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JOHNSTON QUARRY GROUP LTD

ROPSLEY QUARRY, GRANTHAM

ARCHAEOLOGICAL TRIAL TRENCHING REPORT

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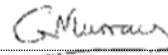
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PREPARED BY:

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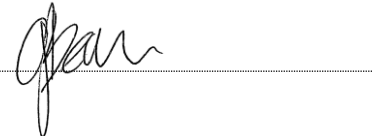
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EXECUTIVE SUMMARY

Wardell Armstrong LLP (WA) was commissioned by the client Johnston Quarry Group Ltd, to undertake an archaeological evaluation by trial trenching at Ropsley Quarry, Grantham, Lincolnshire (NGR TF 0017 3637). The evaluation was required as part of a S73 Application (variation) associated with the permitted extraction of limestone. The evaluation was undertaken in accordance with a written scheme of investigation (WSI) produced in response to a pre-application advice received from a consultation with the Historic Places Manager from Lincolnshire County Council.

The archaeological work was undertaken over five days between the 19th July and the 23rd July 2021 and comprised the excavation of eight trenches. The investigation revealed the remains of a paleochannel running in the east of the Site with limited/isolated finds associated with the prehistoric period recovered from the paleochannel. Linear ditches thought to be associated with prehistoric field systems which may have been consolidated by fencing were located to the south and southwest of the paleochannel.

The features and limited finds assemblage indicate a lack of activity, other than that of an agricultural nature, occurring within the site. The sterile nature of a number of the features possibly indicates a prehistoric date but also attests to the likelihood that this was an area peripheral to activity located beyond the boundary of the Site.

ACKNOWLEDGEMENTS

Wardell Armstrong LLP (WA) thanks the client Johnston Quarry Group Ltd for commissioning the project, and for all their assistance throughout the work. Also, WA thank Ian George, Historic Places Manager, at Lincolnshire County Council for their assistance.

The evaluation was undertaken by Aimee Bates and Charlotte Manning and supervised by Ginette Murray who also wrote the report. The figures were produced by Richard Abbot. The finds assessment was undertaken by Andrew Peachey and palaeoenvironmental assessment by John Summers. The project was managed by Charlotte Dawson who also edited the report.

1 INTRODUCTION

1.1 Project Circumstances and Planning Background

1.1.1 In July 2021, Wardell Armstrong LLP (WA) undertook an archaeological evaluation on land at Ropsley Quarry, Grantham, Lincolnshire (NGR TF 0017 3637). The work was commissioned by the Client who is seeking to reinstate extraction permission into an area where condition 10 of a 1994 permission referenced a necessity for archaeological fieldwork prior to extraction. Condition 3 of a 2017 ROMP subsequently excluded this area from extraction. The Client now seeks to reinstate extraction permission through variation of condition 3 of the ROMP. This 'proposed reinstated extraction area' shall be referenced as the Site within this report.

1.2 Project Documentation

1.2.1 The project conforms to pre-application advice received from Lincolnshire County Council, referencing a consultation with the Historic Places Manager, which stipulated that the results of archaeological trial trenching undertaken within the proposed reinstated extraction area would be required to determine any application on archaeological grounds.

1.2.2 A Written Scheme of Investigation (WSI) was then produced to provide a specific methodology based on the brief for a programme of archaeological trial trench evaluation (Wardell Amrstrong LLP, 2021b). This was approved by the archaeological planning advisor prior to the fieldwork taking place. This is in line with government advice as set out in Section 16 of the National Planning Policy Framework 2021 (DCMS, 2021).

1.2.3 This report outlines the work undertaken on site, the subsequent programme of post-fieldwork analysis, and the results of this scheme of archaeological evaluation.

2 METHODOLOGY

2.1 Standards and guidance

2.1.1 The archaeological evaluation was undertaken following the Chartered Institute for Archaeologists *Standard and Guidance for archaeological field evaluation* (2020a), and in accordance with the WA fieldwork manual (2020) , *Code of Approved Conduct for the Regulation of Arrangements in Field Archaeology*, (ClfA, 2019), *Management of Archaeological Research Projects in the Historic Environment* (MoRPHE), (HE, 2015) and the Lincolnshire County Council Archaeology Handbook (2019).

2.1.2 The fieldwork programme was followed by an assessment of the data as set out in the *Standard and Guidance for archaeological field evaluation* (ClfA, 2020a) and the *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (ClfA, 2020b).

2.2 Documentary Research

2.2.1 A rapid archaeological desk-based assessment was prepared by WA (2021a), which set out the archaeological and historical background of the site and provided an assessment of the significance of all known and potential heritage assets up to 1km from the area of investigation.

2.3 The Field Evaluation

2.3.1 The evaluation comprised the excavation of eight trenches measuring 50m in length by 1.80m in width across the proposed development area. The trenches were placed with due regard to any known constraints to trenching including ecological constraints of Great Crested Newts and Basil Thyme. The trenching array was approved by the Historic Places Manager for Lincolnshire County Council (George, I, 2021, pers comm.). All fieldwork was undertaken in full accordance with a Written Scheme of Investigation which was approved in advance by the Historic Places Manager for Lincolnshire County Council (Wardell Armstrong 2021b).

2.3.2 Deposits considered not to be significant were removed by a mechanical excavator with a toothless ditching bucket, under close archaeological supervision. All possible features were inspected and excavated by hand. Once completed all features were recorded according to the WA standard procedure as set out in the Excavation Manual (WA, 2020).

- 2.3.3 On completion the evaluation trenches were to be reinstated by replacing the excavated material. This was done to allow the least disturbance to the continued use as an arable field.
- 2.3.4 A full professional archive has been compiled in accordance with the project specification, and the Archaeological Archives Forum recommendations (Brown, 2011). The archive will be deposited with The Collection: Art and Archaeology in Lincolnshire, with copies of the report sent to the Lincolnshire HER, available upon request. The archive can be accessed under the unique project identifier LCNCC.2021.158.
- 2.3.5 Wardell Armstrong LLP supports the **Online AccesS** to the Index of Archaeological Investigation**S** (OASIS) project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by WA as a part of this national project. The OASIS reference for the project is: wardella2-502168.

3 BACKGROUND

3.1 Location and Geological Context

3.1.1 The Site was located at Ropsley Quarry, Grantham, Lincolnshire (NGR TF 0017 3637). The 3.7ha Site was located across the southern part of an arable field (cropped with barley) with access off a new haulage road put in from Longhollow Road. It was present on an east facing slope descending in height from c.85m AOD in the west to c.70m aOD in the east.

3.1.2 The underlying solid geology within the area of investigation changes. In the western and central parts of the proposed extraction area the bedrock is mapped as Upper Lincolnshire Limestone Member - Limestone, Ooidal. A Sedimentary Bedrock formed approximately 168 to 170 million years ago in the Jurassic Period when the area was dominated by shallow carbonate seas. In the eastern side of the proposed extraction area the bedrock is mapped as Lower Lincolnshire Limestone Member - Mudstone and Limestone, Interbedded. A Sedimentary Bedrock formed approximately 168 to 170 million years ago in the Jurassic Period when the area was dominated by shallow carbonate seas. (BGS, 2021)

3.1.3 The British Geological Survey (BGS, 2021) records superficial deposits of clay, silt, sand, and gravel, formed 3 million years ago during the Quaternary Period, within a likely relict watercourse bending around the northern boundary of the proposed reinstated extraction area.

3.1.4 The natural substrate observed during the current phase of works comprised sand with assorted limestone chunks which is consistent with the mapped geologies above.

3.2 Historical and Archaeological Background

3.2.1 Baseline information was gathered through the preparation of a desk-based assessment (Wardell Armstrong 2021a) which drew on a previous archaeological desk-based assessment (Archaeologica 2018), a recent HER search and the results of a geophysical survey undertaken in 2011 and 2018 (Bartlett Clarke Consultancy).

3.2.2 The Lincolnshire HER records the following assets within the Site:

- A Bronze Age pottery scatter (HER reference 34937);
- Linear anomalies recorded as cropmarks and geophysical anomalies (HER reference 84223); and

3.2.3 The latter HER reference is partly attributed to the geophysical survey which recorded:

- Anomalies potentially associated with a north-south aligned holloway along the eastern boundary of the Site (geophysical survey feature L);
- Anomalies potentially associated with a north-south aligned ditch (present east of Site centre (geophysical survey feature A);
- An anomaly recorded as a possible pit (geophysical survey feature M); and
- Anomalies potentially associated with medieval/post medieval cultivation marks (geophysical survey feature F).

3.2.4 The previous desk-based assessment referenced possible cropmarks of a potential ring ditch in the centre of the Site.

3.2.5 Notably, the geophysical survey also recorded the alignment of the Ancaster to Bourne Roman Road (HER reference 33097) to the immediate north-east of the Site.

3.2.6 In summary, the desk-based assessment of the evidence base collected identified a Potential for prehistoric activity albeit it was anticipated that the foci of any settlement activity would be beyond the boundaries of the Site and that any remains within the Site would be truncated. A Roman potential could not be ruled out due to the proximity of a Roman road albeit the potential was not gauged as high. Any medieval remains were anticipated to be agricultural and truncated. The potential for remains associated with paleochannels was also highlighted.

4 ARCHAEOLOGICAL EVALUATION RESULTS

4.1 Introduction

4.1.1 The evaluation was undertaken between the 19th July and the 23rd July, with eight trenches excavated across the Site (ST18536-004). The trenches were placed to target linear anomalies recorded as cropmarks and geophysical anomalies. Depths are given in above Ordnance Datum (aOD) and below present ground level (bpgl).

4.2 Results

4.2.1 **Trench 1** was situated on the west side of site. The trench was orientated northwest to southeast and measured 50m trench in length and 2m in width (**Plate 1**).

4.2.2 The natural geology (**1001**) of Trench 1 was observed to comprise yellowish white sand with abundant limestone inclusions and was encountered at a height of 85.36m aOD. Cut into the natural sand (**1001**) were three features.

4.2.3 In the northwest of trench 1, an east to west aligned linear terminus was exposed. The linear terminus [**1002**] was 0.48m deep, 0.62m wide and over 1.23m long, with a near vertical northern sides with a more concave southern side. It was filled with a singular silty sand (**1003**) (**Plate 2**).

4.2.4 In the centre of the trench was an east to west aligned linear [**1004**] which accords with the line on the geophysical survey. The linear [**1004**] was 0.48m deep, 1.02m wide and continued past both sides of the trench, with concave sides and an undulating base. Linear [**1004**] was filled by a single reddish-brown sand (**1005**) (**Plate 3**). A single pottery sherd of Iron Age date was recovered from the ditch fill.

4.2.5 Between linear [**1002**] and [**1004**] was a northwest to southeast aligned v shaped curvilinear [**1006**], measuring 0.41m deep, 1.05m wide and continued past both sides of the trench. Curvilinear [**1006**] was filled by a single sterile yellowish-brown sand (**1007**) (**Plate 4**).

4.2.6 The trench was sealed by 0.32m thick topsoil (**1000**) consisting of dark brown agricultural soil. (**Plate 5**).

4.2.7 **Trench 2** was aligned north to south and was 50m in length and 2m wide. The trench was situated on the west side of the site. The natural geology (**2001**) of Trench 2 was observed to comprise yellowish white sand with abundant limestone inclusions and was encountered at a height of 84.35m aOD (**Plate 6**).

