



Western Power Distribution depot, Pool, Cornwall

Archaeological Watching Brief



Historic Environment Projects

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Report author(s)	C.M. Thorpe
Checked by	Colin Buck
Approved by	Andrew Young

Historic Environment, Cornwall Council

Fal Building, County Hall, Treyew Road, Truro, Cornwall, TR1 3AY

Tel (01872) 323603

E-mail hes@cornwall.gov.uk: www.cornwall.gov.uk

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Brian Poole (Senior Geologist) of Cornwall Mining Service Ltd kindly gave information about their investigation of Praed's Shaft.

Within Historic Environment, the Project Manager was Colin Buck. Fieldwork was carried out by Carl Thorpe.

The views and recommendations expressed in this report are those of Historic Environment Projects and are presented in good faith on the basis of professional judgement and on information currently available.

Freedom of Information Act

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Cover illustration

Western Power Distribution depot looking to the south east. © Historic Environment, Cornwall Council, 2009, F91-041.

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Contents

1	Summary	1
2	Introduction	1
2.1	Project background	1
2.2	Aims	2
2.3	Methods	2
2.3.1	Desk-based study	2
2.3.2	Fieldwork	2
3	Location and setting	3
4	Designations	3
5	Site history	3
6	Archaeological results	4
7	Discussion	7
8	References	8
8.1	Primary sources	8
8.2	Publications	8
8.3	Websites	8
9	Project archive	8
10	Appendix 1. Written Scheme of Investigation for an archaeological watching brief at the WPD Depot, Pool	9

List of Figures

- Fig 1. Site location.
- Fig 2. Detailed site location.
- Fig 3. An extract from William Doidge's 1737 survey of the Manor of Tehidy (CRO X/101/5). The WPD site occupies Plots dk and di shown on this plan.
- Fig 4. 1840 Tithe Map. Area examined during this project shown outlined in red.
- Fig 5. Ordnance Survey, c1875. 25 Inch Map First Edition.
- Fig 6. Ordnance Survey, c1907. 25 Inch Map Second Edition.
- Fig 7. Site plan showing location of new building and features encountered.
- Fig 8. New building foundations plan showing location of recorded sections (red)
- Fig 9. Site of attenuation tank showing location of prospecting pits encountered.
- Fig 10. South eastern foundation. Section 2 showing nature of ground encountered.
- Fig 11. South eastern foundation. Section 11 looking east showing nature of ground encountered.
- Fig 12. South western foundation. Section 24 showing nature of ground encountered.
- Fig 13. South western foundation. Section 29 showing outcrop shaft looking northwest.
- Fig 14. South western foundation. Section 29 showing outcrop shaft looking northwest.
- Fig 15. North western foundation. Sections 39 to 41 looking northeast showing nature of ground.
- Fig 16. Attenuation tank. Sample of NE section showing nature of the ground.
- Fig 17. Attenuation tank. Sample of NW section showing nature of the ground.
- Fig 18. Attenuation tank. Over view of tank floor showing location of prospecting pits. Looking north.
- Fig 19. Attenuation tank. Prospecting pit C looking north.
- Fig 20. Attenuation tank. Prospecting pit B looking south east.
- Fig 21. Attenuation tank. Prospecting pit A looking south east.
- Fig 22. Attenuation tank. Prospecting pit D looking west.

Abbreviations

CRO	Cornwall County Record Office
EH	English Heritage
HER	Cornwall and the Isles of Scilly Historic Environment Record
HE	Historic Environment, Cornwall Council
NGR	National Grid Reference
OS	Ordnance Survey
PRN	Primary Record Number in Cornwall HER
RIC	Royal Institution of Cornwall

1 Summary

Historic Environment Projects was commissioned by Nick Bray (Senior Project Surveyor) of Midas Construction to undertake a programme of archaeological recording at the Western Power Distribution (WPD) depot, Trevenson Road, Pool during the ground works for the redevelopment of the existing site and the erection of a new office/workshop/warehouse building.

The site is centred on part of Trevenson Mine, one of the three most important early 18th century copper mines in Cornwall, which was later re-worked as part of East Wheal Crofty and later as part of North Wheal Crofty and eventually South Crofty. The 1877 OS map shows it to have been occupied by North Crofty Mine.

Evidence for at least two phases of mining was identified within the course of the work.

The earliest feature encountered is most likely the small outcrop shaft found in the western footings of the new building. Lying on the line of Reeve's Lode it is probably one of several workings depicted on the 1737 map of Tehidy Manor drawn up by Doidge suggesting a possible 18th century date for this feature.

The grouping of prospecting pits found in the northwestern corner of the site could possibly be contemporaneous with this, but working, or searching for the surface outcropping of Fane's lode.

A second phase of mining seems to be represented by the shaft at SW 66330 41360, identified as Praed's Shaft. This shaft appears to be disused on the 1880 OS map, suggesting a probable late 18th or early 19th century date for this activity.

The archaeological monitoring during excavation of the trenches across the development area revealed deposits of mine waste, burnt material and red clay, likely to be associated with processes at North Crofty Mine spread across the site. The amount of modern material seen mixed within these spreads suggests that the main phase of landscaping of the area occurred when this area was converted to a depot in the 1950s by the South Western Electricity Board (SWEB).

No other features of archaeological interest were seen over the area of the site and no artefacts were recovered.

2 Introduction

2.1 Project background

In March 2012 HE Projects was commissioned by Nick Bray (Senior Project Surveyor Midas Construction), to undertake an archaeological watching brief during groundwork's involved with the redevelopment of the existing site and the erection of a new office/workshop/warehouse building together with external storage, vehicle parking, landscaping and fencing at the WPD depot, Trevenson Road, Pool centred at SW 66312 41434 (Figs 1 and 2).

The development was the subject of a planning condition, which required that archaeological recording took place ahead of construction (PA11/06010). Phil Markham, Historic Environment Planning Advice Officer (West), Cornwall Council, produced a brief for archaeological recording (13/3/11) and was consulted over the requirements for the archaeological recording. A written scheme of investigation, outlining the methodology for archaeological recording was produced (16/3/12) by Colin Buck (Senior Archaeologist, HE Projects) in response to Phil Markham's brief (Appendix 1).

2.2 Aims

The purpose of the archaeological recording was:

- To establish the absence/presence of buried archaeological remains by viewing excavated pits and trenches.
- To establish the nature of the mining activity across the site by viewing excavated pits and trenches.
- To establish the extent, condition, significance and character of the archaeological resource.
- To identify any artefacts relating to the occupation of the site.
- To gain further information about the archaeological potential of the area, through the recording of buried archaeological remains.
- The dissemination and publication of the results.
- The long-term conservation of the project archive in appropriate conditions.

2.3 Methods

2.3.1 Desk-based study

Prior to the work commencing and during the course of writing the report historical databases and archives were consulted in order to obtain information about the history of the site and the structures and features that were likely to survive. The main sources consulted were as follows:

- Cornwall HER
- Images of England online listed buildings database
- Early maps and photographs
- Published histories
- Previous archaeological reports including the Archaeological assessment of the site done in 2011 (Sharpe 2011)

2.3.2 Fieldwork

The fieldwork was done in three stages. The first stage was the examination and recording of the foundation pits and trenches for the new office building. The second stage was the recording of the area to northwest of the site where a large attenuation tank was to be placed. The final stage was examination of various landscaping works, and service trenches.

For the first phase archaeological information was obtained through the sketch recording of sections along the foundation trenches and within the foundation pits. The second phase, as well as the methods used above also involved the creation of a sketch plan of some of the features revealed onto a site plan (noting the locations of features and recorded profiles) at a scale of 1:200. These were measured in from fixed points on the ground, which are shown on the OS survey mapping, together with compass bearings. Sample sections (noting the nature of soil depths, layers present, etc.) were also recorded across this area. A digital photographic record was also kept of the trenches, and features encountered.

