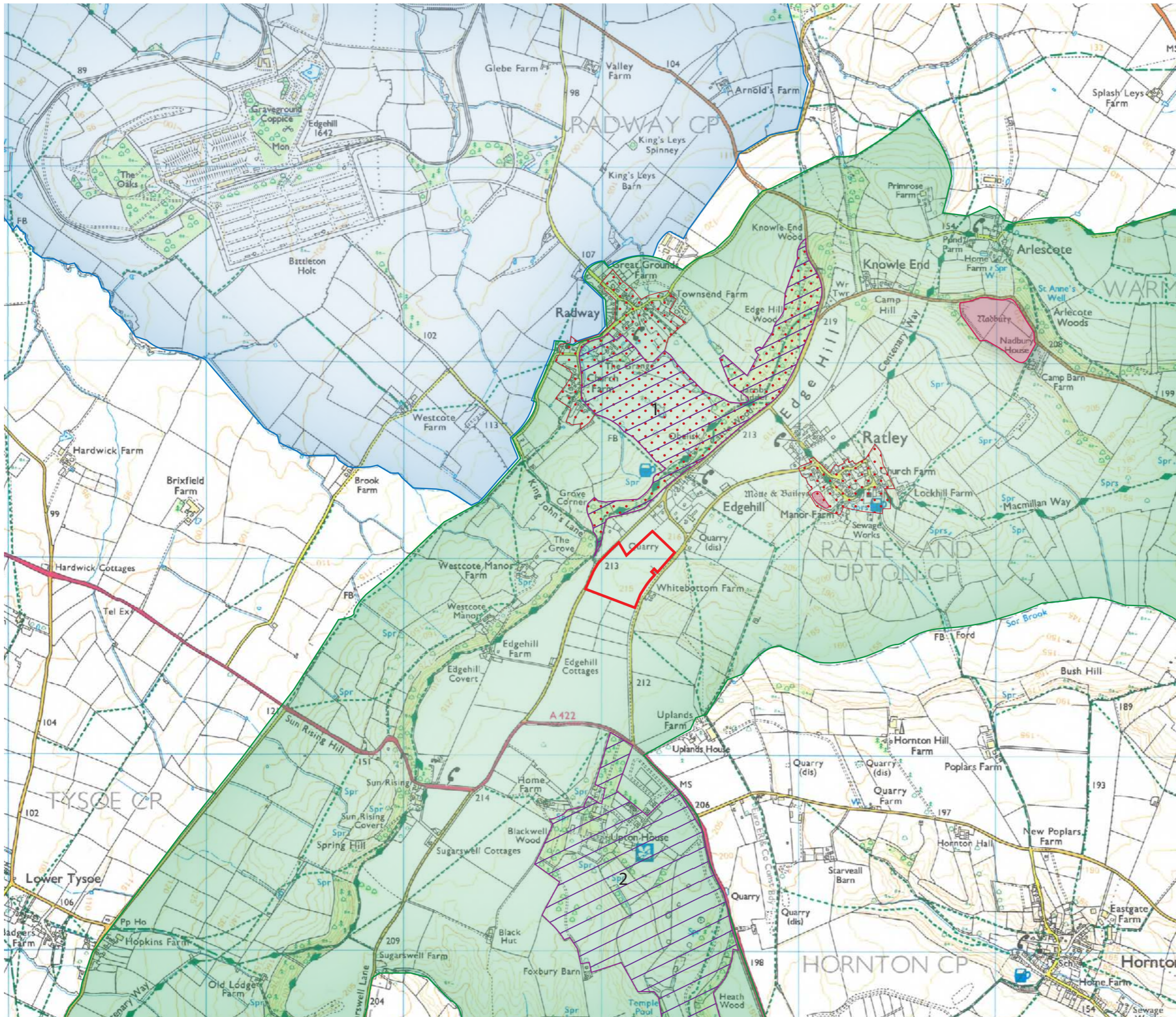
Site Location

Figure 01







Scale: 1:25,000 @ A3

May 2019





Key

	Site Boundary
	Cotswolds Area of Outstanding Natural Beauty
	Scheduled Monument
	Registered Park and Garden (1 - Radway Grange, 2 - Upton House)
	Conservation Area
	Battle of Edge Hill

B19017 - Edgehill Quarry, Nr. Banbury

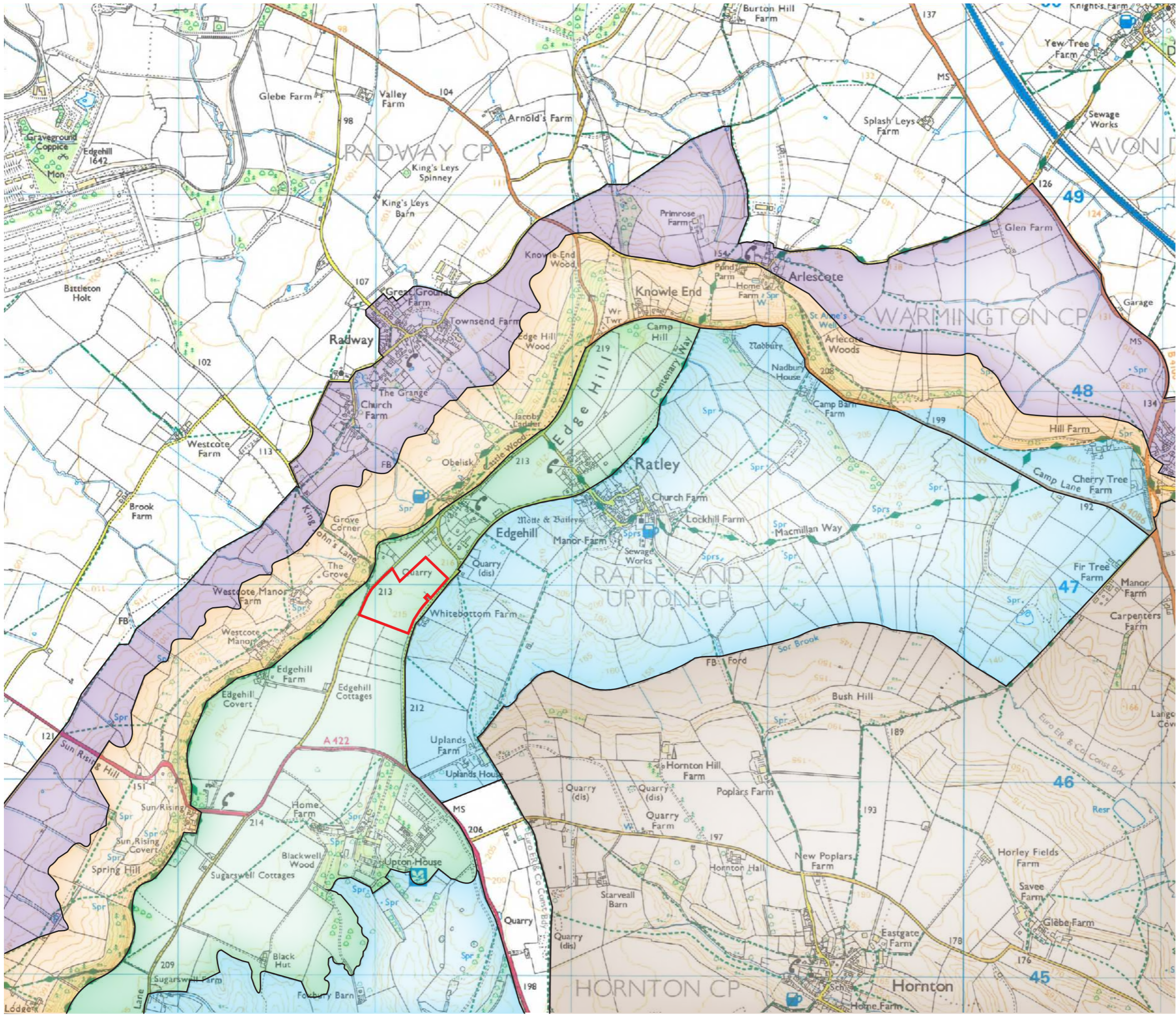
Wider Setting and Designations

Figure 02







Scale: 1:15,000 @ A3

May 2019





Key

-  Site Boundary
- Cotswolds AONB Landscape Character Assessment**
-  2Q Escarpment: Edge Hill
-  6B Ironstone Hills and Valleys: Ratley Hills and Valley
-  7G Highwold: Edge Hill Ironstone Plateau
-  19E Unwooded Vale: Vale of Feldon Fringe
- Chervell Landscape Character Assessment**
-  Incised Ironstone Plateau

B19017 - Edgehill Quarry, Nr. Banbury

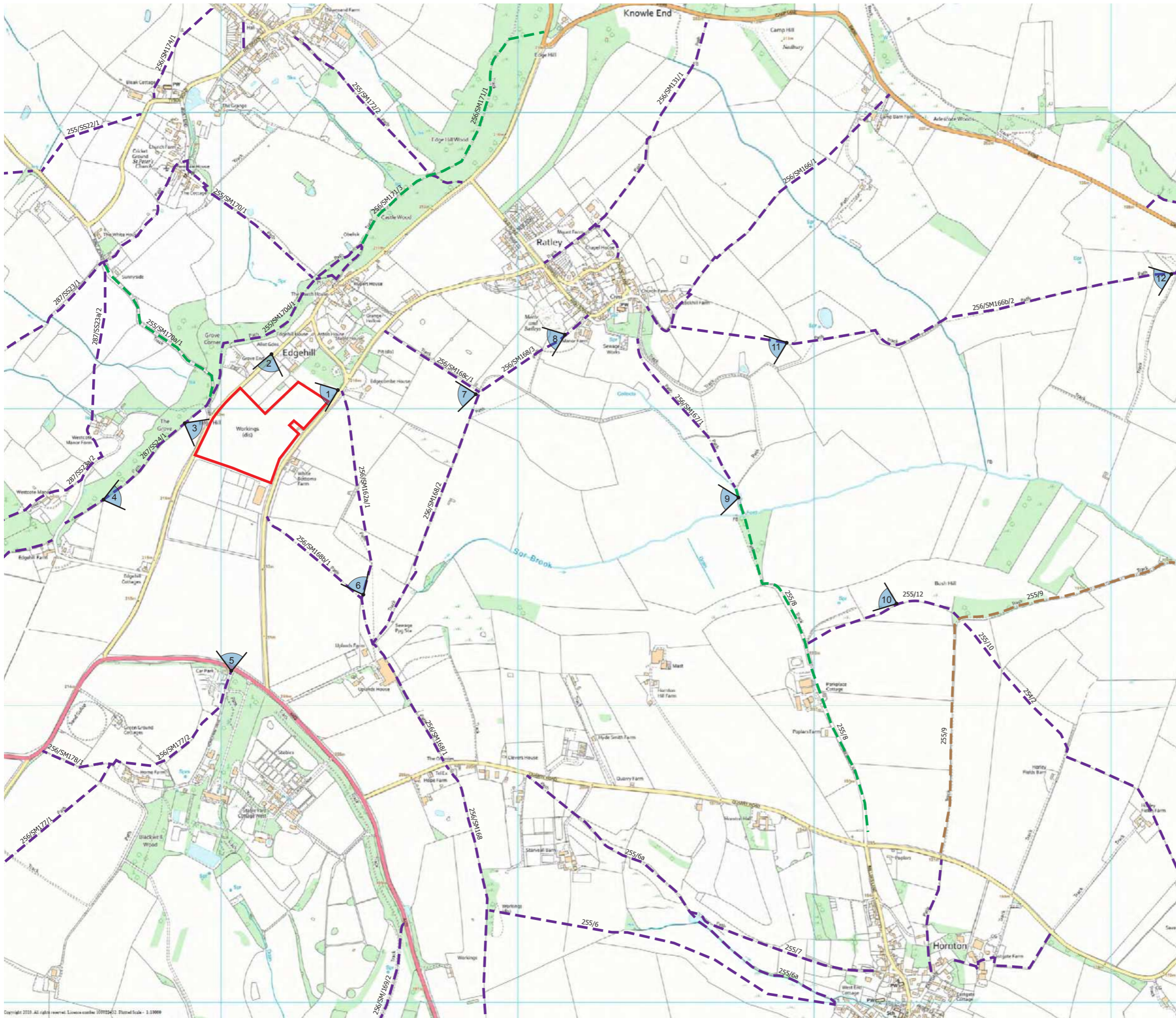
Landscape Character

Figure 03






Scale: 1:15,000 @ A3

May 2019





Key

-  Site Boundary
-  Public Footpath
-  Public Bridleway
-  Road Used as Public Path
-  Viewpoints

B19017 - Edgehill Quarry, Nr. Banbury

Local Context

Figure 04

Scale: 1:12,500 @ A3

May 2019





Key



B19017 - Edgehill Quarry, Nr. Banbury

Site Context

Figure 05

Scale: 1: NTS @ A3

May 2019



Hedge along Southern Site boundary

Hedgerow and trees along unclassified road



Viewpoint A

Rock face and hedge along Southern Site boundary



Viewpoint B



Aspen tree belt

Viewpoint C



Storage of military vehicles

Poplar belt beyond Site

Romanys Rest stable and agricultural building

Woodland between Edgehill and Site

Viewpoint D

Woodland between Edgehill and Site

Old Barn

Belt of Field maple, oak and lime



Viewpoint C continued

Trees along unclassified road and woodland on escarpment



Viewpoint D continued

Approximate extent of Site



View from unclassified road looking south-west - **Viewpoint 1**

Approximate extent of Site

Hybrid poplar along
Site boundary



View from unclassified road looking south - **Viewpoint 2**

Approximate extent of Site



View from Centenary Way/Macmillan Way looking east - **Viewpoint 3**

Approximate extent of Site



View from Centenary Way/Macmillan Way looking north-east - **Viewpoint 4**

Approximate extent of Site

Hedge along A422

Woodland on the western boundary of Upton House registered Park and Garden



View from Upton House Public Car Park and Public Footpath 256/SM177/2 - **Viewpoint 5**

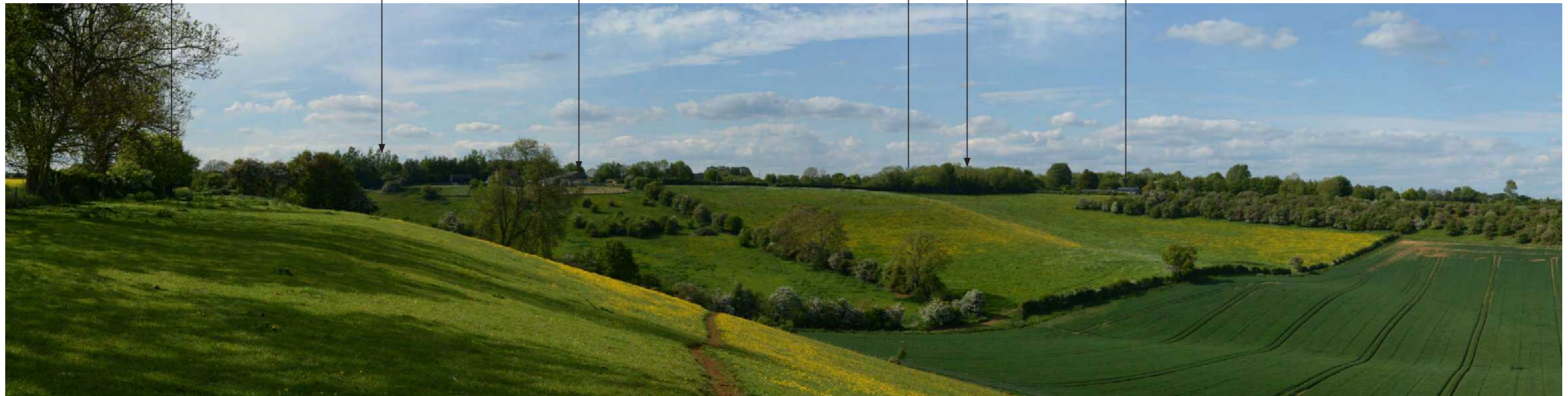
Approximate extent of Site

Tree belt along eastern Site boundary

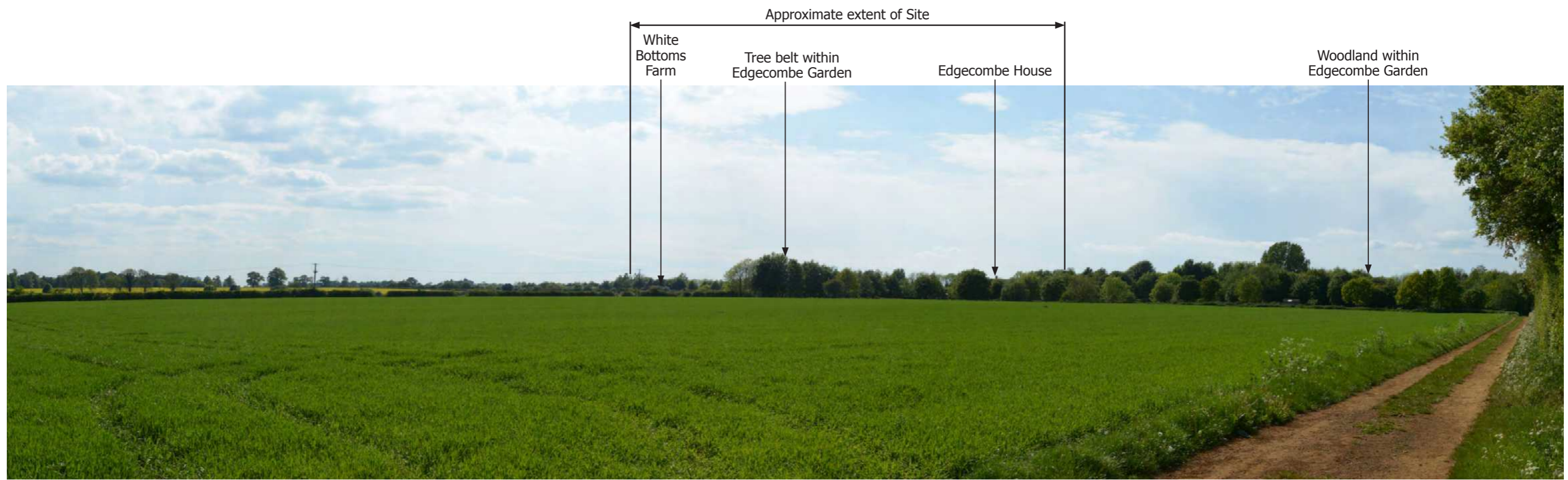
White Bottoms Farm

Woodland between Edgehill and Site

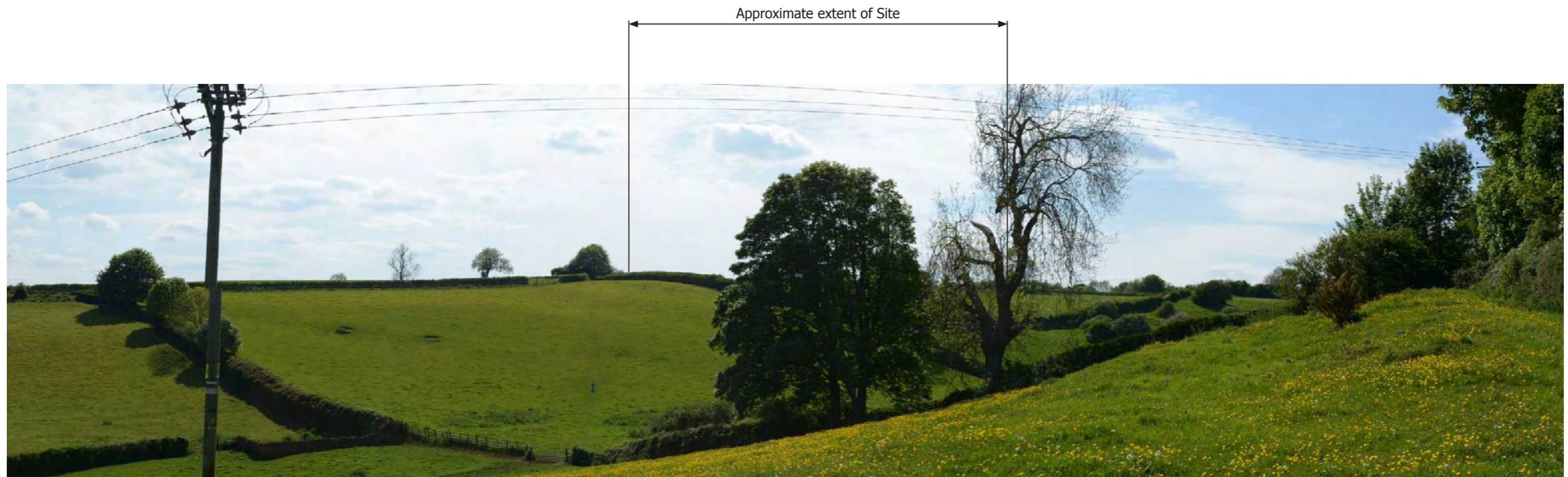
Edgecombe House



View from Public Footpath 256/SM168/1 looking north - **Viewpoint 6**



View from Public Footpath 256/SM168/2 looking west - **Viewpoint 7**



View from Public Footpath 256/SM168/3 looking west - **Viewpoint 8**



View from Public Footpath 256/SM167/1 looking west - **Viewpoint 9**



View from Public Footpath 255/12 looking west - **Viewpoint 10**



View from Public Footpath 256/SM166b/2 looking west - **Viewpoint 11**



View from Public Footpath 256/SM166b/2 looking west - **Viewpoint 12**

Landscape and Visual Impact Assessment

for

Edgehill Quarry

on behalf of

Andrew Baughan

October 2019

Quality control
Landscape and Visual Impact Assessment
for
Edgehill Quarry

Checked by Project Manager:

Approved by:

Name: Graham Farrier

Name: Jonathan Billingsley

Title: Associate

Title: Director

Date: 11 October 2019

Date: 11 October 2019

The Landscape Partnership Ltd is a practice of Chartered Landscape Architects, Chartered Ecologists and Chartered Environmentalists, registered with the Landscape Institute and a member of the Institute of Environmental Management & Assessment & the Arboricultural Association

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Appendix 2: Figures and Viewpoints (separate A3 document)

Figure 01	Site Location
Figure 02	Wider Setting and Designations
Figure 03	Landscape Character
Figure 04	Local Context
Figure 05	Site Context
Viewpoints	A-D and 1-12

1 INTRODUCTION

- 1.1 The report has been prepared on behalf of Andrew Baughan by The Landscape Partnership to assess the suitability of the proposed development at Edgehill Quarry (hereafter to referred to as the 'Site'), in respect to the effects on Site landscape features, the local and wider landscape character, and views. The proposed development involves the recycling of inert waste material within the existing quarry, which will be used to infill the quarry over a six year period, followed by restoration to enable landscape and biodiversity enhancements, and the provision of park homes and eco lodges with areas of informal recreation.
- 1.2 The Landscape Visual Impact Assessment (LVIA) provides a baseline description of: the existing landscape and built features within the Site and immediate vicinity; the presence of statutory or local landscape and visually related designations; the key characteristics of the landscape character and how these relate to the Site; and the main representative views and visual receptors. In defining 'landscape' reference is made to the adopted definition agreed by the European Landscape Convention (Florence: Council of Europe 2000), which states that the landscape is '*an area, as perceived by people whose character is the result of the action and interaction of natural and/or human factors*'.
- 1.3 The assessment of effects will set out the following:
- ♦ the loss or damage to landscape and built features and the perceived change to the character of the landscape resulting from the proposed development;
 - ♦ the effect of the proposed type of development on landscape and visually related designations;
 - ♦ the extent to which the development would be visible; and
 - ♦ where visible, assessing how the view would change in relation to a range of visual receptors.

2 METHDOLOGY AND ASSUMPTIONS

- 2.1 In order to understand how landscape features, landscape character and views would be affected, the assessment uses an objective approach based on the Guidelines for Landscape and Visual Impact Assessment (GLVIA)¹. The detailed application of these Guidelines, the criteria and categories used, and the assumptions and limitations applied are set out in Appendix 1, Methodology. The assessment determines the significance of the changes to the landscape and views, should the proposed development proceed. This is achieved by first understanding the relative sensitivity of the character of the landscape and the view being experienced and then combining this with the magnitude or extent of change that would result from the proposed development. Changes can be experienced as an adverse, beneficial or neutral influence. Other considerations are also taken into account such as

¹ Guidelines for Landscape and Visual Impact Assessment, The Landscape Institute and Institute of Environmental Management and Assessment, 3rd Edition, April 2013

seasonal variation, direct or indirect effects and comparison of effects in the first year (recycling operations and infilling of inert material) and after a period of 15 years (nine years following completion of the restoration works) once any planting has begun to establish. Reference is also made to any notable changes that would occur during the recycling and infilling works prior to the completion of the restoration works. The GLVIA advises that level of detail provided, should be to a reasonable level, sufficient to determine the likely significant effects. This should be *'appropriate and proportional to the scale and type of development and the type and significance of the landscape and visual effects likely to occur'*.

Assumptions and Limitations

2.2 The following assumptions have been made in respect to the assessment of effects:

- ♦ the assessment Baseline Year is 2019;
- ♦ the assessment is based on Dwg: BAUGEQ-1-1-003/C Proposed Quarry Restoration Plan; BAUGEQ-1-1-004/A Proposed Construction Phasing Plan; and BAUGEQ-1-4-001 Site Sections.
- ♦ the proposed development is regarded as being temporary and medium term for the recycling and infilling works, and permanent and long term for the addition of inert material, restoration, park homes, eco lodges and open space. Whilst the infilling operations is considered would be difficult to reverse, it not anticipated that there would be any desire to reverse this change. With regard to the recycling operations and the installing of park homes and eco lodges these would be fully reversible;
- ♦ existing vegetation will continue to grow at rates appropriate to the location, species and maturity of the vegetation;
- ♦ the proposed tree planting would grow at a rate of approximately 400mm/year and the proposed shrubs/hedge planting at approximately 500mm/year, based on the average expected growth rates for the selected species growing on loamy freely draining slightly acid but bash rich soils with high fertility². Predicted growth is also based on the assumption that no growth will take place in the first year, as the plants adjust to their new growing environments;
- ♦ the receptor for a view from public rights of way, public open space and within a residential property is an adult standing with an eye height of 1.6m;
- ♦ visual effects are assessed on the basis of good visibility. Visual effects can be expected to vary e.g. poor visibility at times of low cloud, rainfall and dusk. At these times a reduction in visual clarity, colour and contrast would be experienced. Reduced visibility would limit the extent of view

² Information based on soils data provided by SoilsCAPES (<http://www.landis.org.uk/soilscapes/>)

possible particularly from mid to long distance views. Consequently, the assessment of effects is based on the worst case scenario, where the proposed development would be most visible; and

- ♦ extent of use of public rights of way is based on: known information e.g. if the right of way forms part of a promoted route at a local or national level, way-marking and signage; and circumstantial evidence at the time of the survey, e.g. recent disturbance of grass and crops, a clearly defined path, extent of wear, and the number of people using the right of way at the time of the survey. The extent of used is based on the number of vehicles observed using the road at the time of the survey and as could reasonably be expected for the class of road.

- 2.3 In undertaking the assessment, other than the Site, private property has not been assessed, as it is generally considered impractical to seek approval to gain access to private properties to assess effect on views. Assessment is therefore based on publicly accessible locations, which will usually be a road or public right of way.

Consultation

- 2.4 Consultation was carried out with Warwickshire County Council (WCC). TLP contacted WCC on 8 May 2019 seeking comments on TLP's suggested Representative Viewpoint locations to form the basis for the assessment of effects on visual receptors. Carolyn Cox provided a response on 16 May 2019 providing landscape feedback on the proposed representative viewpoints. This provided a brief summary of the nature of the proposed development, an overview of public views and recommendations regarding four viewpoints. The response included advise that views of the Site were generally limited to the immediate roads and public footpaths, helped by a strong vegetated screen and bunding around the Site, as well as being restricted within the broader landscape by topography, wooded areas, roadside vegetation and the settlement of Ratley. Nevertheless, there was still considered merit in assessing the suggested longer distance viewpoints. Following a telephone conversation between Graham Farrier and Carolyn Cox to confirm locations and requirements, TLP has followed the recommendations for the four viewpoints, in adjusting the locations of Viewpoints 3, 4 and 5 and adding Viewpoint 7.

3 SITE LOCATION AND SETTING

- 3.1 The Site is located within the administrative areas of Warwickshire County Council, Stratford Upon Avon District Council, and Ratley & Upton Parish Council. Approximately 650m to the south-east lies the administrative boundary with Oxfordshire County Council and Cherwell District Council. The Site lies approximately 7.5kms to the north-west of Banbury, approximately 850m to the south-west of the nucleated village of Ratley, and approximately 700m south of the linear village of Radway (refer to Figure 01 in Appendix 2). Both villages are of local historical value with a number of listed buildings and conservation areas. The Battle of Edge Hill, the Civil War battle, took place just the west of Radway. In close proximity to the Site (approximately 150m) to the north-east lies the hamlet of Edgehill, with

a small concentrated group of building and outlying more dispersed buildings, including the large property of Edgcombe House and extensive grounds to the east of the Site, and Grove End and associated road haulage business to the west (refer to Figure 05 in Appendix 2). To the north-east of Grove End lies an area of allotments. Immediately north of the Site lies a stable block and ménage, associated with large dwelling of Romanys Rest, and a recently constructed agricultural building and area of hardstanding for the storage of military vehicles. Ransford Barn, a stone barn, lies on the eastern edge of the Site, just beyond the site boundary (refer to Viewpoint D in Appendix 2). A road contains much of the eastern Site boundary, with White Bottoms Farm lying just beyond the road. To the south of the Site lies a further large agricultural barn.