- 4.2.8 Cut into the natural **(2001)** were seven features. A sub oval pit **[2002]** with two fills was exposed in the base of the trench. Measuring 0.48m deep, 1.09m wide and over a 1m in length with the eastern limit of the feature continuing under the bulk. The lower fill was 0.31m thick reddish brown silty sand **(2003)** and was covered by a 0.25m thick orangey brown silty sand **(2004) (Plate 7)**. Cut into the base of pit **[2002]** were two possible stake holes. Sub circular in plan with a vertical inclination **[2005]** was 0.18m wide and 0.20m long. Stake hole **[2005]** was filled by a 0.05m thick reddish brown sandy silt **(2006)**. Directly east of stake hole **[2005]** was a second stake hole **[2007]**. Stake hole **[2007]** measured 0.2m wide and 0.20m long and was sub oval in plan with a vertical inclination. Stake hole **[2007]** was filled by a 0.07m thick deposit of reddish brown silty sand **(2008) (Plate 7)**.
- 4.2.9 Linear terminus **[2009]** was located to the southern end of trench 2 and measured 0.90m wide and over 1.50m long running under the west side of the trench. Orientated northwest to southeast the terminus **[2009]** was filled by a 0.29m thick reddish-brown sand **(2010) (Plate 8)**. Cut into the base of the terminus **[2009]** was a single stake hole **[2011]**. stake hole **[2011]** was 0.24m wide, 0.26m long with a flat base. It was filled by a 0.10m thick deposit of reddish brown sand **(2012) (Plate 8)**.
- 4.2.10 A linear terminus **[2013]** was located at the southern end of trench 2. Orientated northwest to southeast the u shaped linear **[2013]** was 0.96m wide and measured over 3m long continuing under the eastern side of the trench. The linear terminus **[2013]** was filled by a 0.32m thick yellowish brown sand **(2014)** with charred plant fragments **(Plate 9)**. On the western edge of linear **[2013]** a shallow pit **[2015]** was visible. Pit **[2015]** was 0.30m wide and 0.80m long. Pit **[2015]** was filled by a sterile yellowish grey sand **(2017) (Plate 9)**. Surprisingly neither of the two linears accord with Anomaly F on the geophysical survey.
- 4.2.11 The trench was sealed by 0.28m thick topsoil **(2000)** consisting of dark brown agricultural soil **(Plate 10)**.
- 4.2.12 **Trench 3** was situated on the western side of site. The trench was orientated north to south and measured 50m trench in length and 2m in width **(Plate 11)**.
- 4.2.13 The natural geology **(3001)** of Trench 3 was observed to comprise yellowish white sand with abundant limestone inclusions and was encountered at a height of 83.56m aOD. Cut into the natural sand **(3001)** were two features.

- 4.2.14 At the northern end of the trench an east to west aligned linear **[3002]** was aligned across the trench. Over 2m in length and 1.80m wide the steep sided u-shaped feature was filled by a 0.42m thick yellowish brown sand **(3003) (Plate 12)**. This accords with anomaly F on the geophysical results.
- 4.2.15 Near the centre of trench 3 was an ovate feature **[3004]** with irregular sides and base measuring 0.99m in width and 1.50m in length. Interpreted as a tree bole **[3004]** the feature was filled by a 0.25m thick reddish-brown sand **(3005) (Plate 13)**.
- 4.2.16 Trench 3 was sealed by a 0.30m thick dark brown agricultural soil **(3000) (Plate 14)**.
- 4.2.17 **Trench 4** was aligned northwest to southeast and was on the crest of the hill. The trench measured 50m in length and 2m in width. The natural geology **(4001)** of Trench 4 was observed to comprise yellowish white sand with abundant limestone inclusions and was encountered at roughly a height of 82.10m aOD. Cut into the natural sand **(4001)** were four features **(Plate 15)**.
- 4.2.18 In the centre of the trench was a feature interpreted as a shallow tree bole **[4002]** with irregular sides. Tree bole **[4002]** was filled by a 0.17m thick reddish-brown sand **(4003) (Plate 16)**. Tree bole **[4002]** was located at the position of a cropmark feature on the geophysical survey that was interpreted as a possible barrow at this location, no evidence of the barrow was recorded during evaluation.
- 4.2.19 At the south-eastern end of the trench a northeast to southwest aligned linear **[4004]** was aligned across the trench. Measuring 1.08m wide and with a u shape, linear **[4004]** was filled by a 0.20m thick reddish-brown sand **(4005) (Plate 17)**.
- 4.2.20 At the north-western end of the trench were two features. Tree bole **[4006]** on the west side of the trench contained a 0.18m thick reddish brown silty sand **(4007) (Plate 18)**. On the east side of the trench was an east to west aligned 0.30m deep, 0.92m wide, 1.62m long tree bole **[4008]** with two fills. The lower fill was 0.27m thick reddish brown silty sand **(4009)** with abundant limestone brash with the upper fill being 0.23m thick reddish brown silty sand **(4010)** with sparse limestone brash chunks **(Plate 19)**. These two features were originally interpreted as a linear (Anomaly I on the geophysical survey).
- 4.2.21 Trench 4 was sealed by topsoil **(4000)** consisting of a 0.37m thick dark brown agricultural soil **(Plate 20)**.
- 4.2.22 **Trench 5** was situated in the middle of site. The trench was orientated east to west and measured 50m trench in length and 2m in width **(Plate 21)**.

- 4.2.23 The natural geology (**5001**) comprised yellowish white sand with limestone inclusions and encountered at a rough height of 76m aOD. Four features were cut into the natural (**5001**).
- 4.2.24 Linear terminus [**5002**] was to the west of linear [**5004**] and measured 1.30m wide, was north to south orientated and ran under the northern side of the trench (**Plate 22**). The terminus [**5002**] was filled by a 0.39m thick orangey brown sand (**5003**). Possibly the southern terminus for linear [**6004**].
- 4.2.25 Linear [**5004**] was located at the eastern end of the trench according with a geophysical anomaly (feature A- which can be seen to run up and beyond trench 6 on the geophysical survey). It was orientated north to south and continued under trench limits. Linear [**5004**] was 1.52m wide with u shape sides and a concave base. It was filled by a 0.23m thick brown sand (**5005**) (**Plate 23**).
- 4.2.26 To the west of linear [**5002**] was tree bole [**5006**], a steep sided very irregular shaped cut 1.80m wide, over 2m long and 0.35m deep. The tree bole [**5006**] contained two fills: the lower fill (**5007**) and the upper fill (**5008**). The lower fill comprised a 0.13 to 0.27m thick red sand, while the upper fill (**5008**) comprised a 0.08 to 0.25m thick red sand with gravels (**Plate 24**). This feature is most likely the possible pit (feature M) recorded by the geophysical survey.
- 4.2.27 Tree bole [**5009**] was not recorded due to its irregular shape and shallow rooted base.
- 4.2.28 Trench 5 was sealed by a 0.40m thick topsoil (**5000**) comprised of dark brown agricultural soil (**Plate 25**).
- 4.2.29 **Trench 6** was aligned east to west and was 2m wide. The trench measured 50m in length and was situated on a slope (**Plate 26**). The natural geology (**6000**) of Trench 6 was observed to comprise comprised yellowish white sand with limestone inclusions and encountered at a height of 75.13m aOD. Two features were cut into the natural (**6001**).
- 4.2.30 At the western end of the trench tree bole [**6002**] was filled by a 0.20m thick reddish-brown sand (**6003**) (**Plate 27**).
- 4.2.31 At the western end of the trench to the north of tree bole [**6002**] was a 1.40m wide north northeast to south southwest flat based linear [**6004**] ran across the trench likely associated with the linear terminus [**5002**]. Linear [**6004**] was filled by a 0.28m thick reddish-brown sand (**6005**) which contained six sherds of Iron Age pottery and 2 carbonised grains (**Plate 28**).

- 4.2.32 Trench 6 was sealed by a 0.48m thick topsoil (**6000**) comprised of dark brown agricultural soil (**Plate 29**).
- 4.2.33 **Trench 7** was situated on the eastern side of site on a slope. The trench was orientated east to west and measured 50m in length and 2m in width (**Plate 30**).
- 4.2.34 The natural geology (**7002**) of Trench 7 was observed to comprise yellowish white sand with limestone inclusions and encountered at a height of 77.35m aOD. Two features are cut into the natural (**7002**).
- 4.2.35 A 1.5m thick deposit of red sand (**7001**) with a width of 24.60m was exposed at the eastern end of the trench. A flint flake of Neolithic to early Bronze Age date was recovered from sand (**7001**). This paleochannel sand can also be found in trench 8.
- 4.2.36 At the western end of the trench was a 2m wide irregular tree bole [**7003**] filled by a singular fill of reddish-brown silty sand (**7004**), which was likely flagged as a linear like feature on the geophysical survey.
- 4.2.37 Trench 7 was sealed by a 0.40m thick topsoil (**7000**) comprised of dark brown agricultural soil (**Plate 31**).
- 4.2.38 **Trench 8** was aligned north to south and was 2m wide. The trench measured 50m in length and was situated at the base of the slope on the eastern side of the site (**Plate 32**).
- 4.2.39 The natural geology (**8002**) of Trench 8 was observed to comprise yellowish white sand with limestone inclusions and encountered at a height of 72.13m aOD. This was overlain by a 1.50m thick and 49.40m wide deposit of reddish-brown sand (**8001**), one fragment of Iron Age pottery was recovered from this otherwise sterile deposit (**Plate 33**). This paleochannel sand is the same as that found in trench 7.
- 4.2.40 Trench 8 was sealed by a 0.39m thick topsoil (**8000**) consisting of dark brown agricultural soil (**Plate 34**).

5 FINDS ASSESSMENT

5.1.1 The finds assessment was compiled by Andrew Peachey.

5.2 Pottery

5.2.1 Trial-trench evaluation excavations recovered a total of eight sherds (40g) of pottery in a poor condition. The pottery was recorded in-line with 'A Standard for Pottery Studies in Archaeology' (PCRG,SGRP,MPRG, 2016), developed in part from the guidelines of the Prehistoric Ceramics Research Group (1995).

5.2.2 All the sherds were manufactured in a hand-made fabric with pale orange-brown external surfaces fading to a very dark grey core and internal surfaces; inclusions comprise common plate-like shell (0.5-2.5), albeit almost entirely degraded leaving vesicles (voids) in the body. One medium-sized plain body sherd (29g) was present in **(8001)** with a wall thickness of 11mm; with further very small body sherds in a comparable fabric recovered from **(1005)** (1 sherd, 1g) and **(6005)** (6 sherds, 10g). Based on the limited technological and fabric traits available, these sherds appear to have been manufactured in the Iron Age, most likely the middle to late Iron Age, comparable with hand-made shell-tempered fabrics in Lincolnshire (i.e. (Darling & Precious, 2014): fabric type IASH), including examples from assemblages in south Lincolnshire such as South Witham (Archaeological Solutions, 2006, p. 16); however shell-temper was introduced from the early Bronze Age onwards, but typically alongside grog temper which appears absent here.

5.3 The Struck Flint

5.3.1 A single un-corticated debitage flake (1g) was recovered from **(7001)**, comprised of mid grey flint in a slightly patinated condition. The debitage flake has a correspondingly small bulb-of-percussion and uni-directional dorsal scars, but it is not evident which method of core technology or reduction it was a bi-product of; therefore, it may only be assigned a broad Neolithic to early Bronze Age origin.

5.4 The Clay Pipe

5.4.1 A single small fragment (1g) of clay pipe stem was recovered from **(4000)**, manufactured in a pure white pipeclay. The pipe has an external diameter of 5mm, with an internal perforation (bore) of 2mm or 5/64", and no evidence of any moulding seams. Based on average bore size this clay pipe was most-likely manufactured after 1720, potentially in the 19th century, but the use of bore size is not acknowledged as

a consistent or reliable method alone of dating pipes, and comparable bore sizes have been recorded in 17th century pipes.