3 Location and setting

Site description

The development area is on land that slopes gently to the northwest dropping in height from 102m to 98m OD and covers an area of *circa* 1.76 Ha. It lies to the east of Tolvaddon Road and to the north of Trevenson Road centred at SW 66312 41434 at the west end of Pool within the parish of Illogan. The site is currently occupied by Western Power Distribution and is currently used for the storage of equipment required to maintain the local electricity network, together with associated workshops and offices (Figs 1 and 2).

Geology and lodes

The underlying geology consists of the late Devonian Mylor formation of metabasaltic rocks, though these are locally much metamorphosed, being underlain at no great depth by coarsely crystalline granite of the Carnmenellis outcrop, the contact occurring immediately to the south of the main railway line. A broad outcrop of unnamed igneous rock of Devonian age runs to the north of Trevenson Road and parallel with it. The soils are recorded as being of the Denbigh 2 Series.4 (Soil Survey of England and Wales 1974).

Four major lodes cross the site. On the southern part of the site Trevenson Lode, and Reeve's Lode run in a direction trending roughly west to east. These are bisected by Cherry Garden Lode, which runs from southwest to northeast to terminate on Reeve's lode. The northern limit of the site was crossed by Fane's Lode that ran southwest to northeast. These lodes contained predominantly copper with tin at depth (Dines 1956, 276). The area has been worked for more than two centuries, with many shafts having been sunk onto the lodes. Four have been identified either at surface or from mine maps within the southern part of the site, two of which were confirmed by test drilling (Sharpe 2011).

4 Designations

No historic environment designations apply to the site proposed for redevelopment, though the Cornish Mining World Heritage site is close to the WPD site especially to the southwest. Tuckingmill is designated as a Conservation Area (Sharpe 2011).

5 Site history

The archaeological assessment (Sharpe 2011) gives a detailed history for the project area. Within the summary it states

'This area at Pool was formerly the site of part of Trevenson Mine, one of the three most important early 18th century copper mines in Cornwall, which was later re-worked as part of East Wheal Crofty and later as part of North Wheal Crofty and eventually South Crofty. The northern part of the site was, during the 18th and 19th centuries, open land associated with the nearby Trevenson House... Although no surface remains of these very important early copper mines remain on site, there remains the potential for the survival of associated sub-surface archaeological evidence for their activities, in particular in areas adjacent to the known route of the Pool Adit across the southern part of the site'.

The site which has been identified on the Historic Buildings, Sites and Monuments Record (HBSMR) is part of MCO39021 (North Crofty Mine).

Potential sites

Given the proximity of the development area to known archaeological sites (Sharpe 2011), there was a high potential for late/post medieval and certainly 19th century industrial archaeological remains. In particular, below ground remains of a 19th century winding engine house and boiler house with chimney, the site of at least two (if not three) mine shafts, and the possible remains of a shallow 18th century (possibly timber lined) Pool Adit. Other related remains were uncovered during site percolation/geological test pits and trenches (Sharpe 2011, Appendix). There was also the potential for prehistoric sites and there was scope for the survival of previously unrecorded archaeological sites, organic remains, and artefacts of all periods.

6 Archaeological results

The first phase examined the works around the footprint of the new building which is roughly L shaped with the two wings orientated roughly northwest to southeast, and northeast to southwest, the building measuring roughly 80m x 60m. The foundations of the new building consisted of a linear series of foundation pits connected by trenches. The pits varied in size but averaged 3m x 2m, reaching a maximum depth of 1.5m. These were spaced at regular intervals, dependant on where they were located within the building varying between 3m and 5m apart. The trenches that connected them were 1m wide and 1m deep (Figs 7, and 8).

The ground profile was recorded in each foundation pit and length of trench noting the nature of the ground encountered and any features present. Unfortunately due to the intermittent nature of the site visits, not all areas could be examined before being infilled with concrete. The details are to be found in the site archive, the following is a summary of each trench recorded.

The southeastern most length of wall (Sections 1–15) was some 60m long running in a NE/SW direction (Figs 10 and 11). The general profile recorded was as follows.

- 0.05m light grey-brown clay.
- 0.20m red-brown clay.
- 0.20m grey-green, brown clay.
- 0.20m chestnut brown clay.
- 0.30m orange-brown clay with numerous stone fragments.
- 0.20m dark grey-brown clay with stone fragments.
- 0.20m red-brown clay.
- Orange, yellow-brown clay, the decayed natural bedrock (rab) lay at the base and was not bottomed.

All the layers above the rab consisted of dumped material, much of it mine waste, with the rock fragments being heavily mineralised, and often manganese stained. The layers of material had been laid down in roughly horizontal deposits, the only variations being in the thicknesses of the layers at points along the trench. No archaeological features were recorded, apart from right at the southwestern end where the section had been greatly disturbed by modern service trenching that ran parallel to the road (A 3047).

The southern part of the southwestern wall (Sections 16-27) was *circa* 30m long running in a NW/SE direction (Figs 12 and 13). The western face of the trench had been highly disturbed by modern services and associated trenches; however the general profile recorded was as follows.

- 0.05m light grey-brown clay.
- 0.20m red-brown clay.

- 0.10m grey-green, brown clay.
- 0.40m black, orange-brown clays with stony rubble (Heavily mineralised, and manganese stained)
- Orange, yellow-brown clay, the decayed natural bedrock (rab) lay at the base and was not bottomed.

Again all the layers recorded above the rab were of dumped material. The layers of material had been laid down in roughly horizontal deposits, the only variations being in the thicknesses of the layers at points along the trench. No archaeological features were recorded, apart from a couple of modern services including a cast iron water pipe and its associated trench that ran west to east across Section 27.

The northern part of this wall (Sections 28-39) was some 50m long. Again the western side had been heavily disturbed by modern services and associated trenching parallel to the road. The general profile recorded was as follows.

- 0.05m light grey-brown clay.
- 0.20m red-brown clay.
- 0.25m dark grey-brown clay.
- 0.30m orange-brown clays with stony rubble (Heavily mineralised, and manganese stained)
- Orange, yellow-brown clay, the decayed natural bedrock (rab) lay at the base and was not bottomed.

All the layers recorded layers above the rab were of dumped material. The layers of material had been laid down in roughly horizontal deposits, the only variations being in the thicknesses of the layers at points along the trench this varying between 0.80m and 1m.

At a point 40m from the northwest corner at Section 29 a distinct mining feature was recorded (Figs 7, 13, and 14). This feature proved to be cone shaped in profile the rim being *circa* 4.3m in diameter. Cut through the dark grey-brown clay at a depth of *circa* 0.5m it passed through disturbed ground and rotten rab with solid rock being encountered at a depth of 2m. At this point the cut changed direction to become vertical, creating a shaft of circular profile some 3m in diameter. The feature was infilled with loose material and stony blocks, which were excavated to a depth of 3.0m but it was not bottomed due to the unstable nature of the fill preventing further examination. It is uncertain exactly what this feature is; it could possibly be a small outcrop shaft.

The second phase involved the excavation of an attenuation tank in the northwestern corner of the site (centred at SW 66229 41451). The area excavated was sub-rectangular in shape measuring approximately 34m x 20m with the long axis orientated northwest to southeast. It varied in depth between 1.5m and 2.10m with the greatest depth being in the southeast (Figs 7, 16, 17, and 18).

The northwestern section (Fig 17) was found to consist of the following.

- 0.05m tarmac.
- 0.10m light grey clay and stony rubble.
- 0.20m black-grey clay and cinders with some loose stone, builder's rubble and modern ceramics (not collected).
- 0.15m of orange, yellow-brown clay with some brick and stone fragments.
- 0.50m chocolate brown clay with very few stone inclusions.
- 0.5m of orange, yellow-brown clay the decayed natural bedrock that was not bottomed.

All the layers observed were horizontal in nature. Apart from a modern service pipe and associated trench, no features of archaeological interest were recorded.

The northeastern section exhibited a similar sequence of layers (Fig 16), however towards the south the black-grey clay and cinders with some loose stone, and orange, yellow-brown clay with some brick and stone fragments layers pinch out and disappear due to the natural bedrock rising closer to the surface.

