



Halwell Cross to Forces Cross Gas Pipeline, Dartmouth, Devon

Archaeological Watching Brief Report





**Halwell Cross to Forces Cross Gas Pipeline,
Dartmouth, Devon**

Archaeological Watching Brief Report

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SITE CODE	73771	ACCESSION CODE	PLYMOUTH CITY MUSEUM & ART GALLERY MUSEUM ACCESSION NUMBER: AR.2010.27	CLIENT CODE	
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01	F (FOR APPROVAL BY DEVON HES)	AIM	NICK TRUCKLE PRINCIPAL ARCHAEOLOGIST		07/09/10	X:\PROJECTS\73771\WB\WSI AND RAI\HALWELL CROSS DARTMOUTH PIPELINE WSI FOR WB.DOC

I= INTERNAL DRAFT E= EXTERNAL DRAFT F= FINAL

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Archaeological Watching Brief

Summary

Wessex Archaeology has been commissioned by Wales and West Utilities ('the Client') through their agents WorleyParsons, to undertake an archaeological watching brief during the construction of a replacement gas main pipeline (hereafter 'the Scheme') situated on land between Halwell Cross and Forces Cross, Totnes, Devon, between NGR 278220 053125 and NGR 280721 052847 (hereafter 'the Site', **Figure 1**).

The watching brief comprised the observation and recording of six machine-dug access pits (Access Pits **1**, **2**, **3**, **4**, **5** and **6**) which were located on land immediately adjacent to a Scheduled Monument, the Halwell Cross Iron Age hillfort and two bowl barrows.

The work was carried out between the 11th and 14th of October 2010 and no archaeological features or finds were revealed during the excavation of the access pits.

An additional watching brief was carried out on the 7th of December 2010 during the machine excavation of a narrow pipe trench and access pit to reach the existing gas main. No archaeological remains were revealed during the excavation.

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Acknowledgements

This project was commissioned by Wales and West Utilities ('the Client') through their agents WorleyParsons, and Wessex Archaeology is grateful for the help and support of Natasha Glynn (WorleyParsons) during the course of this project.

The project was monitored by Graham Tait of the Devon Historic Environment Service (DHES), Devon County Council and Wessex Archaeology acknowledges his help, advice and support during the course of the watching brief.

The watching brief was carried out by Piotr Orczewski who compiled this report. Report illustrations were by Linda Coleman and Kitty Brandon. The project was managed for Wessex Archaeology by Andy Manning.

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Archaeological Watching Brief

1 INTRODUCTION

1.1 Project Background

1.1.1 Wessex Archaeology has been commissioned by Wales and West Utilities ('the Client') through their agents WorleyParsons, to undertake an archaeological watching brief during the construction of a replacement gas main pipeline (hereafter 'the Scheme') situated on land between Halwell Cross and Forces Cross, Totnes, Devon, between NGR 278220 053125 and NGR 280721 052847 (hereafter 'the Site', **Figure 1**).

1.1.2 The principle objectives of the Scheme included;

- The decommissioning of the existing gas main pipeline, which currently extends from Halwell Cross to Forces Cross, lying beneath the A3122 (Halwell to Dartmouth road).
- The construction of a new gas main pipeline, which will be situated in fields to the south of the A3122.

1.1.3 Initially, the new pipeline was proposed to be carried out by open trenching of the route and a brief was prepared by Devon Historic Environment Service (DHES) in May 2010 (DHES 2010). This brief required an archaeological watching brief during ground works within the two fields immediately to the south of the Halwell Camp Iron Age hillfort and at points where the route crossed existing hedgerows.

1.1.4 Subsequently, the methodology was revised and the new gas main was constructed using Horizontal Directional Drilling (HDD) methods. The initial access for drilling and placement of the new pipeline was undertaken using a series of access pits (each approximately 3.0m long, 1.0m wide and 1.3m in depth). The HDD pits, also referred to as access pits, were positioned between 100-140m apart along the 2.5km length of the pipeline (**Figure 1**).

1.1.5 A Written Scheme of Investigation was prepared (Wessex Archaeology 2010) and submitted to DHES in advance of the commencement of the project. In the light of the reduced impact from the construction works and following discussion with DHES, the original brief was retained and the WSI approved, although the following changes were made:

- The watching brief should focus on the excavation of the proposed HDD pits (6 in all) located within the two fields immediately to the south of the Iron Age hillfort
- Elsewhere, HDD pits should be moved to avoid any impact on existing hedgerows and would not require archaeological monitoring

- In the event that HDD was found to be unsuitable and open trenching was required, that – as contained in the original brief- a watching brief would be carried out where trenching impacted existing hedgerows or any area within the fields immediately to the south of the Iron Age hillfort.