7 ENVIRONMENTAL ASSESSMENT

7.1.1 During the archaeological evaluation at Ropsley Quarry, ten bulk samples for environmental archaeological assessment were taken and processed. The sampled features included three spot-dated to the Iron Age, although in general artefactual remains were limited. The aim of the bulk sampling exercise was to gain an understanding of the nature of preservation and distribution of ecofactual macrofossil remains within the archaeological deposits at the site.

7.2 Methods

7.2.1 Samples were processed at the WA facilities in Bury St. Edmunds using standard flotation methods. The light fractions were washed onto a mesh of 500µm (microns), while the heavy fractions were sieved to 1mm. The dried light fractions were sorted under a low power stereomicroscope (x10-x30 magnification). Botanical and molluscan remains were identified and recorded using reference literature (Cappers, Bekker, & Jans, 2006); (Jacomet, 2006); (Kerney & Cameron, 1979); (Kerney M., 1999)) and a reference collection of modern seeds was available as necessary. Potential contaminants, such as modern roots, seeds and invertebrate fauna were also recorded to gain an insight into possible disturbance of the deposits.

7.3 Results

7.3.1 The data from the bulk sample light fractions are presented in Table 1, Appendix 2. Preservation of plant macrofossils was by carbonisation only, with no evidence for anaerobic waterlogging or mineralisation. Preservation of terrestrial mollusc shells was variable but included some well-preserved shells, which is in keeping with the local lime-rich soils (National Soil Resource Institute, 2021).

7.3.2 Carbonised plant macrofossils were scarce within the assemblage, being limited to two carbonised cereal grains in linear fill **(6005)** / **[6004]**. One was identifiable as wheat but could not be taken to species. A single carbonised herbaceous stem in pit fill **(2014)**/ **[2013]** was the only other identifiable specimen. Charcoal remains were also limited, with a few fragments fractured and identified as oak (*Quercus* sp.). These are probably residues of domestic fuel. Small fragments of coal in **(6005)** and **(8001)** are likely intrusive from later activity, being carried down the profile by rooting, earthworms, and burrowing molluscs (*Cecilioides acicula*).

7.3.3 Molluscs were common in some of the linear features. Taxa characteristic of tall damp vegetation and ground litter (e.g., *Carychium* sp., *Cochlicopa* sp., *Discus rotundatus*,

Oxychilus sp. and Trichia hispida group) were present, probably reflecting conditions on ditch margins, while grassland taxa (e.g., Candidula gigaxii, Pupilla muscorum and Vallonia sp.) indicate short-turf, potentially grazed grassland in the vicinity.

7.4 **Conclusions**

- 7.4.1 The carbonised remains from the evaluation are consistent with low levels of scattered carbonised debris, most likely as wind-blown remains from occupation in the vicinity. There was no evidence for discrete deposits of carbonised material, and it is probable that the sampled features were not closely associated with areas of domestic or arable processing activity.

8 CONCLUSIONS

8.1 Interpretation

- 8.1.1 There were are number of tree boles on the Site, all of them sterile in nature providing no archaeological evidence.
- 8.1.2 The linears found within trenches 1, 2, 4, 5 and 6 show evidence of field and boundary systems though only two linears provide dating evidence. The Iron Age pottery recovered from these two linears [1004] and [6004] gives a tentative date for the field system. Although a broader range of Prehistoric is likely more suitable for the area.
- 8.1.3 The occasional stake hole may indicate the use of posts or stakes within the field system ditches for possible enclosure fencing to consolidate ditches.
- 8.1.4 Whilst the evidence from ditch [6004] included carbonised grain and six sherds of Iron Age pottery, the general paucity of finds across the Site would indicate that the carbonised grain was windblown and the pottery isolated, suggesting that domestic activity was not focused within the boundary of the Site.
- 8.1.5 Trenches 7 and 8 had a deposit of sand presumably a paleochannel that runs across the Site in a curving northwest to east alignment. This paleochannel is very sterile with only two artefacts being recovered from it. A fragment of Iron Age pottery was recovered from the trench 8 at the base of the slope and a Neolithic to Bronze Age debitage flint flake was recovered from trench 7.
- 8.1.6 The clay pipe stem recovered from the topsoil in trench 4 indicates that there was activity occurring on this site during the 18th century. This activity is presumably agricultural in nature due to the lack of any other features.
- 8.1.7 Overall, the features recorded indicate a lack of activity, other than agricultural, occurring within the site. The sterile nature of a lot of the features possible indicates a prehistoric date for them and increases the likelihood that this was an area of peripheral activity with the focus for occupation activity beyond the boundary of the Site.

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APPENDICES

APPENDIX 1: TRENCH DESCRIPTIONS

Appendix 1

Trench 1

Length: 50m

Width: 2m

Orientation: NW-SE

Average Depth: 0.48m

Maximum Depth: 0.64m

Context Number	Context Type	Description	Dimensions	Interpretation
(1000)	Layer	Mid-dark brown, organic agricultural soil with abundant rooting and frequent-abundant assorted shape and sized limestone inclusions.	Thickness: 0.32m	Topsoil
(1001)	Layer	Light yellowish-white sand with abundant assorted shape and size limestone inclusions.	Thickness: 0.15m+	Natural
[1002]	Cut	Linear in plan. Break of slope at the top was gradual-steep with straight edges on the northern side and concaved to the south. Break of slope at the base was almost imperceptible to the south and gradual to the N with a flat base. E-W aligned	Depth: 0.48m Width: 0.62m Length: 1.23m+	Cut for possible ditch terminus located in the south end of trench one. Was originally excavated as a ditch slot as the deposit had spread over the surface, obscuring the true shape. Feature was irregular in shape so may alternatively be the result of bioturbation. Function unknown. No datable evidence uncovered.
(1003)	Fill	Firm, mid orangey-brown silty sand with common subangular chunks of limestone brash (>150mm).	Depth: 0.48m Width: 0.62m Length: 1.23m+	Single fill of possible ditch terminus [1002]. Limestone appears to have been deposited in an irregular "V" shape to the southern side, which could indicate two possible postholes or potential overcut. No datable evidence uncovered.
[1004]	Cut	Curvilinear in plan with sharp break of slope which was near vertical on SE edge. Sides were convex on SW edge and concave on SE edge. The break of slope towards the base was gradual and undulating. E-W aligned.	Depth: 0.48m Width: 1.02m Length: 2m+	Linear E-W aligned, cut into natural. 1 fragment of pottery recovered from single.
(1005)	Fill	Firm, mid reddish-brown sand with occasional stone inclusions.	Depth: 0.48m Width: 1.02m	Single fill of linear [1004] with one small fragment of pottery recovered.

Appendix 1

Context Number	Context Type	Description	Dimensions	Interpretation
			Length: 2m+	
[1006]	Cut	Curvilinear in plan with steep mostly straight break of slope at the top and a steep "V" shaped base. NW-SE aligned.	Depth: 0.41m Width: 1.05m Length: 2m+	Cut of curvilinear feature located towards the centre of Trench 1. Contained single fill (1007). No datable evidence uncovered.
(1007)	Fill	Compacted, light yellowish-brown sand. Sterile with some bioturbation.	Depth: 0.41m Width: 1.05m Length: 2m+	Single fill of curvilinear [1006] with a clear contrast against the natural. Possibly caused by gradual, natural processes. No datable evidence uncovered.

Trench 2 Length: 50m Width: 2m Orientation: N-S
Average Depth: 0.37m Maximum Depth: 0.40m

Context Number	Context Type	Description	Dimensions	Interpretation
(2000)	Layer	Mid-dark brown, organic agricultural soil with abundant rooting and frequent-abundant assorted shape and sized limestone inclusions.	Thickness: 0.28m	Topsoil
(2001)	Layer	Light yellowish-white sand with abundant assorted shape and sized limestone inclusions.	Thickness: 0.14m+	Natural
[2002]	Cut	Sub-oval in plan, with a gradual break of slope at the top and with straight sloping sides to the S and steep to the west. Break of slope at the base was gradual, and flat to the NE yet irregular to the W. Cut by [2005].	Depth 0.48m Width: 1.09m Length: 1m+	Cut of possible pit to the south of Trench 2. Irregular in shape, however this could be due to the feature being cut into limestone. It had 2 fills; both were sterile (suggesting that feature may be a natural depression. Two possible stake holes are cut into the base. No datable evidence.
(2003)	Fill	Friable mid reddish-brown silty sand with common subangular limestone brash chunks (>150mm).	Depth: 0.31m Width: 1.09m	Basal fill of pit [2002]. No datable evidence uncovered. Most likely the result of natural silting.

Appendix 1

Context Number	Context Type	Description	Dimensions	Interpretation
			Length: 1m+	
(2004)	Fill	Firm mid orangey brown silty sand with no inclusions and common worm castings.	Depth: 0.25m Width: 1.09m Length: 1m+	Upper fill of possible pit [2002]. No datable evidence was recovered. Most likely caused by natural silting.
[2005]	Cut	Sub-circular in plan with a gradual concave break of slope at the top and almost imperceptible concave base. Vertical inclination of axis. Likely cuts [2002]	Depth: 0.05m +/- Width: 0.18m Length: 0.20m	Cut of possible stake hole located at the base of [2002] and situated west of another possible stake hole [2007]. The shape of this feature may indicate that it is merely in filling from the movement of limestone brash chunks within the natural. Function unknown. No datable evidence found.
(2006)	Fill	Friable mid reddish-brown silty sand. No inclusions.	Depth: 0.05m +/- Width: 0.18m Length: 0.20m	Single fill of possible stake hole [2005]. No datable material recovered. Most likely caused by natural silting.
[2007]	Cut	Sub-oval in plan with gradual straight and steep break of slope at the top and a gradual flat break of slope at the base. Vertical inclination of axis. Possibly cuts [2002]	Depth: 0.07m +/- Width: 0.22m Length: 0.30m	Cut of possible stake hole located at the base of possible pit [2002] situated to the east of stake hole [2005]. The shape is irregular which could be due to natural infilling of limestone brash chunks within natural. Function unknown. No datable evidence.
(2008)	Fill	Friable mid reddish-brown silty sand. No inclusions.	Depth: 0.07m +/- Width: 0.22m Length: 0.30m	Single fill of possible stake hole [2007]. No datable material recovered. Most likely the result of natural silting.
[2009]	Cut	Linear in plan. Break of slope at the top was sharp on Eastern side and gradual at the end. Break of slope towards the base was steep	Depth: 0.29m Width: approx. 0.90m	NW-SE aligned linear terminus. Natural limestone chunks line pit. once removed a firm yellowish grey sand lay

Appendix 1

Context Number	Context Type	Description	Dimensions	Interpretation
		on E side and gradual slope on end. Flat base cut by [2011].	Length: 1.50m+	underneath. Limestone chunks are part of the natural sand. Remanence of reddish-brown sand (2010) was caught in the gaps of the limestone. Runs under west side of the trench.
(2010)	Fill	Soft reddish-brown sand with occasional limestone inclusions.	Depth: 0.29m Width: approx. 0.90m Length: 1.50m+	Singular fill of [2009].
[2011]	Cut	Semi-circular with a sharp, vertical S side and a gradual, gently sloped N side. Flat base.	Depth: 0.10m Width: 0.24m Length: 0.26m	Stake/ post hole containing singular fill (2012). No datable evidence. Cut into base of terminus [2009].
(2012)	Fill	Soft, dark reddish-brown sand with rare limestone inclusions.	Depth: 0.10m Width: 0.24m Length: 0.26m	Singular fill of stake/ posthole [2011]
[2013]	Cut	Linear in plan with moderate, somewhat convex sides and a shallow somewhat concave base. NW-SE aligned	Depth: 0.32m Width: 0.96m Length: 3m+	Cut of probable elongated pit / possible ditch terminus located in southern area of Trench 2. Contained single fill (2014) in which no finds were recovered. Later cut by smaller pit [2015] on western side.
(2014)	Fill	Compact, light yellowish-brown sand. Sterile with some bioturbation.	Depth: 0.32m Width: 0.96m Length: 3m+	Single fill of [2013]. Contrast between natural and fill (2016) was clear. Possibly caused by gradual, natural processes. No datable evidence.
[2015]	Cut	Rounded / sub-oval in plan with moderate concave sides and a shallow concave base.	Depth: 0.10m Width: 0.30m	Recut of elongated pit / ditch terminus [2013] (located on western side of [2013]) edge was lined with several limestone

Appendix 1

Context Number	Context Type	Description	Dimensions	Interpretation
			Length: 0.80m	inclusions (not sure if that was deliberate) contained single fill (2016). No datable evidence.
(2016)	Fill	Compacted, light yellowish-grey sand. Sterile except edge of recut was lined by limestone inclusions. Bioturbation present.	Depth: 0.10m Width: 0.30m Length: 0.80m	Single fill of recut [2015]. Clear contrast against natural and fill (2014) possibly caused by natural sedimentation processes. No datable evidence.