- 3.2 The Site is located on a relatively narrow plateau ridge, with the distinctive marlstone escarpment located to the west of the Site and Sor Brook valley to the west. This creates an important area of landform and geology and a distinctive feature and characteristic of landscape. An extensive linear belt of woodland covers much of the escarpment, much of which is ancient woodland (refer to Figure 05 in Appendix 2). Woodland species near to the Site include: predominantly European ash; sycamore; Pedunculate oak; Field maple; European beech; Wych elm; Wild cherry; Common hawthorn; blackthorn; and English holly. More occasional scattered copses and woodlands also occurs on the fringes of Edgehill, within the Sor Brook valley and associated with the gardens and grounds of Upton House. The latter is a Registered Park and Garden lying approximately 650m to the south of the Site. A further Registered Park and Garden, that of Radway Grange, lies mainly at the base of the escarpment, adjacent to Radway village, but also extending to include the escarpment, and at its closest is 50m to the north (refer to Figure 02 in Appendix 2). This area of landscape, including the parklands, settlements and the Site, are located in the very northern corner of the Cotswolds Area of Outstanding Natural Beauty (AONB). The Cherwell District Council's Conservation Target Area extends along the southern valley slopes of the Sor Brook, which seeks to restore biodiversity, through the creation and restoration of UK BAP priority habitats, particularly through addressing habitat fragmentation through linking of sites to form strategic ecological networks.
- 3.3 The Site covers approximately 7.8 hectares, and is a former ironstone quarry of approximately 4-5m deep. Operational quarrying ended a number of years ago, although grading and screening of residual material to utilise quarried stone left within the site is currently taking place. There is no agreed restoration plan for the Site. The area around Edgehill has been extensively quarried for ironstone, part of the Marlstone Rock Formation and often referred to as Hornton Stone (an iron rich limestone), since the 11th century. The stone was used as a local building stone, and in later years iron ore was quarried and transported by the Edge Hill Light Railway to the main line to Banbury. The Site forms the last remaining quarry for Hornton stone, when quarrying ceased in 2004, having been operational for approximately 22 years.

- 3.4 Details of landscape and visually related designations are set out in Table 3.1 and shown on Figure 02 in Appendix 3. The heritage assets are referred to, as these form part of human's influence on the landscape and form part of the character of the landscape. There is also a potential visual influence associated with the heritage assets. However, this report does not consider or assess the effects of the proposed development on the setting of these heritage assets.

Table 3.1: Designations

Designation	Importance	Distance (closest approximate point)
Cotswolds AONB	National	Site lies within AONB
Radway Grange Registered Park and Garden (Grade II*)	National	50m north of the Site
Upton House Registered Park and Garden (Grade II*)	National	650m to the south of the Site
Ratley Conservation Area	District	800m to the north-east of the Site
Radway Conservation Area	District	50m north of the Site
Battle of Edge Hill	National	650m north-west of the Site
Manor Farm Scheduled Monument (motte and bailey castle)	National	750m north-east of the Site
Nadbury Camp Scheduled Monument (slight univallate hillfort)	National	1.9kms north-east of the Site

Cotswolds AONB

- 3.5 The AONB was designated in 1966 in recognition of the quality and value of the landscape. Boundary reviews in 1990 led to a further extension to the AONB and removal of a few small areas. The AONB is a statutory designation indicating the national importance of the landscape and consequently would be expected to be more sensitive to change than other parts of the landscape. Given its importance, it attains a greater weight in terms of planning policy and development control. The AONB is also a living and working environment whose character has been influenced by human changes over many centuries. Any future human changes need to be carefully considered to minimise harm to the unique character of the AONB landscape and provide opportunities to repair damaged/degraded parts and provide other enhancements.
- 3.6 The Cotswold Conservation Board is a statutory body that works to manage and control change within the AONB, seeking to conserve and enhance the natural beauty of the AONB and increase a better understanding and enjoyment of its special qualities. To assist in achieving these aims the Conservation

Board has prepared various publications, including position statements and guidance. Those of particular relevance in guiding the suitability of development within the AONB include the: Cotswolds AONB Landscape Character Assessment, 2004 and Cotswolds AONB Landscape Strategy and Guidelines, June 2016 (refer to Section 4); Cotswold AONB Management Plan 2018-2023; and Woodland Creation and Tree Planting in the Cotswolds AONB – Tree Species and Provenance, June 2017.

Cotswold AONB Management Plan 2018-2023

3.7 The statutory plan sets out the policies for the management of the AONB and actions of the Board to deliver its objectives, as well as informing how public bodies should comply with their statutory duty and guidance on engagement with third parties. One of the key points is to define the special qualities of the Cotswold, known as the Statement of Significance. Those that are considered relevant to the Site (either due to existing landscape context or potential future opportunities) are set out below:

- ♦ *'the unifying character of the limestone geology – its visible presence as natural outcrops, its use as a building material and through the plant and animal communities it supports;*
- ♦ *the Cotswold escarpment, including views from and to the AONB;*
- ♦ *the high wolds – a large open, elevated landscape with commons, 'big' skies and long-distance views;*
- ♦ *river valleys, the majority forming the headwaters of the Thames, with high-quality water;*
- ♦ *dry stone walls, which give the AONB its essential character in many areas;*
- ♦ *internationally important flower-rich grasslands, particularly limestone grasslands;*
- ♦ *internationally important ancient broadleaved woodland, particularly along the crest of the escarpment;*
- ♦ *the tranquillity of the area, away from major sources of inappropriate noise, development, visual clutter and pollution;*
- ♦ *extensive dark sky areas;*
- ♦ *an accessible landscape for quiet recreation for both rural and urban users, with numerous walking and riding routes, including the Cotswolds Way National Trail;*
- ♦ *significant archaeological, prehistoric and historic associations dating back 6,000 years, including Neolithic stone monuments, ancient drove roads, Iron Age forts, Roman villas, ridge and furrow fields, medieval wool churches and country estates and parks.'*

3.8 The Management Plan also sets out the objectives and policies for conserving and enhancing the AONB, and sets out 14 Outcomes that it wants to achieve during the Plan period, and Policies for delivering these Outcomes. In line with current national policy and intentions, Outcome 2 sets out

promoting the need for an understanding, appreciation, conserving and enhancing natural and cultural capital, and ecosystem services. Policy CC4 provides one of the policies to deliver this, with item 4 being of relevance to the proposed development, namely *'proposals affecting the Cotswolds AONB should have regard to – and seek to conserve and enhance – the natural and cultural capital of the AONB and the ecosystem services that they provide'*.

3.9 Outcome 4 seeks to achieve a better understanding, conserving and enhancing of landscape character, scenic quality and geological features. This is covered by Policies CE1: Landscape and CE2: Geology. Of particularly relevance to the Site and the proposed development are the first two points covered in Policy CE1, which form key considerations for this LVIA. These are as follows:

- ◆ *Proposals that are likely to impact on, or create change in, the landscape of the Cotswolds AONB, should have regard to, be compatible with and reinforce the landscape character of the location, as described by the Cotswolds Conservation Board's Landscape Character Assessment and Landscape Strategy and Guidelines.*
- ◆ *Proposals that are likely to impact on, or create change in, the landscape of the Cotswolds AONB, should have regard to the scenic quality of the location and its setting and ensure that views – including those into and out of the AONB – and visual amenity are conserved and enhanced.*

3.10 Outcome 6 and Policy CE4 relate to tranquillity and Outcome 7 and Policy CE5 relate to dark skies. These seek to conserve and enhance tranquillity and the dark skies, by avoiding or minimising noise, visual and light pollution. Measures should be sought to enhance tranquillity and dark skies, where possible, by removing existing noise, visual and light pollution.

3.11 Outcome 8 and Policy CE6: Historic Environment and Cultural Heritage seeks to ensure that there is a better understanding of heritage assets and the historic environment, and that they are conserved and enhanced. Outcome 9 and Policy CE7: Biodiversity deals with the need prevent the loss of priority habitats and species and that previous losses are reversed, whilst also creating a robust and resilient ecological network. In relation to the proposed development, this can be achieved through the creation of new wildlife sites and connectivity with existing wildlife sites.

3.12 Outcome 11 relates to Development and Transport seeing these as opportunities to play a key role in conserving and enhancing the natural beauty of the AONB and increasing an understanding and enjoyment of its special qualities, whilst benefiting the economic and social well-being of AONB communities. Policy CE10 sets out the principles for achieving this. Development should comply with national planning policy and guidance, and accord with the: Cotswolds AONB Landscape Strategy and Guidelines; Cotswolds AONB Landscape Character Assessment; Cotswolds AONB Local Distinctiveness and Landscape Change; Cotswolds Conservation Board Position Statements. Policy CE11 sets out the requirements for Major Development, including the need for a landscape-led approach and

demonstrably showing that the proposals contribute to conserving and enhancing the natural beauty of the AONB and, where appropriate, lead to the understanding and enjoyment of its special qualities. Appendix 9 of the Management Plan defines what should form the basis for determining whether a development is 'major'. This is described as '*if, by reason of its nature, scale and/or setting, it could have a significant adverse impact on any of the above criteria, including the AONB's special qualities*'. Criteria relating to natural beauty are defined as including '*landscape quality, scenic quality, tranquillity, natural heritage and cultural heritage*'. Based on this definition and our assessment, TLP do not consider the proposed development is a major development.

- 3.13 Outcome 13 and Policy UE2 deals with Access and Recreation and the desire to improve provision and promote appropriate access and recreational opportunities for all sectors of society to appreciate and enjoy the special qualities of the AONB. Provision of access and recreational opportunities should not have an adverse impact on the AONB.

Position Statement on Tree Species and Provenance

- 3.14 The Statement³ sets out the Board's position on woodland creation, restocking and individual tree planting, recommending that future tree planting should seek to retain the character of the existing Cotswold woodlands, whilst considering species diversity, genetic diversity and assisted migration. In relation to provenance, the following advice is given:

'woodland creation and restocking after felling should comprise 1/3 of trees from selected seed sources from the same Region of Provenance as the site to be planted (403 and 404 for the Cotswolds), 1/3 from the region to the south (404 and 305) and 1/3 from northern France to increase resilience to climate change as recommended by the Forestry Commission. Importing tree stock or seed should follow current biosecurity measures'.

- 3.15 The extension and linking of ancient woodlands, should use native species that are present within existing Cotswold native woodlands, including naturalised species such as sycamore if already present within the ancient woodland. A wider range of species are considered suitable where the planting would provide a new stand-alone plantation, ideally reflecting the character of Cotswold woodlands. Two types of indigenous woodlands are present within the Cotswold, that of beech woodland and ash-maple-hazel woodland. Individual trees in hedgerows, parkland, fields or village greens are also an important part of the character of the AONB. These tend to be native oak, ash and beech, but also non-native horse chestnut, sycamore and cedar.

³ Woodland Creation and Tree Planting in the Cotswolds AONB – Tree Species & Provenance, June 2017, Cotswolds Conservation Board

4 LANDSCAPE CHARACTER

National

- 4.1 Natural England has divided England into 159 distinct National Character Areas that define the landscape at a national scale. The Site lies within the south-western corner of National Character Area (NCA) 95 Northamptonshire Uplands, close to the boundary with NCA 96 Dunsmore & Feldon. NCA 95 is characterised by a number of characteristics that are present within the local and wider landscape around the Site. It is comprised by a great variety of landform, including gently rolling and rounded hills and valleys, with long low ridgelines. This is formed by the dominant scarp slope of limestone, and clay hills capped locally with ironstone-bearing marlstone. Generally sparse woodland cover, but characterised by scattered, visually prominent woods, copses and coverts, some ancient, particularly on higher ground. Mixture of arable and pasture farming within a typical 'planned countryside', with largely rectangular, enclosed pattern of high hedgerows of predominantly hawthorn and blackthorn, with many mature ash and oak hedgerow trees. Lowland dry grasslands within the valleys. Nucleated villages, often on hill tops and at valley heads. Dense network of narrow lands with wide grassy verges following ridges. Many historic houses, parks and gardens and long distance paths. Statement of Environmental Opportunity (SEO) 4 is considered relevant to the proposed development:

SEO 4: Conserve, maintain and promote local building styles and materials and plan strategic growth, infrastructure development and mineral extraction to ensure they protect remaining areas of high tranquillity, strengthen local sense of place and biodiversity, and increase adaptation for climate change through multifunctional green infrastructure networks, building on existing resources such as canals, rivers and access routes, creating strong ecological and recreation networks.

County

- 4.2 A number of different Landscape Character Assessments have been undertaken at different scales, level of detail, and over different periods of times. This consequently influences their usefulness and applicability in the context of the location and scale of the Site and proposed development. At the county scale, the Warwickshire Landscape Project provided an exemplar for landscape character assessment when it was prepared, which resulted in the publication of the Warwickshire Landscape Guidelines in November 1993. However, this is now a dated study and is of a sufficiently large scale that it mainly provides a summary overview and context. The Site is located within the Cotswold region, within the Plateau Redlands and Edge Hill. This is characterised by '*a rich agricultural landscape of red soils and small ironstone villages lying on a flat, but deeply incised tableland*'. Characteristic features include: flat tableland with deeply incised steep sided river valleys; steep wooded slopes on the edge of the marlstone escarpment; large arable fields; unimproved grassland and scrub on steep valley slopes; and small nucleated villages. The management strategy is to '*enhance the unity of the landscape by restoring traditional land use patterns*'. Relevant guidelines for the Cotswolds region

include: new or replacement woodland planting should be predominantly broadleaved and favour beech with oak and ash as the major tree species (NB: the subsequent outbreak of ash dieback has resulted in the moratorium of planting ash in the UK), but also including Wych elm, Field maple and alder. In relation to Plateau Redlands and Edge Hill, relevant guidelines include: conserve and restore all primary hedgelines and manage them more positively as landscape features; new woodland planting should be targeted along valley sides and steep slopes around the fringes of the marlstone tableland.

- 4.3 Within the adjoining authority of Oxfordshire, a landscape character assessment has also been undertaken. However, this does not extend to include the Site. The assessment identified two neighbouring Landscape Character Types: Farmland Plateau, characterised by a high limestone plateau with a distinctive elevated and exposed character, broad skies and long distance views, and large scale arable fields, with some medium-sized plantations partially obscuring the otherwise open views; and Wooded Pasture Valleys and Slopes that includes pastoral and wooded landscapes associated with the steep slopes and valleys of streams and main rivers.

District

- 4.4 Within Stratford-on-Avon the assessment of landscape character is covered by the Countryside Design Summary, based on the Warwickshire Landscape Guidelines, was published in November 1993. Consequently, this provides a similar but more defined assessment of landscape character. This identified the Site as being located within the Cotswold Fringe region and within the Ironstone Plateau and Valleylands. A further brief outline of landscape character is also included within the Stratford-on-Avon District Design Guide, April 2001. In Cherwell the assessment of landscape character is covered by the Cherwell District Landscape Character Assessment (CDLCA)⁴. The Site is identified as lying within the Incised Ironstone Plateau (refer to Figure 03 in Appendix 3), characterised by the relatively high and level or gently rolling plateau, with the tributaries of the Sor Brook cutting into the plateau to form a series of parallel valleys. The plateau tops are formed primarily by an exposed area of rough grazing, with some arable farmland. Fields tend to be large, with hedges being low and closely trimmed or replaced with fences. The landscape is often very open with long views down the valleys. The valleys are predominantly pasture, with some slopes formed by a patchwork of small fields, together with areas of rough grazing and scrub. Quarrying has had a considerable impact upon the landscape, although largely ceased in the 1960s. There are no special features that relate to the neighbouring landscape within the context of the Site.
- 4.5 These are now dated studies and only provide a limited description and definition of landscape character, and lack any assessment of strength of character, condition, strategies and guidelines. However, as the Cherwell Landscape Character Assessment provides only assessment at a finer scale

⁴ Cherwell District Landscape Character Assessment, Cobham Resource Consultants for Cherwell District Council, November 1995

applicable to the Site, this forms the basis for the assessment of effects in relation to the neighbouring landscape to the south-east of the Site.

- 4.6 A further study was undertaken by White Consultants, in association with Steven Warnock, on behalf of Stratford-on-Avon District Council in June 2012, entitled Special Landscape Areas Study. This provided an assessment of former Special Landscape Areas (SLAs) and guidance on the creation of candidate SLAs. The nearest former and candidate SLA to the Site is the Ironstone Hill Fringe. However, this is sufficiently distant from the Site, as to not be affected by the proposed development and was not considered further as part of this assessment. The study also utilised Landscape Description Units (LDUs), which were available at the time, providing a representation of Landscape Types in specific locations. The LDUs extended to covers of the landscape beyond the former and candidate SLAs, including the Site, and therefore have relevance. The study included an assessment of LDU Natural Sensitivity, where the Site is located within an area of Low Natural Sensitivity, and LDU Cultural Sensitivity, where the Site is located within an area of Disturbed Cultural Sensitivity.

Cotswolds

- 4.7 An assessment of landscape character has also been prepared for the Cotswolds AONB⁵, being published in 2004 it provides a more update survey, in comparison to the county and district assessments, as well as providing a more detailed description of landscape character and provision of landscape strategies and guidelines. Consequently, this assessment provides most useful and relevant assessment relating to the Site and landscape of the AONB, particularly given the greater associated landscape value associated with the AONB.
- 4.8 The assessment identifies the Site as being located within Landscape Character Type (LCT) 7 High Wold and Landscape Character Area (LCA) 7G Edgehill Ironstone Plateau (refer to Figure 03 in Appendix 3). Two other LCTs / LCAs adjoin, which are of relevance and importance in the context of the Site and the proposed development, namely: LCT 2 Escarpment and LCA 2G Edge Hill; and LCT 6 Ironstone Hills and Valleys and LCA Ratley Hills and Valleys.
- 4.9 The key characteristics and landscape sensitivity that relates to the Landscape Character Areas (LCAs) of the Cotswolds AONB and Cherwell within the vicinity of the Site are set out in Table 4.1.

⁵ Cotswolds AONB Landscape Character Assessment, Cotswolds Conservation Board, 2004

Table 4.1: Landscape Character Sensitivity

Landscape Character Area	Relevant Key Characteristics, Condition & Sensitivity, and Guidelines	Landscape Sensitivity: Value	Landscape Sensitivity: Susceptibility to Change from Quarry Restoration	Overall Landscape Sensitivity
7G High Wold: Edgehill Ironstone Plateau	<ul style="list-style-type: none"> ♦ The High Wold LCT is characterised by broad, elevated, gently undulating plateau area, dissected by a network of dry valleys. Predominantly arable with some pasture/grass leys. Large scale regular fields enclosed by stone walls and hedgerows. Small to moderate sized geometric woodlands, including small coniferous and broadleaved plantations, and plantations along roads. Small stone built villages and hamlets, mainly within the valleys, and isolated farmstead and dwellings. Evidence of long periods of occupation, with occasional active but mainly disused limestone quarries, both large and small, located across the High Wold. The quarries are significant features of the High Wold and testimony to the importance of the bedrock as a building material. Quarried stone is used to create distinctive local vernacular. Expansive long distance views across the open plateau and to distant hills beyond the Severn Vale. ♦ The LCA contrasts with other parts of the High Wolds, due to being located on the marlstone strata, forming a narrow but distinct plateau area. The land is very flat at a height of approximately 215m AOD. Mainly arable with some pasture. Rectangular fields enclosed by mainly clipped, well managed hedges with intermittent hedgerow trees. Upton House forms an impressive feature. Associated mature woodland influences the local character providing a strong sense of enclosure in an otherwise open landscape. 	Very High	Medium	High
2G Escarpment: Edge Hill	<ul style="list-style-type: none"> ♦ Edge Hill forms part of much longer escarpment that defines the LCT. This is characterised by steep exposed and elevated west facing scarp slope, partly covered in semi-natural broadleaved woodland, with the remainder being pasture and calcareous grassland. Distinctive linear beech hangers at the summit of the scarp. Woodland, hedgerows, scrub and isolated trees give the impression of a well treed landscape. Dramatic panoramic views over the Severn Vale and beyond. Rock outcrops often identify the location of former quarries. Small scale settlements confined to lower slopes. Numerous prehistoric sites and intermittent historic parks and gardens. ♦ Distinctive section of the escarpment, where the slopes are generally steep but not high, between 140-200m AOD. The geology differs from the main Cotswolds escarpment, being formed from Lias Group (clays, mudstone and limestones) and capped with marlstone. ♦ The presence of marlstone has led to it becoming an important local sourced building stone, giving the local buildings a distinctive warm colour. ♦ Lower slopes are broad, gently sloping and agriculturally improved, but coming less improved and more extensively grazed on the steeper upper slopes. ♦ The typical beech woods are not present within this part of the escarpment, due the variation in underlying geology, being replaced with large mixed woodland along the upper steeper slopes. In other parts, the escarpment is more open, formed of large irregular grazing fields, enclosed by gappy hedges. 	Very High	Very High	Very High

Landscape Character Area	Relevant Key Characteristics, Condition & Sensitivity, and Guidelines	Landscape Sensitivity: Value	Landscape Sensitivity: Susceptibility to Change from Quarry Restoration	Overall Landscape Sensitivity
	<ul style="list-style-type: none"> ◆ Very little settlement, with farms and villages such as Radway, being located at the foot of the scarp. ◆ Radway Tower lies at the top of the escarpment overlooking the former Civil War Battle of Edge Hill, for which the Tower commemorates, and also forms part of the Radway Grange 18th century landscape garden. 			
6B Ironstone Hills and Valleys: Ratley Hills and Valleys	<ul style="list-style-type: none"> ◆ The Ironstone Hills and Valleys lies only within the very northern part of the AONB. It is characterised by a complex topography of steep sided valleys, rolling ridgelines and hills. Predominantly arable farmland with some pasture, with medium to large rectilinear fields, enclosed by hedgerows with frequent hedgerow trees. Limited woodland, with the exception of occasional large stands of ancient woodland. Intermittent nucleated villages and hamlets, farmsteads and individual buildings, with use of Hornton stone, providing distinctive appearance and vernacular character. Long occupation of the land and strong sense of human influence. ◆ Reference is made to Hornton Quarry at Edge Hill as still being operational (this could be referring to the Site, although the Site is known as Edgehill Quarry) and other former quarries such as at Shenington / Alkerton which was used for landfill. These are noted as having a limited impact on the AONB. ◆ Small character formed from the plateau, with an upper level of 200m AOD, and slopes below. The southern section is strongly convoluted and incorporates the formal planned parkland layout of Upton House. The northern part is focused around the ironstone village of Ratley, with associated heritage assets of the motte and bailey castle, and Nadbury Camp iron age earthwork. It is dissected by the deeply incised valley of the Sor Brook. 	Very High	Medium	High
Incised Ironstone Plateau	<ul style="list-style-type: none"> ◆ Simple gently rolling plateau landscape, with ridges and valleys, formed on the layer of marlstone. Heights vary between 120 – 200m AOD. The tributaries of the Sor Brook have cut down through the plateau to form a series of parallel valleys. The exposed plateau tops are used for rough grazing, with some of the gently sloping areas used for arable farmland, and steep valley sides used for pasture. Fields tend to be large, with hedges low and closely trimmed. Uplands are very open with long views down the valleys. The influence of Hornton stone as a building material and the quarries required for its extraction have had considerable impact on the landscape. Disused workings are still to be seen around Shenington but are also being used for landfill, which are unsightly but not closely overlooked. ◆ The LCA incorporates large parts that are assessed as requiring restoration or repair, with some areas of conservation and reconstruction. 	Medium	Medium	Medium

4.10 The Cotswold AONB Landscape Character Assessment also sets out a detailed list of Landscape Strategies & Guidelines for each LCT. Those relevant to the Site relate to the Landscape Strategies and Guidelines for LCT 7 High Wold. The guidelines that TLP consider have related relevance to the proposed development are set out below. These form a basis for the design of the completed restoration proposals.

- ♦ ***New Development - expansion and infilling of settlements within and on to the High Wold, including residential, industrial and leisure:*** maintain the open, sparsely settled character of the High Wold by limiting new development to existing settlements. Avoid development that will intrude negatively into the landscape and cannot be successfully mitigated, for example, extensions to settlements on visible hillsides. Ensure new development is proportionate and does not overwhelm the existing settlement. Ensure that new development does not adversely affect settlement character and form or impact on views of key features such as church towers. Retain existing trees, hedges etc as part of the scheme. Ensure new development is integrated into its surroundings. Break up harsh edges of new development with appropriate and adequate tree planting ideally in advance of the development taking place. Adopt measures to minimise and where possible reduce light pollution. (NB: It is considered more likely that type of development that this guidance applies to, relates more to traditional built development, such as houses and built leisure facilities, and therefore would be less or not applicable to the proposed development. That said, the proposed development would not adversely affect the settlement of Edgehill, being separated by the area of woodland on the edge of the settlement. The proposals retain existing trees and hedges and has been designed to integrate into its surroundings).
- ♦ ***New Development – Licensed Waste Disposal (including waste recycling operations):*** Avoid importing waste into the AONB. Ensure small scale local waste disposal operations continue to operate with minimal impact. Support proposals for local waste recycling that do not impact on landscape character or tranquillity and reduce vehicle movement, especially distance travelled.
- ♦ ***Land Use – lack of appropriate management in disused quarries:*** Identify disused quarries important for biodiversity and/or geology. Encourage appropriate management by providing advice and guidance. Seek planning conditions to ensure quarry restoration and aftercare benefit landscape and biodiversity, particularly unimproved grassland.
- ♦ ***Woodland and Trees – creation of woodland and geometric farm copses and shelterbelts:*** extend or link existing woodland in preference to new 'stand-alone' plantations. Have regard to the cumulative impact of woodland creation and tree planting on the open character of the High Wold. Select species characteristic of ancient semi-natural woodland in the area. Ensure that new woodland planting does not limit or obscure views to and from and across the High Wold. Ensure new woodlands respond to the scale and form of existing High Wold woodlands. Locate new woodland and copses in historically characteristic topographical locations including their relationship to farmsteads and settlements. Discourage conifer planting (unless a nurse) and encourage the use of native broadleaves or species that reflect local broadleaved woodland. Identify key viewpoints.

- ♦ *Woodland and Trees – impact of tree diseases such as Chalara Dieback of ash: recommend alternative species to ash that reflect the appearance and structure of Cotswold woodland. Consider different provenance of ash that may be disease resistant.*

4.11 The importance of tranquillity is referred within the context of the Cotswold AONB Landscape Strategies and Guidelines for LCT 7 High Wold and within the Management Plan, in particular in relation to Outcome 6 and Policy CE4. Accordingly, reference should be made to the Noise Report prepared by LF Acoustics which sets out the noise levels of the proposed development and the effects on tranquillity.

5 SITE FEATURES

5.1 The Site is formed by the existing quarry that defines much of its character. Consequently, the landscape is of a disturbed nature, with a heavily modified landform comprising quarry cut faces, residual quarried material and spoil mounds of approximately 3-4m height. Former quarrying plant and vehicles remain on the Site, together with portacabins used for office and welfare facilities. Areas of residual quarried material left within the Site, continue to be worked. The only landscape features of note are those along the Site boundaries. These comprised hedges along section of the western boundary adjacent to the road, and the eastern and southern boundaries. Hedges are approximately 4m in height and comprise mainly hawthorn with some blackthorn, together with hedgerow trees. Along the western boundary adjacent to the road, trees are elm and sycamore, with the hedgerow set on a 1m high bund. Further to the north, the western boundary is predominantly open, being limited to demarcation with a post and rail fence. Along the southern boundary, scattered elm and sycamore of approximately 5-6m height are present. Along the eastern site fringe is a belt of aspen to the southern end, with some ash and Goat willow, established as self-set vegetation, increasing in height from approximately 5m on the inner edge to approximately 14m on the outer edge of the Site. This forms a dense stand of vegetation, with a leggy upright form. Towards the centre of the eastern fringe is a double row of Field maple, with some sycamore, hornbeam, ash and oak, and a row of Small-leaved limes growing within the highway verge, with heights varying between approximately 10-14m. Beyond a disused stone barn, to the north of the eastern fringe, the vegetation become more scrubby in nature and between 5-8m in height. The northern boundary is open, although an area of woodland of approximately 15m lies in close proximity between the Site and Edgehill. The northern boundary next to the Site entrance is demarcated by a post and rail fence and formed by a row of hybrid poplar of approximately 10-12m in height.

5.2 The sensitivity of the Site landscape features are set out in Table 6.1.

Table 6.1: Site Landscape Features

Site Feature	Description	Landscape Sensitivity: Value	Landscape Sensitivity: Susceptibility to Change from Quarry Restoration	Overall Landscape Sensitivity
Landform	<ul style="list-style-type: none"> Landform is a key feature within the surrounding landscape and is important within this part of the AONB. However, within the Site it has been much altered and damaged as a result of the quarrying works, and consequently does not reflect the surrounding landform. Levels vary across the Site, but are typically 4-5m below the surrounding landform. Quarry faces and spoil mounds form a residual element of the landform. 	Very High	Very High	Very High
Vegetation	<ul style="list-style-type: none"> Limited presence of vegetation within the central parts of the Site. Apart from some small areas of scrub and fragments of remaining grassland, the main vegetation are the hedges and trees that form the fringes of the Site. The hedges and tree belts are largely continuous and of good condition and provide enclosure for the Site. Self-set trees are healthy but in need management. 	Medium	Medium	Medium
Land Use	<ul style="list-style-type: none"> Existing quarry. Typical of this part of the landscape, forming part of the history of the landscape, resulting in the provision of building stone that now forms a distinctive part of the local built character. However, quarries have had a locally damaging effect on the landscape, forming a detractive feature and are assessed as having a low value but high susceptibility to change from restoration. 	Low	High	Medium

6 VIEWS

6.1 Figure 04 in Appendix 3 illustrates the location of the Representative Viewpoints. These represent the main visual receptors likely to be affected by the proposed development, covering a range of geographical locations and receptor types. The sensitivity of visual receptors to change from each of these viewpoints is set out in Table 6.1.