The chocolate brown clay with very few stone inclusions layer also increases in thickness to some 0.70m. Apart from some modern service pipes and cables with associated trenches recorded at the northern end of this section, no archaeological features were recorded. It appears that material forming the upper layers on the northern part of the site were brought in and dumped as levelling perhaps in preparation for this area being utilised as a yard.

Once the base of the tank had been levelled four pits (A to D) could be seen exposed at the northwestern end (Figs 9, 18 to 21).

Pit A.

This was marked by an elongated oval (straight sided, rounded ends) shaped area of disturbed ground, measuring 2m x 1.2m, orientated SW/NE. The pit was infilled with dark red-brown clay with some stone fragments. This has the appearance of a prospecting pit. No dating evidence was obtained for this pit (Figs 9 and 21).

Pit B.

This pit lay *circa* 0.3m to the southwest of Pit A. It was again marked by an elongated oval shaped area of disturbed ground, measuring 2m x 1.8m, orientated SW/NE. Infilled with mixed clays including red-brown, and dark grey-brown clays with some stone fragments. This too had the appearance of being a prospecting pit. A small fragment of clay pipe stem was recovered from the surface of the fill. It had a diameter of $\varnothing = 1.8\text{mm}$ which suggests a date of *circa* 1815 (Figs 9 and 20).

Pit C.

Lying some 3m southeast of Pit B this was marked by an elongated oval shaped area of disturbed ground, measuring 2m x 1.8m, orientated NW/SE. Infilled with dark red-brown clay with some stone fragments. This too looked like a prospecting pit. No dating evidence was obtained for this pit (Figs 9 and 19).

Pit D.

Lying *circa* 2m northwest of Pit A this was marked by an elongated oval shaped area of disturbed ground, measuring 2m x 1.5m, orientated NW/SE. Infilled with dark red-brown clay with some stone fragments. This too looked like a prospecting pit. No dating evidence was obtained for this pit (Figs 9 and 22).

No other features of archaeological interest were recorded in this area.

The third phase involved the examination of some service trenches as they were excavated. Those observed lay to the north east and east of the new building and reached a maximum depth of 1m. It was found that in all cases the trenches were dug through disturbed ground consisting of dumped and spread mining waste with no bedrock being encountered. No archaeology was recorded.

A shaft was located at *circa* SW 66330.41360. The approximate position of this was shown on the historic Ordnance Survey maps (1880 and 1909). This is identified as Praed's shaft, Feature 3 in the archaeological assessment (Sharpe 2011). The position was confirmed by test drilling undertaken by Cornwall Mining Services Ltd who put in 24 bore holes. A concrete cap was located 1.7m below the current ground surface, and shown to be 0.4m thick with a 0.7m overlap onto bedrock. The shaft was square shaped measuring approximately 3.9m x 3.9m. It was found to be choked with stony rubble to a depth of 6m below ground surface. As the shaft lay outside of any proposed

building footprint, and would only be overlain by the yard, it was decided the existing concrete cap would be sufficient for purpose and no further mitigation was carried out (Brian Poole, Senior Geologist, Cornwall Mining Service Ltd, pers. comm.). No evidence for any buildings or other structures in the vicinity was found (Fig 7).

7 Discussion

The earliest feature encountered is most likely the small outcrop shaft found in Section 29 (Figs 7, 14 and 14). This lies on the line of Reeve's Lode the line of which is shown by lode back workings marked on the 1737 map of Tehidy Manor drawn up by Doidge (Fig 3). This suggests that this feature is possibly 18th century date.

The grouping of prospecting pits found in the area of the attenuation tank at the northwestern corner of the site could possibly be contemporaneous with this early working, however nothing is shown in this area on the Doidge Map. These are probably associated with early working, or searching for the surface outcropping of Fane's lode. The clay pipe stem recorded from the top fill of Pit B suggests though that these may possibly be early 19th century in date, though this may also mark when the pits were infilled.

No evidence for any buildings, (including the winding engine house associated with North Crofty Mine shown on the 1877 1st Edition OS 25" scale map) were recorded within the trenches or areas observed (Fig 5).

A shaft was however located by test drilling by Cornwall Mining Service Ltd at SW 66330 41360, and identified as Praed's Shaft (Feature 3 in the assessment by Sharpe 2011). This shaft, part of the mine complex, is considered to be of early 18th century date (Sharpe 2011).

The archaeological monitoring during excavation of the trenches across the development area revealed deposits of mine waste, burnt material and red clay, likely to be associated with processes at North Crofty Mine spread across the site. The 1907 OS map (Fig 6) shows that the buildings associated with the mine had already been removed, and that some of the associated dumps had begun to be levelled. The amount of modern material seen mixed within these spreads however suggests that the main phase of landscaping of the area must have been when this area was converted to a yard in the 1950s by the South Western Electricity Board (SWEB) as a depot for the storage of power poles, transformers and the other hardware associated with electricity distribution, as well as related workshops and offices.

No other features of archaeological interest were seen over the area of the site and no artefacts were recovered.

8 References

8.1 Primary sources

Ordnance Survey, c1875. *25 Inch Map* First Edition (licensed digital copy at HE)
Ordnance Survey, c1907. *25 Inch Map* Second Edition (licensed digital copy at HE)
Ordnance Survey, 2007. *Mastermap Digital Mapping*
Tithe Map and Apportionment, c1840. *Parish of Illogan* (licensed digital copy at HE)

8.2 Publications

Dines, H.G. and Phemister, J., 1956 (reprinted, Beer, K.E., 1988), *The Metalliferous Mining Region of South-West England*, HMSO
Sharpe, A, 2011. *WPD depot, Pool, Cornwall: Archaeological Assessment*. HES Cornwall County Council, Truro
Soil Survey of England and Wales 1974

8.3 Websites

<http://www.heritagegateway.org.uk/gateway/> English Heritage's online database of Sites and Monuments Records, and Listed Buildings

9 Project archive

The HE project number is **146205**

- 1) The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY. The contents of this archive are as listed below:
- 2) A project and information file containing site records and notes, project correspondence and administration (file no 146205).
- 3) Field plans and copies of historic maps stored in an A2-size plastic envelope (GRE 816).
- 4) Digital photographs stored in the directory: R:\Historic Environment (Images)\SITES.M-P\POOL\WPD Pool WB 2012 146205
- 5) English Heritage/ADS OASIS online reference: cornwall2-181922
- 6) This report text is held in digital form as: G:\TWE\Waste & Env\Strat Waste & Land\Historic Environment\Projects\Sites\Sites P\Pool Western Power redevelopment 146205\Report

No artefacts or environmental material was retrieved during the project.

10 Appendix 1. Written Scheme of Investigation for an archaeological watching brief at the WPD Depot, Pool

1. Introduction

1.1 Background

HE Projects, were requested by Nevil Friggens (Senior Design and Build Manager, Midas Constr.), on 13/3/12 to provide a written scheme of investigation (WSI) and estimate for a programme of archaeological recording during the redevelopment of the existing site and the erection of a new office/workshop/warehouse building together with external storage, vehicle parking, landscaping and fencing. Planning application PA11/06010 has been approved subject to 11 conditions. Condition 10 states:

No development shall take place within the area to be developed until the applicant has secured the implementation of a programme of archaeological recording based on a written scheme of investigation submitted to and approved in writing by the local planning authority.

Phil Markham (Historic Environment Planning Advice Officer, Cornwall Council) has produced a brief for archaeological recording (13/3/11).

1.2 Historical background

An archaeological assessment has been undertaken by Cornwall Council Historic Environment Projects, Report 2011RO58 (Sharpe 2011 Report No. 2011058). This archaeological assessment contains a detailed historical account of the project area, and includes the following within the summary: *'This area at Pool was formerly the site of part of Trevenson Mine, one of the three most important early 18th century copper mines in Cornwall, which was later re-worked as part of East Wheal Crofty and later as part of North Wheal Crofty and eventually South Crofty. The northern part of the site was, during the 18th and 19th centuries, open land associated with the nearby Trevenson House... Although no surface remains of these very important early copper mines remain on site, there remains the potential for the survival of associated sub-surface archaeological evidence for their activities, in particular in areas adjacent to the known route of the Pool Adit across the southern part of the site'.*

The development site is traversed by a number of east-west copper lodes worked by a number of former mines from the early 17th century onwards. Trevenson Mine, is one of the three most important early 18th century copper mines in Cornwall.