1.1.6 This document details how Wessex Archaeology has undertaken the archaeological watching brief and the results.

1.2 The Site, Location and Geology

1.2.1 The Site is situated on high ground at approximately 200m above Ordnance Datum (aOD), lying just over 350m east of the village of Halwell and to the south of Totnes. The route lies within agricultural fields immediately to the south of the A3122 Halwell to Dartmouth road.

1.2.2 The underlying geology of the Site comprises sedimentary Lower Devonian bedrock of the Devonian period. This is overlain by undifferentiated River Terrace Deposits, consisting of sand and gravel (British Geological Survey).

1.2.3 Topographically, the Site is situated just below the southern apex of an elongated east-west ridge which extends from Halwell to Hartley.

2 ARCHAEOLOGICAL AND HISTORICAL CONTEXT

2.1 Desk-based assessment

2.1.1 An archaeological desk based assessment (DBA) of the Site and surrounding 500m Study Area using a wide range of archaeological sources was prepared by Wessex Archaeology (2010). The DBA identified 69 sites with activity dating from the Late Neolithic through to the present day.

2.1.2 Sites were numbered from 1-69 from west to east with a WA prefix for the ease of reference (ie WA45). It is not intended to repeat the results of the assessment, although a summary of the results is given below, with adjacent sites marked on **Figure 1**.

2.1.3 The route of the new pipeline passes c.20m south of the Scheduled area associated with the Iron Age hillfort (**WA38**) and two bowl barrows (**WA36**) at Halwell Camp. Four further bowl barrows are also located at Bickleigh Brake (**WA34**) situated to the north of Halwell Camp. A Bronze Age flint thumbnail scraper tool has been found to the west of Collaton approximately 500m to the south of the Site (**WA47**).

2.1.4 Two post-medieval Grade II Listed milestones (**WA41** and **WA56**) are situated in the verge of the A3122. Both are carved from a granite block and are dated to c. 1824. Further unlisted milestones are also located along the A3122 (**WA31**, **WA42**, **WA54** and **WA55**)

2.1.5 Limited previous archaeological studies have been undertaken in the vicinity of the pipeline route. Two archaeological watching briefs (**WA32** and **WA37**) were conducted during the widening of the A3122 and a topsoil strip. Both areas were approximately 100m south of Halwell Camp and no archaeological features or deposits were identified. An assessment of recent aerial photography of the area has identified a possible cropmark

defining a sub-rectangular enclosure (**WA33**) in the first field to the southwest of Halwell Camp (**WA36**).

2.1.6 The DBA concluded that the Site lies within an area of archaeological potential for both settlement and funerary activity dating from the Late Neolithic to Early Iron Age. No archaeological evidence was found relating to the Romano-British period within the Study Area, suggesting that the Site lay within an area of marginal hinterland.

2.1.7 The nearby settlements of Halwell and Collaton are known to have Saxon foundations and the Iron Age earthworks at Hallwell Camp may have been refortified around this time. Therefore although there have been no archaeological finds or features found from this period, there is potential for archaeological features or deposits from this period within the Site, particularly to the south of Halwell Camp.

3 AIMS AND OBJECTIVES

3.1 Aims and Objectives

- The aims and objectives of the archaeological watching brief were in accordance with the IfA Standards and guidance for an archaeological watching brief (IfA 2008) and were:
 - To locate, identify and to investigate and record the presence/absence of archaeological features or deposits
 - If significant archaeological features or deposits were located, then the watching brief would establish, where possible, the extent, date, character, relationship, condition and significance of archaeological features, artefacts and deposits within the area impacted, and
 - To inform the scope and nature of any requirements for any additional future mitigation, if required.

4 METHODOLOGY

4.1 Fieldwork

4.1.1 The excavation of the six HDD pits at the western end of the pipeline route (**Figure 1: Numbered 1-6**) was undertaken by mechanical excavator under constant archaeological supervision. Removal of the topsoil/subsoil overburden was undertaken in discrete 0.20m spits and ceased at the upper surface the *in-situ* natural geology. Topsoil and subsoil/overburden deposits were excavated separately and scanned for artefacts.

4.1.2 The location of the HDD pits were surveyed and tied in to the Ordnance Survey accurately after excavation using GPS survey equipment.

4.2 Recording

4.2.1 A full graphic record was maintained. Representative sections of all access pits were drawn at a scale of 1:10. The Ordnance Datum (OD) height of all pits and levels were calculated, with sections annotated with OD heights.