Table 6.1: Visual Receptor Sensitivity

View & Location	Receptor Type	Description	Visual Sensitivity: Value	Visual Sensitivity: Susceptibility to Change from Quarry Restoration	Overall Visual Sensitivity
Viewpoint 1: Unclassified Road south of Edgecombe House, Edgehill	Road User	<ul style="list-style-type: none"> View leaving Edgehill from the south-east, approaching the Site. Trees and mature hedgerows enclose both sides of the road, restricting views to the road corridor. It would be expected that some very filtered views would be possible into the Site in winter. The edge of the woodland between Edgehill and the Site is visible immediately to the right of the visual receptor. 	Medium	Medium	Medium
Viewpoint 2: Unclassified Road south of Romanys Rest, Edgehill	Road User	<ul style="list-style-type: none"> View leaving Edgehill from the south-west, approaching the Site. Hedge and hedgerow trees contain views to the road. The top of 10-12m high hybrid poplars are visible on the boundary of the Site, within a gap within the roadside hedge. It would be expected that some very filtered views would be possible into the Site in winter. 	Medium	Medium	Medium
Viewpoint 3: Centenary Way & Macmillan Way, Public Footpath 287/SS24/1	Walker	<ul style="list-style-type: none"> View represents a section of Centenary Way and Macmillan Way follows the very edge of the woodland allowing open views towards the Site. Hedges and hedgerow trees along the adjoining unclassified road and the western Site boundary restrict views to the foreground and adjacent grass field. 	Medium	High	High
Viewpoint 4: Centenary Way and Macmillan Way, Public Footpath 287/SS24/1	Walker	<ul style="list-style-type: none"> Typical view for much of this part of Centenary Way and Macmillan Way along this part of the escarpment. The footpath follows the top of the escarpment, set within the woodland edge. Slope falls steeply to the left of the walker. The levels along the footpath vary along this section, but are typically just below or the same level of the adjoining landform beyond the woodland. The scrub and trees to the right of the viewer restrict views beyond to glimpsed views. In winter, filtered views would be possible to the adjacent roadside hedgerows. 	Medium	High	High
Viewpoint 5: Upton House Public Car Park & Public Footpath 256/SM177/2	Road User, Walker	<ul style="list-style-type: none"> View leaving the Upton House public car park approaching the A422. The view is shared by walkers using the public footpath. The boundary of Upton House Registered Park and Garden is demarcated by the stone wall to the right of the viewer. Woodland lies beyond containing the view to the right. Hedges and a number of large trees contain much of the view to the foreground. The ground also rises slightly further restricting views beyond the A422. 	Medium	High	High
Viewpoint 6: Public Footpath 287/SM168a/1	Walker	<ul style="list-style-type: none"> Distinctive view over the head of the steep sided Sor Brook valley. Mixture of smaller fields of pasture and larger arable fields, with scrub on the adjoining steepest sections of the valley. Skyline is defined by woodland and trees. Woodland to the south of Edgehill and within the grounds of Edgecombe House, surround and contain the settlement. Trees along the eastern edge of the Site and along the unclassified road, form an additional notable feature on the horizon. 	Medium	High	High

View & Location	Receptor Type	Description	Visual Sensitivity: Value	Visual Sensitivity: Susceptibility to Change from Quarry Restoration	Overall Visual Sensitivity
Viewpoint 7: Public Footpath 287/SM168/2	Walker	<ul style="list-style-type: none"> ◆ Foreground defined by the arable field on the plateau edge. ◆ Woodland within the grounds of Edgecombe House and to the south of Edgehill form a notable feature on the horizon containing views towards the Site. To the left of the view, the view extends further across the arable farmland on the plateau. 	Medium	High	High
Viewpoint 8: Public Footpath 287/SM168/3	Walker	<ul style="list-style-type: none"> ◆ Steeply sloping head of a local tributary of the Sor Brook creates a varied landform in the fore to mid ground. Characterised by pastoral farmland, with small fields enclosed by mature continuous hedgerows. Hedgerow trees are typically small to medium in size, except for two notable mature trees in the foreground. ◆ Views are contained to the local tributary valley on the edge of Ratley. Mature trees, scrub and hedges to the right of the view are typical of the vegetation that contain much of the southern edge of the village. 	Medium	High	High
Viewpoint 9: Public Footpath 287/SM167/1	Walker	<ul style="list-style-type: none"> ◆ Set within valley floor of the Sor Brook, with the view extending over the large adjoining arable field. ◆ The distinctive rolling landform of the Sor Brook valley is evident within the view. The view is more open in comparison to other parts of the valley, but nevertheless is still fairly well contained by the changes in landform and trees and hedgerows on the horizon. 	Low	High	Medium
Viewpoint 10: Public Footpath 255/2	Walker	<ul style="list-style-type: none"> ◆ Broad sweeping view of the Sor Brook valley from the adjoining plateau edge. Mixed arable and pastoral farmland, with well-defined field pattern, defined by mature hedgerows and trees. The Sor Brook is defined by a line of trees and scrub. ◆ The village of Ratley is discernible on the far valley side, enclosed by woodland and mature trees. Woodland around Edgehill is also evident. These areas of woodland, together with the tree belt along the eastern edge of the Site and other mature trees within the plateau, creates a well-defined wooded/treed skyline for much of the view. 	Low	High	Medium
Viewpoint 11: Macmillan Way, Public Footpath 287/SM166b/2	Walker	<ul style="list-style-type: none"> ◆ Distinctive steep sided and rolling landform of the Sor Brook and its tributaries form a strong character to the view. A strong pastoral farmland setting forms the fore to mid ground, with evident ridge and furrow on the adjoining valley side. ◆ Mature trees on the boundary of Lockhill Farm, on the eastern edge of Ratley, form the skyline. More distant woodland around Edgehill extends the influence of trees on the horizon. 	Medium	High	High
Viewpoint 12: Macmillan Way, Public Footpath 287/SM166b/2	Walker	<ul style="list-style-type: none"> ◆ Broad sweeping view over the rolling valleys of the Sor Brook and its tributaries. Subtle variations in the landform are highlighted by the field pattern and larger more open arable fields. Continuous hedges with numerous hedgerow trees define the field boundaries and add to the character of the view. ◆ The plateau and associated woodland around Edgehill form a distant part of the view. 	Medium	High	High

7 PROPOSED DEVELOPMENT

7.1 The site is an existing quarry, where there has been historic mineral extraction, but this is no longer active as a quarry and has no approved restoration scheme. The proposals are to restore the Site to a similar landform prior to mineral extraction and enable it to be brought back into a beneficial use. The former quarry will be infilled with recycled inert material (demolition waste and soils). The proposed development would be located wholly within the void created by the mineral extraction. The recycling operation would be located at the south-western end of the quarry. The scale and character of the infilling and recycling operations would be similar to that which occurred with the previous mineral extraction. The infilling and restoration would be completed within six years. The proposed recycling operations and infilling of the quarry, would be based on the following elements:

- ♦ **vehicular access:** to be taken off the unclassified road, at the existing access into the quarry, with an access track following parallel to the road to connect to the proposed recycling area. No other access point into the Site is required. Consequently, the existing hedges within the Site will be retained. Some scrub encroachment has occurred within the highway verge that will need to be removed to improved forward visibility at the access into the Site. Access road to be constructed of tarmac or concrete, with low level timber pedestal lights positioned in a staggered arrangement along the access road;
- ♦ **the recycling area:** would be 10,026m², located within the western part of the Site, within the base of the quarry. A landscape / noise attenuation bund would be constructed to a height of 4-5m along the northern, eastern and southern boundaries of the recycling area, which together with the roadside embankment would enclose the area. Facilities would include screeners, picking tables and a crushing plant, wheel wash, and downlighting at a height no greater than the surrounding bunds and landform. Lights to be downward facing LED floodlights with shields to prevent upward dispersal of light. Lights to be used during working hours, and thereafter to operate as security lights using PIR sensors;
- ♦ **plant/machinery:** to be used in the recycling and infill operations are expected to include the following: case shovel 921C - 3.56m high (4.3m high - elevated bucket); Komatsu 20 ton excavator 3.035m high (3.39m high top of boom); Terex Finlay 883 3 way split screener - 4m high operational; Nordberg Commander screener - 4.48m high operational; 3 ton forklift (standard) - 2m high; cat telehandler - 2.47m high (typical); picking machine 3.08m high; Zellermyer loading shovel - 3.335m (typical); wheel washing plant - 1.5m-2m high (typical); Powerscreen Premiertrak 300 Crusher; and
- ♦ **infilling:** will use inert waste material recovered from the recycling operation and spread in four phases, with the initial phase to create an ecological embankment along the southern fringe of the Site, second phase infilling the north-eastern area, the third phase infilling most of the remainder of the Site, and then finally infilling within the recycling area. Once infilling operations

are completed a further layer of subsoil and topsoil would be spread over the infill material and contoured to reflect the surrounding and previous landform.

7.2 Approximately half of the restored Site would provide an area of green space with landscape and ecological enhancements, and informal recreational use. Residential Park Homes and Eco lodges are proposed within the north-eastern and central part of the site. The proposed development seeks to create a diverse range of habitats and biodiversity, including priority habitats and species, and enable the extension of ecological networks. The proposals for the restored Site incorporate the following:

- ♦ **Park Homes:** 29 park homes for residential use would be located within the north-eastern part of the Site irregularly arranged and broken up by clumps of native tree planting, and six dispersed eco lodges for residential use arranged as a cluster within the centre of the Site with varied orientations, together with scattered clumps of trees. All park homes will be two bedroom, utilising two different styles and to a high built standard and specification. Whilst there would be small variations in the sizes of each type of park home and eco lodge, they are typically 15 x 7m with a height of 3m. These would be constructed with a timber frame and elevations completed in either horizontal and vertical solid timber cladding or painted composite with a timber appearance;
- ♦ **access track:** four metre wide permeable pavers or tarmac access road to provide vehicular access from the entrance off the unclassified road to the west to serve the Park Homes and Eco Lodges. An existing access that was previously used as the main site access will be reinstated but for use by emergency vehicles only. The access road would provide access to the park homes to the north-east of the Site, following a serpentine loop, and access to the eco lodges. Two parking spaces would be provided for each park home, six parking spaces would be provided along the access road for the eco lodges within the centre of the Site, together with a further ten visitor parking spaces. Pedestrian access to these eco lodges would be via informal crushed stone paths. Low level timber pedestal LED lighting would be intermittently positioned in a staggered arrangement along the access road, operated through timers and PIR sensors;
- ♦ **wetland:** eight small waterbodies would be set within an area shallow wetland to the south-west of the Site. The wetland would be planted with native marginal aquatics and managed to provide an area of ecological diversity;
- ♦ **rock face:** southern rock face to be retained and left to naturally colonise, with adjoining sloped embankment with varied profile and bank steepness for ecological biodiversity;
- ♦ **woodland and scrub:** outer fringe of existing tree belts along eastern boundary to be retained and inner self set fringe to be removed. Broadleaved woodland would be provided within the western and eastern fringes of the Site. This would act as an extension of the woodland along the escarpment, connecting with the short tree belt extension that extends up to the unclassified road. The existing tree canopy does extend across the road, so in time the proposed trees could

provide canopy closure across the road. There would also be visual connection and extension of the woodland. The proposed woodland belt to the east of the Site is separated in order to retain some openness through the Site. Both belts are aligned on an approximate north-south axis, so when seen from the east would be visually experienced as part of the existing woodland along the escarpment, but would also retain a more open aspect when viewed from the south. New areas of native scrub would be established along the edges of the proposed woodlands and irregularly dispersed small areas of scrub and native tree groups would be located throughout the Site, to increase habitat variety and to visually break up the massing of the proposed park homes and eco lodges. Proposed woodland species would include: *Acer campestre* (Field maple); *Quercus robur* (Pedunculate oak); *Fagus sylvatica* (European beech) *Ulmus glabra* (Wych elm); *Prunus avium* (Wild cherry); Common holly (*Ilex aquifolium*); *Crataegus monogyna* (Common hawthorn); and *Corylus avellana* (Common hazel). Scrub to include: *Crataegus monogyna* (Common hawthorn); *Cornus sanguinea* (Common dogwood); and *Euonymus europaeus* (European spindle). Individual trees would include *Tilia cordata* (Small-leaved lime);

- ♦ **hedgerows:** existing hedges would be retained. New native hedgerow and hedgerow trees would also be planted along the northern and part of the western boundaries, to replace hedgerows previously removed. Additional native hedge planting would be created through the centre of the Site, along the southern fringe adjacent to the rock face. Species will include: *Crataegus monogyna* (Common hawthorn); *Corylus avellana* (Common hazel); *Prunus spinosa* (Blackthorn), with Pedunculate oak and Field maple trees; and
- ♦ **grassland:** creation of flower rich calcareous grassland, neutral grassland, and legume-rich grassland, with areas managed differently to maximise biodiversity and to provide semi-amenity and informal recreation.

8 EFFECTS ON LANDSCAPE CHARACTER AND LANDSCAPE FEATURES

8.1 The assessment of the effects on landscape character is most appropriately considered in relation to the Cotswolds AONB Landscape Character Assessment and CDLCA. The effects on the LCAs within these Assessments are set out in Table 7.1. An overview is also provided as how the proposed development relates to the guidelines for landscape character at a national and county scale.

Table 7.1: Effects on Landscape Character Areas

LCA	Sensitivity	Description of Effect	Year 1 – Winter					Year 15 - Summer				
			Size/ scale	Geograph. Inf.	Duration/Rev	Magnitude	Significance	Size/ scale	Geograph. Inf.	Duration/Rev	Magnitude	Significance
7G High Wold: Edgehill Ironstone Plateau	High	<ul style="list-style-type: none"> The existing quarry forms part of the landscape that reflects human’s influence on this part of the marlstone plateau, resulting in the distinctive local buildings. The quarry within the Site, like other quarries within the locality have come to the end of their working life and remain as a scar on the landscape. The Proposed Development enables a process for restoring this part of LCA 7G and providing a more appropriate land use following restoration, in comparison to the existing quarry. This would be more in keeping with the tranquillity of the local landscape and enables improved access for visitors to enjoy the Cotswolds AONB. A continuation of the disturbance of the landscape caused by the quarry, would continue during the period of recycling and infilling the quarry. This would be very similar to the activities and influences that created the quarry, but in reverse. Similar types of plant and machinery would be used. The changes to the character of the landscape would be most evident within the Site and quickly dissipate with distance, due to containment within the void created by the existing quarry. Noise levels and visibility would be kept to a minimum for recycling and infilling due to the lower levels of the Site in relation to the surrounding landform and the use of the noise bund. As levels rise through the process of infilling there would some awareness of the movement of machinery, although largely visually contained by the retained boundary vegetation. This would be a short term temporary effect for each phase. The other key beneficial features and characteristics of the LCA would be retained. The completed restoration works would also enable the reforming of the landform to reflect its character prior to quarrying and relate to the surrounding landform, providing a beneficial effect. The proposed restoration would incorporate a number of beneficial features that would be sympathetic with the character of the landscape and apply a number of the strategies and guidelines for LCT 7. The proposed lodges would provide small scale high quality accommodation with a design and construction that would relate more to a semi-rural setting, rather than the built character of the adjoining hamlet of Edgehill and village of Ratley. The park homes would be located to the north of the Site, in close proximity to the settlement of Edgehill. These would be arranged in an irregular arrangement and broken up by the use of proposed tree groups. Woodland belts would help integrate them with the surrounding landscape. The proposed woodland belts, copse, wetland, unimproved grassland, and hedgerows would provide landscape and biodiversity benefits. 	Medium	Low	Medium	Medium	MAJOR-MODERATE NEUTRAL	Medium	Low	Medium	Medium	MAJOR-MODERATE BENEFICIAL

LCA	Sensitivity	Description of Effect	Year 1 – Winter					Year 15 - Summer				
			Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance	Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance
2G Escarpment: Edge Hill	Very High	<ul style="list-style-type: none"> The Proposed Development would not directly affect the LCA and only a very slight indirect affect. Despite the relative close proximity of the Site to the LCA, the escarpment falls away from the Site and faces in the opposite direction to the Site. Adjacent to the Site, the escarpment is also clothed in woodland, curtailing any awareness of change to the immediate context of the escarpment. There would be a very limited awareness of a change in the adjoining LCA on the boundary of the LCA. In general, the proposals would remain well contained within the existing Site, with a limited awareness of change arising from the restoration to the quarry. The proposed woodland belt would have established sufficiently by Year 15 to relate to the character of the woodland on the escarpment to provide a benefit. The proposed woodland would also connect with the wood to the north of the Site on the edge of Edgehill. 	Very Low	Very Low	Medium	Very Low	MODERATE-MINOR ADVERSE	Very Low	Very Low	Medium	Very Low	MODERATE-MINOR BENEFICIAL
6B Ironstone Hills and Valleys: Ratley Hills and Valleys	High	<ul style="list-style-type: none"> The change would be experienced as an indirect effect, occurring as part of the plateau ridge, in an evidently different part of the landscape to the Sor Brook valley. The Site is sufficiently set back on the plateau, that combined with the effects of the void created by the quarry and the presence of intervening hedgerows, the proposed development would not be experienced from within the valley. The only locations that would be affected would be the plateau fringe areas immediately adjacent to the Site. This represents a small part of the overall LCA. The key characteristics of steep sided valleys, rolling ridgelines and hills, arable farmland with some pasture, field patterns, hedgerows, heritage assets and settlement pattern would not be changed by the proposed development. The presence of other former quarries within the LCA is a part of its character. The proposed development would help restore the plateau landform and landscape in an area of adjoining damaged landscape. The proposed development reflects the restoration of former quarries that already forms part of the changing character of the LCA, and provides a longer term beneficial alternative land use for the Site. There would initially be a very limited effect arising from the recycling facility and infilling works. This would be a minor peripheral effect on the LCA with the movement of plant and machinery as the quarry is infilled, similar to that which would have occurred during the formation of the quarry. Once the hedgerows, restored proposed native trees, copses and woodland belts have established, they would form a continuation of the woodland along the escarpment and the wood to the north of the Site, extending this as a habitat and wildlife corridor, whilst enable an integration of the Site with its surroundings. 	Low	Low	Medium	Low	MODERATE NEUTRAL	Low	Low	Medium	Low	MODERATE BENEFICIAL

LCA	Sensitivity	Description of Effect	Year 1 – Winter					Year 15 - Summer				
			Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance	Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance
Incised Ironstone Plateau	Medium	<ul style="list-style-type: none"> The proposed development would not directly affect the LCA. There would be an awareness of a minor change occurring within the adjoining plateau ridge. The LCA has already influenced and impacted by Hornton stone quarries, disused workings and restoration through landfill. Most of the changes arising from the proposed development would not be evident as a change. During the latter stages of the restoration process, the movement of plant undertaking the infilling would bring an awareness that the Site is an existing area of disturbed landscape that is being restored. On completion of the restoration work there would be very little awareness of any change within the adjoining LCA. The restoration works would lead to the repair of the landform within an adjoining area of plateau. The proposed woodland belts would become discernible as a new feature forming an extension of the existing woodland along the escarpment. 	Low	Low	Medium	Low	MODERATE NEUTRAL	Low	Low	Medium	Low	MODERATE BENEFICIAL

- 8.2 At a national scale, the proposals would restore a small part of the distinctive landform that forms a key part of the character of NCA 95 Northamptonshire Uplands, with the creation of new woodland belts and copses that would relate to the prominent woodland and copses on higher ground, without affecting the historic parkland or arable and pastoral farmland. The proposals would also address SEO4, in the restoration of an area of mineral extraction, strengthening biodiversity, increasing the presence of multifunctional green infrastructure networks, and creating strong ecological and recreational networks.
- 8.3 A county scale, the proposed development would retain and enable the restoration of key characteristics of the Cotswolds Region and Plateau Redlands and Edge Hill. The proposals would restore a damaged part of the landscape to create an area of land use providing ecological and recreational benefits. It would accord with the guidelines of the Cotswolds Region, in providing new broadleaved woodland that includes oak, beech, Wych elm and Field maple and residential including affordable housing, as well as the guidelines for Plateau Redlands and Edge Hill by retaining and maintaining existing hedgerows, and planting new hedgerows.
- 8.4 Effects on landscape features within the Site is set out in Table 8.2.

Table 8.2: Effects on Site Landscape Features

Site Feature	Sensitivity	Description of Effect	Year 1 – Winter					Year 20 - Summer				
			Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance	Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance
Landform	Very High	<ul style="list-style-type: none"> The landform will be progressively reformed to reflect its original form and appearance prior to extraction, blending with the surrounding landform. After the first year of operation, limited infilling would have occurred and consequently would have little effect on the landform. Once completed after six years, the proposals would have a notable benefit in restoring the landform in this important location. 	Low	Very High	Medium	Medium	MAJOR-MODERATE NEUTRAL	Very High	Very High	Medium	Very High	MAJOR BENEFICIAL
Vegetation	Medium	<ul style="list-style-type: none"> The proposals would retain the existing hedges within the Site and provide a significant increase in the presence of vegetation, providing a diverse range of habitats. This would include: woodland; scrub; hedgerows; individual trees; wetland; and acid grassland. These would be both beneficial to wildlife and the landscape. The ecological value of the Site would be noticeably enhanced, biodiversity increased, and connections provided with the existing ancient woodland on the escarpment and ecological networks extended. These would help meet the AONB objectives for extending priority habitats and benefiting target species. The proposals would also notably increase the presence of landscape features within the Site, creating visual diversity and character, whilst still reflecting the surrounding landscape character. After the first year, the grassland and wetland would have established sufficiently to have a meaningful benefit, whilst the proposed tree, shrub and hedge planting would have some influence, but would start to form a more noticeable benefit after approximately five years from planting, becoming more fully established by Year 15. 	Medium	High	Medium	Medium	MODERATE BENEFICIAL	High	High	Medium	High	MAJOR-MODERATE BENEFICIAL

Site Feature	Sensitivity	Description of Effect	Year 1 – Winter					Year 20 - Summer				
			Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance	Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance
Land Use	Medium	<ul style="list-style-type: none"> The change in land use would provide residential units, including 6 affordable units, 6 for rental allowing accommodation for visitors to the Cotswold and the remainder for over 55's. It would also provide provision for informal recreation. This is assessed as a benefit in comparison to the disused quarry. The proposals enable an alternative use to be found for the Site that encourages visitor access to the AONB, whilst re-establishing the landform and enabling the creation of landscape and ecological enhancements. The proposed end land use would be in keeping the exiting tranquillity of the local surroundings on the fringes of Edgehill. To achieve this end use, requires the temporary use as a recycling facility for demolition materials and soils to provide inert material for infilling. This enables the recycling of waste material to enable the restoration of the quarry. Noise will be kept to a minimum, through the location of the facility in the base of the quarry and creation of a noise bund around the facility. The movement of plant/vehicles will have some effect whilst the infilling is occurring, more so in the latter stages of infilling as levels rise. However, this would be a relatively small to moderate adverse effect over a short term period. Artificial light would kept to a minimum, being restricted to the area of the recycling facilities and access road, with the use of shielded floodlights set below the surrounding landform and the use low level pedestal lights. 	Medium	High	Medium	Medium	MODERATE ADVERSE	High	High	Medium	High	MAJOR-MODERATE BENEFICIAL

9 EFFECTS ON VIEWS

9.1 The Site is visually well contained by the presence of mature hedgerows, tree belts and woodland within and just beyond the Site that would largely prevent views of the proposed development. The location of the recycling area within the base of the quarry, would screen it from all locations beyond the Site. As the process of infilling occurs for each stage, the rising levels will result in the differences in levels with the surrounding landform becoming less influential, with the potential that the plant and machinery would could become visible. The height of the retained hedgerows and trees around the Site, is sufficient to limit this to occasional glimpsed filtered views through the vegetation. On completion of the restoration works, the park homes and eco lodges would be sufficiently low in height that they would not be visible above the surrounding vegetation. Glimpses through the vegetation would be possible in winter in the first few following completion. The existing vegetation would be further strengthened with new hedgerows and woodland, preventing views of the park homes and eco lodges and vehicles in the mid to long term. Once established, the woodland would blend with the existing trees and woodland within the views.

9.2 The extent of the visual influence of the proposed development is shown on Figure 04, in Appendix 3, as indicated by the Zone of Visual Influence. The effects on visual receptors for each viewpoint are set out in Table 9.1.

Table 9.1: Effects on Views

View/ Location	Sensitivity	Description of Effect	Year 1 – Winter					Year 15 - Summer				
			Size/ scale	Geograph. Inf.	Duration/Rev	Magnitude	Significance	Size/ scale	Geograph. Inf.	Duration/Rev	Magnitude	Significance
Viewpoint 1: Unclassified Road	Medium	<ul style="list-style-type: none"> In summer, the vegetation along the road prevents views of the proposed development in Year 1 and 15. In winter, there would be a view of the upgraded access into the Site and very filtered views through the existing vegetation, which would allow partial views of the infilling operations within the northern part of the Site. The movement of machinery is likely to be the only discernible change to the view as levels rise. This would be a short term effect on the view. Following restoration, there would be very filtered views of some of the proposed park homes and eco lodges seen through the vegetation. By Year 15, the proposed woodland belt would have established sufficiently to prevent views in both winter and summer, resulting in no discernible change to the view. 	Low	Medium	Low	Low	MODERATE-MINOR ADVERSE	No Change	No Change	High	No Change	NO CHANGE
Viewpoint 2: Unclassified Road	Medium	<ul style="list-style-type: none"> The top of the row of 10-12m high hybrid poplar on the edge of the Site, provides a scale to the Site and likelihood of the visibility of the proposed development within the view. The view would largely remain unchanged during the recycling and infilling stage and following completion of the restoration works. A new hedge and hedgerow trees are to be planted along the northern and western boundaries of the Site. Very filtered views through the existing roadside hedgerow would be possible in winter, and some awareness of minor cutting back and scrub removal within the highway verge. However, as the existing vegetation along the road would largely remain the same, it is unlikely that most road users would be aware of the change. The most apparent influence of the proposed development would be the occasional movement of vehicles into and out of the Site. It is also expected that some of the latter stages of the infilling operations, through movement of machinery, would be visible as filtered views through the intervening vegetation. This would be a short term effect on the view. Occasional filtered glimpses in winter of a few of the eco lodges would occur prior to the proposed hedgerow becoming established. The proposed hedgerow, trees and woodland planting would have established sufficiently by Year 15 to form a discernible visible strengthening of vegetation along the edge of the Site, providing a minor benefit to the view. 	Low	Medium	Low	Low	MODERATE-MINOR ADVERSE	Low	Medium	High	Low	MODERATE-MINOR BENEFICIAL

View/Location	Sensitivity	Description of Effect	Year 1 – Winter					Year 15 - Summer				
			Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance	Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance
Viewpoint 3: Centenary Way	High	<ul style="list-style-type: none"> The existing hedgerow along the adjoining road and the 1m high bund and hedgerow along the Site boundary would almost entirely prevent views of the proposed development. The recycling facility would be located just beyond the road and hedgerows but would be set 4-5m below the existing landform, preventing views. The proposed infilling works would also be obscured by differences in landform and the intervening vegetation. In the latter stages of the infilling operations, very filtered views of machinery through the intervening vegetation potentially could occur. However, it is expected that this would be a barely discernible short term change to the view occurring in Years 4-6. The magnitude of change would be Very Low resulting in Minor Adverse significance. Following the completion of the restoration works, the proposed new landform, grassland, park homes and eco lodges would not be visible within the view, obscured by the intervening vegetation. After 15 years, the proposed woodland belt would have become visible above the hedgerows, but insufficiently to form a noticeable change to the view. This would have a neutral effect on the view. 	No Change	No Change	Low	No Change	NO CHANGE	Very Low	Medium	High	Very Low	MINOR NEUTRAL
Viewpoint 4: Centenary Way	High	<ul style="list-style-type: none"> Due to the lower level of the visual receptor, relative to the adjoining landform, the presence of scrub and trees along the path hedge, and the influence of the more distant hedgerows along the unclassified road, would prevent views of the proposed development in either winter or summer. 	No Change	No Change	Low	No Change	NO CHANGE	No Change	No Change	High	No Change	NO CHANGE
Viewpoint 5: Public Footpath	High	<ul style="list-style-type: none"> The existing hedgerows along the A422 in the mid-distance largely curtail views to the foreground. Beyond these hedgerows, the influence of perspective, distance, subtle changes in landform, and other intervening vegetation would prevent any views of the proposed development, either in winter or summer. 	No Change	No Change	Low	No Change	NO CHANGE	No Change	No Change	High	No Change	NO CHANGE

View/Location	Sensitivity	Description of Effect	Year 1 – Winter					Year 15 - Summer				
			Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance	Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance
Viewpoint 6: Public Footpath	High	<ul style="list-style-type: none"> The extent of retained trees and hedgerows along the eastern fringes of the Site and along the adjoining road would largely prevent views of the proposed development in winter or summer. In Year 1, the recycling and infilling operations would occur below the surrounding plateau landform. As infilling levels rise within Stage 2 and to a lesser extent in Stage 3, the occasional glimpses would occur of machinery, primarily as very filtered views through intervening vegetation. This would have very little effect on the enjoyment of the view and would occur over a short period, likely between Years 3-5. The effect would be a Very Low magnitude change resulting in a Minor Adverse significance. Following completion of the restoration works, the proposed woodland would strengthen the existing vegetation, preventing the awareness of any change. 	No Change	No Change	Low	No Change	NO CHANGE	No Change	No Change	High	No Change	NO CHANGE
Viewpoint 7: Public Footpath	High	<ul style="list-style-type: none"> The presence of a belt of mature trees within the large garden of Edgecombe House within the mid-distance, and the tree belt along eastern boundary of the Site, would obscure views of the proposed development in both winter and summer. Consequently, there would be no changes to the view in Years 1 or 15. 	No Change	No Change	Low	No Change	NO CHANGE	No Change	No Change	High	No Change	NO CHANGE
Viewpoint 8: Public Footpath	High	<ul style="list-style-type: none"> The influence of the valley, and the rising adjoining valley slope above the height of the visual receptor would prevent views of the proposed development. 	No Change	No Change	Low	No Change	NO CHANGE	No Change	No Change	High	No Change	NO CHANGE
Viewpoint 9: Public Footpath	Medium	<ul style="list-style-type: none"> The intervening raised landform, arising from the spur between the two local valleys, would prevent views of the proposed development. 	No Change	No Change	Low	No Change	NO CHANGE	No Change	No Change	High	No Change	NO CHANGE

View/Location	Sensitivity	Description of Effect	Year 1 – Winter					Year 15 - Summer				
			Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance	Size/scale	Geograph.Inf.	Duration/Rev	Magnitude	Significance
Viewpoint 10: Public Footpath	Medium	<ul style="list-style-type: none"> The proposed development would occur within a distant part of the view on the horizon. The existing hedgerows and trees along the horizon would essentially prevent views of the proposed recycling and infilling operations, and the restoration proposals. In summer, there would be no change to the view. Likewise, in the winter of Year 1, the recycling and infilling work would be set below the surrounding plateau landform preventing views. During Years 3-6, it is possible that occasional glimpses of moving machinery, may just be discernible as filtered views through the vegetation on the horizon. This would result in a Very Low magnitude of change and Negligible significance and is unlikely to be observed by most walkers. The proposed woodland belt along the eastern fringe of the Site, would have established to further strengthen the existing vegetation by Year 15, resulting in no discernible change to the view. 	No Change	No Change	Low	No Change	NO CHANGE	No Change	No Change	High	No Change	NO CHANGE
Viewpoint 11: Macmillan Way	High	<ul style="list-style-type: none"> The proposed development would occur within a distant part of the view on the horizon. The existing hedgerows and trees along the horizon would essentially prevent views of the proposed recycling and infilling operations, and the restoration proposals. In summer, there would be no change to the view. Likewise, in the winter of Year 1 the recycling and infilling work would be set below the surrounding plateau landform preventing views. During Years 3-6, it is possible that occasional glimpses of moving machinery, may just be discernible as filtered views through the vegetation on the horizon. This would result in a Very Low magnitude of change and Negligible significance and is unlikely to be observed by most walkers. The proposed woodland belt along the eastern fringe of the Site, would have established to further strengthen the existing vegetation by Year 15, resulting in no discernible change to the view. 	No Change	No Change	Low	No Change	NO CHANGE	No Change	No Change	High	No Change	NO CHANGE
Viewpoint 12: Macmillan Way	High	<ul style="list-style-type: none"> The proposed development would occur in a very distant part of the view on the horizon. The extent of intervening vegetation and the influence of distance, would prevent the walker being aware of any change to the view. 	No Change	No Change	Low	No Change	NO CHANGE	No Change	No Change	High	No Change	NO CHANGE

10 EFFECTS ON THE COTSWOLDS AONB AND OTHER DESIGNATIONS

- 10.1 The proposed development would not affect views from the Battle of Edge Hill site, the Conservation Areas of Ratley and Radway, the Scheduled Monuments of Manor Farm and Nadbury Camp, and the Registered Parks and Gardens of Upton House and Radway Grange. This is due to the variations in landform, arising from the escarpment, the head of the River Sor tributary valleys, and the Sites location set back on the plateau, together with the presence of intervening mature woodland and hedgerows around the Site, on the edge of Edgehill, and along the escarpment.
- 10.2 The proposed development would affect the AONB, but would retain and not harm its special qualities. The geology has already been modified as a result of the quarry, as part of providing local building materials. The landform does form an important part of the AONB, particularly in the context of the escarpment. The proposed development enables the repairing of the adjoining plateau ridge, next to the Edgehill escarpment, restoring the landform to a similar form prior to the creation of the quarry and sympathetically integrated into the surrounding landform. To enable this to occur the land needs to be infilled. The proposals would utilise inert waste material in the form of demolition waste and soil, sourced from within the AONB where possible, and processed through the recycling facility. This approach is used as alternative to household waste, to minimise the effects on the AONB. The proposals include the creation of a noise bund, with the recycling facility being located within the existing void of the quarry. The existing hedgerows along the Site boundary would also be retained.
- 10.3 Hornton stone quarries have become part of the landscape character within the Site, and are recognised as being an important enabling development to allow the creation of the distinctive use of local stone within the buildings of the AONB. The existing quarry has now come to the end of its life, but has no agreed restoration plan. Consequently, the land has no defined use and remains a damaged part of the plateau landscape. The proposals provide a more appropriate and sympathetic long term land use following restoration of the quarry. The proposed park homes would provide dwellings to meet local needs and eco lodges would enable visitors to have increased access to appreciate and enjoy the special qualities of the AONB, thereby reflecting the objectives of Outcome 11 and Policy CE10 and Outcome 13 and Policy UE2. The eco lodges would provide small scale accommodation, designed to a high specification, with the aesthetic appearance designed to reflect the Site's semi-rural location using solid timber or finishes with a timber appearance. The main group of park homes would be located to the north of the Site, closer to the existing settlement of Edgehill. These would be set out in an irregular arrangement and set amongst tree groups. A further six eco lodges would be arranged in a dispersed manner with an informal arrangement, again interspersed with tree groups and areas of scrub. Due to the low profile of the park homes and eco lodges and the retention of the existing hedgerows along the Site boundaries, there would be limited awareness of these built forms beyond the Site. The visibility of the proposed park homes and eco lodges would be further reduced/eliminated by the proposed landscape and ecological treatment.