The site which has been identified on the Historic Buildings, Sites and Monuments Record (HBSMR) is part of MCO39021 (North Crofty Mine).

Potential sites

Given the proximity of the development area to known archaeological sites (Sharpe 2011), there is a high potential for late/post medieval and certainly 19th century industrial archaeological remains. In particular, below ground remains of a 19th century winding engine house and boiler house with chimney, the site of at least two (if not three) mine shafts, and the possible remains of a shallow 18th century (possibly timber lined) Pool Adit. Other related remains were uncovered during site percolation/geological test pits and trenches (Sharpe 2011, Appendix).

2. Aims and objectives

- To ensure that the site works are carried out in such a way as to allow archaeological recording as set out in this Written Scheme of Investigation.
- To establish the presence/absence of archaeological remains and record archaeological features and deposits affected by the development.

- To determine the extent, condition, nature, character, date and significance of any archaeological remains encountered.
- To establish/confirm the nature of the activity on the site.
- To identify any artefacts relating to the occupation or use of the site.
- To provide/enhance further information on the 18/19th century industrial archaeological remains encountered and confirm the site of buildings shown on archive mapping.
- To deposit the archive (including any finds) with the relevant museum and disseminate the results of discoveries as a concise archive report and, if merited, wider publication.

3. Methodology

The archaeological programme will follow five stages: fieldwork; archiving; assessment; analysis; final publication.

3.1 Fieldwork

3.1.1 Archaeological Recording

- There is a high potential for archaeological remains in the southern half of the project area, particularly in the south western corner of the project area (Sharpe 2011, Sites 1-6). However, given the long history of mine exploration within the entire study area (documented for approximately 300 years), there is potential for other related industrial archaeological features to be uncovered.
- Excavation for new building foundations and deep site landscaping should be carried out under archaeological supervision using a machine fitted with a toothless bucket. The soil will be stripped cleanly to a level at which archaeological features or layers can be expected to be revealed (ie, top of the "natural"). The stripped area/trench will then be inspected by an archaeologist. Any archaeological features or layers exposed in the stripped area will be carefully excavated by hand and archaeologically recorded by written description, plan and section and photographic record as appropriate by an HE Projects archaeologist.

During the archaeological recording the archaeologist will:

Identify and record any archaeological features that are revealed in the stripped/trench area; the level of recording will be appropriate to the character/importance of the archaeological remains.

If complex and/or significant archaeological deposits are encountered then the archaeological requirements should be reviewed by the client, the Historic Environment Planning Advice Officer and HE Projects. **In the event that remains cannot be preserved *in situ* then full-scale excavation may be required.** A contingency should be allowed to record any significant archaeological remains which are uncovered during the site excavation. The significance of the remains should be agreed between the client, the Historic Environment Planning Advice Officer and HE Projects.

Where necessary the detailed archaeological recording may include:

- Excavation of archaeological features exposed in the stripped/trench area and plotting them onto a base map.
- Production of plans and section drawings of the excavated features and recording of features using a continuous numbering system.
- Retrieval of artefacts.
-
-

Recording - general

- Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the Ordnance Survey Landline (electronic) map; all drawings will include standard information: site details, personnel, date, scale, north-point.
- All features and finds will be accurately located at an appropriate scale. Sections will normally be drawn at 1:10 and plans at 1:20.
- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.
- Photography: scaled monochrome photography will be used as the main record medium, with colour digital images used more selectively for illustrative purposes. This will include both general and site specific photographs. Photographs should have a scale and detailed ones should include a north arrow.
- Drawings and photographs will be recorded in a register giving details of feature number and location.
- Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within significant archaeological features (ditches and pits, etc) will be sampled for environmental evidence and dating material. In the event that significant organic remains are encountered, advice may be needed from Vanessa Straker (Regional Advisor for Archaeological Science).
- If human remains are discovered on the site the Historic Environment Planning Advice Officer and the Ministry of Justice will be informed. All recording will conform to best practice and legal requirements.
- If human remains are uncovered, which require excavation, they will be excavated with due reverence. The site will be adequately screened from public view. Once excavated, human remains must not be exposed to public view.
- If human remains are not to be removed their physical security will be ensured, by back filling as soon as possible after recording.

3.2 Treatment of finds

The archaeological fieldwork may produce artefactual material.

- All finds in significant stratified contexts predating 1800 AD (eg, settlement features) should be collected by context and described. Post medieval or modern finds may be disposed of at the cataloguing stage. This process will be reviewed ahead of its implementation.
- All finds will be collected in sealable plastic bags which will be labelled immediately with the context number or other identifier.

3.3 Archiving

Following review with the HE Project Manager the results from the fieldwork will be collated as an archive. This will involve washing and cataloguing of finds, the indexing and cross-referencing of photographs, drawings and context records.

All finds, etc will be stored in a proper manner (being clearly labelled and marked and stored according to HE guidelines).

- All records (context sheets, photographs, etc) will be ordered, catalogued and stored in an appropriate manner (according to HE guidelines).
- The site archive and finds will initially be stored at HE premises and transferred to the Royal Cornwall Museum and the RCM conditions for archives will be followed. The RCM will be notified of the commencement of the project and included in discussions for sampling and disposal as appropriate.

- In the event that there are no finds or they are retained by the owner, the documentary archive in due course shall be deposited with the Cornwall Record Office, but in the medium term will be stored at ReStore. All digital records will be filed on the Cornwall Council network.

3.4 Archive report

The results from the fieldwork will be presented in a concise report. Copies of the report will be distributed to the Client, the Principal Historic Environment Officer and the local and main archaeological record libraries. A PDF copy of the report will be produced.

This will involve:

- Producing a descriptive text.
- Producing maps and line drawings.
- Selecting photographs.
- Report design.
- Report editing.
- Dissemination of the finished report.
- Deposition of archive and finds in the Royal Cornwall Museum, Truro.
- An English Heritage/ADS online access to the index of archaeological investigations (OASIS) record will be made.

The report will have the following contents:

- Summary - Concise non-technical summary.
- Introduction - Background, objectives, aims and methods.
- Results - Factual description of the results of the various aspects of the project, with separate sections as necessary for discussion/interpretation and potential for further analysis.
- Discussion - Discussion of the interpretation of the results, highlighting information gained on a chronological or thematic basis.
Recommendations for further analysis and publication.
- Archive - A brief summary and index to the project archive.
- Appendix - A copy of the project brief.
- A copy of the WSI.
- Illustrations - General location plan.
- Detailed location plans to link fieldwork results to OS map.
- Selected plans and section drawing (if appropriate).
- Finds drawings (if appropriate).
- Photographs (if appropriate).

3.5 Assessment/analysis

The structural and stratigraphic data and artefactual material will be assessed to establish whether further analyses and reporting are appropriate. The outline of the final report, and the work required to produce it may be determined in an updated project design.

In the event of significant remains being recovered (eg, prehistoric or medieval artefacts) it may be appropriate to:

- Consult with the Historic Environment Planning Advice Officer over the requirements for assessment, analysis and reporting.
- Liaise with specialists (eg, artefacts) to arrange for assessment of the potential for further analysis and reporting.
- Arrange for specialist analyses, where appropriate.

3.6 Final publication

In the event of significant archaeological remains being recorded the scope and final form of the report will be reviewed; for example in addition to an archive report the results should be published in an academic journal (eg, *Cornish Archaeology*).

4. Monitoring

- This written scheme of investigation will need to be approved by the Planning authority.
- The recording exercise will be monitored. The Historic Environment Planning Advice Officer should be informed one week in advance of the intention to start the recording.
- HE Projects will liaise with the Historic Environment Planning Advice Officer to advise on the programme and progress of work, and agree site meetings as required.
- A summary of the results will be presented to the Historic Environment Planning Advice Officer within one month of the completion of the fieldwork.
- In the event that significant remains are encountered an updated project design will be agreed with the Historic Environment Planning Advice Officer.

