

# **SOUTH HAVEN GAS PIPELINE, MILFORD HAVEN, PEMBROKESHIRE: ARCHAEOLOGICAL EVALUATION.**



Prepared by Dyfed Archaeological Trust  
For: RWE Npower Plc



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*Paratowyd yr adroddiad yma at ddefnydd y cwsmer yn unig. Ni dderbynnir cyfrifoldeb gan Ymddiriedolaeth Archaeolegol Dyfed Cyf am ei ddefnyddio gan unrhyw berson na phersonau eraill a fydd yn ei ddarllen neu ddibynnu ar y gwybodaeth y mae'n ei gynnwys*

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## **SOUTH HAVEN GAS PIPELINE, MILFORD HAVEN, PEMBROKESHIRE: ARCHAEOLOGICAL EVALUATION.**

### **Summary**

*Dyfed Archaeological Trust Field Services were commissioned by RWE Npower to undertake an archaeological evaluation of the route of a proposed gas pipeline at South Haven near Milford Haven, Pembrokeshire (running between NGR SM 9143 0536 and SM 9254 0589).*

*The trial trenching scheme formed a second phase of archaeological evaluation along the length of the proposed pipeline. The first phase comprised a geophysical survey undertaken by Dyfed Archaeological Trust Field Services along the entire length of the pipeline on the northern side of the Milford estuary. The survey produced a number of anomalies that indicated the potential for archaeological remains to be present within the site area (mostly linear features of uncertain origin). A scheme for trial trenching was designed to target these anomalies, consisting of twenty one trenches.*

*Of the twenty one trenches excavated, four trenches returned positive archaeological results (Trenches 4, 8, 10 & 11) the remainder of the trenches were devoid of archaeological features and deposits. Trench 4 revealed a former field boundary with a further field boundary was revealed in trench 10 along with a trackway boundary in trench 11.*

*Trench 8 revealed evidence for a wheel track displaying oblique linear indentations characteristic of the rear wheels of a steam ploughing engine and considered to date from between the late 19<sup>th</sup> century and early 20<sup>th</sup> century.*

*The archaeological features and deposits revealed during the evaluation are considered to be of low archaeological significance. It is considered that the proposed gas pipeline route will have a minimal impact upon the buried archaeological resource.*

*During the works it was made known to the archaeologists on site that a standing stone formerly stood in the northwestern end of field 4 at the most westerly field of the pipeline route, which was removed in the 1950s and deposited in a hedgeline,. This may suggest that the potential for archaeological features and deposits in this area remains. Given that the gas pipeline route ran to the south of this area, it is considered that the route would have no impact on the site of the standing stone or any features associated with it that may lie in the immediate area.*

## **INTRODUCTION**

### **Project commission**

The proposed construction of a pipeline linking a new CCGT power station (to be erected on the site of the original, now demolished, Pembroke Power Station) to National Grid Gas plc's National Transmission System (NTS) on the north side of the waterway required an archaeological evaluation to be undertaken as part of Planning Permission 06/0335/PA, granted by Pembrokeshire County Council on 13 February 2009<sup>1</sup>. The pipeline runs between NGR SM 9143 0536 and SM 9254 0589 (**Figure 1 and 3**).

The route of the pipeline on the north side of the Milford Haven waterway runs through woodland and across four agricultural fields. Although no previous sites of archaeological interest have been identified along this route of the proposed pipeline, recent archaeological work on the NTS pipeline, on the Dragon LNG (immediately to the east of the proposed pipeline) and on the South Hook LNG (to the west of Milford Haven) has demonstrated the high archaeological potential of the landscape of south Pembrokeshire. The area of the currently proposed pipeline is, therefore, of high archaeological potential. In order to address this potential, a staged evaluation phase of archaeological works was carried out, consisting initially of a geophysical survey (Poucher 2009) and followed by a programme of archaeological trial trenching. This report presents the results of the trial trenching stage of the evaluation

RWE Npower plc commissioned Dyfed Archaeological Trust Field Services to carry out the archaeological evaluation over several days in February and March 2010. The works were undertaken to comply with a Written Scheme of Investigation prepared by Dyfed Archaeological Trust Field Services in 2009 and approved by the archaeological advisors to Pembrokeshire County Council.