- 10.4 A large part of the Site would be used to provide ecological and landscape enhancements, through the creation of a variety of habitats and encouraging target species. This includes: the creation of flower rich calcareous and neutral grassland and legume-rich grassland; the retention and natural colonisation of the southern rock face and adjoining varied profiled embankment; and the creation of new habitats in the form of woodland, trees, scrub, hedgerows, and wetland. This would be established using indigenous native species of local provenance or seed sourced locally within the AONB. Native tree planting would use species that are typically found locally and within the adjoining escarpment woodlands and accord with provenance requirements set out in the Position Statement on Tree Species and Provenance. The proposed woodland belts, copses and hedgerows would enable connections with the existing adjoining woodlands and hedgerows, in particular connecting with the ancient woodland on the escarpment and the woodland between the Site and the hamlet of Edgehill. This would strengthen the ecological network and provide new wildlife corridors. The proposed restoration would also enable a variety of new landscape features to be created within the Site, provide a strong new character and visual diversity within the Site, whilst still being sympathetic to the character of surrounding landscape. The proposals connect with the existing areas of woodland adjoining the Site, whilst still retaining some openness through the Site, following the alignment of the axis of the plateau ridge and escarpment. The proposed woodland, copses, trees and hedgerows would also help integrate the Site and the proposed development into the surrounding landscape, ensuring that the visual amenity of the AONB is conserved and enhanced. Consequently, this would both conserve and enhance landscape character and accord with Policy CE1 of the AONB Management Plan.
- 10.5 The proposed landscape and ecological treatment of the Site would meet the objectives of Outcome 2 and Policy CC4 of the AONB Management Plan by enhancing the natural capital and ecosystem within the AONB.
- 10.6 The use of low level lighting, either from being set below the surrounding landform or as a result of using pedestal style lighting, together with measures to prevent light pollution and controls to manage the operation of lighting fixtures, would also help preserve the existing night light levels within the vicinity of the Site. This would accord with Policy CE5 of the AONB Management Plan.

11 SUMMARY AND CONCLUSION

- 11.1 The Site is an existing quarry to the south-west of the hamlet of Edgehill, near to the villages of Ratley and Radway. Quarrying ceased in 2004 without an agreed restoration plan in place. The Site remains as a large void to a depth of 4-5m, with areas of residual quarried stone, spoil mounds, delapidated portacabins, and disused vehicles and quarrying machinery and plant. Some low level activity is currently taking place to make use of the remnant quarried stone that was left within the Site. Whilst there is little or no vegetation within the Site, there are areas of mature vegetation along the fringes and boundaries of the Site. These include hedgerows on the southern and eastern boundaries and

part of the western boundary. Self-set trees and some planted trees up to 14m, as well as scrub, form a notable feature along the eastern boundary. Just to the north of the Site, an area of woodland separates the Site from Edgehill.

- 11.2 The proposed development would restore the former quarry to create an area of informal recreation and facility for residents and visitors through the use of park homes and eco lodges. 29 park homes would be located within the north-eastern part of the Site, together with six dispersed eco lodges within the centre of the Site. These would have a low profile and high quality construction, designed with timber and timber composite finishes to provide a sympathetic appearance, with clumps of native tree planting used to break up the massing. The landform would be restored to levels similar to those present before quarrying commenced and sympathetically integrate with the surrounding levels. The existing vegetation within the Site would be retained, except for the smaller self-set scrub and trees on the inner fringe of the Site, which would be removed to enable the landform to be restored. These would be strengthened and extended through the establishment of new hedgerows and broadleaved woodland, as well as creation of new areas of flower rich calcareous and neutral grassland and legume-rich grassland. The southern rock face would also be retained and left to naturally colonise with an adjoining varied profiled embankment provided to create an additional area of ecological habitat. A wetland area would be formed in the south-west of the Site, comprising different areas of waterbodies and native marginal aquatics. In order to achieve this restoration, the quarry will be infilled with inert material obtained through a recycling operation that would be located in the base of the quarry to the south-west of the Site. This would be sufficiently lower than the surrounding landform that it would not be visible from any adjoining and surrounding publicly accessible locations. Infilling would take place over period of six years.
- 11.3 The Site is located on a narrow marlstone plateau, between a prominent wooded escarpment to the west, and the steep sided and rolling valley landscape of the River Sor to the east. This forms a varied and distinctive landscape, in which the local settlements form part of its character, defined by the warm buff coloured Hornton stone, from which the quarry was used to supply the local stone. The adjoining villages of Ratley and Radway reflect this locally distinctive character and incorporate a number of listed buildings that form part of Conservation Areas. The heritage value of the area is also identified in the proximity of Upton House and Radway Grange Registered Park and Gardens. These heritage assets are sufficiently distant, and through the influence of woodland and other intervening vegetation, that visual effects would be prevented on these designations as a result of the proposed development.
- 11.4 The Site is located on the northern fringe of the Cotswolds AONB, in recognition of its high landscape value and special qualities. Whilst the characteristics of the local and wider landscape can to some extent be understood through the differing studies that have been undertaken at a national, county and district scale, the most relevant and up to date assessment is provided by the Cotswolds AONB

Landscape Character Assessment. This identifies the Site as being located within LCA 7G High Wold: Edgehill Ironstone Plateau, and close to LCA 2G Escarpment: Edge Hill and LCA 6B Ironstone Hills and Valleys: Ratley Hills and Valleys. The landform is an important part of the landscape character forming a distinctive feature. Whilst the creation of the quarry enables the extraction of the local Hornton stone that has contributed to the local built character, it has left a scar on the landscape and evidently damaged the landform. The proposed development would enable the restoration of the landform to a similar state prior to the quarry works and integrating with the surrounding landform, resulting in a beneficial effect. The proposed restoration would also enable a variety of new landscape features to be created within the Site, which together with the retention of existing hedgerows and tree belts would provide a strong new character and visual diversity within the Site, whilst still being sympathetic to the character of surrounding landscape. This would accord with Policy CE1 of the AONB Management Plan in conserving and enhancing the landscape character of the AONB.

- 11.5 To achieve this objective, a continuation of the disturbance of the landscape would need to take place for a temporary period to enable the infilling of the quarry. This would be little different to the process which led to the creation of the quarry, but in reverse. These changes would be most evident within the Site but would quickly dissipate with distance. As levels rise through the infilling operations, there would be some awareness of the movement of machinery at higher levels. The restoration scheme would enable the creation of a number of beneficial ecological and landscape features, creating new green infrastructure, enhancing the natural capital and extend the connection of ecological networks, thereby according with Policy CC4 of the AONB Management Plan. This would sympathetically relate to local landscape features and apply a number of the strategies and guidelines for LCT 7 of the Cotswolds AONB Landscape Character Assessment. The proposed park homes and eco lodges would have a low profile, with the park homes being located in close proximity to Edgehill. These would be contained and integrated within the Site and would not be evident as new features beyond the Site. The eco lodges would also enable improved access for visitors to enjoy the Cotswolds AONB reflecting the objectives of Outcome 11 and Policy CE10 and Outcome 13 and Policy UE2 of the AONB Management Plan. Some lighting will be required for healthy, safety and security reasons. This would be designed to prevent the dispersal of light beyond the Site, wherever possible. Downward facing floodlights with shields would be set below the surrounding landform within the recycling facility. Low level pedestal lights would be used along the access road and around the park homes loop road. Timed use of lights and PIR sensors would also restrict light use to times when lighting is necessary. These measures would all help to preserve the existing level of darks skies at Edgehill and thereby accord with Policy CE5 of the AONB Management Plan. Once the restoration works have been completed and the proposed planting has begun to establish, the proposed development would have a significant benefit to the landscape and ecological features within the Site and to the landscape character of LCA 7G. Other adjoining LCAs would be much less affected, with very limited and minor effect arising from the changes in the Site and adjoining LCA.

- 11.6 The Site is visually well contained, due to the influence of landform, vegetation on the fringes of the Site, and the presence of woodland and mature hedgerows within the vicinity of the Site. The LVIA has assessed a number of viewpoints that represent the main key publicly accessible locations where there could potentially be views of the proposed development. These include a number of important public rights of way, which enable the appreciation and enjoyment of the landscape of the Cotswolds AONB and adjoining Sor valley landscape, including the Centenary Way / Macmillan Way. The proposed recycling and infilling operational works and completed restoration proposals would either not be visible or would have very little influence on views, being limited to glimpsed filtered views through the existing vegetation in winter. The proposed woodland would strengthen the existing tree belts within the Site and within views to the east and south would visually merge with other existing woodland on the fringes of Edgehill and along the escarpment. Consequently, there would be no significant effects on views.
- 11.7 The proposed development is assessed as being appropriate in relation to landscape and visual matters.

Appendix 1: Methodology

1 SCOPE AND PROCESS

Introduction

- 1.1 Landscape and visual impact assessment (LVIA) involves a combination of quantitative and qualitative considerations within a framework that allows for structured, informed and reasoned professional judgment. The Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition, forms the current nationally recognized professional guidance tool for LVIA. The GLVIA reflects current legislation and professional experience over many years of undertaking landscape and visual assessments. This methodology follows the principles recommended within GLVIA Third Edition as part of the assessment process. Matrices are utilised to enable consistent and transparent judgements to be applied and understood by the reader. This applies different levels of sensitivity and magnitude and combined to define significance of effect. The category levels and combinations set out in this methodology reflects the typical situation. However, there are occasions when it is not appropriate to apply these judgement in a rigid and formulaic manner, and an assessor may judge that it would be appropriate to apply a different category or combination. This would primarily apply in the combining of sensitivity and magnitude used in Tables A7 and A14. Any deviation from the categories used in the matrices are explained in the main body of the report.
- 1.2 In defining 'landscape' within GLVIA, reference is made to the adopted definition agreed by the European Landscape Convention (Florence: Council of Europe 2000), which states that the landscape is "*an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*". This definition includes the landscapes of towns and cities i.e. townscapes.
- 1.3 Whilst the process of assessment is often referred to as a Landscape and Visual Impact Assessment, it is important to understand the difference between 'impact' and 'effect'. 'Impact' is defined as the action being taken and 'effect' as the change resulting from the action. The changes resulting from the implementation of the development form the main consideration of this assessment and thus the word effect is mainly used. The two main components are:
- ♦ landscape effects – assessing effects on the landscape as a resource in it is own right; and
 - ♦ visual effects – assessing effects on specific views and the general amenity of the view.
- 1.4 An assessment of the existing situation and the effects of the proposals is carried out in relation to the following geographical extents:
- ♦ national and regional scale landscape character and the wider visual setting;
 - ♦ county and district scale landscape character and the local visual setting; and

- ♦ the Site and more immediate landscape and visual setting.

1.5 The spatial scope of the landscape and visual assessment covers a study area of approximately 3 km radius from the Site. This is based on the initial results of a desktop study reviewing location, topography and nature of the development. This desk based work is then verified as part of the field survey undertaken on 22 May 2019.

1.6 The likely effects of the proposed scheme were assessed in terms of the degree of change on completion of the works in the first year (recycling operations and infilling of inert material) in winter and after a period of 15 years (nine years following completion of the restoration works) in summer. Where the field survey and assessment were carried out in summer months, a correlation is made as to what the predicted effects would be in winter, and vice versa. An assessment in year 15 enables the effectiveness of any planting and soft works mitigation measures to be determined over a sufficient period for the proposals to have established and delivered their intended objectives in a meaningful way. Between years one and 15, the proposed planting will be in the process of meeting these objectives and a correlation over this span of time can be made as to the extent to which this has been partially achieved. Beyond 15 years, trees can be expected to continue to grow to reach their mature height, and thus potentially provide increased mitigation in later years.

1.7 The assessment uses the following process for both landscape and visual effects, as set out in the GLVIA:

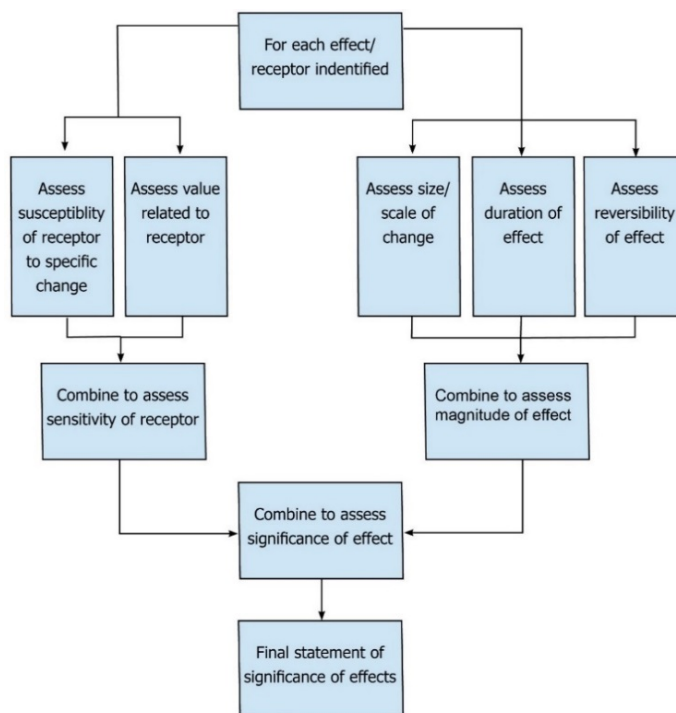


Figure A1 - Assessing the significance of effect

Viewpoint analysis and assessment

- 1.8 The extent of visual influence of the development is described as the Zone of Visual Influence (ZVI). This area is identified in two stages. First an initial desk based study of landform, major vegetation and built form is carried out, and secondly an assessment in the field. The field work includes walking the Site and observing locations that are visible beyond the Site and then checking this by visiting the locations beyond the Site where publicly accessible. The extent of the ZVI is therefore progressively determined and fine-tuned.
- 1.9 To assist the reader, viewpoints are provided to demonstrate the range of available views for a variety of receptors and geographical locations. The GLVIA refers to three types of viewpoint, which are set out and utilised as described below.
- ♦ **Representative viewpoint** – provides a viewpoint that may be considered as typical or similar to a particular location and where the significant effects are unlikely to differ. It therefore can be considered as being representative of other views, e.g. from a Public Right of Way or group of houses. Where the viewpoint is not representative of a neighbouring visual receptor, and there would be different significant effects, this is stated within the text.
 - ♦ **Specific viewpoint** – illustrates a particular noteworthy or key view. This may be a promoted viewpoint or from a specific visitor attraction, tourist destination, statutory landscape designation, or particular locally valued recreational or cultural landscape associations.
 - ♦ **Illustrative viewpoint** – provided to demonstrate particular features, effects or issues. These are used to illustrate: particular Site features; the extent of visibility from within the Site from non-publicly accessible locations; or features that prevent views from certain locations.
- 1.10 A range of representative viewpoints are selected to assess the available views at a variety of different geographical locations, distances and receptor experiences. Viewpoint locations include public rights of way, roads and open space. Viewpoints are provided to help appreciate and then describe the views available, identify features within the view, define the location and extent of the Site within the view, and to provide a visual record. On the photographs, the location and extent of the Site is indicated to help the reader.
- 1.11 The assessment of views includes the detailed consideration of:
- ♦ the proximity of the visual receptor to the proposed development;
 - ♦ the extent of visibility or proportion of the proposed development visible within the wider context of the view;

- ♦ the nature and complexity of the existing view and any changes that would affect the skyline;
- ♦ elements within the view that may detract from or add to its quality;
- ♦ the extent to which the proposed development occupies the view, and whether a framed view, glimpsed or panoramic view; and
- ♦ whether the view would be experienced from a specific fixed location or whether it would form part of a sequence of views when the viewer would be moving, and if from a fixed location, such as a window, whether the proposed development would form the central focus of the view or a more oblique outlook.

1.12 A variety of visual receptors are assessed with a focus on those who are most likely to be concerned about changes to views.

Photography and site work

1.13 Photographs are taken using a digital camera with an appropriate lens set to provide a focal length equivalent to a 50mm focal length lens on a manual 35mm film SLR camera.

1.14 A Nikon D5200 digital single lens reflex camera with an AF-S Nikkor 18-55mm zoom lens was used. The camera has a focal length multiplier of 1.5, so with the zoom set to 33mm this provides a focal length equivalent to a 50mm focal length lens on a manual 35mm film SLR camera. The horizontal field of view in landscape format from a single frame shot is approximately 40 degrees.

1.15 The camera is rotated in increments to allow a reasonable proportion of overlap of photographs to create a join that is as accurate as possible.

1.16 The photographs were taken in sunny weather and average to good visibility. Wherever possible photographs are taken with the sun behind or to one side of the view to prevent over-exposure and a high contrast of photographs or features appearing in shadow.

1.17 The panoramic photographs are stitched together using an Adobe Photoshop Plugin (Photomerge). Exposure and levels are adjusted to ensure a smooth transition between the photographs.

2 CRITERIA AND CATEGORIES: LANDSCAPE

2.1 The assessment includes a description of the existing landscape elements including topography, vegetation, landform, land uses, infrastructure of the landscape and provides an assessment of the effects of the development. The national landscape character areas provide a useful basis for setting the scene and to understand the broad scale of the landscape at the national context. However, the primary source assessing landscape character is based on district scale character assessments. The key characteristics that form the landscape are identified, including the

individual elements, aesthetic aspects and perceptual aspects, and their condition identified. An assessment of effects on the Site itself is made predominantly in relation to change/loss of the individual landscape features.

2.2 In determining the significance of effects on the landscape, sensitivity is determined for each: landscape feature within the Site; landscape character area; or landscape type that would be affected and combined with the magnitude of change arising from the proposed development. The criteria and categories used to determine the effects on landscape, is set out below.

Landscape sensitivity (the nature of the receptor)

2.3 This in part is based on the **value** of the landscape receptor. This includes considerations such as: landscape quality / condition; landscape fabric and rarity; scenic quality; wildlife, heritage and cultural interest; recreation value; and perceptual aspects. The presence of a landscape designation can help to identify value and reasons for a designation are usually established in a supporting study. Landscapes or features without any formal designation may also express characteristics that are valued locally. Where there is no supporting evidence base, details regarding sensitivity should typically be derived from landscape character assessments.

Table A1: Value of Landscape Receptor

Value of landscape receptor	Criteria
Very High	<p>Character: Areas with international or national landscape designations, i.e. National Parks and Areas of Outstanding Natural Beauty or international heritage designations, i.e. World Heritage Sites and their landscape setting, and displaying good condition and/or a strong strength of character. Very high value may occasionally exist in landscapes with no such designation, where the Landscape Character Assessment or Historic Environment Assessment indicates an area as being of particular high sensitivity or international or national rarity.</p> <p>Features: form a very important contributory element of the landscape, that have particular historical or cultural reference, or are distinctive or rare and typically of good condition.</p>
High	<p>Character: Landscape Character Assessments that identify an Area of being of high sensitivity, e.g. good condition and/or strong strength of character or of particular local value. Areas with local landscape designations may indicate a High value, but weight should also be given to the Landscape Character Assessment to determine the specific value.</p> <p>Features: form an important element of the landscape and a major contribution to the character of the landscape. Features play an important role in the local visual and amenity of the area, are typically of good condition and likely to be of historical or cultural relevance to the locality.</p>
Medium	<p>Character: Landscape type or area is identified as medium sensitivity (e.g. having a moderate condition and/or strength of character) including judgements within relevant Landscape Character Assessments as of medium sensitivity. The landscape likely to exhibit some damage or deterioration but may have some individual features of local rarity or value.</p> <p>Features: forms a notable feature in the landscape, but does not form an important or key characteristic. Alternatively, the feature is an intrinsic element of landscape but is in poor condition. Feature contributes some value to the visual and amenity aspect of the locality and provides some relevance to the historical or cultural context of the landscape.</p>

Low	<p>Character: Landscape type or area is identified as having low sensitivity (e.g. poor condition and/or weak strength of character). Landscapes will typically illustrate clear indication of damage, deterioration, and limited visual cohesion.</p> <p>Features: forms an intrusive element that is unlikely to be valued or provides a limited contribution to the character and local visual and amenity value. The feature may be of such poor condition that it has lost its ability to contribute effectively to the character of the landscape. It is likely that the feature has little historical or cultural relevance.</p>
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2.4 **'Susceptibility to change'** assesses the relative ability for the landscape to accommodate the changes that would result from different types of development. This is an integral element of the landscape, but one that can only be judged in the context of the generic type of development being proposed. However, it is not necessary to understand the specifics of the development to make this judgement and thus susceptibility to change can be considered as part of the baseline assessment. Susceptibility to change will, in part, relate to the features and characteristics displayed within the landscape type or area: the relative extent of enclosure and openness; the presence of similar development within or adjacent to the landscape type or area; condition/quality; and the ability to meet landscape planning policies and strategies. Where available, reference is made to judgements made in landscape character assessments as well as Site based judgements. It is particularly important to make this judgement in the context of the Site, i.e. determining the relative presence of those aspects that are evident within the proximity of the Site.

Table A2: Landscape susceptibility to change

Susceptibility to change	Criteria
Very High	A very limited ability of the landscape to accommodate development of the type proposed. Features particularly susceptible to change from development.
High	A fairly limited ability of the landscape to accommodate development of the type proposed. Features often susceptible to change from development.
Medium	A moderate ability of the landscape to accommodate development of the type proposed. Features likely to have some susceptibility to change from development.
Low	A well-defined ability of the landscape to accommodate development of the type proposed. Features has little susceptibility to change from development.

2.5 These two aspects of susceptibility to change and value are combined to create an overall judgement of sensitivity as follows.

Table A3: Landscape sensitivity matrix

Criteria		Susceptibility			
		Very High	High	Medium	Low
Value	Very High	Very High	Very High	High	Medium
	High	Very High	High	High	Medium
	Medium	High	High	Medium	Low
	Low	Medium	Medium	Low	Very Low

Magnitude of landscape effect

- 2.6 The magnitude of effect of the development on each of the landscape character types or areas was assessed on the basis of three factors: '**size or scale of change**', '**geographical influence**' and '**duration and reversibility**', which are combined to provide an overall judgement of magnitude.
- 2.7 The size or scale is based on the following professional judgement and site based assessment.

Table A4: Landscape: size or scale of change

Size/scale of change	Criteria
Very High	The proposals constitute a very major change to the feature or key characteristics and attributes of the landscape type or area, resulting in total loss or permanent alteration to existing landscape features and forming a dominant new feature in the landscape.
High	The proposals constitute a major change to the feature or key characteristics and attributes of the landscape type or area, resulting in major loss or permanent alteration to existing landscape features and forming a prominent new feature in the landscape.
Medium	The proposals constitute a noticeable change to the feature or key characteristics and attributes of the landscape type or area, resulting in a conspicuous loss or alteration to existing landscape features and forming a new feature in the landscape.
Low	The proposals constitute a minor change to the feature or key characteristics and attributes of the landscape type or area, resulting in limited loss or alteration to existing landscape features and forming a minor new feature in the landscape.
Very Low	The proposals constitute little discernible change to the feature or key characteristics and attributes of the landscape type or area, resulting in no loss or permanent alteration to existing landscape features and forming a barely discernible new feature in the landscape.

- 2.8 **Geographical influence** determines the extent of the local landscape type affected by the proposed development.

Table A5: Landscape: geographical influence

Geographical influence	Criteria
Very High	Effects experienced over an extensive area of the feature or a district level landscape character area, where this is likely to have an evident effect at the national level of landscape character.
High	Effects experienced where changes would occur over large parts of a feature or landscape character area.
Medium	A moderate extent of a feature or landscape character area is affected.
Low	Effects limited to a localised area and small proportion of the overall feature or landscape character area.
Very Low	Effects limited to a very restricted extent, sufficient that there is little discernible influence on the feature or character of the landscape character area.

2.9 Magnitude is also affected by duration and reversibility, as set out below:

Table A6: Landscape: duration and reversibility

Duration & reversibility	Criteria
High	Long-term development over 30 years and/or difficult to reverse.
Medium	Medium-term development (5 to 30 years) and/or moderately difficult to reverse.
Low	Short-term development 1 to 5 years and/or fully reversible.

2.10 The three aspects of magnitude are combined based on professional judgement, with greater weight being given to scale/size of change, into one of the following categories: **Very High, High, Medium, Low, Very Low** or **No Change** where there is no effect.

Significance of effect and nature of change

2.11 On the basis of the above the following categories of significance of effect for landscape change are identified.

Table A7: Significance of Effect on Landscape

Criteria		Sensitivity				
		Very High	High	Medium	Low	Very Low
Magnitude	Very High	Major	Major	Major-Moderate	Moderate	Moderate-Minor
	High	Major	Major-Moderate	Major-Moderate	Moderate	Minor
	Medium	Major-Moderate	Major-Moderate	Moderate	Moderate-Minor	Negligible
	Low	Moderate	Moderate	Moderate-Minor	Minor	Negligible
	Very Low	Moderate-Minor	Minor	Negligible	Negligible	Negligible

2.12 The nature of change of the effect is also identified providing a judgement on whether the predicted effects would be would be beneficial, adverse or neutral on the basis of the following:

- ♦ **Adverse effects** - those effects that are, on balance, damaging to the quality, integrity or key characteristics of the landscape or visual resource.
- ♦ **Beneficial effects** - those effects that would, on balance, result in an improvement in the quality, integrity or key characteristics of the landscape or visual resource.
- ♦ **Neutral effects** - those effects that would maintain, on balance, the existing levels of the quality, integrity or key characteristics of the landscape or visual resource. (A neutral effect may therefore arise where beneficial effects offset adverse effects or where the value judgement would consider the change to be different, but neither a deterioration or an enhancement).

2.13 For the purposes of this assessment, effects that are considered to be 'significant' i.e. those of greatest consideration in determining a planning application, are those that create an effect of Major or Major-Moderate significance with an adverse nature of change.

3 CRITERIA AND CATEGORIES: VIEWS

3.1 In determining the significance of effects on views, sensitivity is determined for each visual receptor that would be affected and combined with the magnitude of change arising from the proposed development. The criteria and categories used to determine the effects on views, is set out below.

The nature of the receptor (sensitivity)

3.2 The sensitivity of views is considered in relation to the person experiencing the view. This in part will be based on the **value** that the receptor places on the view. This is considered on a collective basis, so will be influenced by the extent to which it is publicised, relative note-worthiness, i.e. clearly defined view or vista that is distinguished from other views, and the extent to which the view is utilised or enjoyed.

Table A8: Value of view

Value of view	Criteria
High	Views from publicised vantage points and of regional and sub-regional value. Tourist attractions / historic estates /statutory heritage asset with a specific vista or focused views. Particularly noteworthy public views from national trails, National Parks or AONBs or statutory heritage assets, i.e. more than local value and could be expected to be regularly used. Windows from residential properties specifically designed to take advantage of a particular view.
Medium	Locally known or valued viewpoints. View of little noteworthiness from tourist attractions / historic estates /statutory heritage asset/ National Park / AONB. Views from promoted public rights of way or clear evidence of regular use and areas of informal open space. Views from regularly used rooms or living space. Panoramic view, vista or other noteworthy view from active recreation areas or transport routes.
Low	View is not publicised and/or that there is relatively limited evidence of being regularly used. Visually degraded locations. View from small windows or likely non-main living spaces. Views of little noteworthiness from areas of active recreation, churchyards or transport routes.

3.3 The ‘**susceptibility to change**’ of the visual receptor will vary depending on the activity or use of the particular location and the extent to which the view is an important aspect of the activity or use. The following criteria are used to determine susceptibility to change:

Table A9: Susceptibility of visual receptor to change

Susceptibility of visual receptor to change	Criteria
High	Residential properties. Areas of open space where informal recreation is the main activity e.g. country parks and public open space. Users of public rights of way. Recreational activity where the primary enjoyment comes from the view. General views from heritage assets or attractions.
Medium	Areas of outdoor sport or active recreation where appreciation of views forms part of the experience, e.g. golf courses; pedestrians using footways along roads; vehicular users and cyclists on roads; and rail passengers.
Low	Areas of active sport or play where the view does not form part of the experience e.g. football, cricket, play equipment. Commercial/educational premises and areas of employment, where the view has limited value in relation to the activity being undertaken. There may be specific locations where buildings and the type use has been designed to enhance the quality of working life, in which case a medium level sensitivity would be applicable.