5. Project Staff

An experienced archaeologist employed by HE will carry out the archaeological fieldwork (see Appendix 2).

The report will be compiled by experienced archaeologist(s) employed by HE. Relevant experienced and qualified specialists will be employed to undertake appropriate tasks during the assessment and analysis stages of the project. The project manager will be a Member of the Institute for Archaeologists (IFA), who will:

- Take responsibility for the overall direction of the project.
- Discuss and agree the objectives and programme of each stage of the project with project staff, including arrangements for Health and Safety.
- Monitor progress and results for each stage.
- Edit the project report.

6. Timetable

The archiving and archive report will be completed within 6 months of the ending of the excavations. The timetable for further stages of assessment, analyses and publication

will be agreed with Historic Environment Planning Advice Officer in the light of the results of the excavations.

7. Health and safety during the fieldwork

7.1 Health and safety statement

- Historic Environment is within the Environment, Planning and Economy Directorate of Cornwall Council. The HE projects team follows Cornwall Council's *Statement of Safety Policy*.

Prior to carrying out any fieldwork HE will produce a Health and Safety plan.

8. Insurance

As part of Cornwall Council, HE is covered by Public Liability and Employers Liability Insurance.

9. Standards

HE follows the Institute for Archaeologists' Standards and Code of Conduct and is a Registered Archaeological Organization.

As part of Environment, Planning and Economy Directorate of Cornwall Council, the HE projects team has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare), Investors in People and Charter Mark.

10. Copyright

Copyright of all material gathered as a result of the project will be reserved to the Environment, Planning and Economy Directorate of Cornwall Council. Existing copyrights of external sources will be acknowledged where required.

This project design and estimate is the copyright of Historic Environment, Cornwall Council.

Use of the material will be granted to the client.

11. Freedom of Information

All information gathered during the implementation of the project will be subject to the rules and regulations of the Freedom of Information Act 2000.

Notes

- It is assumed that the client will supply the mechanical excavator. The cost is not included in the attached estimate.
- The client will be responsible for the Health and Safety arrangements onsite.
- The post excavation programme (assessment, analysis and reporting) will need to be reviewed in the light of the fieldwork.

16/3/12

Colin Buck (MIfA)
Senior Archaeologist
Historic Environment Projects
Cornwall Council
Kennall Building
Old County Hall
Station Road
Truro
TR1 3AY

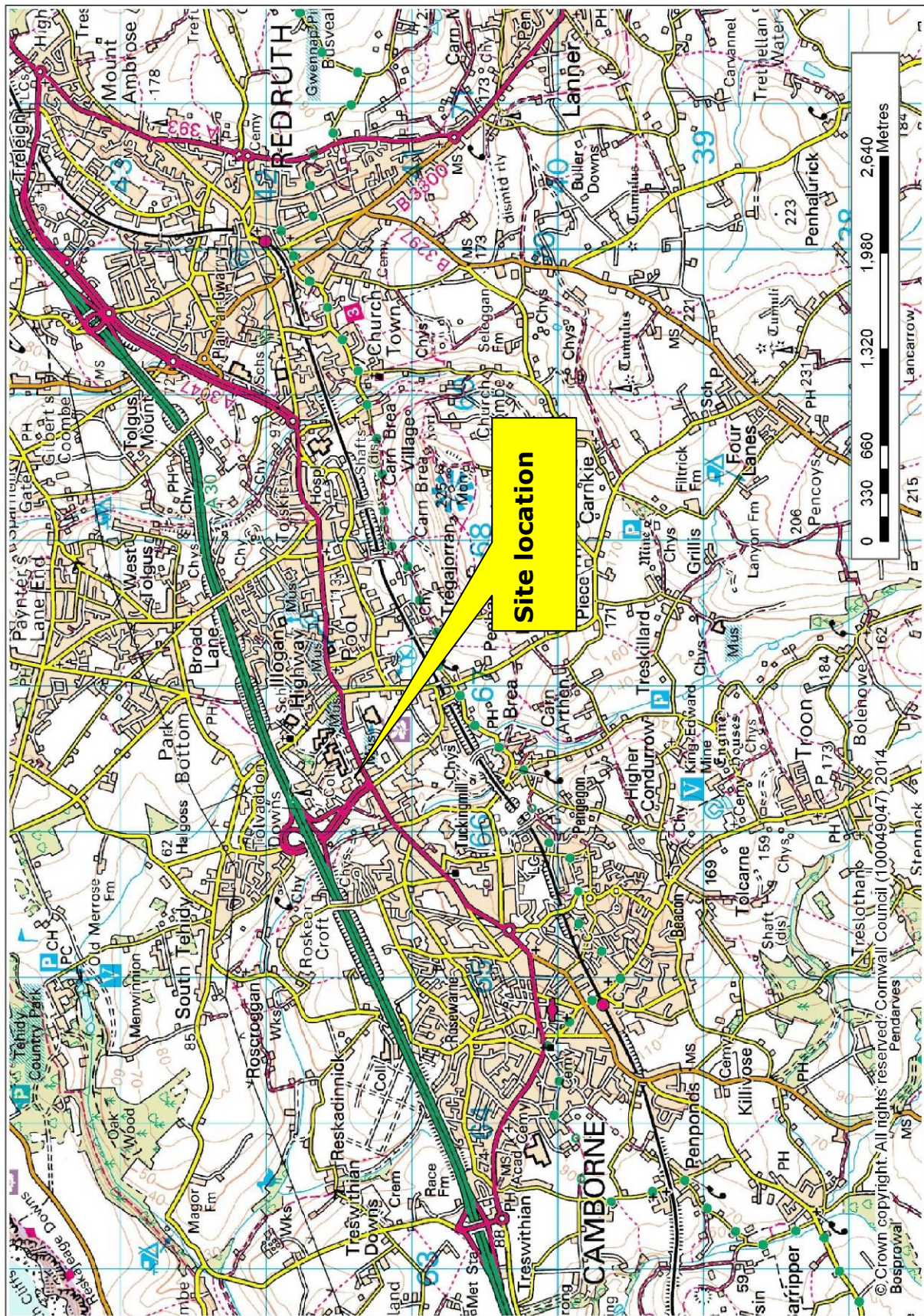


Figure 1. Site location.