4.2.2 A full photographic record was maintained using digital cameras. Areas under archaeological observation were surveyed using a GPS and tied in to the Ordnance Survey.

4.2.3 Excavated material was visually examined for archaeological material.

5 RESULTS

5.1 Summary of access pits

5.1.1 In total six access pits were dug within the required watching brief area. The pits were initially machine excavated to the level of natural geology, which in all pits occurred at approx. 0.5 m below the present ground surface.

5.1.2 The sequence and extent of deposits above the natural geology (laminated sandstone and red clay deposits) were very similar and comprised a medium red brown sandy clay subsoil, on average between 0.20-0.27m in depth which was below a topsoil consisting of medium red brown silty loam and which averaged 0.20m in depth.

5.1.3 No archaeological features or deposits were observed within the test pit pits and no finds were recovered. A summary of each access pit is contained in **Appendix 1** and a representative section has been illustrated (**Figure 2**, Test pit 2).

5.1.4 After recording of each pit, they were then deepened to the level of 1.3m. Each pit was 1.0m wide and 3.0m long.

5.2 Additional work

5.2.1 On the 7th of December 2010, additional machine excavation of a pipe trench and access pit was undertaken, for connection purposes, between the previously excavated access pit 1 and the existing main gas main.

5.2.2 The pipe trench, 0.40m wide and 10.0m long, was up to 1.3m below the present ground surface with the connection to the gas main made via a shallow 2.7m square access pit. No archaeological features or deposits were observed.

6 FINDS AND ENVIRONMENTAL SAMPLING

6.1 Finds

6.1.1 No finds were recovered during the course of watching brief.

6.2 Environmental Sampling

6.2.1 No deposits were identified which merited environmental samples being taken during the watching brief.

7 DISCUSSION

7.1.1 No evidence of archaeological features, finds or deposits was observed during the course of the excavation of the six access pits or the additional

trenching and access pit used to connect the new gas line to the existing pipeline.

- 7.1.2 However, the area impacted by the excavation of the access pits was small and the survival of archaeological features elsewhere within this archaeologically significant area can not be discounted.

8 ARCHIVE

8.1 Preparation and Deposition

- 8.1.1 The complete project archive has been prepared in accordance with Wessex Archaeology's Guidelines for Archive Preparation and in accordance with *Guidelines for the preparation of excavation archives for long-term storage (UKIC 1990)*.
- 8.1.2 This archive comprises an A4 File containing access pit sheets, photographic and drawing indexes and 6 A4 drawings.
- 8.1.3 The archive will be initially held at Wessex Archaeology, Salisbury until the completion of the project. On completion, the archive will be deposited with the Plymouth City Museum & Art Gallery Museum under the accession number AR.2010.27.

9 REFERENCES

DHES, 2010, Brief for Archaeological Monitoring and Recording, Ref: Arch/ut/sh/15875 May 2010

Institute for Archaeologists 2008, *Standards and Guidance for Archaeological Watching Briefs*

Wessex Archaeology, 2010, Halwell Cross to Forces Cross Pipeline, Devon: Archaeological Desk-based Assessment, Ref 73770.01, March 2010

Wessex Archaeology, 2010b, Halwell Cross to Forces Cross Gas Pipeline, Dartmouth, Devon: Written Scheme of Investigation for an Archaeological Watching Brief, Unpublished Client Report Ref: Plymouth City Museum & Art Gallery Museum Accession Number: AR.2010.27, WA Report Reference: 73771.01

APPENDIX 1. TRENCH SUMMARIES

Access Pit 1 and connecting trench		NGR	278249 053125 (Access pit 1)	
Length (m)	Width (m)	Height Above Ordnance Datum (m) (At Ground Level)		Max. Depth (m) (Below Ground Level)
3.0m	1.0m	175.16m		1.30m
Connecting trench 10m	0.4m			
Mains access pit 2.7m	2.7m			
Context No.	Soil Description			Depth (m) (B.G.L)
101	Topsoil: Moderate reddish brown silty loam with rare stone inclusions			0 – 0.20m
102	Subsoil: Moderate brown/red sandy clay			0.20-0.40m
103	Natural: Light brown/red sandy clay with abundant sandstone laminated fragments with clay pockets.			0.40m+

Trial Trench No. 2		NGR	278367 053113	
Length (m)	Width (m)	Height Above Ordnance Datum (m) (At Ground Level)		Max. Depth (m) (Below Ground Level)
3.0m	1.0m	187.57m		1.30m
Context No.	Soil Description			Depth (m) (B.G.L)
201	Topsoil: Moderate reddish brown silty loam with rare stone inclusions			0 – 0.21m
202	Subsoil: Moderate brown/red sandy clay			0.21-0.45m
203	Natural: Light brown/red sandy clay with abundant sandstone laminated fragments with clay pockets.			0.45m+