3.4 These two aspects are combined to create an overall judgement of sensitivity as follows:

Table A10: Visual sensitivity matrix

Criteria		Susceptibility		
		High	Medium	Low
Value	High	Very High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Very Low

Magnitude of visual effect

3.5 The magnitude of effect of the development on each view was assessed on the basis of three factors, ‘**size or scale of change**’, ‘**geographical influence**’ and ‘**duration and reversibility**’, which are combined to provide an overall judgement of magnitude. The size or scale is based on the following professional judgement and Site based assessment.

Table A11: Visual: size or scale of change

Size/Scale of Change	Criteria
Very High	The proposed development would become the most dominant feature in the view and that completely contrasts with the other existing features in the view. The contrasting features of the development would be fully visible.
High	The proposed development would constitute a major change to the view, forming a prominent new feature in the view that noticeably contrasts with other existing features in the view. The development would be predominantly visible.
Medium	The proposed development would form a noticeable change to the view, forming a conspicuous new feature in the view that partially contrasts or harmonises with other features in the view. The contrasting features of the development would be partially visible.
Low	The proposed development would constitute a small change to the view, forming a minor new feature in the view that largely integrates with its surroundings with little discernible change. This could also be a result of being a glimpsed or filtered view through vegetation and/or at some distance relative to its scale.
Very Low	The proposed development would be a barely discernible change to the view, which could e.g. be due to a very filtered view through vegetation or considerable distance relative to scale.

3.6 **Geographical extent** determines how far the effect would be experienced. The wider the geographical effect, the greater magnitude of change.

Table A12: Visual: geographical influence

Geographic Influence	Criteria
Very High	The development affects all or nearly all of the view and forms the primary focus of the view to the extent that it is overwhelming. It is likely that the view is within the Site or very close to the Site.
High	The development affects a large extent of the view and at the centre of the view. It is likely that the view is close to the Site or possibly in the Site.
Medium	The development affects a moderate extent of the view and lies near the centre of the view or at a slightly oblique angle. It is likely that this is a localised view.
Low	The development affects a small extent of the view and and/or at a moderately oblique angle. It is likely that the development is in the mid-distance of the view.
Very Low	The development affects a very small extent of the view and and/or at a very oblique angle. It is likely that the development is in the far distance of the view.

3.7 Magnitude is also affected by **duration and reversibility**, as set out below:

Table A13: Visual: duration and reversibility

Duration & reversibility	Criteria
High	Long-term development over 30 years and/or difficult to reverse.
Medium	Medium-term development (5 to 30 years) and/or moderately difficult to reverse.
Low	Short-term development 1 to 5 years and/or fully reversible.

3.8 The three aspects of magnitude are combined based on professional judgement, with greater weight being given to scale/size of change, into one of the following categories: **Very High, High, Medium, Low, Very Low** or **No Change** where there is no effect.

Significance of effect

3.9 On the basis of the above, the following categories of significance of effect for visual change are identified, with those with a green tone identified as of overall as being 'significant'.

Table A14: Significance of effect on views

Criteria		Sensitivity				
		Very High	High	Medium	Low	Very Low
Magnitude	Very High	Major	Major	Major-Moderate	Moderate	Moderate-Minor
	High	Major	Major-Moderate	Major-Moderate	Moderate	Minor
	Medium	Major-Moderate	Major-Moderate	Moderate	Moderate-Minor	Negligible
	Low	Moderate	Moderate	Moderate-Minor	Minor	Negligible
	Very Low	Moderate-Minor	Minor	Negligible	Negligible	Negligible

3.10 The nature of change of the effect is also identified providing a judgement on whether the predicted effects would be would be beneficial, adverse or neutral on the basis of the following:

- ♦ **Adverse effects** - those effects that are, on balance, damaging to the quality, integrity or key characteristics of the landscape or visual resource.
- ♦ **Beneficial effects** - those effects that would, on balance, result in an improvement in the quality, integrity or key characteristics of the landscape or visual resource.
- ♦ **Neutral effects** - those effects that would maintain, on balance, the existing levels of the quality, integrity or key characteristics of the landscape or visual resource. (A neutral effect may therefore arise where beneficial effects offset adverse effects or where the value judgement would consider the change to be different, but neither a deterioration or an enhancement).

3.11 For the purposes of this assessment, effects that are considered to be 'significant' i.e. those of greatest consideration in determining a planning application, are those that create an effect of Major or Major-Moderate significance with an adverse nature of change.

4 CRITERIA OF OTHER FACTORS ASSESSED

4.1 The assessment also considered the following aspects, as set out below.

- ♦ **Direct and indirect:** Direct effects relate to the changes on the Site including re-contouring of landform, loss and addition of vegetation, removal or inclusion of built structures and surface treatments, etc. Direct effects are also experienced where there are changes to the character of the landscape, where the proposed development is physically located within a character area or type. Effects on views are also always considered to be direct. Indirect effects occur where the character is influenced by changes in a neighbouring landscape character area.
- ♦ **Seasonal variation and duration:** Due to the role that vegetation can play in preventing or limiting views or influencing the character of the landscape, the difference between winter and summer needs to be considered. This is considered by assessing impacts in winter (in the first year following completion) and in summer (after 15 years).

216.11

NOTES

- 1) This drawing has been produced/issued for the specific use as stated in the drawing status below. The drawing should only be used therefore for matters concerning the identified use.
- 2) Until technical approval, consents and/or licensing has been obtained from the relevant authority, it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given, it is entirely at their own risk.
- 3) All dimensions and/or levels to be checked on site prior to works proceeding.

Co Const Bdy
FW

214.9m

213.7m

214.6m

212.8m

215.3m

214.2m

211.1m

	Site boundary	7.81ha
	Development/Infrastructure	0.86ha
	Inland rock & scree	0.30ha
	Hedgrow	723m (0.21ha)
	Mixed scrub	1.05ha
	Temporary ponds & pools (min 60% waterspace)	0.33ha
	Lowland mixed deciduous woodland	1.34ha
	Other woodland - young trees planted	0.14ha
	Other neutral grassland (mown) (un-mown)	2.61ha (0.52ha) (2.09ha)
	Lowland calcareous grassland	0.92ha
	Amenity grassland	0.35ha
	Line of trees (retained)	264m
	Species-poor hedge with trees (retained)	529m
	Species-poor intact hedge (retained)	92m
	Indicative individual tree locations (retained)	circa 30

HABITAT CREATION LIST

1. Sparsely vegetated inland rock and scree
2. Native species rich hedgerow associated with a bank or ditch
3. Native species rich hedgerow
4. Mixed scrub
5. Temporary ponds and pools
6. Lowland mixed deciduous woodland
7. Native species rich hedgerow with trees
8. Mixed scrub
9. Lowland mixed deciduous woodland
10. Mixed scrub
11. Mixed scrub
12. Other woodland - young trees planted
13. Other woodland - young trees planted
14. Mixed scrub
15. Mixed scrub
16. Lowland mixed deciduous woodland
17. Mixed scrub
18. Other woodland - young trees planted
19. Mixed scrub
20. Other woodland - young trees planted
21. Other woodland - young trees planted
22. Mixed scrub
23. Other woodland - young trees planted
24. Mixed scrub
25. Mixed scrub
26. Other woodland - young trees planted
27. Other woodland - young trees planted
28. Other Neutral Grassland
29. Mixed scrub
30. Other woodland - young trees planted
31. Mixed scrub
32. Other woodland - young trees planted
33. Other woodland - young trees planted
34. Mixed scrub
35. Other woodland - young trees planted
36. Mixed scrub
37. Lowland Calcareous grassland
38. Other Neutral Grassland
39. Other Neutral Grassland
40. Other Neutral Grassland
41. Mixed scrub

White Bottoms Farm



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Client: **ANDREW P BAUGHAN**

Project Ref: **BAUGEQ**

Project Title: **'EDGEHILL QUARRY RESTORATION'**
Edgehill Quarry, Edgehill,
Banbury, Warwickshire, OX15 6DH.

Drwg Title: **PROPOSED LANDSCAPING PLAN**

Drawn by: **DJJ** Drwg No: **BAUGEQ-1-1-008**

Date: **10.09.2019** Scale: **1:1000@A2** Rev: **B**

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Appendix IV

List of waste codes

Permitted waste types				
Source	Sub-source	Waste	Description	Additional restrictions
01 Waste resulting from exploration, mining, quarrying and physical and chemical treatment of minerals	01 01 wastes from mineral excavation	01 01 02	Wastes from mineral nonmetalliferous excavation	Restricted to waste overburden and interburden only.
	01 04 wastes from physical and chemical processing of non-metalliferous minerals	01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 06	
		01 04 09	Waste sand and clays	
02 Waste from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	02 04 wastes from sugar processing	02 04 01	Soil from cleaning and washing beet	
10 Wastes from thermal processes	10 12 wastes from manufacture of ceramic goods, bricks, tiles and construction products	10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)	
	10 13 waste from manufacture of cement, lime and plaster and articles and products made from them	10 13 14	Waste concrete	
17 Construction and demolition wastes	17 01 concrete, bricks, tiles and ceramics	17 01 01	Concrete	
		17 01 02	Bricks	
		17 01 03	Tiles and ceramics	
		17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	Metal from reinforced concrete must have been removed.
	17 05 soil stones and dredging spoil	17 05 04	Soil and stones other than those mentioned in 17 05 03	Restricted to topsoil, peat, subsoil and stones only.
19 Wastes from waste management facilities	19 12 wastes from the mechanical treatment of waste (for example sorting,	19 12 09	Minerals (for example sand, stones) only	Restricted to wastes from treatment of waste aggregates that are otherwise naturally occurring minerals. Does not include fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard.

Permitted waste types				
Source	Sub-source	Waste	Description	Additional restrictions
	crushing, compacting, pelletising) not otherwise specified	19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11.	Restricted to crushed bricks, tiles, concrete and ceramics only. Metal from reinforced concrete must be removed. Does not include fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard.
20 Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	20 02 garden and park wastes	20 02 02	Soil and stones	Restricted to topsoil, peat, subsoil and stones only.



Edgehill Quarry, Edgehill, Warwickshire

Preliminary Ecological Appraisal,
including Biodiversity Impact Calculations

Produced for Andrew Baughan

By Applied Ecology Ltd

May 2020

Document Control:

Version	Date	Version Details	Prepared by	Checked by	Approved by
1.0	23.05.2019	Final	RJH	DP	DP
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3.0	29.05.2020	Final – reflecting amended development plans	RJH	DP	DP

Prepared for: Andrew Baughan
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1 Introduction

Background

- 1.1 In February 2019, Applied Ecology Ltd (AEL) was appointed by SBRice Ltd, on behalf of Andrew Baughan, to undertake a Preliminary Ecological Appraisal (PEA) of an area of land (the 'Site') known as Edgehill Quarry, Edgehill, Warwickshire (central OS grid reference SP 37135 46912). The Site location is shown by **Figure 1.1**.
- 1.2 It is of note that the current appraisal updates a previous PEA of the Site undertaken by AEL in July 2016¹. The survey boundary is unchanged from 2016, with the exception that a small derelict stone barn formerly located within the Site, is now excluded.
- 1.3 The current PEA Site survey was undertaken in April 2019. Subsequently, AEL was appointed to undertake biodiversity impact calculations to assess the biodiversity losses and gains associated with the development proposals using the Defra Biodiversity Metric 2.0². These original calculations have been updated to reflect a revised masterplan for a significantly reduced scheme.
- 1.4 A high-level summary of likely development effects, including a summary of these calculations is provided in **Chapter 4**. The full calculations are provided as a separate spreadsheet.

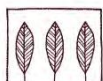
Legislation and Planning

Legislation

- 1.5 The Wildlife and Countryside Act 1981 (as amended) provides the main legal framework for nature conservation and species protection in the UK. The Site of Special Scientific Interest (SSSI) is the main statutory nature conservation designation in the UK. Such sites are notable for their plants, or animals, or habitats, their geology or landforms, or a combination of these. Natural England is the key statutory agency in England for advising Government, and for acting as the Government's agent in the delivery of statutory nature conservation designations.
- 1.6 Designation of a SSSI is a legal process, by which sites are notified under the Wildlife and Countryside Act 1981. The 1981 Act makes provision for the protection of sites from the effects of changes in land management, and owners and occupiers receive formal notification specifying why the land is of special scientific interest, and listing any operations likely to damage the special interest.
- 1.7 The Countryside and Rights of Way Act 2000, and The Natural Environment and Rural Communities (NERC) Act 2006, provide supplementary protected species legislation.

¹ AEL (2016) *Hornton Quarry, Edgehill, Warwickshire – Ecology Report*. Produced for Corylus Planning and Environmental Ltd. V1.0, Nov 2016.

² <http://publications.naturalengland.org.uk/publication/5850908674228224>



Specific protection for badgers *Meles meles* is provided by the Protection of Badgers Act 1992.

Habitats and Species of Principal Importance in England

- 1.8 The Natural Environment and Rural Communities (NERC) Act came into force on 1 October 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act.
- 1.9 The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Habitats of Principal Importance

- 1.10 Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and sub-tidal sands and gravels.

Species of Principal Importance

- 1.11 There are 943 species of principal importance included on the S41 list. These are the species found in England which were identified as requiring action under the UK Biodiversity Action Plan (BAP) and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. In addition, the hen harrier *Circus cyaneus* has also been included on the list because without continued conservation action it is unlikely that the hen harrier population will increase from its current very low levels in England.
- 1.12 In accordance with Section 41(4) the Secretary of State will, in consultation with Natural England, keep this list under review and will publish a revised list if necessary.

National Planning Policy Framework

- 1.13 The National Planning Policy Framework (NPPF) was first published in March 2012 and replaced previous planning policy guidance (PPS 9) on biodiversity. The NPPF was updated in July 2018, and in February 2019, and states the following in relation to biodiversity and planning:
- 1.14 *“When determining planning applications, local planning authorities should apply the following principles:*
- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately*



mitigated, or, as a last resort, compensated for, then planning permission should be refused;

- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments) should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons³ and a suitable compensation strategy exists; and*
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

1.15 *The following should be given the same protection as habitat sites:*

- a) potential Special Protection Areas and possible Special Areas of Conservation;*
- b) listed or proposed Ramsar sites⁴; and*
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.*

1.16 *The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.”*

³ For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

⁴ Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar site.



Edgehill Quarry

Site location



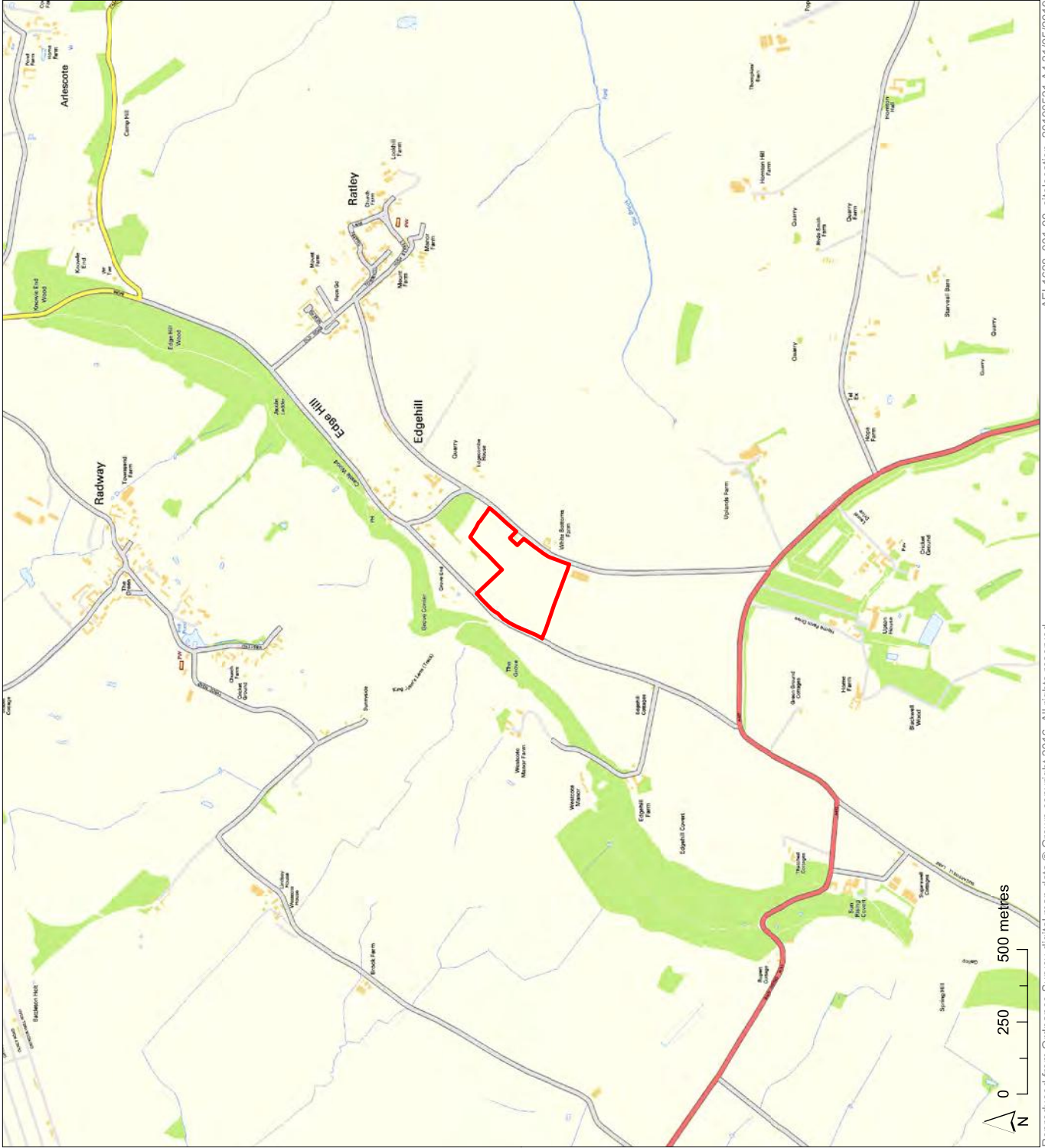
Site boundary



Figure 1.1

Map Scale @ A4: 1:20,000

Surveyed by: -
Survey date: -
Drawn by: RJH
Checked by: DP
Status: Final



2 Existing Biological Information

Sources of Information

- 2.1 The Warwickshire Biological Records Centre (WBRC) was commissioned by AEL to search their database for existing biological records, including statutory and non-statutory wildlife sites, and protected / notable species, within and around the Site (based on a 1 km radius around the Site's central point). The WBRC data search was received on 16 May 2019.
- 2.2 The PEA survey conducted by AEL in July 2016 has also been reviewed and key relevant findings are summarised below.

Designated Wildlife Sites

- 2.3 The location of statutory wildlife sites and Ancient Woodland in relation to the Site is shown by **Figure 2.1**. The WBRC designated site map showing non-statutory wildlife sites is provided in **Appendix A**.

Statutory wildlife sites

- 2.4 The Site is not covered by any statutory wildlife designations and is not Ancient Woodland. The closest nationally important statutory site is **Lobbington Hall Farm Meadow Site of Special Scientific Interest (SSSI)**, which is located around 7 km to the northwest of the Site. The Site is located within a SSSI risk zone (as shown by <https://magic.defra.gov.uk>) that only relates to infrastructure (airports, helipads and other aviation proposals) and the discharge of water or liquid waste of more than 20m³/day to ground or to surface water, and is not therefore relevant to the development being proposed.

Non-statutory wildlife sites

- 2.5 The Site itself has been identified as part of a potential Local Wildlife Site (pLWS) known as **Stone Quarry pLWS**, and forms part of Ecosite 08/34. The *Ecosite Brief Descriptions* provided by WBRC for this pLWS confirm that this site was previously identified as having high botanical value, with notable plants such as fine-leaved sandwort *Minuartia hybrida*, field scabious *Knautia arvensis* and rue-leaved saxifrage *Saxifraga tridactylites* recorded in 2014, and greater knapweed *Centaurea scabiosa* and narrow-leaved everlasting-pea *Lathyrus sylvestris* recorded in 2012. The pLWS was also noted as supporting a range of invertebrates, including beetles, micromoths, dragonflies, and 11 species of butterfly.
- 2.6 However, the WBRC site description confirms that Stone Quarry pLWS was “...largely impacted during works in 2017”, and that in January 2018 the only remaining vegetation was a fringe of semi-improved grassland around the boundary. No notable plant interest was reported in 2018 by the WBRC with grassland species including St. John's-wort *Hypericum* sp., cock's foot *Dactylis glomerata*, oxeye daisy *Leucanthemum vulgare* and mallow *Malva* sp.



- 2.7 The former botanical and invertebrate interests of the pLWS therefore appear to have been lost from the Site.
- 2.8 A number of other non-statutory LWSs and pLWSs also fall within 1 km of the Site, including **Edgehill Meadows LWS, Radway Meadows Nature Reserve LWS, Edgehill pLWS, Westcote Farm Meadows pLWS** and **Ratley Field pLWS**.
- 2.9 The closest Ancient Woodland is a narrow band of escarpment woodland (part of Edgehill pLWS) located around 30 m to the northwest of the Site at its closest point.

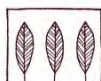
Species Records

WBRC species records

- 2.10 Numerous records of notable flora and fauna were provided by the WBRC for land within or close to the search area. Of specific note are a number of records shown to be from the Site itself, including:
- A 2017 record of grass snake *Natrix helvetica*.
 - A range of notable invertebrates, including shaded broad-bar *Scotopteryx chenopodiata* (UK BAP species, 1988 record), black-headed mason wasp *Odynerus melanocephalus* (UK BAP and Nationally notable A species, 1996 record), hill cuckoo bee *Bombus rupestris* (Nationally notable B, 2001/2 records), yellow footed mining bee *Lasioglossum xanthopus* (Nationally notable B, 1997 and 2001 records), red-shanked carder-bee *Bombus ruderarius* (UK BAP species, 1996 records), *Sphex crassus* (Nationally notable B, 1996 record) and *Dolichovespula media* (Nationally notable A, 1996 record).
 - Notable higher plants, including fine-leaved sandwort *Minuartia hybrida* (Nationally Scarce and Endangered in England, three 2014 records) and field scabious *Knautia arvensis* (Nationally Near Threatened, 2012 record).
 - A confidential map supplied by WBRC which highlights the presence of a badger sett within the Site.
- 2.11 A 2004 record of barn owl *Tyto alba* was provided for Ransfords Barn (SP 37275,46928) stating evidence of “Feeding signs and many pellets in barn. No signs of nesting.” It is of note that this barn was located within the Site boundary during the 2016 PEA, but has been excluded from the current Site boundary. It was however inspected during the April 2019 visit.
- 2.12 In addition to the on-Site species records listed above, a range of other potentially relevant species records were provided by the WBRC for off-Site land. This includes bats (common pipistrelle *Pipistrellus pipistrellus* and brown long-eared bat *Plecotus auritus*), brown hare *Lepus europaeus*, and birds such as stock dove *Columba oenas*, spotted flycatcher *Muscicapa striata* and song thrush *Turdus philomelos*.

AEL 2016 plant records

- 2.13 A number of notable plants were recorded from the Site by AEL in July 2016. No evidence of the Nationally Scarce and Endangered fine-leaved sandwort was recorded, but the

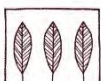


Nationally Scarce grass species dense silky-bent *Apera interrupta* was found to be abundant in areas of sparsely vegetated sandy ground in the central part of the Site⁵.

- 2.14 Other plant species recorded by AEL in 2016 that are considered notable in Warwickshire⁶, included a few plants of field scabious (also Nationally Near Threatened), kidney vetch *Anthyllis vulneraria* (occasional patches in grassland areas), greater knapweed (rare in grassland areas), pyramidal orchid *Anacamptis pyramidalis* (rare in grassland areas), field madder *Sherardia arvensis* (occasional on bare sand) and musk thistle *Carduus nutans* (rare in grassland areas).

⁵ This might be the first record of this species in Warwickshire as it is not listed on the 2012 Warwickshire Vice-County checklist. Although its status would need to be confirmed by the BSBI Vice-County recorder, it would probably be regarded as a casual alien in Warwickshire and therefore its presence is likely to be of academic interest only.

⁶ Walton, J and Walton, M (2018) *Rare Plant Register for Warwickshire (Vice County 38)*. Warwickshire Biological Records Centre, Warwick.



Edgehill Quarry

Site location





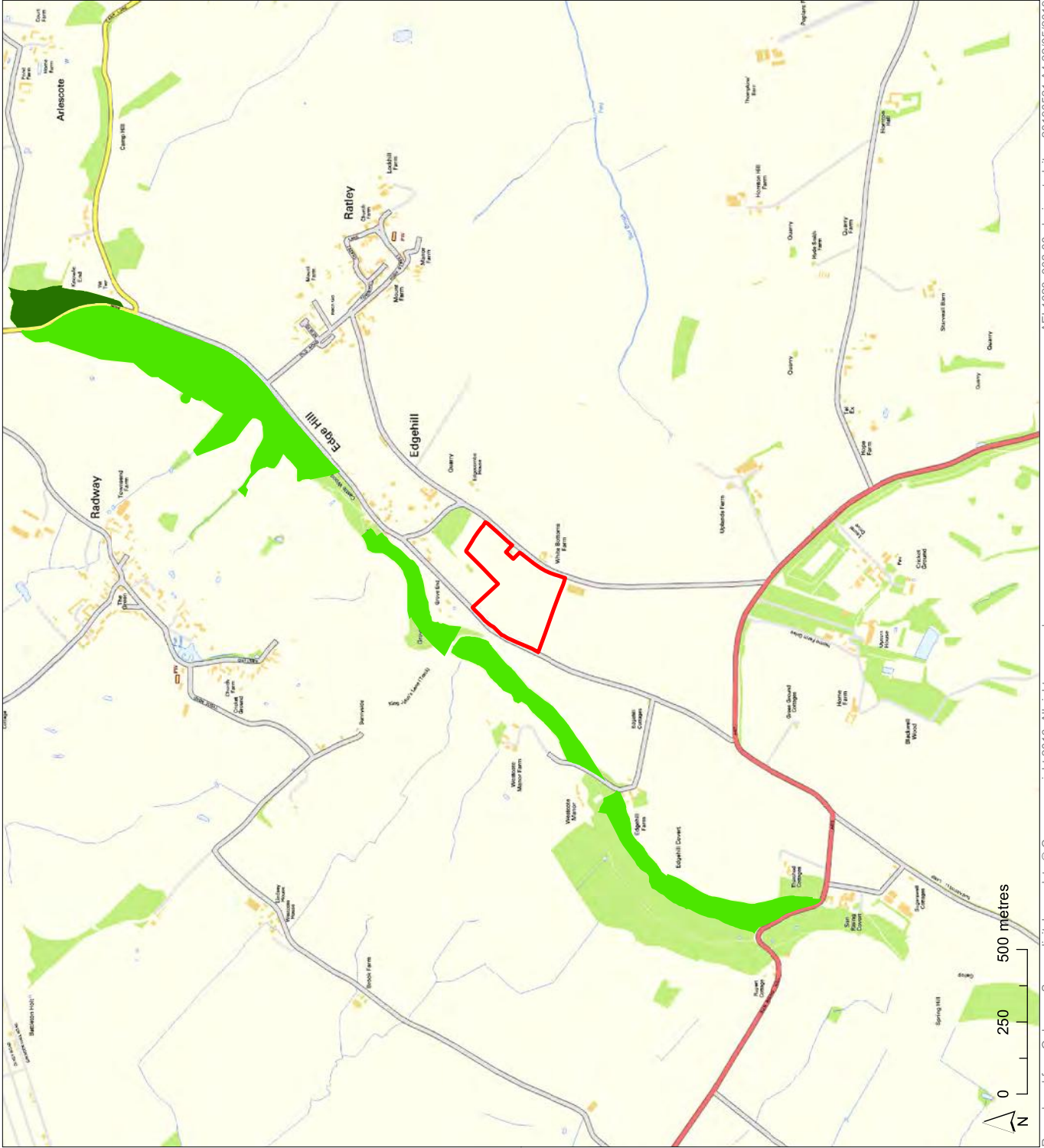
-  Site boundary
-  Ancient woodland
-  Ancient Semi-Natural Woodland
-  Plantation on Ancient Woodland Site



Figure 2.1

Map Scale @ A4: 1:20,000

Surveyed by: -
Survey date: -
Drawn by: RJH
Checked by: DP
Status: Final



3 Survey Approach and Findings

Survey Approach

Habitat survey

- 3.1 An extended Phase 1 habitat survey of the Site was undertaken on 17 April 2019 by AEL Principal ecologist Rob Hutchinson MCIEEM. Rob is an experienced botanist and holds Natural England survey licence holder for bats (Level 1), great crested newt (Level 2) and dormouse.
- 3.2 All habitats present were classified and mapped according to standard Phase 1 habitat survey categories⁷. Notes were made of the key habitats and features and, where appropriate, a list of the plant species present and an estimate of their individual relative abundance was recorded according to the DAFOR scale⁸. The habitat map was digitised and presented using a Geographical Information System (ArcGIS).

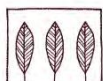
Protected species walkover

- 3.3 A protected species walkover survey of the Site was carried out in conjunction with the Phase 1 habitat survey. All accessible ground within the Site boundary (i.e. excluding steep slopes, areas of dense impenetrable vegetation and inaccessible margins) was walked and investigated for evidence of the presence of animal species protected by wildlife law or covered by biodiversity planning initiatives, including badger. In the absence of field evidence, a professional judgement assessment of habitat suitability for such species was made based on the habitats present, their extent and connectivity, and with consideration to existing species records.
- 3.4 In light of past records of barn owl use, a specific external and internal inspection of a small derelict stone barn (located just outside of the Site boundary) was undertaken using a high-powered torch and binoculars to search for evidence of use by barn owl and/or roosting bats. In the absence of such evidence, the building's potential suitability and value in this respect was assessed, specifically in line with Collins (2016)⁹ for bats. It should be noted however that access around the outside of the barn was limited due to surrounding patches of dense bramble and woody scrub, and close inspection was further limited by climbing ivy.

⁷ JNCC (1993) *Handbook for Phase 1 Habitat Survey – A technique for Environmental Audit*. JNCC. Peterborough.

⁸ DAFOR scale, where D=Dominant; A=Abundant; F=Frequent; O=Occasional and R=Rare.