Trench 3

Length: 50m Width: 2m Orientation: N-S
Average Depth: 0.45m Maximum Depth: 0.50m

Context Number	Context Type	Description	Dimensions	Interpretation
(3000)	Layer	Mid-dark brown, organic agricultural soil with abundant rooting and frequent-abundant assorted shape and sized limestone inclusions.	Thickness: 0.30m	Topsoil
(3001)	Layer	Light yellowish-white sand with abundant assorted shape and size limestone inclusions.	Thickness: 0.16m+	Natural
[3002]	Cut	Linear in plan (from what is exposed). Steep-moderate and somewhat concave sides and a moderate irregular-somewhat concave base. E-W Aligned.	Depth: 0.42m Width: 1.80m Length: 2m+	Cut of potential linear-possible natural striation as fill was very sterile. Contained single fill (3003). No finds present.
(3003)	Fill	Compacted mid-light yellowish-brown sand. Sterile with some bioturbation.	Depth: 0.42m Width: 1.80m Length: 2m+	Single fill of possible natural striation [3002]. Fill was very sterile with no stone inclusions and a very small amount of bioturbation. Contrast was clear against the natural. No datable evidence.
[3004]	Cut	Ovate, irregular base, gradual concave sides.	Depth: 0.25m Width:	Natural hollow / tree bole

Appendix 1

Context Number	Context Type	Description	Dimensions	Interpretation
			0.99m Length: 1.50m	
(3005)	Fill	Compact reddish-brown sand with occasional limestone inclusions.	Depth: 0.25m Width: 0.99m Length: 1.50m	Single fill of natural hollow/ tree bole [3004].

Trench 4

Length: 50m Width: 2m Orientation: NW-SE
Average Depth: 0.39m Maximum Depth: 0.49m

Context Number	Context Type	Description	Dimensions	Interpretation
(4000)	Layer	Mid-dark brown, organic agricultural soil with abundant rooting and frequent-abundant assorted shape and sized limestone inclusions.	Thickness: 0.37m	Topsoil
(4001)	Layer	Light yellowish-white sand with abundant assorted shape and size limestone inclusions	Thickness: 0.14m+	Natural
[4002]	Cut	Cut of irregular feature with undulating base and shallow sides.	Depth: 0.17m	Cut of tree bole
(4003)	Fill	Compact mid reddish-brown sand with frequent limestone inclusions.	Depth: 0.17m	Single fill of tree bole [4002]
[4004]	Cut	Linear in plan with gradual sloping sides and a gradual concave "U" shaped base. NE-SW aligned.	Depth: 0.20m Width: 1.08m Length: 2m+	Linear containing single fill (4005). Continues outside trench L.O.E.
(4005)	Fill	compact, mid reddish-brown sand with abundant limestone inclusions.	Depth: 0.20m Width: 1.08m	Single fill of linear [4004] no finds uncovered. 10l sample taken.

Appendix 1

Context Number	Context Type	Description	Dimensions	Interpretation
			Length: 2m+	
[4006]	Cut		Depth: 0.18m	Cut of tree bole.
(4007)	Fill	Firm mid reddish-brown silty sand with common subangular inclusions (>100mm)	Depth: 0.18m	Single fill of tree bole [4006]
[4008]	Cut	Sub-oval feature with gradual straight sloping sides and almost imperceptible undulating base.	Depth: 0.30m Width: 0.92m Length: 1.62m	Cut of probable tree bole, located near smaller tree bole [4006] to the west. Possibly remains of a heavily truncated ditch running roughly E-W.
(4009)	Fill	Firm, mid reddish-brown silty sand with abundant subangular chunks of limestone brash (>150mm)	Depth: 0.27m Width: 0.92m Length: 1.62m	Basal fill of tree bole [4008]. No datable materials recovered. Likely caused by natural silting.
(4010)	Fill	Firm, mid reddish-brown silty sand with sparse subangular chunks of limestone brash (>30mm). common worm castings.	Depth: 0.23m Width: 0.84m Length: 0.92m	Upper fill of tree bole [4008]. No datable material recovered. Most likely caused by natural silting.

Trench 5

Length: 50m Width: 2m Orientation: E-W

Average Depth: 0.52m Maximum Depth: 0.65m

Context Number	Context Type	Description	Dimensions	Interpretation
(5000)	Layer	Mid-dark brown, organic agricultural soil with abundant rooting and frequent-abundant assorted shape and sized limestone inclusions.	Thickness: 0.40m	Topsoil
(5001)	Layer	Light yellowish/ white sand with abundant assorted shape and size limestone inclusions	Thickness: 0.15m+	Natural

Appendix 1

Context Number	Context Type	Description	Dimensions	Interpretation
[5002]	Cut	Linear in plan. Moderate concave sides with a moderate-shallow somewhat concave base. N-S aligned. Possibly same as feature [6004].	Depth: 0.39m Width: 1.30m Length: 5m+	Cut for possible ditch terminus possibly the same as [6004]. Contained single fill (5003). No datable evidence present. Located in close proximity to linear [5004] to the east.
(5003)	Fill	Compacted mid orangey-brown sand with abundant assorted shape and size limestone inclusions and a small amount of bioturbation.	Depth: 0.39m Width: 1.30m Length: 5m+	Single fill of possible ditch terminus [5002]. Contrast against natural was ephemeral and most likely caused by gradual, natural sedimentation processes. No datable evidence uncovered.
[5004]	Cut	Linear in plan with moderate somewhat concave sides and a gradual-shallow irregular-somewhat concave base. N-S aligned.	Depth: 0.23m Width: 1.52m Length: 5m+	Cut of linear located at Eastern end of Trench 5 in close proximity and aligned parallel to terminus [5002]. Contained single fill (5005). No datable evidence uncovered. Possible boundary ditch?
(5005)	Fill	Compacted mid-light brown sand with abundant, assorted shape and sized limestone inclusions and a small amount of bioturbation.	Depth: 0.23m Width: 1.52m Length: 5m+	Single fill of linear [5004]. Clear contrast against natural. Most likely caused by gradual, natural processes. No datable evidence uncovered.
[5006]	Cut	Steep sides. Irregular base containing two fills (very irregular)	Depth: 0.35m Width: 1.80m Length: 2m+	Cut of natural hollow / tree bole.
(5007)	Fill	Red sand. No inclusions. Worm castings	Depth: 0.13m-0.27m	Fill of natural hollow / tree bole [5006]
(5008)	Fill	Red sand with abundant limestone and gravels	Depth: 0.08m-0.25m	Fill of natural hollow / tree bole [5006]
[5009]	Cut			Natural depression/ tree bole. Not excavated.

Trench 6

Length: 50m

Width: 2m

Orientation: E-W

Average Depth: 0.57m

Maximum Depth: 0.65m

Appendix 1

Context Number	Context Type	Description	Dimensions	Interpretation
(6000)	Layer	Mid-dark brown, organic agricultural soil with abundant rooting and frequent-abundant assorted shape and sized limestone inclusions.	Thickness: 0.48m	Topsoil
(6001)	Layer	Light yellowish-white sand with abundant assorted shape and size limestone inclusions	Thickness: 0.05m+	Natural
[6002]	Cut		Depth: 0.20m	Cut of natural feature – possible tree bole.
(6003)	Fill	Compact light reddish-brown sand.	Depth: 0.20m	Single fill of natural feature [6002].
[6004]	Cut	Linear in plan with sharp steep sides (45°) and gradual base. NNE-SSW aligned.	Depth: 0.28m Width: 1.40m Length: 2m+	Runs across Trench 6. Not seen in Trench 7. Possibly same feature as terminus [5002] in Trench 5.
(6005)	Fill	Compact reddish-brown sand with limestone fragments (10mm-80mm)	Depth: 0.28m Width: 1.40m Length: 2m+	Single fill of linear [6004] with one fragment of pottery recovered. Sample taken.

Trench 7

Length: 50m Width: 2m Orientation: E-W
Average Depth: 0.85m Maximum Depth: 1.5m

Context Number	Context Type	Description	Dimensions	Interpretation
(7000)	Layer	Mid-dark brown, organic agricultural soil with abundant rooting and frequent-abundant assorted shape and sized limestone inclusions.	Thickness: 0.40m	Topsoil
(7001)	Layer	Compacted red sand with rare stone inclusions.	Thickness: 0.05m-1.5m	Paleochannel caused by deposits from old rover course. Only appears in Trench 7 and 8. small piece of worked flint found within this context.

Appendix 1

Context Number	Context Type	Description	Dimensions	Interpretation
(7002)	Layer	Varies from light red to reddish-brown sand. Depth also varies due to paleochannel. Abundant assorted shape and sized limestone inclusions.	Depth: 0.10m+	Natural
[7003]	Cut			Cut of tree disturbance.
(7004)	Fill			Fill of tree disturbance [7003]

Trench 8

Length: 50m Width: 2m Orientation: N-S
Average Depth: 1.20m Maximum Depth: 1.80m

Context Number	Context Type	Description	Dimensions	Interpretation
(8000)	Layer	Mid-dark brown, organic agricultural soil with abundant rooting and frequent-abundant assorted shape and sized limestone inclusions.	Thickness: 0.39m	Topsoil
(8001)	Layer	Firm reddish-brown sand with rare stone inclusions.	Thickness: 1.50m	Paleochannel. Caused by deposits of old river course. Pot fragment found within this context. Runs diagonal across site. Only appears in Trench 7 and 8.
(8002)	Layer	Varies across Trench 8. Mostly yellowish-white sand with abundant limestone inclusions with bands of red sand – possibly from paleochannel.	Depth: 0.40m	Natural.

APPENDIX 2: TABLE 1 ENVIRONMENTAL ASSESSMENT

Table 1: Results from the bulk sample light fractions from Ropsley Quarry. Abbreviations: Trit = wheat (*Triticum* sp.); NFI = not formally identified (indeterminate cereal grain).