### **Scope of the project**

The evaluation has been designed to provide information on the character, extent, date, state of preservation and significance of any surviving archaeological deposits within the site area, in order that an assessment of the impact from the development proposals on any remains can be determined. The results of the evaluation will be used to inform the scope of any further required archaeological works required in mitigation of the development impacts.

### **Report outline**

This report describes the location of the site along with its archaeological background before summarising the evaluation results and the conclusions based on those results.

### **Abbreviations**

Sites recorded on the Regional Historic Environment Record (HER<sup>2</sup>) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Scheduled Ancient Monuments (SAM).

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<sup>1</sup> On the advice and recommendation of Dyfed Archaeological Trust Heritage Management.

<sup>2</sup> Held and managed by Dyfed Archaeological Trust, Shire Hall, Llandeilo.

## **THE SITE**

### **Location**

The route of the pipeline on the north side of the waterway begins at Blackridge Depot (at NGR SM 9143 0536) running northwards along a roadway before turning east up a steep wooded slope and then heading northeast across fields close to and between Castle Hall Farm to the north and Venn Farm to the south before terminating near the B 4325 main road between Milford Haven and Waterston at NGR SM 9254 0589 (**Figure 1**).

Topographically, the site slopes gradually down to the southwest, across four enclosed fields, before dropping steeply through a band of woodland to a roadway. The four fields crossed by the proposed pipeline route are numbered in this report Field 1 to 4 from east to west respectively<sup>3</sup> (**Figure 4**). Field 1 had been under crop, but was lying fallow at the time of the archaeological evaluation, whilst Fields 2, 3 and 4 were all under pasture. All the fields appeared to be bounded by stone- revetted field banks topped by hedgerows. A hardcore trackway, part of the Pembrokeshire Coast National Park coastal path, runs between Fields 1 and 2 allowing access to Venn Farm.

### **Archaeological Potential**

No archaeological sites have previously been identified along the route of the pipeline although recent archaeological work on the NTS pipeline, on the Dragon LNG site (immediately to the east of the proposed pipeline) and on the South Hook LNG site (to the west of Milford Haven) has demonstrated the high archaeological potential of the landscape of south Pembrokeshire. The proposed pipeline route does, however, run close to some known archaeological sites and also runs through the Scoveston – Burton historic landscape character area. The known archaeological sites relate mainly to buildings associated with the former Royal Naval Armaments Depot site at Milford Haven (closed in 1990, having been reprieved from earlier closure to enable it to service the Falklands war of 1982; PRN 28801), which was also once a World War II mine depot, situated along the waterfront to the south. The pipeline route also passes within 150m of the site of the former Castle Hall mansion house (PRN 17269). Castle Hall, originally built in the 1770s, was rebuilt several times, surrounded by grounds and outbuildings, before eventually being demolished in the 1930s, although some original outbuildings remain.

Map evidence from the 18<sup>th</sup> and 19<sup>th</sup> century show that the landscape has long been subdivided into farmland, such as the 1842 Tithe Map and 1908 Ordnance Survey Map, (**Figure 2 and 3**), although some field boundaries have been removed during the 20<sup>th</sup> century. Descriptions of the fields also suggest mixed arable, pasture and meadow across the fields affected by the development.

A conversation with the present occupant of Castle Hall Farm revealed that during the 1950s a standing stone was removed from the western most field of the pipeline route. It was stated that the stone was removed from the northwestern area of the field and dumped in the hedge-line. A search of the hedge-line in this area revealed a substantial recumbent red sandstone block (see photo 1) which may potentially be the former standing stone.