⁹ Collins, J (2016) *Bat Surveys for Professional Ecologists – Good Practice Guidelines*, 3rd edition. Bat Conservation Trust, London.



Survey Findings

Habitats and plants

Overview

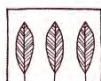
- 3.5 The Phase 1 habitat map is shown by **Figure 3.1**, and representative Site photographs are provided in **Figure 3.2**. A comprehensive list of the higher plant species recorded during the habitat survey, including a comparison with the July 2016 records, is provided in **Appendix B**.
- 3.6 The Site comprised an unrestored quarry (7.81 ha in total extent) with a unvegetated and compacted sand quarry floor (**Photo 1**) and numerous material stockpiles in various stages of vegetation colonisation and supporting a range of widespread and commonplace ephemeral and ruderal plants (**Photo 2**). No evidence of notable plants, including dense silky-bent (which was seen to be common on the quarry floor in 2016), was seen within the active quarry area.
- 3.7 The margins of semi-improved grassland around the perimeter of the quarry had been much reduced since 2016, with the remaining areas also having been disturbed by ongoing works resulting in the replacement of grassland species, at least in part, by tall ruderals. The western boundary still supported a narrow margin of moderately species-rich grassland (**Photo 3**), including a few plants of kidney vetch and narrow-leaved everlasting-pea (both notable plants in Warwickshire).
- 3.8 The perimeter of the Site supported some sections of hedgerow, scrub and trees, as follows:
- The western boundary supported scattered woody scrub at the southern end, and frequent mature trees, including ash, at its northern end, with a line of poplar to the north of the entrance gate.
 - The southern boundary supported a species-poor hedgerow along the top of a near vertical sparsely vegetated stone quarry cliff (**Photo 4**).
 - The eastern boundary supported scattered scrub and trees, mainly planted hornbeam and self-sown poplar at its southern end, and a poor hedgerow to the north.

Protected animal species

- 3.9 On the basis of the habitats present, the findings of the walkover survey and existing species records, specific commentary on the Site's potential value for badger, great crested newt, reptiles, breeding birds, bats and invertebrates is provided below.

Badger

- 3.10 A dead badger was found inside the stone barn during the walkover survey in 2016, but no other evidence of badger presence within the Site in the form of their setts, foraging or paths, was seen by AEL in 2016 or in 2019. It is also of note that no evidence of badger presence was found during a specific badger survey of the Site completed by other



consultants in February 2018¹⁰. In particular, a badger sett was not present in the location of the WBRC badger sett record, and no evidence of badger holes or digging was seen in the north-western part of the Site where holes attributed to rabbit were noted in February 2018. In summary, no badger setts are present within the quarry.

Great crested newt

- 3.11 No waterbodies potentially suitable for great crested newt (GCN) are present within the Site, with one off-Site waterbody shown to be located within 250 m according to the 1:10,000 scale OS map (see the pond north of the Site on **Figure 3.1**). However, with reference to online aerial photographs this waterbody appears to be no longer present having been infilled and replaced by grassland sometime between 2009-17.
- 3.12 On this basis, significant impacts on GCN are not anticipated and this species is not considered further.

Reptiles

- 3.13 No evidence of reptiles was seen during the walkover survey, and with the exception of very narrow grassland margins, habitats within the Site are too disturbed and open to be of significant value to such species. It is possible that small numbers of grass snake could use the Site occasionally, and a precautionary approach to their presence should be adopted going forward.

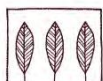
Breeding birds

- 3.14 A range of common hedgerow and woodland species are likely to nest in hedgerows and trees around the Site's boundary, but the active quarry area lacks potential nesting habitat including for ground nesting species (e.g. skylark), with no evidence of ground nesting seen during the walkover.
- 3.15 An internal inspection of the off-Site, but nearby stone barn, confirmed the presence of 100+ barn owl pellets (of various ages) on the barn floor below a wooden roof beam. No evidence of nesting within the barn was seen, and the barn appears to be used by barn owl for roosting only. This finding is consistent with the 2004 WBRC barn owl record, and the 2016 PEA findings.

Bats

- 3.16 All mature trees potentially suitable for roosting bats were located on high ground around the perimeter of the Site. Specific ground level inspections of these trees would need to be completed if any tree work is proposed. The disused off-Site stone barn was considered to be of low suitability for roosting bats. No follow-up surveys are however proposed or considered necessary as the building will be retained and unaffected by the proposals.
- 3.17 The Site was considered to be of negligible value for commuting and foraging bats (consisting of bare ground), although the hedgerows and tree lines around the Site's perimeter could be of some value in the local context.

¹⁰ Derek Finnie Associates Consultant Ecologists (2018) *Edge Hill Quarry, Edge Hill – Badger Survey*. Report ref: DFA18063.

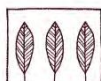


Invertebrates

- 3.18 The combination of bare ground, sandy cliffs, and ephemeral vegetation represents a habitat mix of potential value to brown field invertebrates, with evidence of hole nesting Hymenoptera using exposed sandy vertical mini-cliffs cut in to consolidated stockpiles seen during the July 2019 visit. However, while the Site may possess some remnant interest, its potential value is likely to have been significantly reduced by recent works and vegetation changes.

Further Survey Requirements

- 3.19 The following section discusses the potential need for follow-up ecological surveys, and specifically aims to address concerns and comments on the need for further surveys that have been provided by the Local Authority ecologist (email to the planning officer dated 8 December 2019).
- 3.20 The habitat surveys completed by AEL in July 2016 and April 2019 have both been undertaken by Rob Hutchinson MCIEEM at optimal times for recording annual and ephemeral plant species. Rob has an MSc (Distinction) in Vegetation Survey and Assessment and holds a Level 5 Field Skills Identification Certificate (FISC) from the Botanical Society of Britain and Ireland. He would therefore be considered a suitably qualified ecologist and botanist in these terms. A further Phase 2 botanical survey is not considered necessary in our opinion given the overall lack of vegetation cover within the quarry, the high level of ongoing disturbance and the low overall botanical interest recorded within the quarry in recent years.
- 3.21 There are no known nearby aquatic habitats that could support breeding amphibian populations and therefore surveys for amphibians are not being proposed. The quarry consists of highly disturbed bare ground with patches of tall ruderals that are considered unsuitable habitat for reptiles at the current time. The more established grassy margins of the Site could support small numbers of reptiles, most notably grass snake, but these areas will be unaffected by the development proposals. Given the very low impact risk, it is considered reasonable to recommend a precautionary approach to future development-related clearance and construction, and for us to recommend a specific reptile survey at the current time would be unreasonable and excessive in our opinion.
- 3.22 Three separate badger surveys of the quarry have been completed in 2016, 2018 and 2019 by two different ecological consultancies with no confirmed evidence of badger presence found on any occasion. Given the well vegetated margins of the quarry will be unaffected, and the quarry itself consists of bare ground and patches of tall ruderal vegetation that are easily searched, a repeat badger survey of the quarry in winter is not considered necessary.
- 3.23 A single day specialist invertebrate survey of the Site is scheduled to take place in late June 2020. The ecology report will be updated to include the findings of the survey.



Edgehill Quarry

Habitat map















-  Site boundary
-  bare ground
-  bare ground (soil storage / bund)
-  ephemeral/short perennial
-  tall ruderal with scattered scrub
-  semi-improved grass / tall ruderal
-  dense scrub
-  semi-improved neutral grassland
-  tall ruderal
-  line of trees
-  species-poor hedge with trees
-  species-poor intact hedge
-  individual tree (indicative location)
-  scattered scrub

Figure 3.1

Map Scale @ A4: 1:2,500

Surveyed by: RJH

Survey date: 17 April 2019

Drawn by: RJH

Checked by: DP

Status: Final

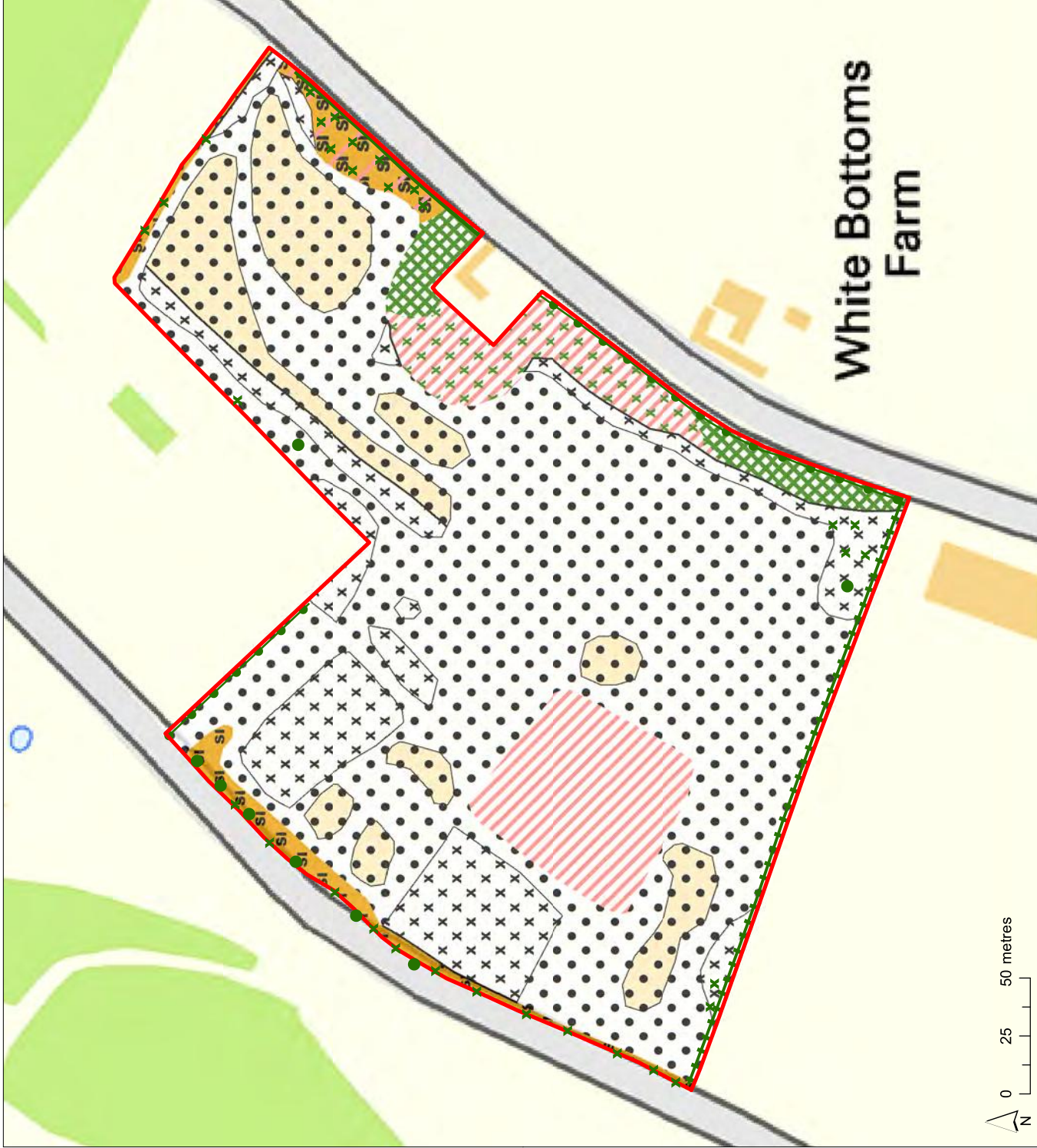


Figure 3.2: Selection of habitat survey photographs.



(a) Bare ground on the quarry floor with no plant cover.



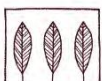
(b) Numerous large material stockpile mounds in various stages of plant colonisation.



(c) Narrow fringe of moderately species-rich grassland along western perimeter.



(d) Partial vegetated near vertical stone cliff along southern quarry boundary.



4 Likely Development Effects

Summary of Potential Impacts

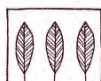
Designated wildlife sites

- 4.1 Significant adverse effects on statutory wildlife sites are not predicted as a consequence of development construction or operation given the distance between such sites and the development, and the scale and type of development being proposed.
- 4.2 The Site is a proposed Local Wildlife Site (pLWS) and represents an example of ‘Open Mosaic Habitats on Previously Developed Land’ which is a habitat of Principal Importance in England, and therefore has recognised biodiversity value.
- 4.3 However, the botanical and invertebrate interests of the Site that were reported by the WBRC in 2012 and 2014, and by AEL in July 2016, have declined significantly due to the material stockpile processing that has occurred over the last two years. This decline has been clearly documented by WBRC (January 2018) and observed by AEL in April 2019. The consequence has been a significant reduction in habitat cover and diversity, together with high levels of ongoing disturbance, which means the Site no longer represents a good example of open mosaic habitat. It is also very unlikely that the Site, as it stands, would qualify as an LWS under the habitat and species LWS selection criteria for Warwickshire, Coventry and Solihull¹¹, and its pLWS is therefore debatable.
- 4.4 While it could be argued that the former ecological value of the Site could potentially re-establish relatively quickly when the current operations have come to an end, it is equally likely that any brownfield plant and invertebrate interests, will, in the absence of active and appropriate land management, represent a short and temporal phase only and are likely to decline overtime without a mechanism for ongoing intervention.

Habitat and plants

- 4.5 In overall habitat loss terms, and using the current habitat baseline, Site clearance and development construction would result in the loss of mainly bare and disturbed ground, together with small mainly marginal areas of ephemeral and tall ruderal vegetation, semi-improved grassland and dense scrub. With the exception of a few plants of kidney vetch and narrow-leaved everlasting-pea present along the western boundary, no notable plants were recorded in April 2019.
- 4.6 It is of note that all boundary hedgerows and trees would be retained and protected as part of the development design.

¹¹ Warwickshire Wildlife Trust and Warwickshire County Council (undated). *The Green Book: Guidance for the Selection of Local Wildlife Sites in Warwickshire, Coventry and Solihull*. Version 12/13.



Protected and notable animal species

- 4.7 No evidence of badger, including their setts, was seen during the walkover survey, and the habitats present were considered to be of limited value to protected animal species in general, including reptiles and breeding birds, with any interest likely to be restricted to small remaining areas of marginal habitat, and boundary hedgerows and trees.
- 4.8 Some existing features, including short sections of consolidated earth mini-cliffs recently cut into material stockpiles and the partly vegetated vertical quarry face along the southern boundary, may support some specialist invertebrate interest, although the level of invertebrate interest overall is likely to have declined significantly due to the reduction in habitat cover and diversity since 2017. It is of note that a specific single day invertebrate survey is due to be undertaken in late June to characterise the invertebrate assemblages present and associated species interests.

Embedded Design Mitigation

- 4.9 Biodiversity has been a key consideration from the early stages of development design, with the overriding objective to enhance the Site's current ecological values and interests through a combination of targeted habitat retention (where feasible and appropriate), new habitat creation, wildlife friendly landscaping and other ecological enhancements.
- 4.10 While the former development proposals delivered a substantial net biodiversity gain, the scheme has been significantly revised and scaled back to further improve the outcome for biodiversity. The current development masterplan is provided in **Appendix C**, and has incorporated a number of key ecological design principles, including:
- The retention of all boundary hedgerows and trees, combined with sensitive after-dark lighting.
 - The retention of the southern quarry cliff.
 - The creation of extensive new areas of native marginal woodland, combined with woody scrub and rough grassland edges, new hedgerows, and wildflower grassland.
 - The creation of a dedicated and fenced wildlife area with new native boundary hedgerows. The area would incorporate legume-rich calcareous grassland and a series of ephemeral waterbodies of various depths and water permanency to be fed by surface water and building rain capture as part of the developments proposed SuDS. Public access to this area would be restricted with the only point of access intended to be locked access gate allowing access for management.
 - The creation of a low-density eco-lodge site set within a new wildflower meadow, with no formal paths, and juxtaposed against the dedicated wildlife area.
 - The creation of a south-facing sloping bank of varied profile and aspects along the inside the southern boundary to target brownfield invertebrates.
- 4.11 The level of biodiversity enhancement achieved by the scheme has been assessed using the Defra metric calculations, and is summarised in the section below.



Impact Avoidance and Mitigation

- 4.12 On the basis of the habitats present, the following precautionary measures should be adopted at the current time:
- The removal of any woody scrub that could support nesting birds must be undertaken outside of the bird nesting period (March-August) or immediately following a check by an ecologist that confirms their absence.
 - Maintain a watching brief for reptiles, most notably grass snake, and for newly dug badger holes, during any continuing Site clearance works.
- 4.13 It should be noted however that due to the long-term project programme, which will involve phases of landfill, capping and then development of the new lodges, changes to existing habitats are likely to occur in response to levels of ongoing Site activity or inactivity. For this reason, it is recommended that a precautionary approach to the potential presence of protected species is adopted going forward, including a combination of update walkover and protected species surveys (if necessary) at key development phases in order to assess, review and inform the need for additional impact avoidance measures and mitigation.

Biodiversity Impact Calculations

- 4.14 A summary of the Defra metric calculations, in relation to Site habitats and hedges, is provided below, with the full calculator provided as a standalone spreadsheet.

Site habitats

Site habitat baseline (A-1)

- 4.15 For the purposes of the biodiversity metric calculations, the Phase 1 habitats types shown in **Figure 3.1** have been converted into the corresponding habitats described under the UK Habitat Classification (UKHab) and their condition assigned based on Defra guidance and using professional judgement.
- 4.16 It is assumed that all existing habitats will be lost to development, except for boundary hedgerows and trees which are dealt with separately below. A summary of the Site habitat baseline calculations is provided in **Table 4.1**.

Table 4.1: Summary of Site habitat baseline calculations and units lost.

Habitat type	Area (ha)	Distinctiveness (score) / Condition (score)	Total habitat units	Area retained / enhanced / succession	Units lost	Notes
Urban – vacant/derelict land/bare ground	5.08	Low (2) / Poor (1)	10.16	0	10.16	Bare quarry floor
Sparsely vegetation land – ruderal/ephemeral	1.13	Low (2) / Moderate (2)	4.52	0	4.52	Sparse ephemeral vegetation



Sparsely vegetation land – ruderal/ephemeral	0.93	Low (2) / Poor (1)	1.86	0	1.86	Species-poor tall ruderal with and without scattered scrub
Grassland – modified grassland	0.13	Low (2) / Moderate (2)	0.52	0	0.52	Semi-improved grassland with tall ruderals
Heathland and scrub – mixed scrub	0.22	Medium (4) / Moderate (2)	1.76	0	1.76	-
Grassland – other neutral grassland	0.32	Medium (4) / Moderate (2)	2.56	0	2.56	Semi-improved grassland
Totals	7.81		21.38	0	21.38	

Site habitat creation (A-2)

- 4.17 Substantial areas of new ecologically valuable habitat will be created as part of the development. A landscape plan showing the various habitat types and their associated areas, which can be cross referenced with the calculations, has been prepared and is provided in **Appendix D**. A summary of the Site habitat creation proposals and their associated value in biodiversity units is provided in **Table 4.2**.

Table 4.2: Summary of Site habitat creation calculations and units delivered.

Proposed habitat	Area (ha)	Distinctiveness (score) / Condition (score)	Habitat units delivered	Notes
Habitat creation				
Sparsely vegetated land – inland rock outcrop and scree habitat	0.30	High (6) / Poor (1)	0.42	Not typical example of UKHAB type, but no suitable alternative available and assigned poor condition to reflect atypical location and species assemblage
Heathland and scrub – mixed scrub	1.05	Medium (4) / Moderate (2)	7.56	Mixed native woody scrub
Lakes - Temporary lakes, ponds and pools	0.33	High (6) / Moderate (2)	2.22	Ephemeral ponds in wildlife area
Woodland and forest - Lowland mixed deciduous woodland	1.34	High (6) / Moderate (2)	1.70	Blocks of perimeter native woodland
Woodland and forest - Other woodland; Young Trees planted	0.14	Medium (4) / Poor (1)	0.23	Strategic tree planting around lodges
Grassland - Other neutral grassland	2.39	Medium (4) / Moderate (2)	13.39	Wildflower grassland managed for biodiversity and subject to two cuts a year (early spring and autumn)
Grassland - Lowland calcareous grassland	0.92	High (6) / Moderate (2)	1.79	Species-rich grassland managed specifically for biodiversity within the wildlife area
Urban - Developed land; sealed surface	0.47	V. low (0) / N/A (0)	0.00	Lodges, access roads and parking areas



Grassland - Other neutral grassland	0.52	Medium (4) / Poor (1)	2.01	Wildflower grassland around lodges subject to more frequent cutting
Urban – amenity grassland	0.35	Poor (1) / Poor (1)	0.68	
Totals	7.81		29.97	

4.18 It is acknowledged that the effective delivery of these targeted habitat benefits will be partly dependent on details of proposed habitat creation, such as Site preparation and species selection, and proposals for long-term management. While full details of soft landscape specifications and management are not provided at this stage, suggestions for suitable species mixes for select habitats (namely calcareous / neutral grassland, scrub, woodland and hedgerows), and high-level bullet-pointed management and monitoring recommendations, are provided in **Appendix E**, to give reassurance of the direction intended.

Site hedges (B-1 and B-2)

4.19 All existing hedgerows and lines of trees (total length 0.88 km and equivalent to 3.52 units) are to be retained and protected as part of the development, and new species-rich hedgerow with trees will be planted (total length 0.72 km and equivalent to 2.70 units).

Biodiversity impact of development

4.20 The Defra Biodiversity Metric 2.0 Calculation Tool confirms a biodiversity net gain of +8.59 units (**40% gain**) for habitats and +6.22 units (**176% gain**) for hedges.

Additional Enhancements

4.21 A range of bird and bat boxes will be provided as part of development construction, with precise locations and placement to be agreed with an ecologist, but to include the following:

- 10 no. sparrow terrace boxes (1SP Schwegler sparrow terrace or similar) to be installed on new bungalows and lodges.
- 10 no. general bird nesting boxes (1B Schwegler nest box 32 mm hole or similar) to be mounted on retained trees around the Site boundary.
- 1 no. barn owl box (e.g. www.barnowl.co.uk/product87.asp or similar) to be installed on an existing mature tree along the Site's western boundary or mounted on a suitable pole within the restricted access wildlife area.
- 5 no. bat boxes (2F Schwegler bat box, general purpose or similar) to be mounted on retained trees around the Site boundary.



Appendix A

WBRC designated sites figure





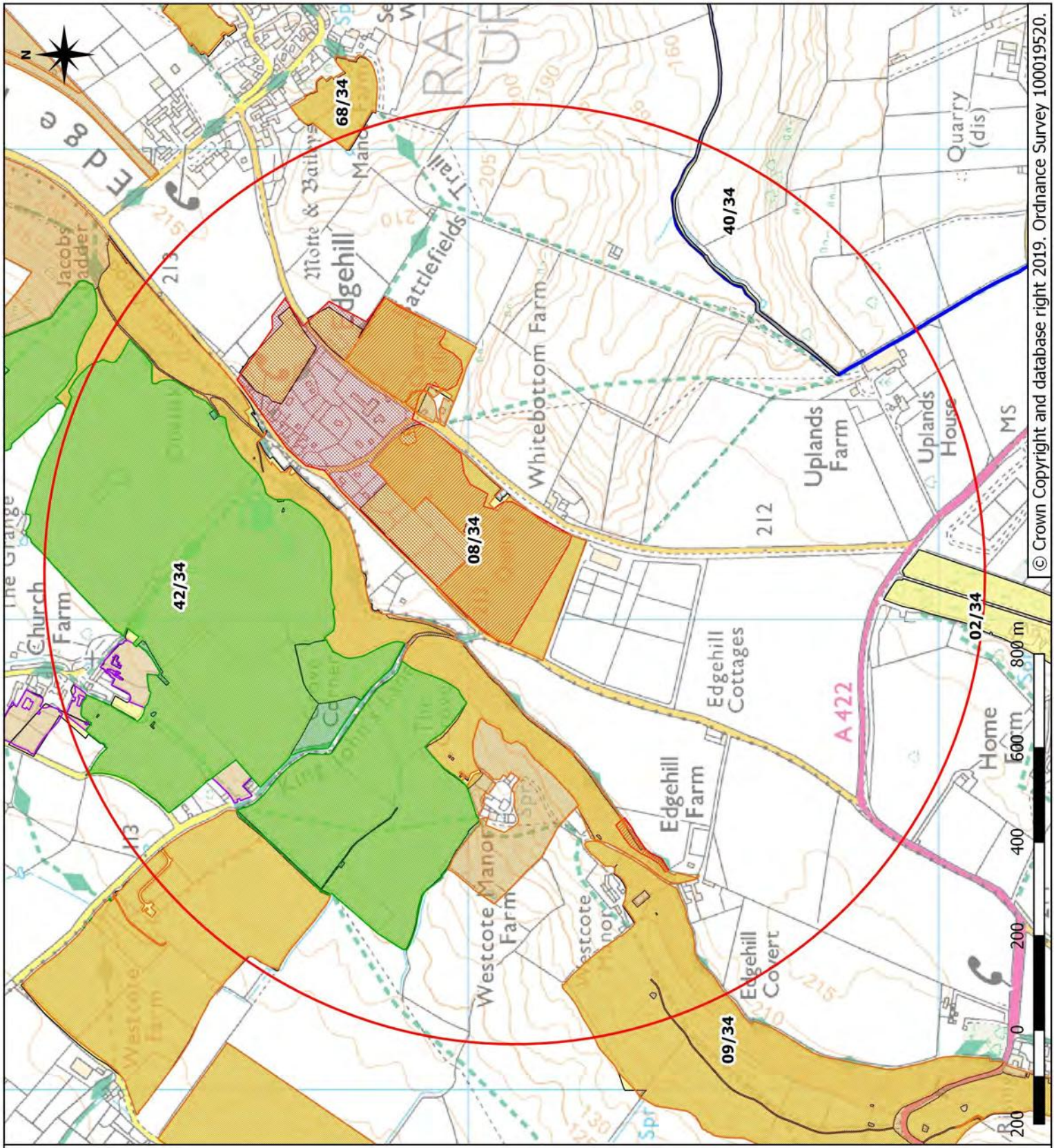
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Horton Quarry, Edgehill
SP 37098 46901

Sites
1km search

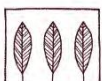
- SAC
- SSSI
- LNR
- LGS
- Ecosites
- Local Wildlife Sites
- deferred
- destroyed
- LWS
- potential site
- rejected

Warwickshire Biological Records Centre,
Ecological Services, Warwickshire
County Council, Warwick CV34 4SS Tel:
01926 418060



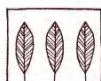
Appendix B

Plant species recorded during 2016 and 2019 habitat surveys

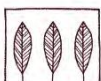


List of plant species recorded by AEL during Edgehill Quarry habitat surveys in 2016 and 2019 - sorted by Latin name.