Site code	Sample number	Context	Feature	Description	Trench	Spot date	Volume (litres)	Flot (g)	Carbonised cereals			Carbonised non-cereal taxa		Carbonised hazelnut shell	Charcoal		Molluscs		Contaminants					Other remains		
									Cereal grains	Cereal chaff	Notes	Seeds	Notes		Charcoal > 2mm	Notes	Molluscs	Notes	Roots	Molluscs	Modern seeds	Insects	Earthworm capsules			
ST1853 6	1	600 5	600 4	Fill of Linear	6	IA	20	3	X	-	Trit (1), NFI (1)	-	-	-	XX	Quercus sp.	XX		Cochlicopa sp., Oxychilus sp., Pupilla muscorum, Trichia hispida group, Vallonia sp.	XX	X	XX	-	-	-	Coal (X)
ST1853 6	2	800 1	-	Fill of Palaeochannel	8	IA	20	1	-	-	-	-	-	X	-	X		Vallonia sp.	XX	X	X	X	-	-	-	Coal (X)
ST1853 6	3	500 3	500 2	Fill of Ditch Terminus	5	-	10	<1	-	-	-	-	-	-	-	XX		Carychium sp., Oxychilus sp., Vertigo sp.	XX	X	X	-	-	-	-	
ST1853 6	4	500 5	500 4	Fill of Linear	5	-	20	2	-	-	-	-	-	X	-	XX		Candidula gigaxii, Cochlicopa sp., Oxychilus sp., Pupilla muscorum, Trichia hispida group, Vertigo sp.	XX	X	X	X	X	-	-	
ST1853 6	5	400 5	400 4	Fill of Linear	5	-	10	<1	-	-	-	-	-	X	-	X		Carychium sp., Discus rotundatus	XX	XX	X	-	-	-	-	

Site code	Sample number	Context	Feature	Description	Trench	Spot date	Volume (litres)	Flot (g)	Carbonised cereals			Carbonised non-cereal taxa		Carbonised hazelnut shell	Charcoal		Molluscs		Contaminants					Other remains
									Cereal grains	Cereal chaff	Notes	Seeds	Notes		Charcoal > 2mm	Notes	Molluscs	Notes	Roots	Molluscs	Modern seeds	Insects	Earthworm capsules	
ST18536	6	3003	3002	Fill of Natural Feature	3	-	20	1	-	-	-	-	-	X	-	X	<i>Trichia hispida</i> group, <i>Vallonia</i> sp.	XX	X	XX	-	-	-	-
ST18536	7	2014	2013	Fill of Pit/Ditch Terminus	2	-	10	1	-	-	-	-	-	X	-	-	-	XX	X	X	-	XX	Carbonised herbaceous stem (1)	
ST18536	8	2016	2015	Fill of Pit Recut	2	-	10	1	-	-	-	-	-	X	-	-	-	XX	X	XX	-	X	-	
ST18536	9	2004	2002	Upper Fill of Pit	2	-	10	1	-	-	-	-	-	X	-	X	<i>Pupilla muscorum</i> , <i>Vallonia</i> sp.	XX	X	X	-	-	-	-
ST18536	10	1005	1004	Fill of Curvilinear Ditch	1	IA	10	1	-	-	-	-	1	X	<i>Quercus</i> sp.	X	<i>Pupilla muscorum</i> , <i>Vallonia</i> sp.	XX	X	X	-	XX	-	-

APPENDIX 3: PLATES



Picture Taken:
21/07/2021

Plate
No. 1

Title: Trench shot of TR1. Camera facing SE. X2 1m scale.



Picture Taken:
27/07/2021

Plate
No. 2

Title: West facing section of ditch terminus [1002]. 0.40m scale.



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
27/07/2021

Plate
No. 3

Title: South facing section of linear [1004]. 1m scale.



Picture Taken:
27/07/2021

Plate
No. 4

Title: SE facing section of curvilinear [1006]. 0.40m scale.



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
21/07/2021

Plate
No. 5

Title: NE facing representative section of TR1. 1m scale.



Picture Taken:
21/07/2021

Plate
No. 6

Title: Trench shot of TR2. Camera facing N. X2 1m scale.



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
27/07/2021

Plate
No. 7

Title: N facing section of sub oval pit [2002], also showing stakeholes [2005] and [2007] at the base. 1m scale.



Picture Taken:
27/07/2021

Plate
No. 8

Title: *** facing (directions missing on register) of linear terminus [2009], also showing stakehole [2011] at the base. 0.40m scale.



Picture Taken:
27/07/2021

Plate
No. 9

Title: NW facing section of terminus [2013] and shallow pit [2015].
0.40m scale.



Picture Taken:
21/07/2021

Plate
No. 10

Title: E facing representative section of TR2. 1m scale.



Client: Johnston Quarry Group LTD

Project: Ropley Quarry, Grantham

Project Number: ST18536



Picture Taken:
21/07/2021

Plate
No. 11

Title: Trench shot of TR 3. Camera facing N. X2 1m scale.



Picture Taken:
26/07/2021

Plate
No. 12

Title: W facing section of linear [3002]. 1m scale.

Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
26/07/2021

Plate
No. 13

Title: NE facing section of tree bole [3004]. 0.40m scale.



Picture Taken:
21/07/2021

Plate
No. 14

Title: E facing representative section for TR3. 1m scale.



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
20/07/2021

Plate
No. 15

Title: Trench shot of TR4. Camera facing SE. X2 1m scales.



Picture Taken:
26/07/2021

Plate
No. 16

Title: NW facing section of tree bole [4002]. 0.40m scale.

Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
26/07/2021

Plate
No. 17

Title: NE facing section of [4004]. 1m scale.



Picture Taken:
26/07/2021

Plate
No. 18

Title: W facing section of tree bole [4006]. 0.40m scale.

Client: Johnston Quarry Group LTD

Project:

Project Number:



Picture Taken:
26/07/2021

Plate
No. 19

Title: NW facing section of tree bole [4008]. 1m scale.



Picture Taken:
23/07/2021

Plate
No. 20

Title: SW facing representative section for TR4. 1m scale.



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
20/07/2021

Plate
No. 21

Title: Trench shot of TR5. Camera facing W. X2 1m scales.



Picture Taken:
23/07/2021

Plate
No. 22

Title: W facing section of linear terminus [5002]. 1m scale.

Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
26/07/2021

Plate
No. 23

Title: S facing section of linear [5004]. 1m scale.



Picture Taken:
21/07/2021

Plate
No. 24

Title: E facing section of treebole [5006]. 0.4m scale



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
21/07/2021

Plate
No. 25

Title: SE facing representative section of TR5. 1 m scale.



Picture Taken:
20/07/2021

Plate
No. 26

Title: Trench shot of TR6. Camera facing E. X2 1m scales.



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
22/07/2021

Plate
No. 27

Title: W facing section of tree bole [6002]. 1m scale.



Picture Taken:
23/07/2021

Plate
No. 28

Title: SW facing section of linear [6004]. 1m scale.



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
20/07/2021

Plate
No. 29

Title: S facing representative section of TR6. 1m scale.



Picture Taken:
22/07/2021

Plate
No. 30

Title: Trench shot of TR7. Camera facing W. X2 1m scales.



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
23/07/2021

Plate
No. 31

Title: : S facing representative section of TR7. 1m scale.



Picture Taken:
22/07/2021

Plate
No. 32

Title: Trench shot of TR 8. Camera facing N. X2 1m scales



Client: Johnston Quarry Group LTD

Project: Ropsley Quarry, Grantham

Project Number: ST18536



Picture Taken:
22/07/2021

Plate
No. 33

Title: W facing section of paleochannel (8001) with pottery. 1m scale.



Picture Taken:
22/07/2021

Plate
No. 34

Title: E facing representative section of TR8. 1m scale.

Client: Johnston Quarry Group LTD







Project: Ropsley Quarry, Grantham

Project Number: ST18536

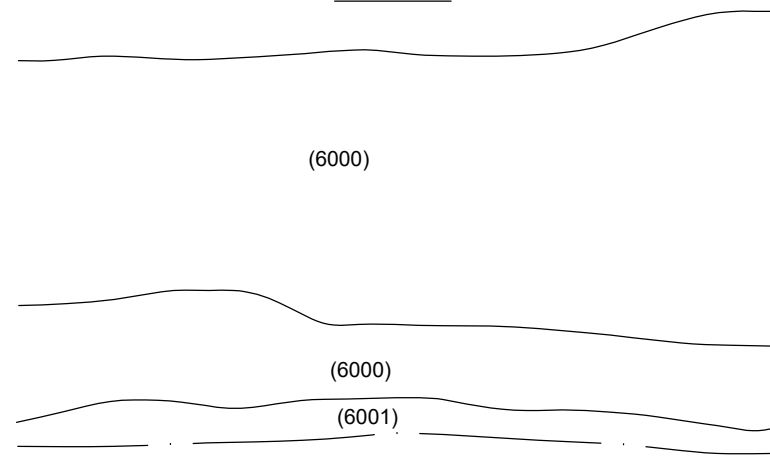
APPENDIX 4: FIGURES

DO NOT SCALE FROM THIS DRAWING

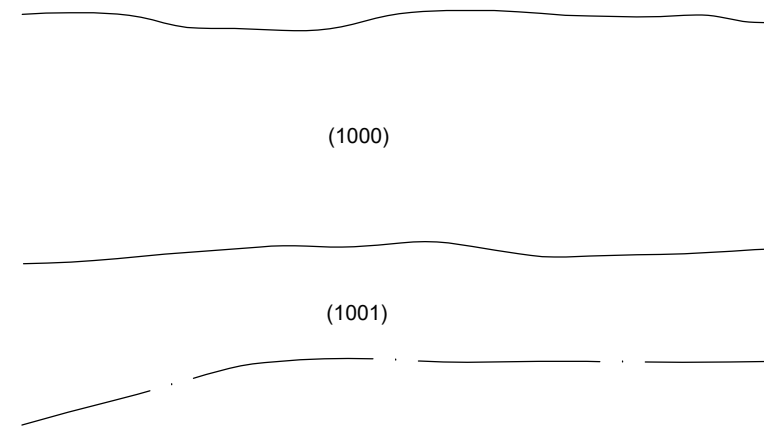
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-  CUT LINE
-  DEPOSIT LINE
-  LIMIT OF EXCAVATION
-  TRENCH LIMIT
-  PROJECTION LINE
-  STONES