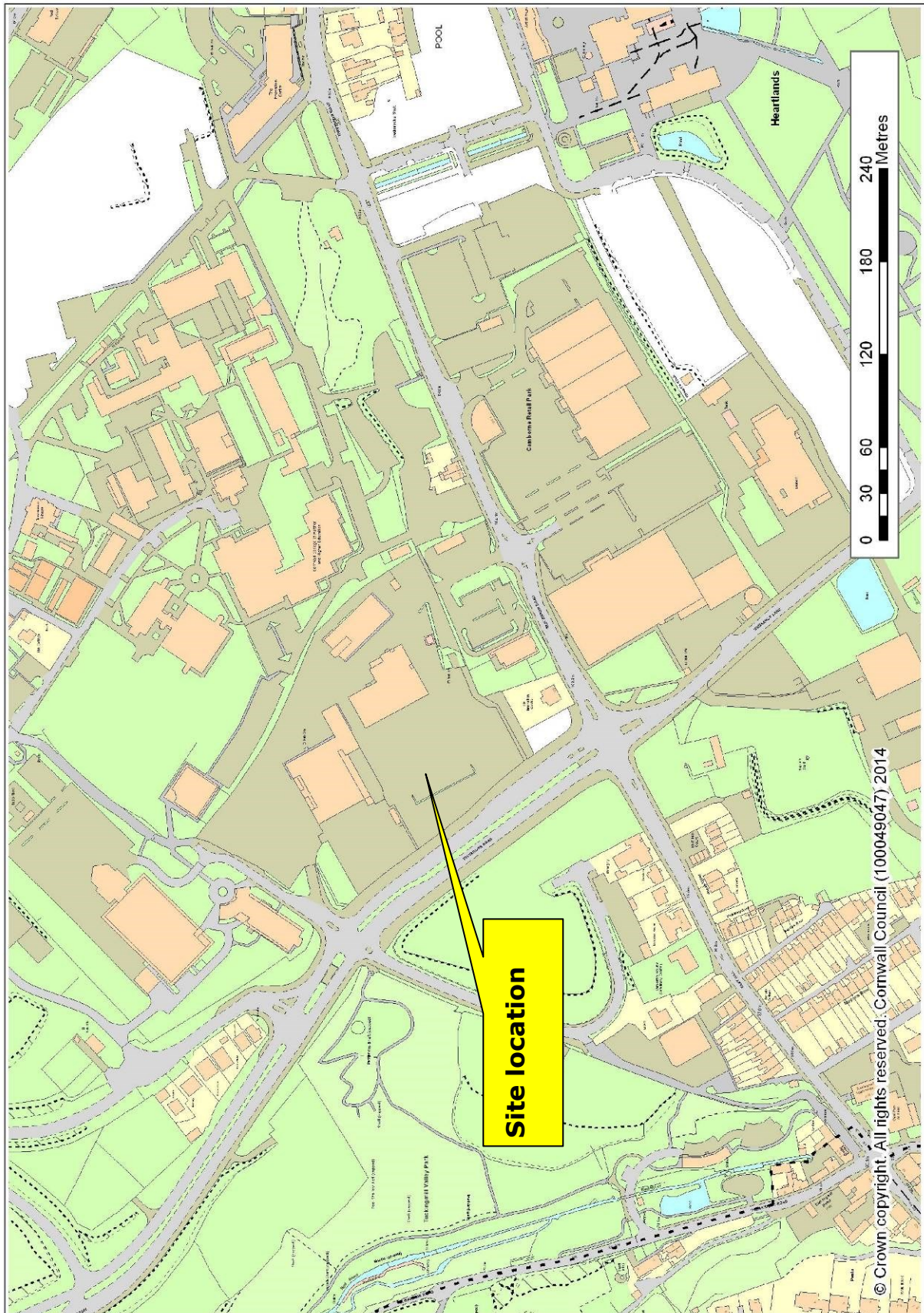


Figure 2. Detailed site location



Figure 3. An extract from William Doidge's 1737 survey of the Manor of Tehidy (CRO X/101/5). The WPD site occupies Plots dk and di shown on this plan. Shaft dumps are shown in plot di along the route of Pool Adit following Reeve's Lode.



Figure 4. 1840 Tithe Map. Area examined during this project shown outlined in red.

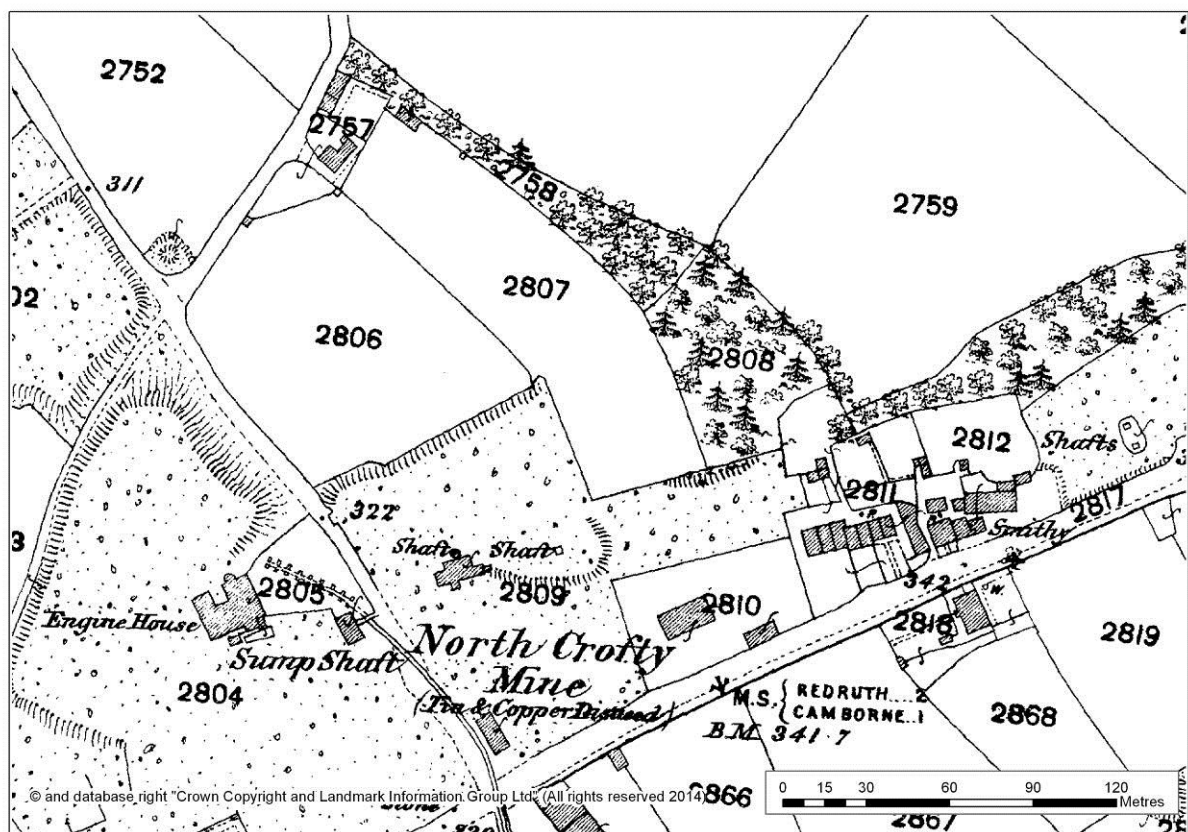


Figure 5. Ordnance Survey, c1875. 25 Inch Map First Edition.

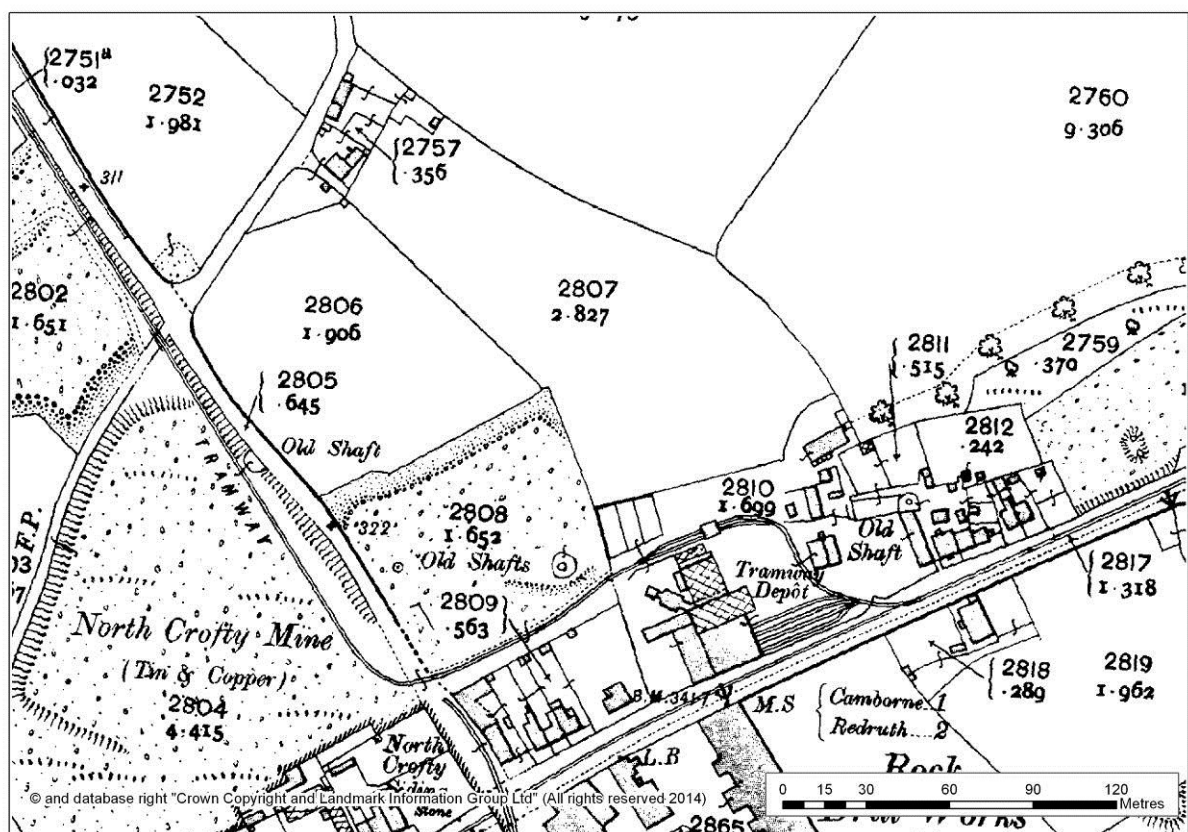


Figure 6. Ordnance Survey, c1907. 25 Inch Map Second Edition.