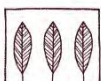
Common name	Latin name	2016	2019
field maple	<i>Acer campestre</i>	Y	-
ground elder	<i>Aegopodium podagraria</i>	Y	-
black bent	<i>Agrostis gigantea</i>	Y	-
creeping bent	<i>Agrostis stolonifera</i>	Y	Y
garlic mustard	<i>Alliaria petiolata</i>	-	Y
pyramidal orchid	<i>Anacamptis pyramidalis</i>	Y	-
barren brome	<i>Anisantha sterilis</i>	Y	Y
kidney vetch	<i>Anthyllis vulneraria</i>	Y	Y
dense silky-bent	<i>Apera interrupta</i>	Y	-
thyme-leaved sandwort	<i>Arenaria serpyllifolia</i>	Y	Y
false oat-grass	<i>Arrhenatherum elatius</i>	-	Y
mugwort	<i>Artemisia vulgaris</i>	-	Y
daisy	<i>Bellis perennis</i>	-	Y
soft brome	<i>Bromus hordeaceus</i>	Y	-
butterfly-bush	<i>Buddleja davidii</i>	Y	-
large bindweed	<i>Calystegia sylvatica</i>	Y	-
hairy bittercress	<i>Cardamine hirsuta</i>	-	Y
welted thistle	<i>Carduus crispus</i>	Y	-
musk thistle	<i>Carduus nutans</i>	Y	-
fern-grass	<i>Catapodium rigidum</i>	Y	-
sticky mouse-ear	<i>Centaurea glomeratum</i>	Y	Y
common knapweed	<i>Centaurea nigra</i>	Y	Y
greater knapweed	<i>Centaurea scabiosa</i>	Y	-
mouse-ear	<i>Cerastium fontanum</i>	Y	-
small toadflax	<i>Chaenorhinum minus</i>	Y	-
rosebay willowherb	<i>Chamerion angustifolium</i>	Y	Y
fat-hen	<i>Chenopodium album</i>	Y	Y
creeping thistle	<i>Cirsium arvense</i>	-	Y
spear thistle	<i>Cirsium vulgare</i>	Y	Y
hemlock	<i>Conium maculatum</i>	-	Y
field bindweed	<i>Convolvulus arvensis</i>	-	Y
rough hawk's-beard	<i>Crepis biennis</i>	Y	-
smooth hawk's-beard	<i>Crepis capillaris</i>	Y	-
Ivy-leaved toadflax	<i>Cymbalaria muralis</i>		Y



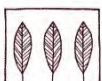
cock's-foot	<i>Dactylis glomerata</i>	Y	Y
foxglove	<i>Digitalis purpurea</i>	Y	-
wild teasel	<i>Dipsacus fullonum</i>	Y	Y
male fern	<i>Dryopteris filix-mas</i>	Y	Y
great willowherb	<i>Epilobium hirsutum</i>	Y	-
broad-leaved willowherb	<i>Epilobium montanum</i>	Y	-
hoary willowherb	<i>Epilobium parviflorum</i>	Y	-
square-stalked willowherb	<i>Epilobium tetragonum</i>	Y	Y
field horsetail	<i>Equisetum arvense</i>	Y	-
black bindweed	<i>Fallopia convolvulus</i>	Y	-
red fescue	<i>Festuca rubra</i>	Y	Y
ash	<i>Fraxinus excelsior</i>	-	Y
common fumitory	<i>Fumaria officinalis</i>	Y	Y
cleavers	<i>Galium aparine</i>	Y	Y
cut-leaved crane's-bill	<i>Geranium dissectum</i>	Y	Y
herb-Robert	<i>Geranium robertianum</i>	Y	Y
wood avens	<i>Geum urbanum</i>	Y	-
ground-ivy	<i>Glechoma hederacea</i>	-	Y
bristly oxtongue	<i>Helminthotheca echioides</i>	Y	Y
hogweed	<i>Heracleum sphondylium</i>	-	Y
hoary mustard	<i>Hirschfeldia incana</i>	Y	Y
Yorkshire-fog	<i>Holcus lanatus</i>	-	Y
wall barley	<i>Hordeum murinum</i>	Y	Y
perforate St John's wort	<i>Hypericum perforatum</i>	Y	Y
small balsam	<i>Impatiens parviflora</i>	Y	-
field scabious	<i>Knautia arvensis</i>	Y	-
prickly lettuce	<i>Lactuca serriola</i>	Y	-
great lettuce	<i>Lactuca virosa</i>	Y	-
nipplewort	<i>Lapsana communis</i>	Y	Y
meadow vetchling	<i>Lathyrus pratensis</i>	Y	Y
narrow-leaved everlasting-pea	<i>Lathyrus sylvestris</i>	Y	Y
autumn hawkbit	<i>Leontodon autumnalis</i>	Y	-
oxeye daisy	<i>Leucanthemum vulgare</i>	Y	Y
purple toadflax	<i>Linaria purpurea</i>	Y	-
common toadflax	<i>Linaria vulgaris</i>	-	Y
perennial rye-grass	<i>Lolium perenne</i>	Y	Y
common bird's-foot trefoil	<i>Lotus corniculatus</i>	Y	Y



common mallow	<i>Malva sylvestris</i>	Y	-
pineappleweed	<i>Matricaria discoidea</i>	Y	-
scented mayweed	<i>Matricaria recutita</i>	Y	Y
black medick	<i>Medicago lupulina</i>	Y	Y
tall melilot	<i>Melilotus altissimus</i>	Y	-
wall lettuce	<i>Mycelis muralis</i>	Y	Y
field forget-me-not	<i>Myosotis arvensis</i>	-	Y
red bartsia	<i>Odontites vernus</i>	Y	-
long-headed poppy	<i>Papaver dubium</i>	Y	-
common poppy	<i>Papaver rhoeas</i>	Y	Y
opium poppy	<i>Papaver somniferum</i>	Y	-
redshank	<i>Persicaria maculosa</i>	Y	-
ribwort plantain	<i>Plantago lanceolata</i>	Y	Y
annual meadow-grass	<i>Poa annua</i>	Y	Y
rough meadow-grass	<i>Poa trivialis</i>	Y	Y
common knotgrass	<i>Polygonum aviculare</i>	Y	-
white poplar	<i>Populus alba</i>	Y	-
selfheal	<i>Prunella vulgaris</i>	Y	-
creeping buttercup	<i>Ranunculus repens</i>	Y	-
weld	<i>Reseda luteola</i>	Y	Y
dog-rose	<i>Rosa canina</i>	Y	Y
bramble	<i>Rubus agg.</i>	-	Y
common sorrel	<i>Rumex acetosa</i>	-	Y
curled dock	<i>Rumex crispus</i>	Y	-
broad-leaved dock	<i>Rumex obtusifolius</i>	-	Y
Greek dock (probably – basal leaves only)	<i>Rumex cf. cristatus</i>		Y
goat willow	<i>Salix caprea</i>	Y	Y
hoary ragwort	<i>Senecio erucifolius</i>	Y	-
common ragwort	<i>Senecio jacobaea</i>	Y	-
groundsel	<i>Senecio vulgaris</i>	Y	Y
field madder	<i>Sherardia arvensis</i>	Y	-
red campion	<i>Silene dioica</i>	Y	Y
white campion	<i>Silene latifolia</i>	Y	Y
charlock	<i>Sinapis arvensis</i>	-	Y
potato	<i>Solanum tuberosum</i>	Y	-
perennial sow-thistle	<i>Sonchus arvensis</i>	Y	-



prickly sow-thistle	<i>Sonchus asper</i>	Y	-
smooth sow-thistle	<i>Sonchus oleraceus</i>	Y	Y
chickweed	<i>Stellaria media</i>	-	Y
tansy	<i>Tanacetum vulgare</i>	Y	Y
dandelion	<i>Taraxacum</i> agg.	Y	Y
lesser trefoil	<i>Trifolium dubium</i>	Y	Y
red clover	<i>Trifolium pratense</i>	Y	Y
white clover	<i>Trifolium repens</i>	-	Y
scentless mayweed	<i>Tripleurospermum inodorum</i>	Y	Y
yellow oat-grass	<i>Trisetum flavescens</i>	Y	-
colt's-foot	<i>Tussilago farfara</i>	Y	Y
elm	<i>Ulmus</i> sp.	Y	-
nettle	<i>Urtica dioica</i>	-	Y
common corn-salad	<i>Valerianella locusta</i>	Y	Y
great mullein	<i>Verbascum thapsus</i>	Y	Y
wall speedwell	<i>Veronica arvensis</i>	Y	-
ivy-leaved speedwell	<i>Veronica hederifolia</i>	-	Y
common field-speedwell	<i>Veronica persica</i>	Y	Y
grey field-speedwell	<i>Veronica polita</i>	-	Y
hairy tare	<i>Vicia hirsuta</i>	Y	Y
common vetch	<i>Vicia sativa</i>	-	Y
field pansy	<i>Viola arvensis</i>	Y	Y
squirreltail fescue	<i>Vulpia bromoides</i>	Y	Y



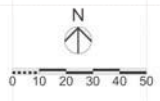
Appendix C

Development masterplan



NOTES

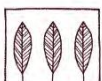
- 1) This drawing has been produced/revised for the specific use as stated in the drawing status below. The drawing should only be used therefore for matters concerning the identified use.
- 2) Until technical approval, consent and/or licensing has been obtained from the relevant authority, it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given, it is entirely at their own risk.
- 3) All dimensions and/or levels to be checked on site prior to works commencing.



CHARTERED SURVEYORS 0121 295 111 sbrice.co.uk ANDREW P BAUGHAN	
Project Ref:	BAUGE0
Project Title:	EDGEHILL QUARRY RESTORATION Edgell Quarry, Edgell, Barbury, Warwickshire, CV35 9DH
Drawn Title:	PROPOSED QUARRY RESTORATION PLAN
Drawn Status:	PLANNING
Drawn by:	DW (DWG No): BAUGE0-1-000
Date:	18.04.2019 Scale: 1:1000 @ A1 Plot: H
Released to Engineer & Planner on 18/04/2019 at 10:00 AM Not to be reproduced in any form without the written permission of SBRice	

Appendix D

Landscape plan



NOTES

- 1) This drawing has been produced for the specific use as stated in the drawing title below. It is not to be used for any other purpose or matters concerning the site or its surroundings.
- 2) Used technical approval, consent and/or planning has been obtained from the relevant authority, it should be understood that all drawings issued are subject to the conditions of the relevant authority. The contractor must ensure that all work is carried out in accordance with the approved drawings and that all dimensions and levels are checked on site prior to works proceeding.
- 3) All dimensions and/or levels to be checked on site prior to works proceeding.

Site boundary	7.81ha
Development/infrastructure	0.47ha
Inland rock & scree	0.30ha
Hedge/row	722m
Mixed scrub	1.05ha
Temporary ponds & pools (min 60% waterpace)	0.33ha
Lowland mixed deciduous woodland	1.34ha
Other woodland - young trees planted	0.14ha
Other neutral grassland (mown) (un-mown)	2.91ha (0.52ha) (2.39ha)
Lowland calcareous grassland	0.92ha
Amenity grassland	0.35ha
Line of trees (retained)	264m
Species-poor hedge with trees (retained)	529m
Species-poor intact hedge (retained)	92m
Individual tree locations (retained)	circa 30



- HABITAT CREATION LIST**
1. Scattered vegetated inland rock and scree
 2. Native species rich hedgerow associated with a bank or ditch
 3. Native species rich hedgerow
 4. Mixed scrub
 5. Mixed scrub
 6. Lowland mixed deciduous woodland
 7. Native species rich hedgerow with trees
 8. Lowland mixed deciduous woodland
 9. Lowland mixed deciduous woodland
 10. Mixed scrub
 11. Mixed scrub
 12. Other woodland - young trees planted
 13. Other woodland - young trees planted
 14. Mixed scrub
 15. Mixed scrub
 16. Other woodland - young trees planted
 17. Mixed scrub
 18. Other woodland - young trees planted
 19. Mixed scrub
 20. Other woodland - young trees planted
 21. Other woodland - young trees planted
 22. Mixed scrub
 23. Other woodland - young trees planted
 24. Mixed scrub
 25. Mixed scrub
 26. Other woodland - young trees planted
 27. Other woodland - young trees planted
 28. Other woodland - young trees planted
 29. Mixed scrub
 30. Other woodland - young trees planted
 31. Mixed scrub
 32. Other woodland - young trees planted
 33. Other woodland - young trees planted
 34. Mixed scrub
 35. Other woodland - young trees planted
 36. Other woodland - young trees planted
 37. Lowland Calcareous grassland
 38. Other Neutral Grassland
 39. Amenity Grassland
 40. Other Neutral Grassland
 41. Mixed scrub

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 www.sbrice.co.uk

Client: **ANDREW P BAUGHAN**

Project Ref: **BAUGE0**

Project Title: **EDGEHILL QUARRY RESTORATION**
 Barbury, Wiltshire, BA13 6DH

Drawn Title: **PROPOSED LANDSCAPING PLAN**

Drawn by: **DJ** | Drawn by: **BAUGE0-1-1-008**

Date: **10.09.2019** | Scale: **1:1000@A2** | Page: **C**

Prepared in Accordance with: **BSI Standard BS 5800:2013**



White Bottoms Farm

Co Const Bdy
 FW

Appendix E

Indicative species palettes and management



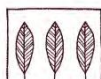
Calcareous grassland – Emorsgate EM6 or similar

Wild flowers

%	Latin name	Common name
0.5	<i>Achillea millefolium</i>	Yarrow
0.5	<i>Anthyllis vulneraria</i>	Kidney Vetch
1.5	<i>Centaurea nigra</i>	Common Knapweed
2	<i>Centaurea scabiosa</i>	Greater Knapweed
0.4	<i>Clinopodium vulgare</i>	Wild Basil
1	<i>Daucus carota</i>	Wild Carrot
2	<i>Galium verum</i>	Lady's Bedstraw
1.5	<i>Knautia arvensis</i>	Field Scabious
0.4	<i>Leontodon hispidus</i>	Rough Hawkbit
0.5	<i>Leucanthemum vulgare</i>	Oxeye Daisy
0.6	<i>Lotus corniculatus</i>	Birdsfoot Trefoil
1.5	<i>Onobrychis vicifolia</i>	Sainfoin
0.2	<i>Origanum vulgare</i>	Wild Marjoram
0.7	<i>Plantago media</i>	Hoary Plantain
2	<i>Poterium sanguisorba - (Sanguisorba minor)</i>	Salad Burnet
1	<i>Primula veris</i>	Cowslip
1	<i>Prunella vulgaris</i>	Selfheal
1	<i>Ranunculus acris</i>	Meadow Buttercup
1.5	<i>Ranunculus bulbosus</i>	Bulbous Buttercup
0.2	<i>Scabiosa columbaria</i>	Small Scabious
20%		

Grasses

%	Latin name	Common name
4.8	<i>Briza media</i>	Quaking Grass
0.2	<i>Carex flacca</i>	Glaucous Sedge
20	<i>Cynosurus cristatus</i>	Crested Dogstail
24	<i>Festuca ovina</i>	Sheep's Fescue
24	<i>Festuca rubra</i>	Slender-creeping Red-fescue
2	<i>Koeleria macrantha</i>	Crested Hair-grass
4	<i>Phleum bertolonii</i>	Smaller Cat's-tail
1	<i>Trisetum flavescens</i>	Yellow Oat-grass
80%		



Neutral grassland – Emorsgate EM3 or similar

Wild flowers

%	Latin name	Common name
0.3	<i>Achillea millefolium</i>	Yarrow
2	<i>Centaurea nigra</i>	Common Knapweed
1	<i>Centaurea scabiosa</i>	Greater Knapweed
1	<i>Daucus carota</i>	Wild Carrot
0.5	<i>Echium vulgare</i>	Viper's Bugloss
0.5	<i>Filipendula ulmaria</i>	Meadowsweet
0.5	<i>Galium album - (Galium mollugo)</i>	Hedge Bedstraw
2	<i>Galium verum</i>	Lady's Bedstraw
0.8	<i>Knautia arvensis</i>	Field Scabious
0.3	<i>Leontodon hispidus</i>	Rough Hawkbit
0.5	<i>Leucanthemum vulgare</i>	Oxeye Daisy
0.5	<i>Lotus corniculatus</i>	Birdsfoot Trefoil
1.5	<i>Malva moschata</i>	Musk Mallow
0.2	<i>Origanum vulgare</i>	Wild Marjoram
0.5	<i>Plantago media</i>	Hoary Plantain
1.5	<i>Poterium sanguisorba - (Sanguisorba minor)</i>	Salad Burnet
1	<i>Primula veris</i>	Cowslip
1	<i>Prunella vulgaris</i>	Selfheal
1.2	<i>Ranunculus acris</i>	Meadow Buttercup
1	<i>Rhinanthus minor</i>	Yellow Rattle
1	<i>Silene dioica</i>	Red Campion
0.2	<i>Silene flos-cuculi - (Lychnis flos-cuculi)</i>	Ragged Robin
0.5	<i>Silene latifolia</i>	White Campion
0.5	<i>Vicia sativa ssp. segetalis</i>	Common Vetch
20%		

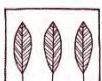
Grasses

%	Latin name	Common name
8	<i>Agrostis capillaris</i>	Common Bent
40	<i>Cynosurus cristatus</i>	Crested Dogstail
28	<i>Festuca rubra</i>	Slender-creeping Red-fescue
4	<i>Phleum bertolonii</i>	Smaller Cat's-tail
80%		



Suitable native woody shrubs and trees (not exhaustive)

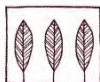
Ash	<i>Fraxinus excelsior</i> (noting risk of ash dieback)
Aspen	<i>Populus tremula</i>
Beech	<i>Fagus sylvatica</i>
Birch	<i>Betula pendula</i>
Blackthorn	<i>Prunus spinosa</i>
Buckthorn	<i>Rhamnus cathartica</i>
Crab apple	<i>Malus sylvestris</i>
Dogwood	<i>Cornus sanguinea</i>
Field maple	<i>Acer campestre</i>
Goat willow	<i>Salix caprea</i>
Grey willow	<i>Salix cinerea</i>
Guelder rose	<i>Viburnum opulus</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Holly	<i>Ilex aquifolium</i>
Hornbeam	<i>Carpinus betulus</i>
Oak	<i>Quercus robur</i>
Privet	<i>Ligustrum vulgare</i>
Rowan	<i>Sorbus aucuparia</i>
Spindle	<i>Euonymus europaeus</i>
Sweet chestnut	<i>Castanea sativa</i>
Wayfaring tree	<i>Viburnum lanatus</i>
Wild cherry	<i>Prunus avium</i>
Yew	<i>Taxus baccata</i>



High-level management and monitoring recommendations

- Monitor habitat establishment to ensure targeted habitats and condition is being achieved.
- Undertake routine management (thinning, weed control and replacement) within areas of planted scrub, woodland and hedgerows during the establishment phase.
- Undertake routine management of newly sown grassland areas, including watering and weed control as necessary, during establishment phase.
- Bring existing boundary hedgerows into appropriate management through rotational cutting.
- Ensure the measures implemented to prevent access by lodge residents to the dedicated wildlife area are effective, and plan and implement additional restrictive measures, if necessary.
- Areas of calcareous grassland and neutral meadow (excluding frequently mown sections) to be managed by two cuts each year, one in early spring (March) and one in autumn (September/October), and arisings removed.
- Consider benefits of periodic ground disturbance in areas of calcareous grassland to maintain early successional communities and interests.
- Assess the need for vegetation removal within temporary ponds and pools to maintain SuDS function and create a variation of aquatic and damp ground habitat conditions.
- Monitor bird and bat boxes (under survey licence where necessary) and clean out, repair and replace, as necessary.
- Review habitat condition and management every five years.





Application for an environmental permit

Part A – About you



You will need to fill in this part A if you are applying for a new permit, applying to change an existing permit or surrender your permit, or want to transfer an existing permit to yourself. Please check that this is the latest version of the form available from our website.

You can apply online for Waste standard rules environmental permits, bespoke waste permits and bespoke Medium combustion plant permits

Apply online for an environmental permit.

Please read through this form and the guidance notes that came with it.

The form can be:

- 1) saved onto a computer and then filled in. Please note that the form follows a logic that means questions will open or stay closed depending on a previous answer. So you may not be able to enter text in some boxes.
- 2) printed off and filled in by hand. Please write clearly in the answer spaces.

Note: if you believe including information on a public register would not be in the interests of national security you must enclose a letter telling us that you have told the Secretary of State. We will not include the information in the public register unless directed otherwise.

It will take less than one hour to fill in this part of the application form.

Where you see the term 'document reference' on the form, give the document references and send the documents with the application form when you've completed it.

Contents

- 1 About you
 - 2 Applications from an individual
 - 3 Applications from an organisation of individuals or charity
 - 4 Applications from public bodies
 - 5 Applications from companies or corporate bodies
 - 6 Your address
 - 7 Contact details
 - 8 How to contact us
 - 9 Where to send your application
- Appendix 1 – Date of birth information for installation and waste activities (applications for a new permit or transferring a permit) only

1 About you

Are you applying as an individual, an organisation of individuals (for example, a partnership), a company (this includes Limited Liability Partnerships) or a public body?

An individual

Now go to section 2 and if you are applying for a new permit or transferring a permit for an installation or waste activity please also fill in Appendix 1

An organisation of individuals (for example, a partnership)

Now go to section 3 and if you are applying for a new permit or transferring a permit for an installation or waste activity please also fill in Appendix 1

A public body

Now go to section 4

A registered company or other corporate body

Now go to section 5 and if you are applying for a new permit or transferring a permit for an installation or waste activity please also fill in Appendix 1

2 Applications from an individual

2a Please give us the following details

Name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Now go to section 6

3 Applications from an organisation of individuals or charity

3a Type of organisation

For example, a charity, a partnership, a group of individuals or a club

3b Details of the organisation or charity

If you are an organisation of individuals, please give the details of the main representative below. If relevant, provide details of other members (please include their title Mr, Mrs and so on) on a separate sheet and tell us the document reference you have given this sheet

Contact name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Now go to question 3c or section 6

3c Details of charity

Full name of charity

This should be the full name of the legal entity not any trading name.

3d Company registration number

If you are registered with Companies House please tell us your registration number

3e Charity Commission number

If you are registered with the Charity Commission please tell us your registration number

Now go to section 6

4 Applications from public bodies

4a Type of public body

For example, NHS trust, local authority, English county council

4b Name of the public body

4c Please give us the following details of the executive

An officer of the public body authorised to sign on your behalf

Name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Position

Now go to section 6

5 Applications from companies or corporate bodies

5a Name of the company

Boddington Demolition Limited

5b Company registration number

03931143

Date of registration (DD/MM/YYYY)

22/02/2000

If you are applying as a corporate organisation that is not a limited company, please provide evidence of your status and tell us below the reference you have given the document containing this evidence.

Document reference

5 Applications from companies or corporate bodies, continued

5c Please give details of the directors

If relevant, provide details of other directors and company secretary, if there is one, on a separate sheet and tell us the reference you have given this sheet.

Document reference

Details of company secretary (if relevant) and director/s

Title (Mr, Mrs, Miss and so on)

First name

Last name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Now go to section 6

6 Your address

6a Your main (registered office) address

For companies this is the address on record at Companies House.

Contact name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Address

Postcode

Contact numbers, including the area code

Phone

Fax

Mobile

Email

For an organisation of individuals every partner needs to give us their details, including their title Mr, Mrs and so on. So, if necessary, continue on a separate sheet and tell us below the reference you have given the sheet.

Document reference

6b Main UK business address (if different from above)

Contact name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Address

Postcode

6 Your address, continued

Contact numbers, including the area code

Phone

Fax

Mobile

Email

Now go to section 7

7 Contact details

7a Who can we contact about your application?

It will help us if there is someone we can contact if we have any questions about your application. The person you name should have the authority to act on your behalf.

Please add a second contact on a separate sheet if this person is not always available.

Document reference of this separate sheet

This can be someone acting as a consultant or an 'agent' for you.

Contact name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Address

Postcode

Contact numbers, including the area code

Phone

Fax

Mobile

Email

7b Who can we contact about your operation (if different from question 7a)?

Contact name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Address

Postcode

Contact numbers, including the area code

Phone

Fax

Mobile

Email

7 Contact details, continued

7c Who can we contact about your billing or invoice?

Note: Please provide the name and address that all invoices should be sent to for your subsistence fees.

As in question 7a

As in question 7b

Please give details below if different from question 7a or 7b.

Contact name

Title (Mr, Mrs, Miss and so on)

First name

_____ Please refer to 6b

Last name

Address

Postcode

Contact numbers, including the area code

Phone

Fax

Mobile

Email

8 How to contact us

If you need help filling in this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: www.gov.uk/government/organisations/environment-agency

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it. More information on how to do this is available at: www.gov.uk/government/organisations/environment-agency/about/complaints-procedure.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

9 Where to send your application

For how many copies to send see the guidance note on part A.

For water discharges by email to PSC-WaterQuality@environment-agency.gov.uk

For waste and installations by email to PSC@environment-agency.gov.uk

For flood risk activity permits send 1 copy only to enquiries@environment-agency.gov.uk or to the local Environment Agency office for where the work is proposed to be carried out.

Or

Permitting Support, NPS Sheffield
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form? _____

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

Yes please

No thank you



For Environment Agency use only

Date received (DD/MM/YYYY)

Our reference number

Payment received?

No

Yes Amount received

£ _____

Appendix 1 – Date of birth information for installation and waste activities (applications for a new permit or transferring a permit) only

Date of birth information in this appendix will not be put onto our Public Register

Are you applying as an individual, an organisation of individuals (for example, a partnership) or a company (this includes Limited Liability Partnerships)?

- An individual Now go to 2
- An organisation of individuals (for example, a partnership) Now go to 3
- A registered company or other corporate body Now go to 4

2 Applications from an individual

Please give us the following details

Name

Date of birth (DD/MM/YY)

3 Applications from an organisation of individuals or charity

Details of the organisation or charity

If you are an organisation of individuals, please give the date of birth details of the main representative below. If relevant, provide details of other members on a separate sheet and tell us the document reference you have given this sheet.

Name

Date of birth (DD/MM/YY)

Document reference

4 Applications from companies or corporate bodies

Name of the company

Please give the date of birth details for all directors and company secretary if there is one. If relevant, provide those details of other directors on a separate sheet and tell us the document reference you have given this sheet.

Details of company secretary (if relevant) and director/s

Name

Date of birth (DD/MM/YY)

Name

Date of birth (DD/MM/YY)

Name

Date of birth (DD/MM/YY)

Document reference

Application for an environmental permit

Part B2 – General – new bespoke permit



Fill in this part of the form together with parts A and F1 if you are applying for a new bespoke permit. You also need to fill in part B3, B4, B5, B6, or B7 (this depends on what activities you are applying for). Please check that this is the latest version of the form available from our website.

You can apply online for waste bespoke environmental permits.

Apply online for an environmental permit.

Please read through this form and the guidance notes that came with it.

The form can be:

- 1) saved onto a computer and then filled in. Please note that the form follows a logic that means questions will open or stay closed depending on a previous answer. So you may not be able to enter text in some boxes.

- 2) printed off and filled in by hand. Please write clearly in the answer spaces

It will take less than two hours to fill in this part of the application form.

Contents

- 1 About the permit
- 2 About the site
- 3 Your ability as an operator
- 4 Consultation
- 5 Supporting information
- 6 Environmental risk assessment
- 7 How to contact us

Appendix 1 – Low impact installation checklist

Appendix 2 – Date of birth information for Relevant offences and/or Technical ability questions only

1 About the permit

1a Discussions before your application

If you have had discussions with us before your application, give us the permit reference or details on a separate sheet. Tell us below the reference you have given this extra sheet.

Permit or document reference

1b Is the permit for a site or for mobile plant?

Site

-
- Now go to section 2

Mobile plant

-
- Now go to question 1c

Note: The term 'mobile plant' does not include mobile sheep dipping units.

Mobile plant

1c Have we told you during pre-application discussions that we believe that a mobile permit is suitable for your activity?

No

Yes

1d Have there been any changes to your proposal since this discussion?

No Now go to section 3

Yes You should send us a description of the activity you want to carry out, highlighting the changes you have made since our pre-application discussions

Document reference

Now go to section 3

2 About the site

But not mobile plant

2a What is the site name, address, postcode and national grid reference?

Site name

2 About the site, continued

Address

Postcode

National grid reference for the site (for example, ST 12345 67890)

2b What type of regulated facility are you applying for?

Note: if you are applying for more than one regulated facility then go to 2c.

Installation

Waste operation

Mining waste operation

Water discharge activity

Groundwater activity (point source)

Groundwater activity (discharge onto land)

What is the national grid reference for the regulated facility (if only one)? (See the guidance notes on part B2.)

As in 2a above

Different from that in 2a Please fill in the national grid reference below

National grid reference for the regulated facility _____

Now go to question 2d

2 About the site, continued

2c If you are applying for more than one regulated facility on your site, what are their types and their grid references?

See the guidance notes on part B2.

Regulated facility 1

National grid reference

What is the regulated facility type?

- Installation
- Waste operation
- Mining waste operation
- Water discharge activity
- Groundwater activity (point source)
- Groundwater activity (discharge onto land)

Regulated facility 2

National grid reference

What is the regulated facility type?

- Installation
- Waste operation
- Mining waste operation
- Water discharge activity
- Groundwater activity (point source)
- Groundwater activity (discharge onto land)

Use several copies of this page or separate sheets if you have a long list of regulated facilities. Send them to us with your application form. Tell us below the reference you have given these extra sheets.

Document reference

Now go to question 2d

2 About the site, continued

2d Low impact installations (installations only)

Are any of the regulated facilities low impact installations?

No

Yes If yes, tell us how you meet the conditions for a low impact installation (see the guidance notes on part B2 – Appendix 1).

Document reference

Tick the box to confirm you have filled in the low impact installation checklist in appendix 1 for each regulated facility

2e Treating batteries

Are you planning to treat batteries? (See the guidance notes on part B2.)

No

Yes Tell us how you will do this, send us a copy of your explanation and tell us below the reference you have given this explanation

Document reference for the explanation

2f Ship recycling

Is your activity covered by the Ship Recycling Regulations 2015? (See the guidance notes on part B2.)

No

Yes Tell us how you will do this. Please send us a copy of your explanation and your facility recycling plan, and tell us below the reference numbers you have given these documents

Document reference for the explanation

Document reference for the facility recycling plan

2g Multi-operator installation

If the site is a multi-operator site (that is there is more than one operator of the installation) then fill in the table below the application reference for each of the other permits.

Table 1 – Other permit application references

3 Your ability as an operator

If you are only applying for a standalone water discharge or for a groundwater activity, you only have to fill in question 3d.

3a Relevant offences

Applies to all except standalone surface water discharges and groundwater discharges (see the guidance notes on part B2).

3a1 Have you, or any other relevant person, been convicted of any relevant offence?

No Now go to question 3b

Yes Please give details below

Name of the relevant person

Title (Mr, Mrs, Miss and so on)

First name

Last name

Position held at the time of the offence

Name of the court where the case was dealt with

Date of the conviction (DD/MM/YYYY)

3 Your ability as an operator, continued

Offence and penalty set

Date any appeal against the conviction will be heard (DD/MM/YYYY)

If necessary, use a separate sheet to give us details of other relevant offences and tell us below the reference number you have given the extra sheet.

Document reference

Now go to question 3b

Please also complete the details in Appendix 2.

3b Technical ability

Relevant waste operations only (see the guidance notes on part B2).

Please indicate which of the two schemes you are using to demonstrate you are technically competent to operate your facility and the evidence you have enclosed to demonstrate this.

ESA/EU skills

Please select **one** of the following:

I have enclosed a copy of the current Competence Management System certificate

or

We will have a certified Competence Management System within 12 months and have enclosed evidence of the contract with an accredited certification body

CIWM/WAMITAB scheme

Please select **one** of the following:

- I have enclosed a copy of:
 - the relevant qualification certificate/s

or

- evidence of deemed competence

or

- Environment Agency assessment

or

- evidence of nominated manager status under the transitional provisions for previously exempt activities

and, if deemed competent or Agency-assessed, or nominated manager, or if the original qualification is over two years old:

I have enclosed a copy of the relevant current continuing competence certificate/s

- I will complete my qualification within four weeks of starting the permitted activities and have enclosed evidence of my registration with WAMITAB or my EPOC booking as appropriate

- **For medium- and high-risk tier activities other than landfill**
I will complete the qualification within 12 months and have enclosed evidence of registration with WAMITAB and, where relevant, EPOC booking. I understand I must complete either four specified units of the relevant qualification or an EPOC within four weeks of the permitted activities commencing

For each technically competent manager please give the following information. If necessary, use a separate sheet to give us these details and tell us below the document reference you have given the extra sheet.

Title (Mr, Mrs, Miss and so on)

First name

Last name

Phone

Mobile

Email

3 Your ability as an operator, continued

Please provide the environmental permit number/s and site address for **all** other waste activities that the proposed technically competent manager provides technical competence for, including permits held by other operators. Continue on a separate sheet as required.

Permit number	Site address	Postcode

Document reference

Now go to question 3c

Please also complete the details in Appendix 2.

3c Finances

Installations, waste operations and mining waste operations only.

Please note that if you knowingly or carelessly make a statement that is false or misleading to help you get an environmental permit (for yourself or anyone else), you may be committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

Do you or any relevant person or a company in which you were a relevant person have current or past bankruptcy or insolvency proceedings against you?

No

Yes Please give details below, including the required set-up costs (including infrastructure), maintenance and clean up costs for the proposed facility against which a credit check may be assessed

We may want to contact a credit reference agency for a report about your business's finances.

Landfill, Category A mining waste facilities and mining waste facilities for hazardous waste only

How do you plan to make financial provision (to operate a landfill or a mining waste facility you need to show us that you are financially capable of meeting the obligations of closure and aftercare)?

Renewable bonds

Cash deposits with the Environment Agency

Other – provide comprehensive details

Document reference

Provide a cost profile and expenditure plan of your estimated costs throughout the aftercare period of your site.

Document plan reference

Now go to question 3d

3d Management systems (all)

You must have an effective, written management system in place that identifies and reduces the risk of pollution. You may show this by using a certified scheme or your own system.

Your permit requires you (as the operator) to ensure that you manage and operate your activities in accordance with a written management system.

You need to be able to explain what happens at each site and which parts of the overall management system apply. For example at some sites you may need to show you are carrying out additional measures to prevent pollution because they are nearer to sensitive locations than others.