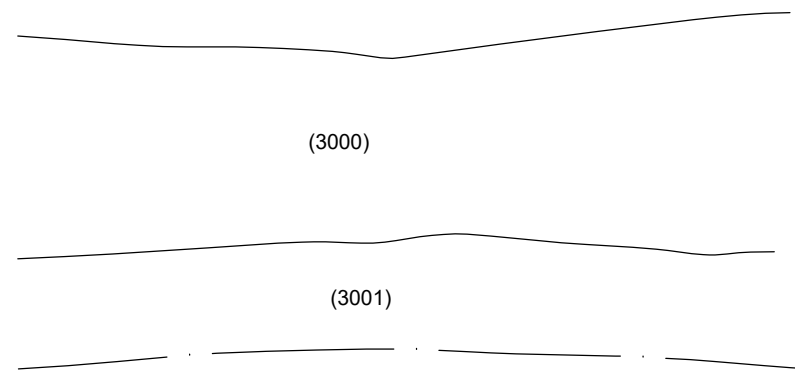
SOUTH FACING REPRESENTATIVE SECTION OF TRENCH 6
SCALE 1:10



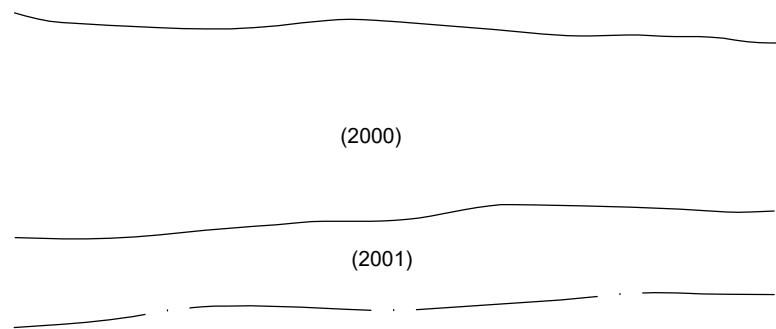
NORTHEAST FACING REPRESENTATIVE SECTION OF TRENCH 1
SCALE 1:10



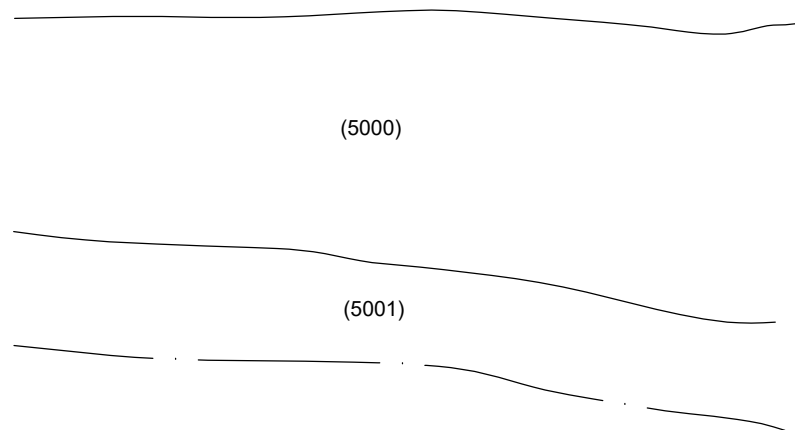
EAST FACING REPRESENTATIVE SECTION OF TRENCH 3
SCALE 1:10



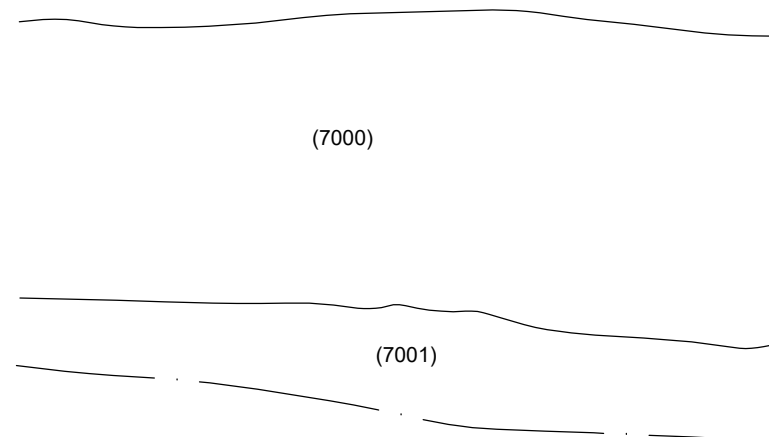
WEST FACING REPRESENTATIVE SECTION OF TRENCH 2
SCALE 1:10



SOUTH FACING REPRESENTATIVE SECTION OF TRENCH 5
SCALE 1:10



EAST FACING REPRESENTATIVE SECTION OF TRENCH 7
SCALE 1:10



A	First issue	25/10/21	RA	LG/GM	CB
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REVISION	DETAILS	DATE	DRN	CHK'D	APP'D
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PROJECT
ROPESLEY QUARRY EXTENSION

DRAWING TITLE
REPRESENTATIVE SECTIONS OF TRENCHES

DRG No.	ST18536-006	REV	A
DRG SIZE	SCALE	DATE	
A3	AS SHOWN	25/10/21	
DRAWN BY	CHECKED BY	APPROVED BY	
RA	LG/GM	CB	

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<input type="checkbox"/> CARLISLE	<input type="checkbox"/> MANCHESTER
<input type="checkbox"/> EDINBURGH	<input type="checkbox"/> NEWCASTLE UPON TYNE
<input type="checkbox"/> GLASGOW	<input type="checkbox"/> STOKE ON TRENT

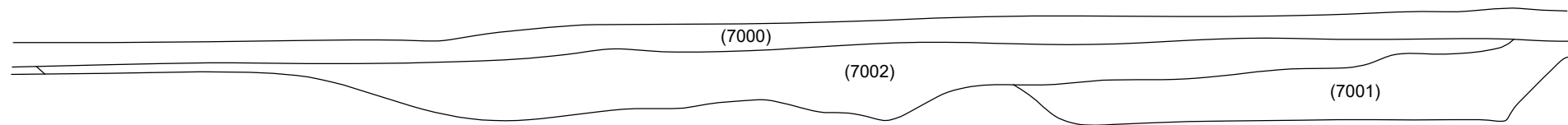


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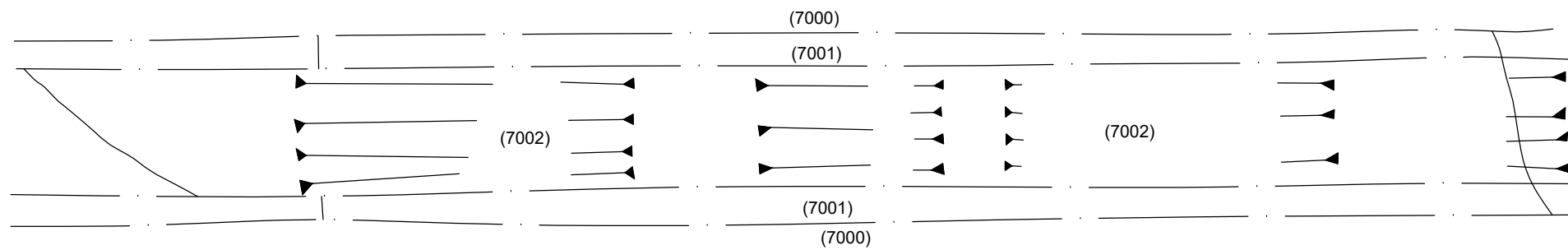
REFERENCE

	CUT LINE
	DEPOSIT LINE
	LIMIT OF EXCAVATION
	TRENCH LIMIT
	PROJECTION LINE
	STONES

WEST FACING SECTION OF PALEO CHANNEL (7001)
SCALE 1:100



PLAN OF PALEO CHANNEL
SCALE 1:100



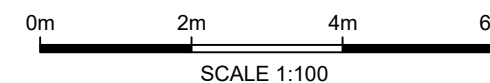
A	First issue	25/10/21	RA	LG/GM	CB
REVISION	DETAILS	DATE	DRN	CHK'D	APP'D

CLIENT	JOHNSTON QUARRY LTD
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PROJECT	ROPESLEY QUARRY EXTENSION
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DRAWING TITLE	SECTION AND PLAN OF PALEOCHANNEL (7001)
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DRG No.	ST18536-007	REV	A
DRG SIZE	A3	SCALE	AS SHOWN
		DATE	25/10/21
DRAWN BY	RA	CHECKED BY	LG/GM
		APPROVED BY	CB









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<input type="checkbox"/> GLASGOW	<input type="checkbox"/> STOKE ON TRENT

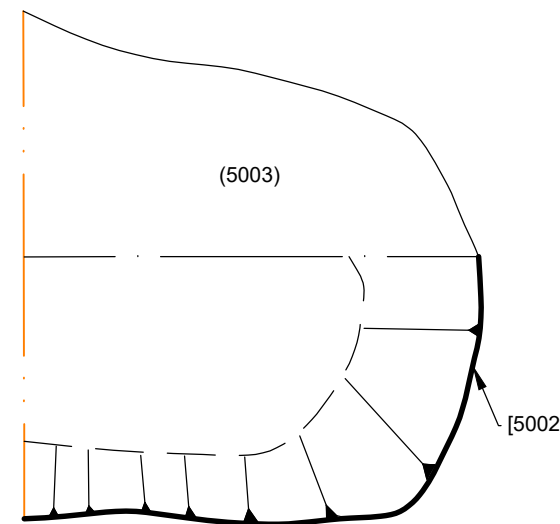
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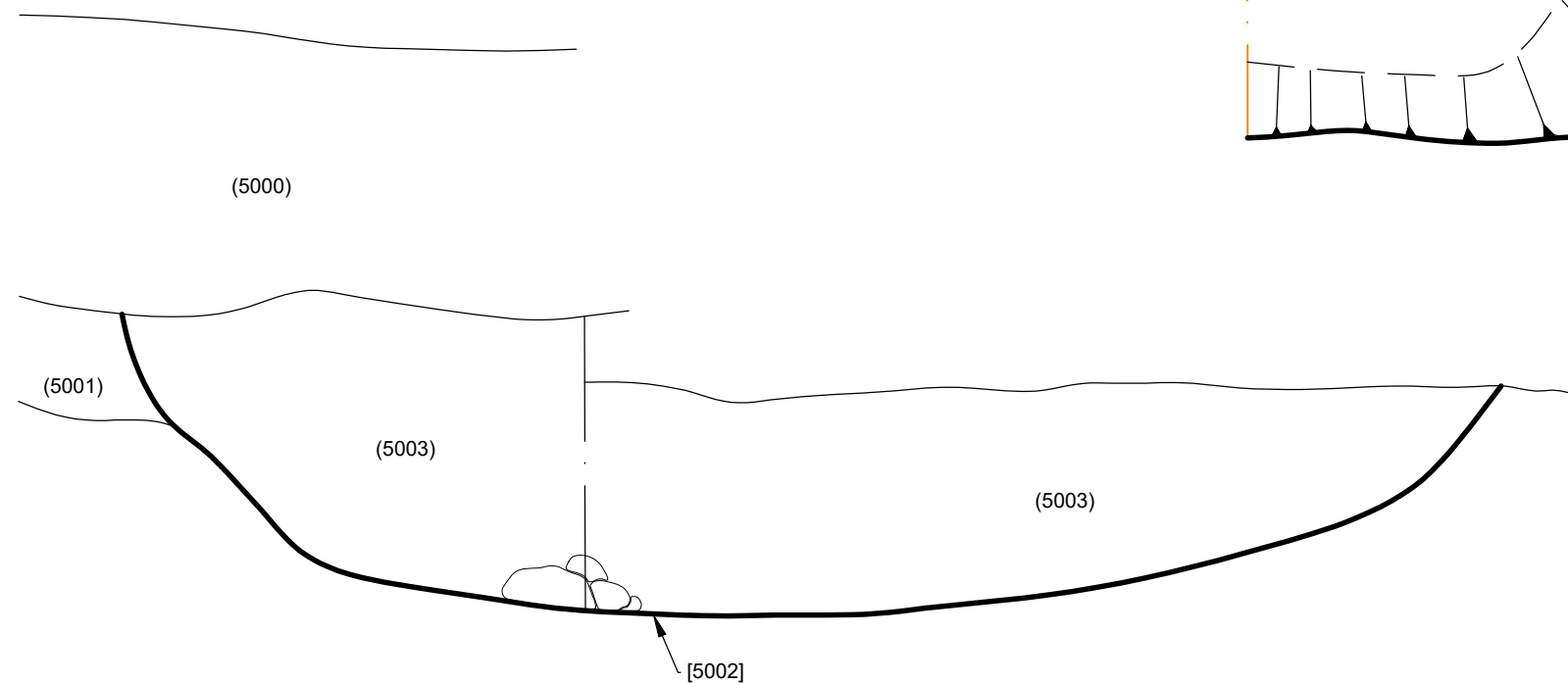
	CUT LINE
	DEPOSIT LINE
	LIMIT OF EXCAVATION
	TRENCH LIMIT
	PROJECTION LINE
	STONES