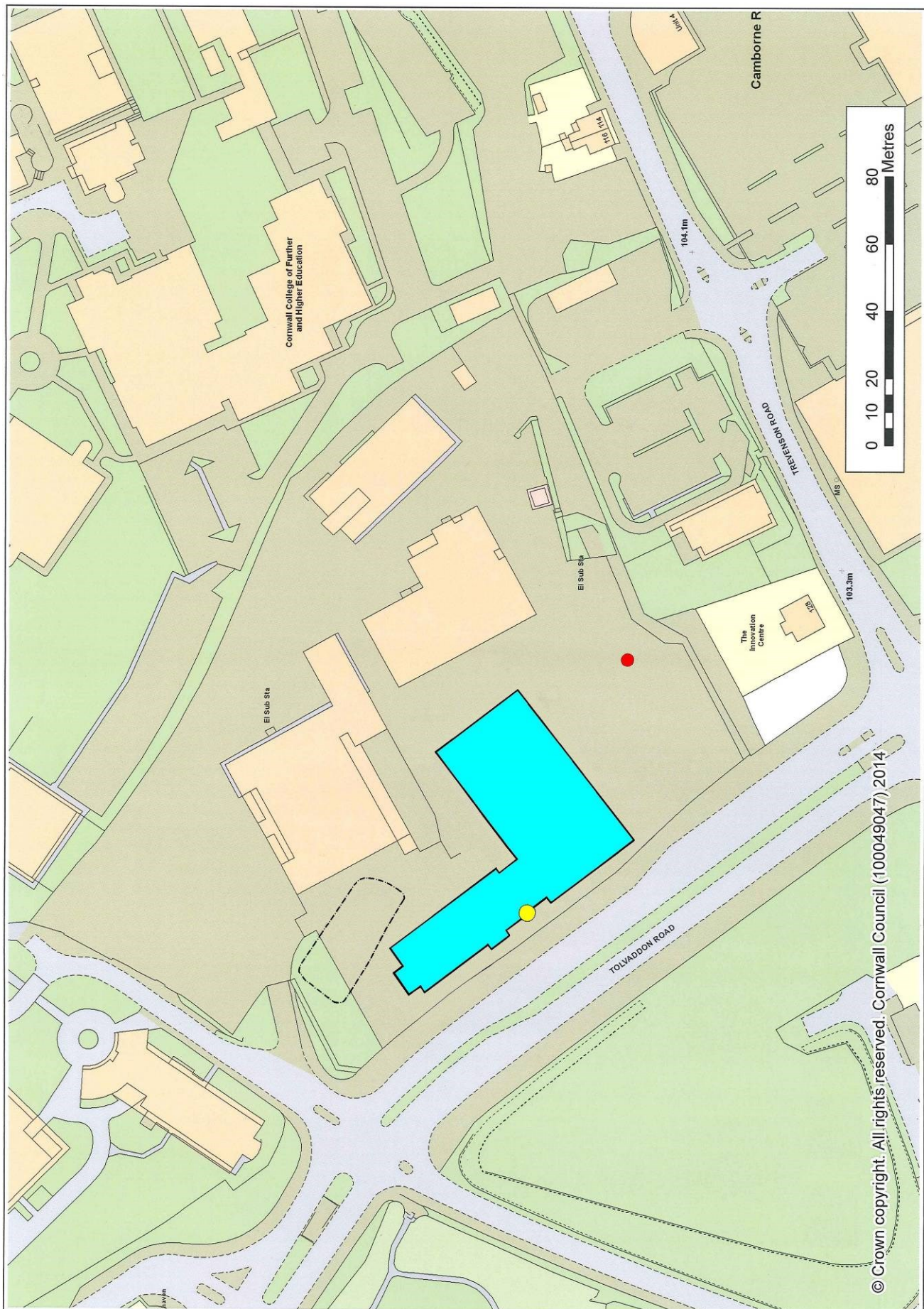
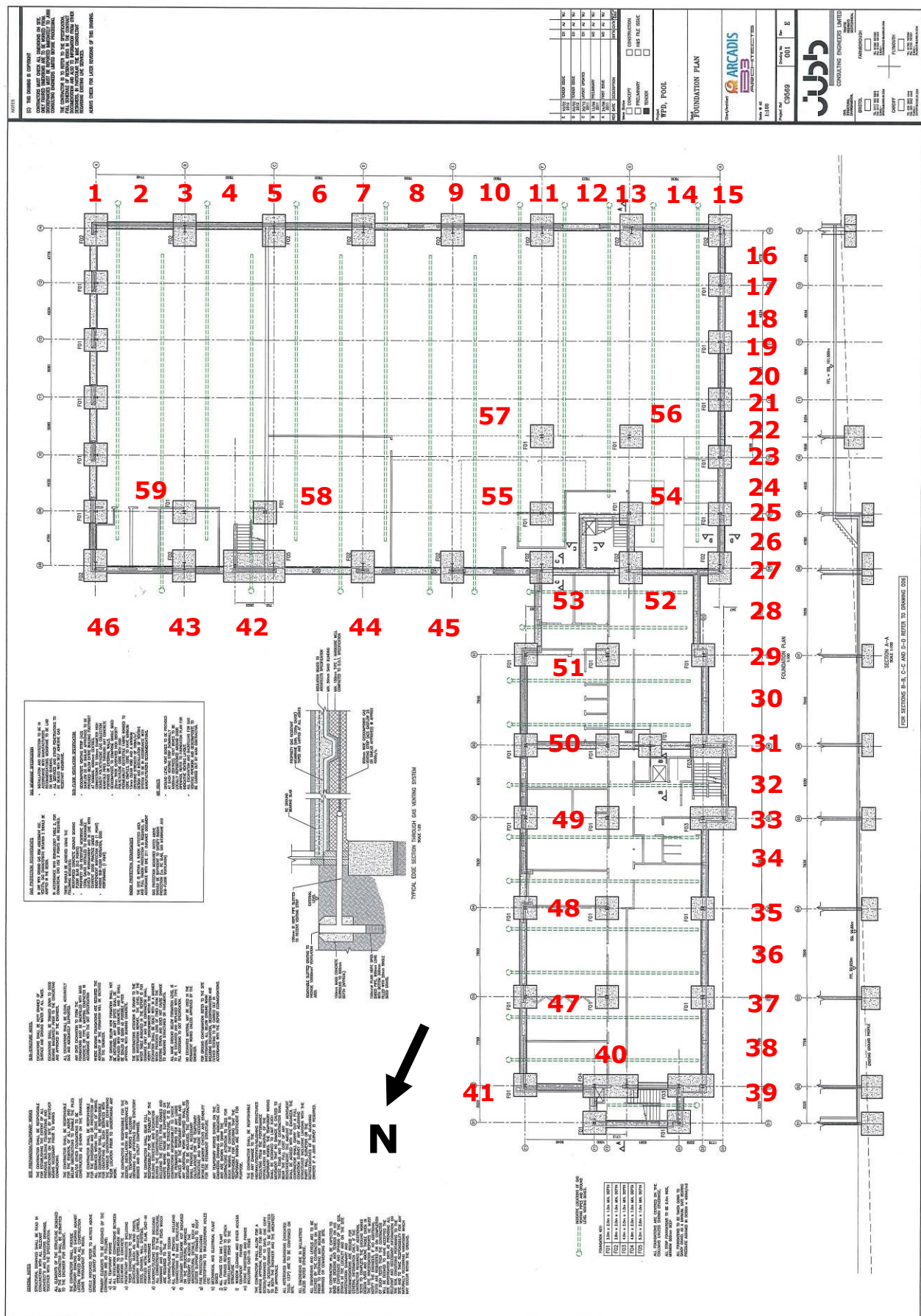