You can find guidance on management systems on our website at www.gov.uk/government/organisations/environment-agency

3 Your ability as an operator, continued

Tick this box to confirm that you have read the guidance and that your management system will meet our requirements

What management system will you provide for your regulated facility?

ISO 14001

BS 8555 (Phases 1–5)

Green dragon

Own management system

EC Eco-Management and Audit Scheme (EMAS)

EMAS Easy

Please make sure you send us a summary of your management system with your application.

Document reference/s

4 Consultation

Fill in 4a to 4c for installations and waste operations and 4d for installations only.

Could the waste operation or installation involve releasing any substance into any of the following?

4a A sewer managed by a sewerage undertaker?

No

Yes Please name the sewerage undertaker

4b A harbour managed by a harbour authority?

No

Yes Please name the harbour authority

4c Directly into relevant territorial waters or coastal waters within the sea fisheries district of a local fisheries committee?

No

Yes Please name the fisheries committee

4d Is the installation on a site for which:

4d1 a nuclear site licence is needed under section 1 of the Nuclear Installations Act 1965?

No

Yes

4d2 a policy document for preventing major accidents is needed under regulation 5 of the Control of Major Accident Hazards Regulations 2015, or a safety report is needed under regulation 7 of those Regulations?

No

Yes

5 Supporting information

5a Provide a plan or plans for the site

But not any mobile plant

Clearly mark the site boundary or discharge point, or both. Also include site drainage plans, site layout plans, and plant design drawings/process flow diagrams (as required). (See the guidance notes on part B2.)

Document reference/s of the plans

5b Provide the relevant sections of a site condition/baseline report if this applies

See the guidance notes on part B2 for what needs to be marked on the plan.

Document reference of the report

If you are applying for an installation, tick the box to confirm that you have sent in a baseline report

5 Supporting information, continued

5c Provide a non-technical summary of your application

See the guidance notes on part B2.

Document reference of the summary

5d Are you applying for an activity that includes the storage of combustible wastes?

This applies to all activities excluding standalone water and groundwater discharges.

No

Yes Provide a fire prevention plan (see the guidance notes on part B2). You need to highlight any changes you have made since your pre-application discussions.

Document reference of the plan

6 Environmental risk assessment

Provide an assessment of the risks each of your proposed regulated facilities poses to the environment. The risk assessment must follow the methodology set out in 'Risk assessments for your environmental permit' at www.gov.uk/government/collections/technical-guidance-for-regulated-industry-sectors-environmental-permitting or an equivalent method.

Document reference for the assessments

For Waste and Installation Permits only

All bespoke waste and installations permit applications must carry out a climate change risk assessment if the planned duration of the operation is more than 5 years. This will normally be reviewed and discussed with you as part of our compliance activities. However, we may require you to submit your climate change risk assessment as part of your application depending on your risk screening score. We will consider the information contained within your climate change risk assessment when we grant your permit. Conditions may be applied to some permits to manage climate risks.

6b Climate change risk screening

See the guidance to Part B2.

Mark your score in each category in the table below. Add each individual score to give a total.

CATEGORY	SCREENING QUESTIONS	SCORE	YOUR SCORE
1 TIMESCALES	How long will a permit be required for this site/activity? 5 years or less of operation. No need to fill in the rest of the screening. You do not need to fill in a risk assessment. Please go straight to question 7.	0	
	Less than 20 years of operation	1	
	Until between 2040 and 2060 (between 20 and 40 years from now)	3	
	Until 2060 or beyond (more than 40 years from now)	5	
2 FLOODING	What is your site's risk of flooding from rivers or the sea?		
	Not in a flood-risk zone	0	
	Very low or Low	1	
	Medium	2	
	High	5	
3 WATER USE	If you use water for your site operations or fire prevention, what is the source of your water?		
	Water not required	0	
	Mains water	1	
	Surface water or groundwater abstraction	5	
TOTAL SCREENING SCORE			

If your total screening score is 5 or more, complete the climate change risk assessment and submit it with your permit application.

If you expect to operate for 5 years or less, you do not need to submit a risk assessment with your application, regardless of your screening score.

You must enter your score for every category in the table above. If you expect to operate for 5 years or less you may enter 'Not Applicable' for categories 2 and 3.

6 Environmental risk assessment, continued

Document reference of the risk assessment
(if submitted with application) _____

If your total screening score is less than 5 we may still request your risk assessment as part of determining this application if we believe you face unmanaged climate risks.

If we do not review your risk assessment as part of your application, it will form part of your Environmental Management System and we will discuss it with you as part of our compliance activities.

7 How to contact us

If you need help filling in this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: www.gov.uk/government/organisations/environment-agency

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form? _____

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

Yes please

No thank you



For Environment Agency use only

Date received (DD/MM/YYYY)

Our reference number

Payment received?

No

Yes

Amount received

£ _____

Plain English Campaign's Crystal Mark does not apply to appendix 1.**Appendix 1 – Low impact installation checklist**

See the guidance notes on part B2.

Installation reference			
Condition	Response		Do you meet this?
A – Management techniques	Provide references to show how your application meets A		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
B – Aqueous waste	Effluent created	m ³ /day	Yes <input type="checkbox"/>
			No <input type="checkbox"/>
C – Abatement systems	Provide references to show how your application meets C		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
D – Groundwater	Do you plan to release any hazardous substances or non-hazardous pollutants into the ground?	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
		No <input type="checkbox"/>	No <input type="checkbox"/>
E – Producing waste	Hazardous waste	Tonnes per year	Yes <input type="checkbox"/>
	Non-hazardous waste	Tonnes per year	No <input type="checkbox"/>
F – Using energy	Peak energy consumption	MW	Yes <input type="checkbox"/>
			No <input type="checkbox"/>
G – Preventing accidents	Do you have appropriate measures to prevent spills and major releases of liquids? (See 'How to comply'.)	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
		No <input type="checkbox"/>	No <input type="checkbox"/>
	Provide references to show how your application meets G		
H – Noise	Provide references to show how your application meets H		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
I – Emissions of polluting substances	Provide references to show how your application meets I		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
J – Odours	Provide references to show how your application meets J		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
K – History of keeping to the regulations	Say here whether you have been involved in any enforcement action as described in Compliance History Appendix 1 explanatory notes	Yes <input type="checkbox"/> No <input type="checkbox"/>	

Appendix 2 – Date of birth information for Relevant offences and/or Technical ability questions only

Date of birth information in this appendix will not be put onto our Public Register

Have you filled in the Relevant Offences question?

Yes

No

Have you filled in the Technical ability question?

Yes

No

2 Relevant Offences - date of birth information

Please give us the following details

Name

Date of birth (DD/MM/YY)

3 Technical ability - date of birth information

Name

Date of birth (DD/MM/YY)

Application for an environmental permit

Part B4 – New bespoke waste operation permit



<p>Fill in this part of the form, together with parts A, B2 and F1, if you are applying for a new bespoke permit for a waste operation. Please check that this is the latest version of the form available from our website.</p> <p>Please read through this form and the guidance notes that came with it.</p> <p>You can apply online for waste bespoke environmental permits.</p> <p>Apply online for an environmental permit.</p> <p>The form can be:</p> <ol style="list-style-type: none"> 1) saved onto a computer and then filled in. Please note that the form follows a logic that means questions will open or stay closed depending on a previous answer. So you may not be able to enter text in some boxes. 2) printed off and filled in by hand. Please write clearly in the answer spaces. <p>It will take less than three hours to fill in this part of the application form.</p>	<p>Contents</p> <ol style="list-style-type: none"> 1 What waste operations are you applying for? 2 Point source emissions to air, water and land 3 Operating techniques 4 Monitoring 5 How to contact us <p>Appendix 1 – Specific questions for the recovery to land for agricultural benefit of compost like outputs from the treatment of mixed municipal solid wastes</p> <p>Appendix 2 – Specific questions for inert waste landfill and deposit for recovery operations</p>
--	--

1 What waste operations are you applying for?

Fill in Table 1a with details of what you are applying for.

Fill in a separate table for each waste operation you are applying for. Use a separate sheet if you have a long list and send it to us with your application form. Tell us below the reference you have given the extra sheet.

Document reference

Types of waste accepted

For each line in Table 1a, fill in a separate document to list those wastes you will accept on the site for that operation, giving the List of Wastes catalogue code (search for ‘Technical guidance on how to assess and classify waste’ at www.gov.uk/government/organisations/environment-agency). If you need to exclude waste from your activity or facility by restricting the description, quantity, physical nature, hazardous properties, composition or characteristic of the waste, include these in the document. Send it to us with your application form.

1 What waste operations are you applying for?, continued

Table 1a – Waste operations which do not form part of an installation

Name of the waste operation	Description of the waste operation	Annex I (D codes) and Annex II (R codes) and descriptions	Hazardous waste treatment capacity (if this applies) (See note 1)	Non-hazardous waste treatment capacity (if this applies) (See note 1)
Add extra rows if you need them. If you do not have enough room, go to the line below or send a separate document and give us the document reference here	Use the description from the guidance. Include any extra detail that you think would help to accurately describe what you want to do			
For all waste operations	Total storage capacity (see note 2)			
	Annual throughput (tonnes each year)			

Notes

1 By 'capacity', we mean:

- the total landfill capacity (cubic metres) for landfills
- the total treatment capacity (tonnes each day) for waste treatment
- the total storage capacity (tonnes) for waste-storage operations

2 By 'total storage capacity', we mean the maximum amount of waste in tonnes you store on the site at any one time.

1 What waste operations are you applying to vary?, continued

Please provide the document reference. You can use Table 1b as a template.

If you want to accept any waste with a code ending in 99, you must provide more information and a full description of the waste in the document, (for example, detailing the source, nature and composition of the waste). Where you only want to receive specific wastes within a waste code you can provide further details of the waste you want to receive. Where a waste is dual coded you should use both codes for the waste.

Document reference _____

Table 1b – Template example – types of waste accepted and restrictions

Waste code	Description of the waste
Example	Example
02 01 08*	Agrochemical waste containing hazardous substances
18 01 03*	Infectious clinical waste, not contaminated with chemicals or medicines – human healthcare (may contain sharps) for alternative treatment
17 05 03*/17 06 05*	Non-hazardous soil from construction or demolition contaminated with fragments of asbestos cement sheet

1c Deposit for recovery purposes (see Appendix 4 and the guidance notes on part B4)

Are you applying for a waste recovery activity involving the permanent deposit on waste on land for construction or land reclamation (including landfill restoration)?

No Go to section 2

Yes

Are you applying for an inert landfill permit that includes a restoration activity using waste?

No Go to section 2

Yes Please send us a copy of your restoration plan in accordance with our guidance at <https://www.gov.uk/guidance/landfill-operators-environmental-permits/restore-your-landfill-site>

Have we advised you during pre-application discussions that we believe the activity is waste recovery?

No Go to section 2

Yes

Have there been any changes to your proposal since the discussions?

No

Yes

Please send us a copy of your waste recovery plan that complies with our guidance at <https://www.gov.uk/guidance/waste-recovery-plans-and-permits>. You need to highlight any changes you have made since your pre-application discussions. Also give us the reference number of the document with your justification.

Please note that there is an additional charge for the assessment of a waste recovery plan that must be submitted as part of this application. For the charge see <https://www.gov.uk/topic/environmental-management/environmental-permits>.

Document reference _____

2 Point source emissions to air, water and land

Fill in Table 2 below with details of the point source emissions that result from the operating techniques at each of your waste operations.

Fill in one table for each waste operation.

Table 2 – Emissions

Name of the waste operation				
Point source emissions to air				
Emission point reference and location	Source	Parameter	Quantity	Unit
Point source emissions to water (other than sewers)				
Emission point reference and location	Source	Parameter	Quantity	Unit
Point source emissions to sewers, effluent treatment plants or other transfers off site				
Emission point reference and location	Source	Parameter	Quantity	Unit
Point source emissions to land				
Emission point reference and location	Source	Parameter	Quantity	Unit

Supporting information

3 Operating techniques

3a Technical standards

Fill in Table 3a for each waste operation you refer to in Table 1a above and list the ‘appropriate measures’ you are planning to use. If you are using the standards set out in the relevant technical guidance(s) (TGN) there is no need to justify using them within your documents in Table 3a.

You must justify your decisions in a separate document if:

- there is no technical standard
- the technical guidance provides a choice of standards, or
- you plan to use another standard

This justification could include a reference to the Environmental Risk Assessment provided in part B2 of the application form.

Table 3a should summarise:

- the operations undertaken
- the measures you will use to control the emissions from your process, as identified in your risk assessment or the relevant technical guidance
- how you will meet other standards set out in the relevant technical guidance

Table 3a – Technical standards

Fill in a separate table for each waste operation.

Waste operation		
Description of the waste operation Add extra rows if you need them	Appropriate measure (TGN reference)	Document reference (if appropriate)

In all cases, describe the type of facility or operation you are applying for and provide site infrastructure plans, location plans and process flow diagrams or block diagrams to help describe the operations and processes undertaken. Give the document references you use for each plan, diagram and description.

Document reference

3b General requirements

Fill in a separate table for each waste operation.

Table 3b – General requirements

Name of the waste operation	
If the technical guidance or your risk assessment shows that emissions of substances not controlled by emission limits are an important issue, send us your plan for managing them	Document reference or references
If the technical guidance or your risk assessment shows that odours are an important issue, send us your odour management plan. If your activity type is listed in the guidance document ‘Control and monitor emissions for your environmental permit’ as needing an odour management plan, or your risk assessment shows that odours are an important issue, you need to send us your odour management plan.	Document reference or references
If the technical guidance or your risk assessment shows that noise or vibration are important issues, send us your noise or vibration management plan (or both)	Document reference or references

3 Operating techniques, continued

We may need to ask for management plans or risk assessments in other circumstances based on our regulatory experience. If you are unsure as to whether you need to submit a management plan with your application, please discuss this with the Environment Agency prior to submission.

Search for 'Risk assessment for your environmental permit' at www.gov.uk/government/organisations/environment-agency.

3c Information for specific sectors

For some of the sectors, we need more information to be able to set appropriate conditions in the permit. This is as well as the information you may provide in sections 5, 6 and 7. For those activities listed in Table 3c, you must answer the questions in the related document.

Table 3c – Questions for specific sectors

Sector	Appendix
Recovery to land for agricultural benefit of compost like outputs from the treatment of mixed municipal solid wastes	See the questions in appendix 1
Inert landfill and deposit of waste on land for construction, land reclamation, restoration or improvement	See the questions in appendix 2

General information

4 Monitoring

4a Describe the measures you use for monitoring emissions by referring to each emission point in Table 2 above

You should also describe any environmental monitoring. Tell us:

- how often you use these measures
- the methods you use
- the procedures you follow to assess the measures

Document reference

4b Point source emissions to air only

Provide an assessment of the sampling locations used to measure point source emissions to air. The assessment must use M1 (search for 'M1 sampling requirements for stack emission monitoring' at www.gov.uk/government/organisations/environment-agency).

Document reference of the assessment

5 How to contact us

If you need help filling in this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: www.gov.uk/government/organisations/environment-agency

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form? _____

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

Yes please

No thank you



For Environment Agency use only

Date received (DD/MM/YYYY)

Our reference number

Payment received?

No

Yes Amount received

£

Plain English Campaign's Crystal Mark does not apply to appendices 1 to 2.

Appendix 1 – Specific questions for the recovery to land for agricultural benefit of compost like outputs from the treatment of mixed municipal solid wastes

1 Please provide an accurate and reliable characterisation of your compost like outputs (CLO). This should be based on sampling and analysis of the CLO produced by the treatment (MBT) process over a 12-month period and in accordance with section 2 of TGN 6.15

Document reference

2 Please provide an agricultural benefit assessment for the use of your CLO. This should be based on section 2 of TGN 6.15 and should be signed and dated by an appropriate technical expert

Document reference

3 Please provide a site-specific risk assessment of risks to soil and food chain receptors. This should be based on Schedule 2 of TGN 6.15 and include a map with a green outline showing the boundary of the area being treated and include:

- locations where the waste will be stored and spread
- any spring, well or borehole used to supply water for domestic or food production purposes that is within 250 metres of the area being treated
- any spring, well or borehole not being used for domestic or food production purposes that is within 50 metres of the area being treated
- any European designated sites (candidate or Special Area of Conservation, proposed or Special Protections Area in England and Wales or Ramsar Site) or Sites of Special Scientific Interest (SSSI) which are within 500 metres of the place where waste is to be stored or spread
- the location of public rights of way
- any Groundwater Source Protection Zones
- surface watercourses
- any buildings or houses within 250 metres of the area being treated
- land drains within the boundary

Document reference

4 Are the technical standards and measures fully in line with those set out in section 3 of TGN 6.15?

No Provide justification for departure from TGN 6.15 and a copy of the proposed technical standards, measures or procedures

Document reference

Yes

Appendix 2 – Specific questions for inert waste landfill and deposit for recovery operations

1 Please provide your Environmental Setting and Site Design (ESSD) report

Document reference

Note: You should use the Environment Agency template to help you develop an environmental setting and site design (ESSD) report.

2 Please provide your Waste Acceptance Procedures (including Waste Acceptance Criteria)

Document reference

3 Have you provided a hydrogeological risk assessment (HRA) for the site?

No Please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes Document reference

4 Have you completed an outline engineering plan for the site?

No Please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes Document reference

5 Have you provided a stability risk assessment (SRA) for your site?

No Please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes Document reference

Appendix 2 – Specific questions for inert waste landfill and deposit for recovery operations, continued

6 Have you completed a monitoring plan for the site?

No Please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes Document reference _____

7 Have you completed a plan for closing the site and procedures for looking after the site once it has closed?

No If no for deposit for recovery activities please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes For inert waste landfill you must provide a closure plan

Document reference _____

Spreading waste to support plant growth

8a Does the activity involve the deposit of waste to create or treat a growing medium (R10 for land treatment)?

No

Yes

8b If you answered 'yes' to question 8a, does the R10 activity include the spreading of waste to improve the quality of the growing medium (e.g. soil conditioner to improve existing soil profile)?

No

Yes Go to question 8c

8c If you have answered 'Yes' to question 8b, have you completed a benefit statement?

No Please explain why

Document reference _____

Yes

Note: Refer to our guidance when completing your statement (including EPR 8.01, section 6).

Application for an environmental permit

Part F1 – Charges and declarations



Fill in this part for all applications for installations, waste operations, mining waste operations, water discharges, point source groundwater discharges and groundwater discharges onto land. Please check that this is the latest version of the form available from our website.

Please read through this form and the guidance notes that came with it.

The form can be:

- 1) saved onto a computer and then filled in. Please note that the form follows a logic that means questions will open or stay closed depending on a previous answer. So you may not be able to enter text in some boxes.
- 2) printed off and filled in by hand. Please write clearly in the answer spaces.

It will take less than two hours to fill in this part of the application form.

Contents

- 1 Working out charges
- 2 Payment
- 3 Privacy notice
- 4 Confidentiality and national security
- 5 Declaration
- 6 Application checklist
- 7 How to contact us
- 8 Where to send your application

Each individual who is applying for their name to appear on the permit must complete the declaration in section 5. You will have to print a separate copy of the declaration page for each additional individual to complete.

1 Working out charges

You must fill in this section.

You have to submit an application fee with your application. You can find out the charge by searching for 'Environment Agency charging scheme and guidance: environmental permits' at www.gov.uk/government/organisations/environment-agency.

Please remember that the charges are revised on 1 April each year and that there is an annual subsistence charge to cover the costs we incur in the ongoing regulation of the permit.

Table 1 – Type of application (fill number of activity being applied for in each column)

Installation	Waste	Mining waste	Medium Combustion Plant (MCP)/Specified Generator (SG)	Water discharge/point source discharge to groundwater	Groundwater spreading onto land

Table 2 – Charge type (A)

Charge activity reference	Charge activity description	What are you applying to do? E.g. new, minor variation, normal variation, substantial variation, surrender, low risk surrender, transfer	Amount
e.g. 1.17.3	e.g. Sect 5.2 landfill for hazardous waste	e.g. transfer	e.g. £5,561
Total A			

1 Working out charges (you must fill in this section), continued**Table 3 – Additional assessment charges (B)**

Part 1.19 Charges for plans and assessments			Tick appropriate
Reference	Plan or assessment	Charge	
1.19.1	Waste recovery plan	£1,231	<input type="checkbox"/>
1.19.2	Habitats assessment (except where the application activity is a flood risk activity)	£779	<input type="checkbox"/>
1.19.3	Fire prevention plan (except where the application activity is a farming installation)	£1,241	<input type="checkbox"/>
1.19.4	Pests management plan (except where the application activity is a farming installation)	£1,241	<input type="checkbox"/>
1.19.5	Emissions management plan (except where the application activity is a farming installation)	£1,241	<input type="checkbox"/>
1.19.6	Odour management plan (except where the application activity is a farming installation)	£1,246	<input type="checkbox"/>
1.19.7	Noise and vibration management plan (except where the application activity is a farming installation)	£1,246	<input type="checkbox"/>
1.19.8	Ammonia emissions risk assessment (intensive farming applications only)	£620	<input type="checkbox"/>
1.19.9	Dust and bio-aerosol management plan (intensive farming applications only)	£620	<input type="checkbox"/>
	Advertising	£500	<input type="checkbox"/>
Total B			

Total charges

Total A plus total B

2 Payment

Tick below to show how you have paid.

Cheque

Postal order

Cash

 Tick below to confirm you are enclosing cash with the application

Credit or debit card

Electronic transfer (for example, BACS)

Remittance number

Date paid (DD/MM/YYYY)

How to pay**Paying by cheque, postal order or cash**

Cheque details

Cheque made payable to

Cheque number

Amount

£

You should make cheques or postal orders payable to 'Environment Agency' and make sure they have 'A/c Payee' written across them if it is not already printed on.

Please write the name of your company and application reference number on the back of your cheque or postal order. **We will not** accept cheques with a future date on them.

We do not recommend sending cash through the post. If you cannot avoid this, please use a recorded delivery postal service and enclose your application reference details. Please tick the box below to confirm you are enclosing cash.

I have enclosed cash with my application

2 Payment, continued

Paying by credit or debit card

If you are paying by credit or debit card we can call you. We will destroy your card details once we have processed your payment. We can accept payments by Visa, MasterCard or Maestro card only.

Please call me to arrange payment by debit or debit card

Paying by electronic transfer BACS reference

If you choose to pay by electronic transfer you will need to use the following information to make your payment.

Company name	Environment Agency
Company address	SSCL (Environment Agency), PO Box 797, Newport Gwent, NP10 8FZ
Bank	RBS/NatWest
Address	London Corporate Service Centre, CPB Services, 2nd Floor, 280 Bishopsgate, London EC2M 4RB
Sort code	60-70-80
Account number	10014411
Account name	EA RECEIPTS
Payment reference number	PSCAPPXXXXYYY

You need to create your own reference number. It should begin with PSCAPP (to reflect that the application is for a permitted activity) and it should include the first five letters of the company name (replacing the X's in the above reference number) and a unique numerical identifier (replacing the Y's in the above reference number). The reference number that you supply will appear on our bank statements.

If you are making your payment from outside the United Kingdom, it must be in sterling. Our IBAN number is GB23NWK60708010014411 and our SWIFTBIC number is NWBKGB2L.

If you do not quote your reference number, there may be a delay in processing your payment and application.

Provide a unique reference number for the application, i.e. do not only use the company name only

State who is paying (full name and whether this is the agent/ applicant/other)

Fee paid £

Date payment sent (DD/MM/YYYY)

Now read section 3 below

You should also email your payment details and reference number to ea_fsc_ar@gov.sscl.com.

3 Privacy notice

The Environment Agency runs the environmental permit application service.

We are the data controller for this service. A data controller determines how and why personal information is processed.

Our personal information charter explains:

- your rights
- what we do with your personal information

We're allowed to process your personal information because we have official authority as the environmental regulator. We need this information to carry out a task in the public interest that is set out in law. As the data controller, when you apply for an environmental permit, we have a legal obligation to process your personal data under the Environmental Permitting Regulations. The second lawful basis for processing your personal data is to comply with this legal obligation.

We need your personal information to process your environmental permit application. If you do not give us this information we cannot issue a permit to you. After we've issued a permit to you, we use your personal information:

- to check that you're complying with your permit
- during any potential enforcement action

What personal information we collect

If you're the individual applicant, director or company secretary of a company applying or a technically competent manager we need your:

- name
- date of birth

3 Privacy notice, continued

- address
- email address

If you're the agent, consultant, employee responsible for the activity or the employee responsible for billing and invoicing we need your:

- name
- address
- email address

If you're the applicant we need details of any:

- convictions
- bankruptcy

We also collect any questions or feedback you leave, including your email address if you contact us.

Your responsibility with other people's personal information

If you've included personal information about other people on your application, you must tell them. You must provide them with a copy of this privacy notice so that they know how their personal information will be used.

What we do with your personal information

We use your personal information to help us decide whether to issue you with a permit.

The information (except dates of birth) is available online on our consultation website during the consultation period. This website is available to everyone so your information may be seen outside the European Economic Area.

After consultation we put all the information (except dates of birth) you give us in your application on our public register.

If you can demonstrate that any information you send us is commercially or industrially confidential, we'll consider withholding that information from our public register.

If you think that the information you'll send us may be a threat to national security you must contact the Secretary Of State before you apply. You must still send us that information with your application. We will not include this information on our public register unless the Secretary of State decides it can be included.

See the environmental permitting guidance for guidance on national security.

We may use your email address to contact you for user research to improve our service. You don't have to take part in the research.

Where your personal information is processed and stored

We store and process your personal information on servers in the UK. We will not host your personal information outside the European Economic Area.

We do not use your personal information to make an automated decision or for automated profiling.

How long we keep your personal information

We keep your personal information while your permit is in use and for 7 years after you surrender your permit. If the permit is for a landfill site, we keep the data for 10 years after surrender.

Removing personal information from the public register

We will remove your personal information from the public register if:

- you withdraw your application
- we refuse your application and the time limit for appealing the decision has expired or an appeal is dismissed
- the information is no longer relevant for public participation purposes under the Environmental Permitting Regulations

Contact

Our Data Protection Team gives independent advice. They monitor how the Environment Agency uses your personal information.

If you have questions or concerns about how we process personal information, or to make a complaint or request relating to data protection, please contact:

Address: Data Protection Team
 Environment Agency
 Horizon House
 Deanery Road
 Bristol
 BS1 5AH

3 Privacy notice, continued

Email: dataprotection@environment-agency.gov.uk

You can also make a complaint to the Information Commissioner's Office (ICO).

The ICO is the supervisory authority for data protection legislation. The ICO website has a full list of your rights under data protection legislation.

Now read section 4 below

4 Confidentiality and national security

Confidentiality

We will normally put all the information in your application on a public register of environmental information. However, we may not include certain information in the public register if this is in the interests of national security, or because the information is confidential.

You can ask for information to be made confidential by enclosing a letter with your application giving your reasons. If we agree with your request, we will tell you and not include the information in the public register. If we do not agree with your request, we will let you know how to appeal against our decision, or you can withdraw your application. You can find guidance on confidentiality in 'Environmental permitting guidance: core guidance', published by Defra and available via our website at www.gov.uk/government/organisations/environment-agency.

Only tick the box below if you wish to claim confidentiality for your application

Please treat the information in my application as confidential

National security

You can tell the Secretary of State that you believe including information on a public register would not be in the interests of national security. You must enclose a letter with your application telling us that you have told the Secretary of State and you must still include the information in your application. We will not include the information in the public register unless the Secretary of State decides that it should be included.

You can find guidance on national security in 'Environmental permitting guidance: core guidance', published by Defra and available via our website at www.gov.uk/government/organisations/environment-agency.

You cannot apply for national security via this application.

Now fill in section 5

5 Declaration

If you knowingly or carelessly make a statement that is false or misleading to help you get an environmental permit (for yourself or anyone else), you may be committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

A relevant person should make the declaration (see the guidance notes on part F1). An agent acting on behalf of an applicant is NOT a relevant person.

Each individual (or individual trustee) who is applying for their name to appear on the permit must complete this declaration. You will have to print a separate copy of this page for each additional individual to complete.

If you are transferring all or part of your permit, both you and the person receiving the permit must make the declaration. You must fill in the declaration directly below; the person receiving the permit must fill in the declaration under the heading 'For transfers only'.

Note: we will issue a letter to both current and new holders to confirm the transfer. If you are changing address we will need to send this letter to your new address; therefore please tell us your new address in a separate letter.

If you are unable to trace one or more of the current permit holders please see below under the transfers declaration.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

If you deliberately make a statement that is false or misleading in order to get approval you may be prosecuted.

I confirm that my standard facility will fully meet the rules that I have applied for (this only applies if the application includes standard facilities)

Tick this box to confirm that you understand and agree with the declaration above, then fill in the details below (you do not have to provide a signature as well)

Tick this box if you do not want us to use information from any ecological survey that you have supplied with your application (for further information please see the guidance notes on part F1)

5 Declaration, continued

Name

Title (Mr, Mrs, Miss and so on)

First name

Last name

on behalf of
(if relevant; for example, a company or organisation and so on)

Position
(if relevant; for example, in a company or organisation and so on)

Today's date (DD/MM/YYYY)

For transfers only – declaration for person receiving the permit

A relevant person should make the declaration (see the guidance notes on part F1). An agent acting on behalf of an applicant is NOT a relevant person.

I declare that the information in this application to transfer an environmental permit to me is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

Note: If you cannot trace a person or persons holding the permit you may be able to transfer the permit without their declaration as above. Please contact us to discuss this and supply evidence in your application to confirm you are unable to trace one or all of the permit holders.

If you deliberately make a statement that is false or misleading in order to get approval you may be prosecuted.

Tick this box to confirm that you understand and agree with the declaration above, then fill in the details below (you do not have to provide a signature as well)

Name

Title (Mr, Mrs, Miss and so on)

First name

Last name

on behalf of
(if relevant; for example, a company or organisation and so on)

Position
(if relevant; for example, in a company or organisation and so on)

Today's date (DD/MM/YYYY)

Now go to section 6

6 Application checklist

You must fill in this section.

If your application is not complete we will return it to you. If you aren't sure about what you need to send, speak to us before you submit your application.

You must do the following:

- Complete legibly all parts of this form that are relevant to you and your activities
- Identify relevant supporting information in the form and send it with the application
- List all the documents you are sending in the table below. If necessary, continue on a separate sheet. This separate sheet also needs to have a reference number and you should include it in the table below
- For new permits or any changes to the site plan, provide a plan that meets the standards given in the guidance note on part F1
- Provide a supporting letter for any claim that information is confidential
- Get the declaration completed by a relevant person (not an agent)
- Send the correct fee

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form? _____

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

Yes please

No thank you



For Environment Agency use only

Date received (DD/MM/YYYY)

Our reference number

Payment received?

No

Yes Amount received

£ _____