PLAN OF DITCH TERMINUS [5002]
SCALE 1:20



WRAPAROUND SECTION OF DITCH TERMINUS [5002]
SCALE 1:10



A	First issue	25/10/21	RA	LG/GM	CB
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REVISION	DETAILS	DATE	DRN	CHK'D	APP'D
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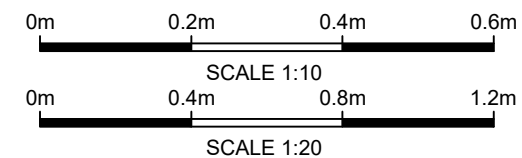
PROJECT	ROPESLEY QUARRY EXTENSION
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DRAWING TITLE	SECTION AND PLAN OF DITCH TERMINUS [5002]
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DRG No.	ST18536-008	REV	A
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DRG SIZE	A3	SCALE	AS SHOWN	DATE	25/10/21
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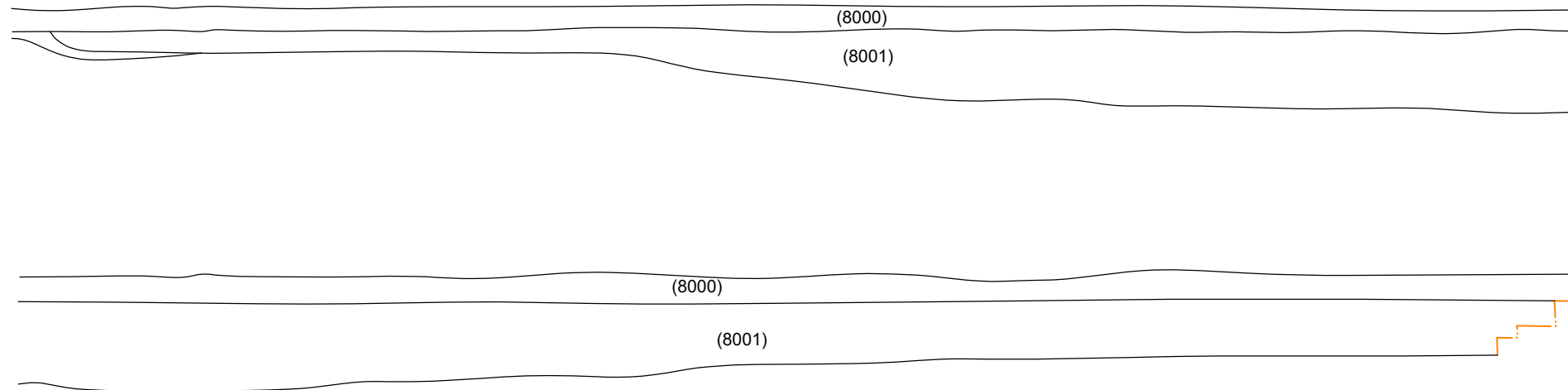
DRAWN BY	RA	CHECKED BY	LG/GM	APPROVED BY	CB
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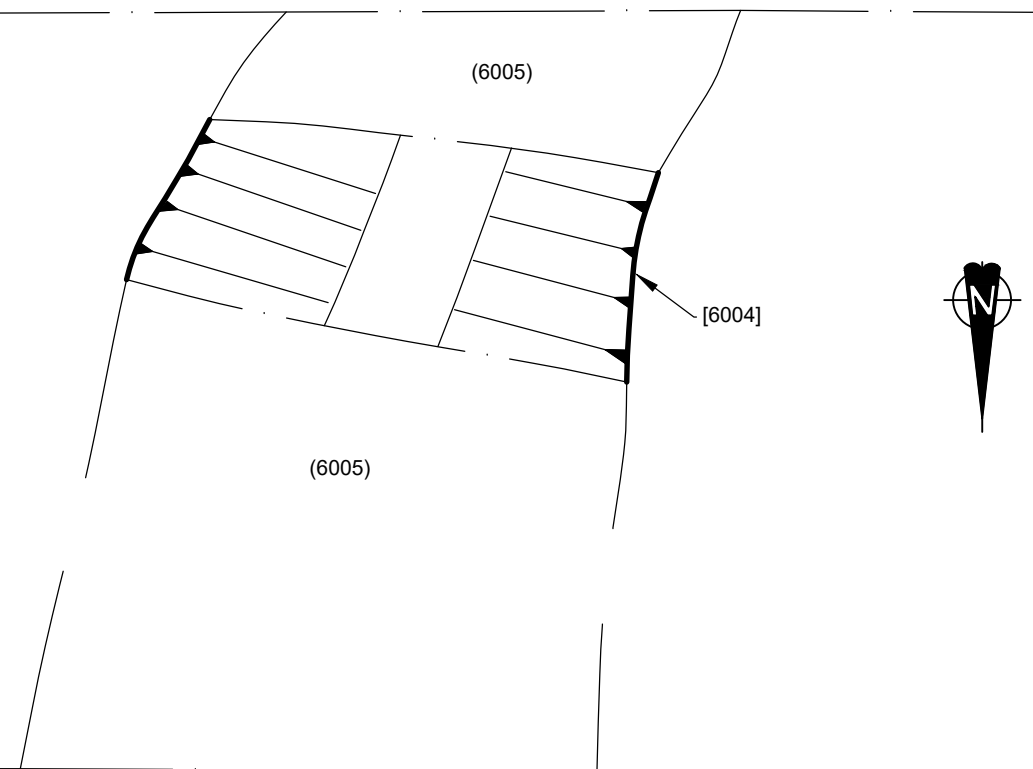
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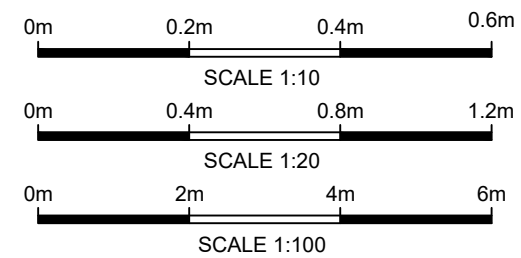
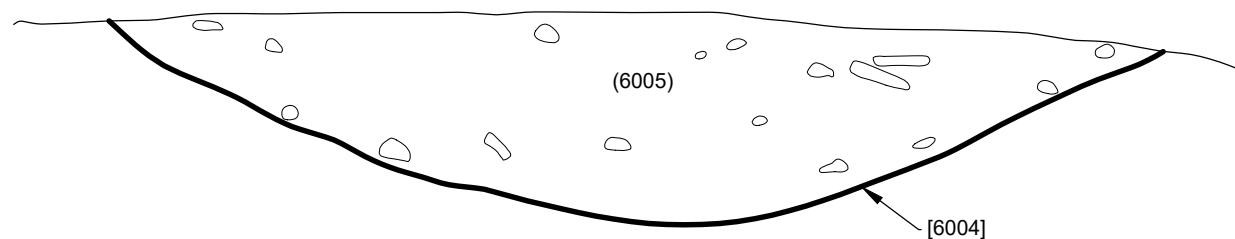
WEST FACING SECTION OF PALEO CHANNEL (8001)
SCALE 1:100



PLAN OF DITCH [6004]
SCALE 1:20









SOUTHSOUTHWEST FACING SECTION OF DITCH [6004] IN TRENCH 6
SCALE 1:10



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REFERENCE

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-  DEPOSIT LINE
-  LIMIT OF EXCAVATION
-  TRENCH LIMIT
-  PROJECTION LINE
-  STONES

A	First issue	25/10/21	RA	LG/GM	CB
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REVISION	DETAILS	DATE	DRN	CHK'D	APP'D
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ROPESLEY QUARRY EXTENSION

DRAWING TITLE
PALEOCHANNEL (8001) AND DITCH [6004] PLAN AND SECTION

DRG No.	ST18536-009	REV	A
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DRG SIZE	A3	SCALE	AS SHOWN	DATE	25/10/21
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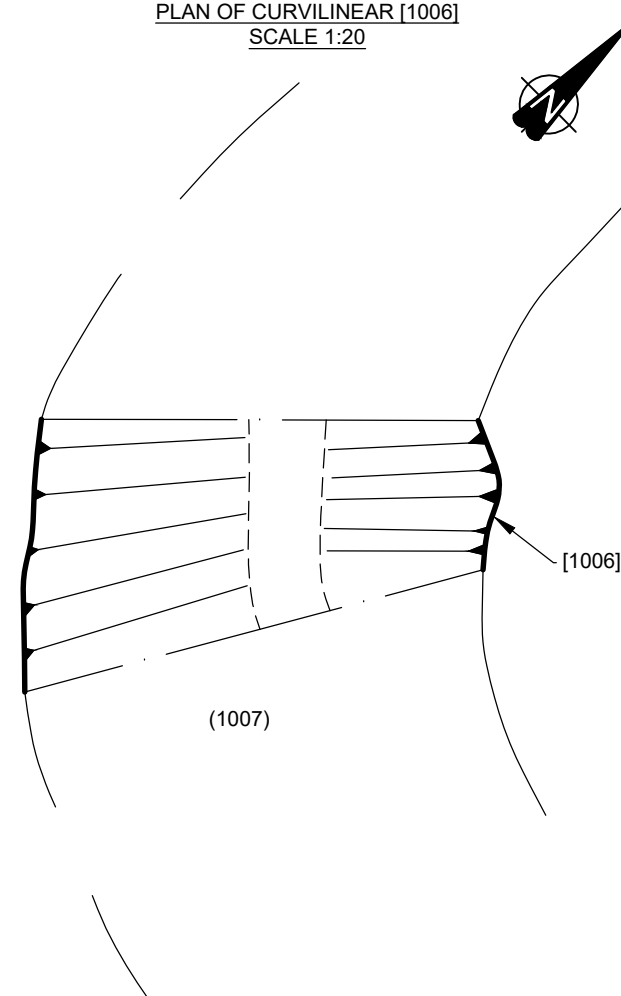
- BOLTON
- LEEDS
- CARDIFF
- LONDON
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- MANCHESTER
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- NEWCASTLE UPON TYNE
- GLASGOW
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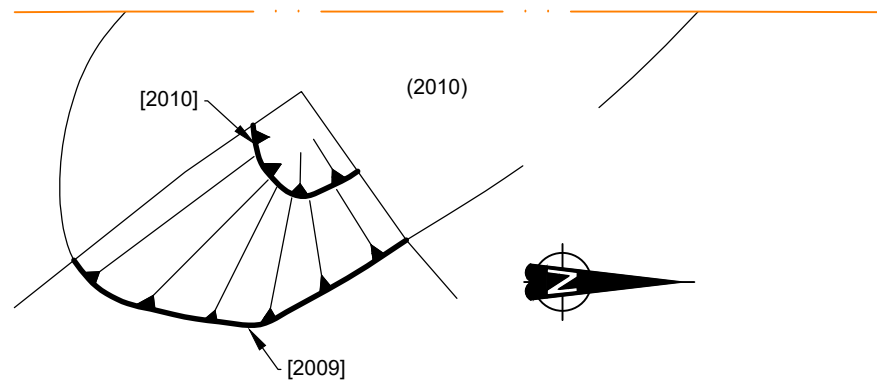
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- LIMIT OF EXCAVATION
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- PROJECTION LINE
- STONES