Trial Trench No. 3		NGR	278497 053127	
Length (m)	Width (m)	Height Above Ordnance Datum (m) (At Ground Level)		Max. Depth (m) (Below Ground Level)
3.0m	1.0m	189.77m		1.30m
Context No.	Soil Description			Depth (m) (B.G.L)
301	Topsoil: Moderate reddish brown silty loam with rare stone inclusions			0 – 0.22m
302	Subsoil: Moderate brown/red sandy clay			0.22-0.49m
303	Natural: Light brown/red sandy clay with abundant sandstone laminated fragments with clay pockets.			0.49m+

Trial Trench No. 4		278618 053153		
Length (m)	Width (m)	Height Above Ordnance Datum (m) (At Ground Level)	Max. Depth (m) (Below Ground Level)	
3.0m	1.0m	187.90m	1.30m	
Context No.	Soil Description			Depth (m) (B.G.L.)
401	Topsoil: Moderate reddish brown silty loam with rare stone inclusions			0 – 0.25m
402	Subsoil: Moderate brown/red sandy clay			0.25-0.40m
403	Natural: Light brown/red sandy clay with abundant sandstone laminated fragments with clay pockets.			0.40m+

Trial Trench No. 5		278739 053139		
Length (m)	Width (m)	Height Above Ordnance Datum (m) (At Ground Level)	Max. Depth (m) (Below Ground Level)	
3.0m	1.0m	188.97m	1.30m	
Context No.	Soil Description			Depth (m) (B.G.L.)
501	Topsoil: Moderate reddish brown silty loam with rare stone inclusions			0 – 0.32m
502	Subsoil: Moderate brown/red sandy clay			0.32-0.40m
503	Natural: Light brown/red sandy clay with abundant sandstone laminated fragments with clay pockets.			0.40m+

Trial Trench No. 6		NGR	278858 053144		
Length (m)	Width (m)		Height Above Ordnance Datum (m) (At Ground Level)	Max. Depth (m) (Below Ground Level)	
3.0m	1.0m		191.51m	1.30m	
Context No.	Soil Description			Depth (m) (B.G.L.)	
601	Topsoil: Moderate reddish brown silty loam with rare stone inclusions			0 – 0.20m	
602	Subsoil: Moderate brown/red sandy clay			0.20-0.40m	
603	Natural: Light brown/red sandy clay with abundant sandstone laminated fragments with clay pockets.			0.40m+	

APPENDIX 2. OASIS ID: WESSEXAR1-84948

Project details

Project name Halwell Cross to Forces Cross, Dartmouth, Devon

Short description of the project Wessex Archaeology has been commissioned by Wales and West Utilities ('the Client') through their agents WorleyParsons, to undertake an archaeological watching brief during the construction of a replacement gas main pipeline (hereafter 'the Scheme') situated on land between Halwell Cross and Forces Cross, Totnes, Devon, between NGR 278220 053125 and NGR 280721 052847 (hereafter 'the Site', Figure 1). The watching brief comprised the observation and recording of six machine-dug access pits (Access Pits 1, 2, 3, 4, 5 and 6) which were located on land immediately adjacent to a Scheduled Monument, the Halwell Cross Iron Age hillfort and two bowl barrows. The work was carried out between the 11th and 14th of October 2010 and no archaeological features or finds were revealed during the excavation of the access pits.

Project dates Start: 11-10-2010 End: 14-10-2010

Previous/future work Yes / No

Any associated project reference codes 73770 - Contracting Unit No.

Type of project Recording project

Site status None

Current Land use Cultivated Land 1 - Minimal cultivation

Monument type NONE None

Significant Finds NONE None

Investigation type 'Recorded Observation'

Prompt Water Act 1989 and subsequent code of practice

Project location

Country England

Site location DEVON SOUTH HAMS DARTMOUTH Halwell Cross

Postcode TQ9 7LQ

Study area 1.00 Hectares

Site coordinates SV 78497 53127 50.2892160884 -6.514538116690 50 17 21 N 006 30 52 W Point

Height OD / Depth Min: 175.00m Max: 191.00m

Project creators

Name of Wessex Archaeology

Organisation

Project originator brief Local Authority Archaeologist and/or Planning Authority/advisory body