Figure 7. Site plan showing location of new building (blue) and features encountered. Outcrop shaft (yellow circle), Praed's Shaft (red circle). Attenuation tank cut (dashed lines)



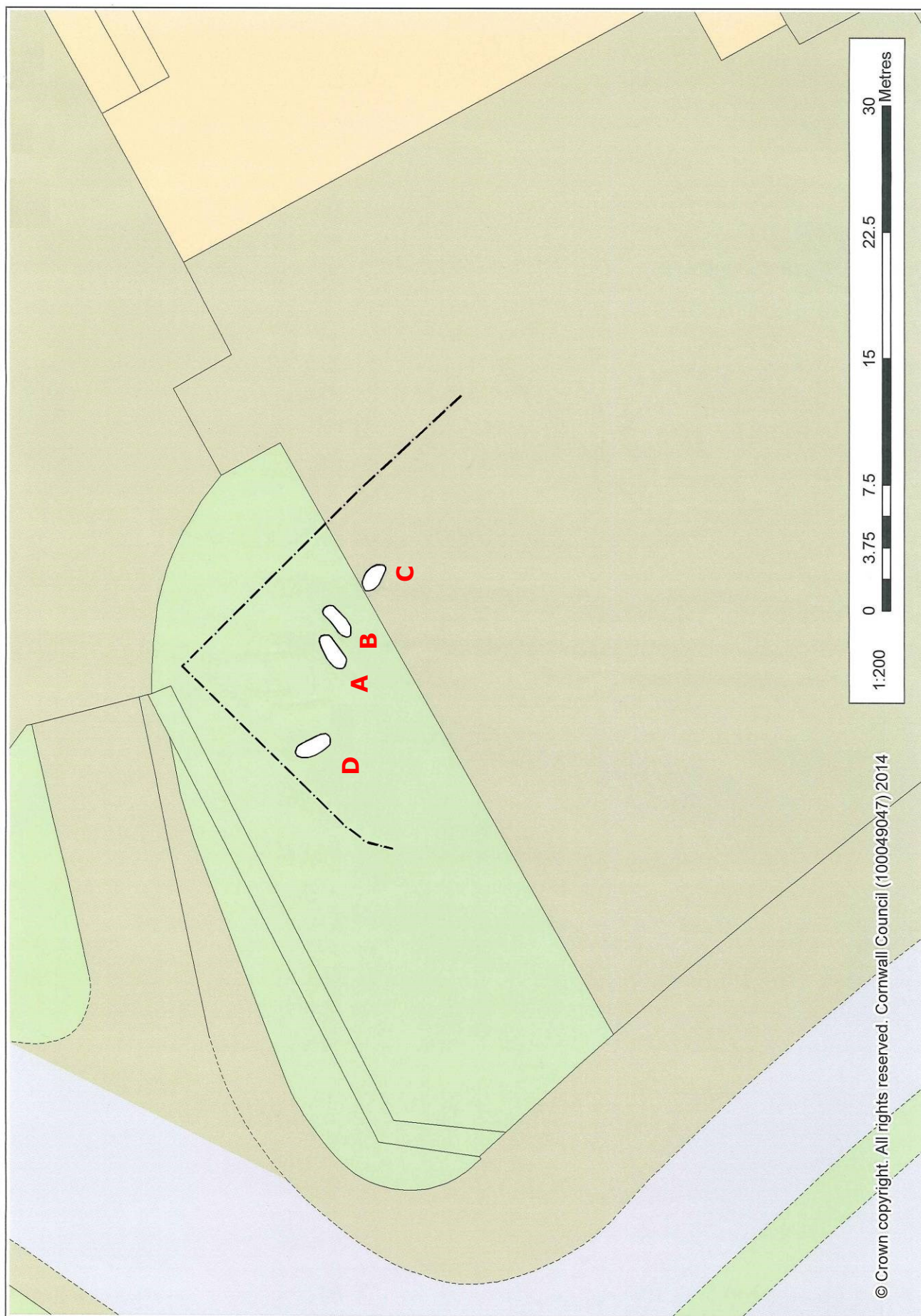


Figure 9. Site of attenuation tank showing location of prospecting pits encountered.



Figure 10. South eastern foundation. Section 2 showing nature of ground encountered.



Figure 11. South eastern foundation. Section 11 looking east showing nature of ground encountered.



Figure 12. South western foundation. Section 24 showing nature of ground encountered.



Figure 13. South western foundation. Section 29 showing outcrop shaft looking north.



Figure 14. South western foundation. Section 29 showing outcrop shaft looking northwest.

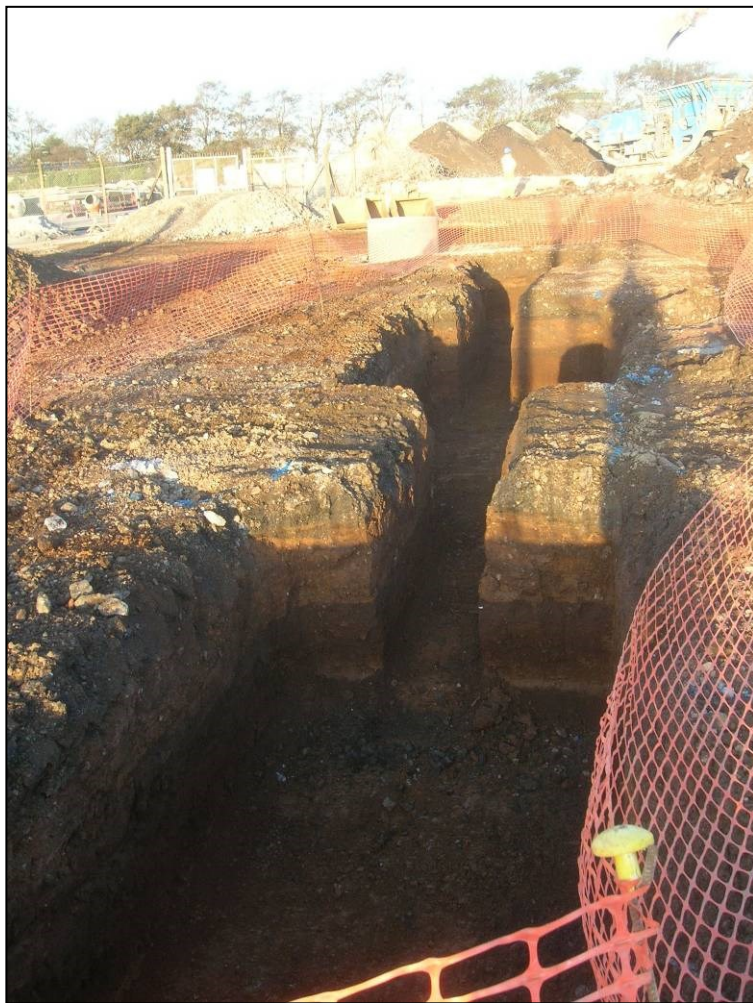


Figure 15. North western foundation. Sections 39 to 41 looking northeast showing nature of ground.



Figure 16. Attenuation tank. Sample of NE section showing nature of the ground.



Figure 17. Attenuation tank. Sample of NW section showing nature of the ground.



Figure 18. Attenuation tank. Over view of tank floor showing location of prospecting pits. Looking north.



Figure 19. Attenuation tank. Prospecting pit C looking north.



Figure 20. Attenuation tank. Prospecting pit B looking south east.



Figure 21. Attenuation tank. Prospecting pit A looking south east.



Figure 22. Attenuation tank. Prospecting pit D looking west.