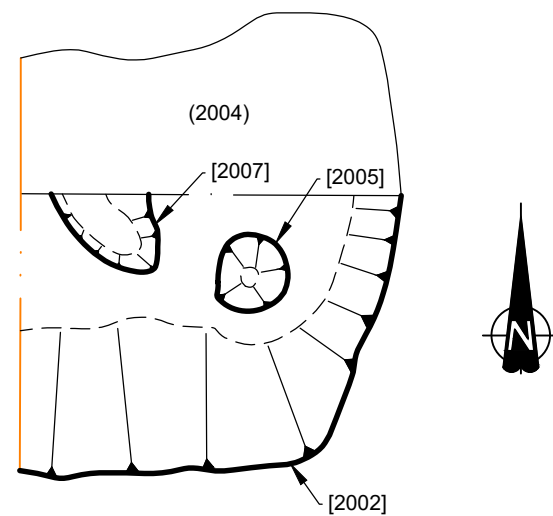
PLAN OF CURVILINEAR [1006]
SCALE 1:20



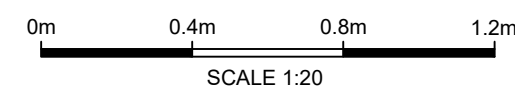
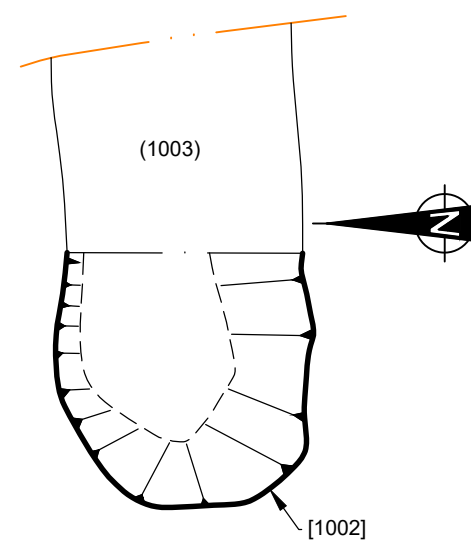
PLAN OF [2009] LINEAR AND [2011]
SCALE 1:20



PLAN OF PIT [2002] AND STARENFOLES [2005] AND [2007]
SCALE 1:20



PLAN OF POSSIBLE DITCH TERMINUS (1003)
SCALE 1:20



A	First issue	25/10/21	RA	LG/GM	CB
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REVISION	DETAILS	DATE	DRN	CHK'D	APP'D
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PROJECT
ROPESLEY QUARRY EXTENSION

DRAWING TITLE
ASSORTED PLANS

DRG No.	ST18536-010	REV	A
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DRG SIZE	A3	SCALE	AS SHOWN	DATE	25/10/21
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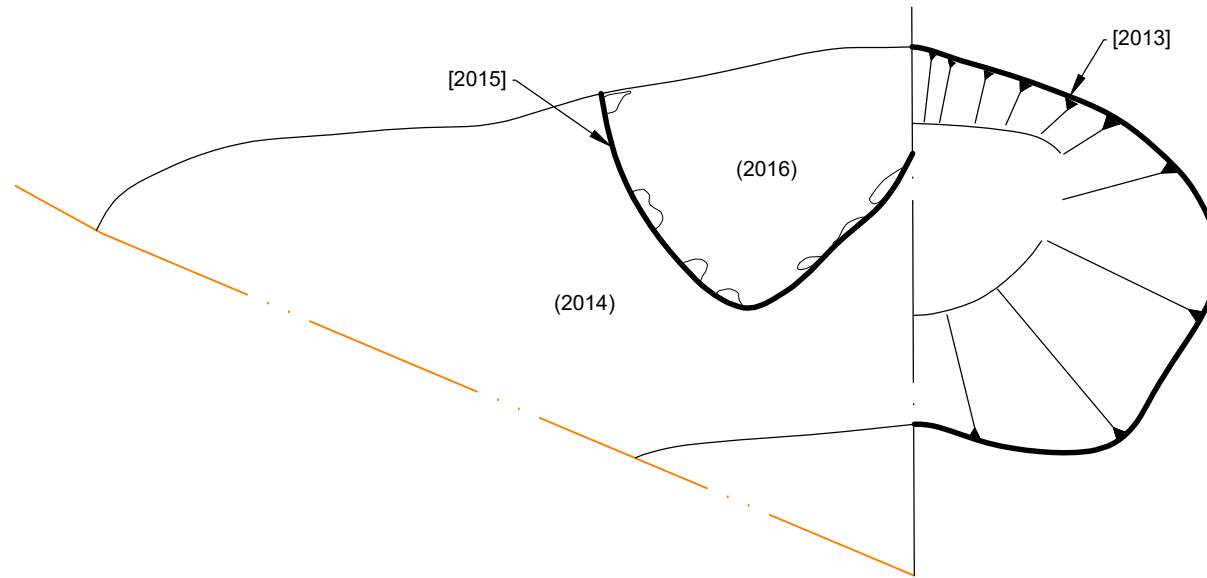
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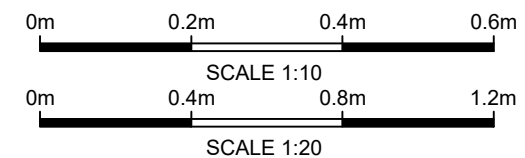
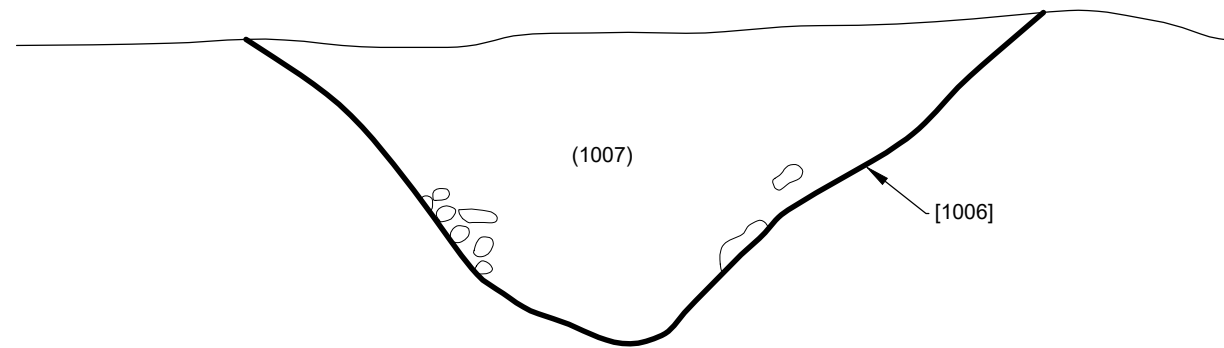
PLAN OF ELONGATED PIT [2013] AND RECUT [2015]
SCALE 1:20



NORTHWEST FACING SECTION OF ELONGATED PIT [2013] AND RECUT [2015]
SCALE 1:10



SOUTHEAST FACING SECTION OF CURVILINEAR [1006]
SCALE 1:10



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REFERENCE

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- DEPOSIT LINE
- LIMIT OF EXCAVATION
- TRENCH LIMIT
- PROJECTION LINE
- STONES

A	First issue	25/10/21	RA	LG/GM	CB
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REVISION	DETAILS	DATE	DRN	CHK'D	APP'D
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ROPESLEY QUARRY EXTENSION

DRAWING TITLE
PLAN AND SECTION OF ELONGATED PIT [2013] AND SECTION OF CURVILINEAR [1008]

DRG No. ST18536-011	REV A
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DRG SIZE A3	SCALE AS SHOWN	DATE 25/10/21
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DRAWN BY RA	CHECKED BY LG/GM	APPROVED BY CB
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<input type="checkbox"/> GLASGOW	<input type="checkbox"/> STOKE ON TRENT

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REFERENCE

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-  DEPOSIT LINE
-  LIMIT OF EXCAVATION
-  TRENCH LIMIT
-  PROJECTION LINE
-  STONES

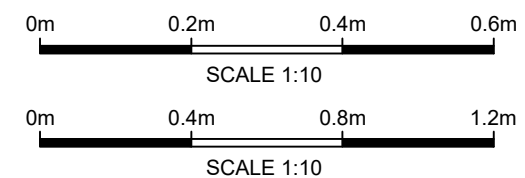
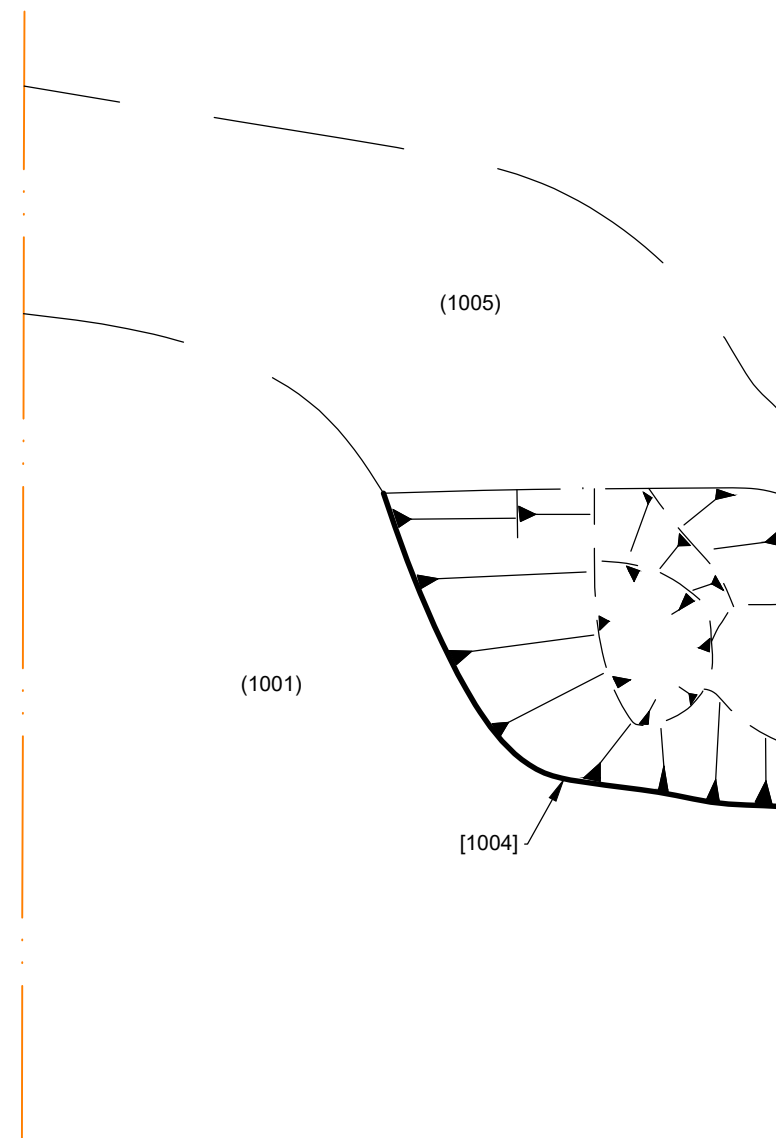
WRAPAROUND OF LINEAR [1004]
SCALE 1:10

WEST FACING

SOUTH FACING



PLAN OF LINEAR [1004]
SCALE 1:20



A	First issue	25/10/21	RA	LG/GM	CB
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REVISION	DETAILS	DATE	DRN	CHK'D	APP'D
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CLIENT
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PROJECT
ROPESLEY QUARRY EXTENSION

DRAWING TITLE
SECTION AND PLAN OF LINEAR [1004]

DRG No.	ST18536-012	REV	A
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DRG SIZE	A3	SCALE	AS SHOWN	DATE	25/10/21
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DRAWN BY	RA	CHECKED BY	LG/GM	APPROVED BY	RA
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