Project originator design Wessex Archaeology

Project director/manager A Manning

Project supervisor Piotr Orczewski

Type of sponsor/funding body of Developer

Name of sponsor/funding body of Wales and West Utilities

Project archives

Physical Archive Exists? No

Physical Archive recipient Plymouth City Museum and Art Gallery Museum

Physical Archive ID AR.2010.27

Digital Archive Exists? No

Digital Archive recipient Plymouth City Museum and Art Gallery

Digital Archive ID AR.2010.27

Digital available Media 'Database','Survey'

Paper Archive Exists? No

Paper Archive recipient Plymouth City Museum and Art Gallery

Paper Archive ID AR.2010.27

Paper available Media 'Context sheet','Miscellaneous Material','Notebook - Excavation','Research',' General Notes','Section'

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

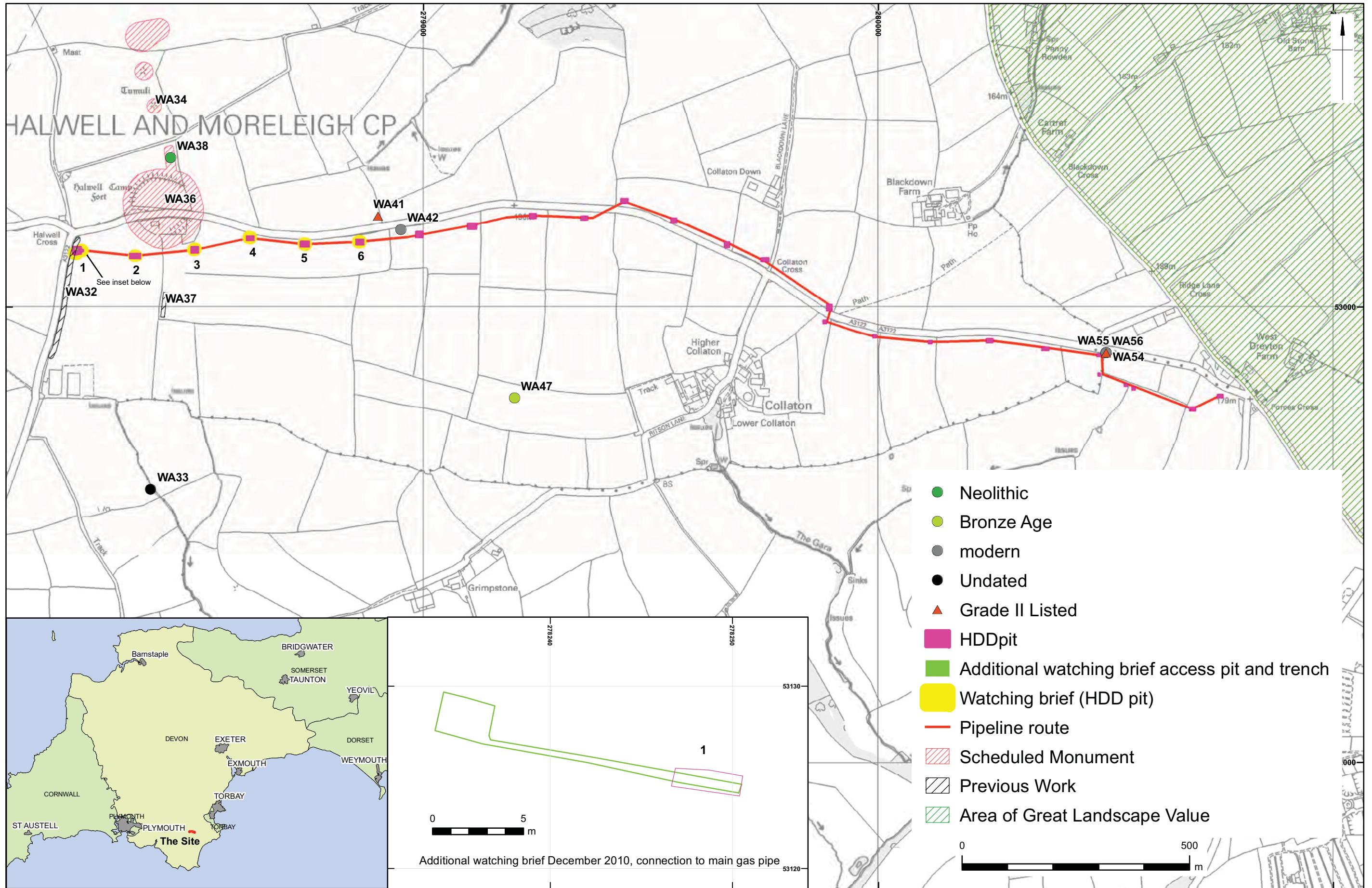
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