The underlying solid geology consists of Lower Old Red Sandstone (British Geological Survey 1994) overlain by brown earth topsoil. No drift deposits were revealed within the development area.

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<sup>3</sup> Note that in the geophysics report (Poucher 2009) they are numbered 1 to 4 from west to east. The numbering used in this report is the same as that used by Land and Marine, the development contractors

## **METHODOLOGY**

A total of 21 trenches were machine excavated using a toothless ditching bucket and subsequently cleaned by hand where necessary (**Figure 3**). The trenches were positioned to target anomalies identified during a previous geophysical survey of the pipeline corridor (**Figure 4**).

Following mechanical excavation the evaluation trenches were cleaned by hand where appropriate, in order to determine the presence and extent of any archaeological features or deposits. After hand cleaning of the trenches any archaeological features that were revealed were hand excavated and recorded.

It was envisaged that trial trenching would commence at the eastern end of the pipeline route and move towards the west field by field. However, following a conversation with RWE it was agreed that following the completion of trenches in Field 1 it would be beneficial for the contractors if trial trenching was undertaken at the western end of the pipeline route (Field 4) and moving east (Field 3 and then 2). Following access issues with Field 3 it was not possible to achieve this, so on completion of the Field 1 trenches excavation work moved to Field 2 and then Field 4. A break in the works occurred before access to Field 3 was granted.

The evaluation was undertaken in February and March 2010

## **RESULTS OF THE EVALUATION (Figures 4 and 5)**

### **FIELD 1**

#### **Trench 1** (table 1; photo 2)

Trench 1 was aligned east – west, measured 18.6m x 2.09m and was excavated to an average depth of 0.45m. The trench was positioned to confirm whether an area of the geophysical survey which indicated no anomalies was archaeologically sterile. Prior to the commencement of excavation 19<sup>th</sup> – 20<sup>th</sup> century ceramics were recovered from the ground surface of the trench site but not retained.

No archaeological features or deposits were revealed in trench 1.

#### **Trench 2** (table 2; photo 3)

Trench 2 was aligned northeast – southwest and also positioned in an area containing no geophysical anomalies. The trench measured 22m x 2.5m and was excavated to an average depth of 0.3m.

No archaeological features or deposits were revealed in trench 2.

#### **Trench 3** (table 3; photo 4)

As with trenches 1 and 2, trench 3 was positioned in an area containing no geophysical anomalies. Aligned northwest – southeast the trench measured 21.4m x 2.4m and was excavated to an average depth of 0.35m.

No archaeological features or deposits were revealed in trench 3.

#### **Trench 4** (table 4; photos 5, 6 & 7; **Figure 6**)

Trench 4 measured 20.4m x 2.4m and was excavated to an average depth of 0.48m. The trench was aligned northeast – southwest and positioned to target a north – south anomaly identified during the geophysical survey and interpreted as a central bank with adjacent ditches that were considered to be a former field boundary.

A single linear north – south aligned linear feature [403] was revealed in the trench that corresponded to the anomaly identified in the geophysical survey. However, no evidence of a central bank or second ditch was revealed.

No further archaeological features or deposits were revealed in trench 4.

#### **Trench 5** (table 5; photo 8)

Trench 5 was aligned northeast – southwest, measured 21.65m x 2.4m and was excavated to an average depth of 0.3m. The trench was positioned to target two substantial linear anomalies that were considered to either form underlying banks or natural undulations in the underlying subsoil or geology. Excavation of the trench confirmed that no underlying banks were present at this location and it is considered that geological undulations caused the geophysical anomalies.

No archaeological features or deposits were revealed in trench 5.

### **FIELD 4**

#### **Trench 6** (table 6; photo 9)

Aligned northwest – southeast trench 6 was positioned in an area containing no geophysical survey anomalies. The trench measured 21m x 2.4m and was excavated to an average depth of 0.5m.

No archaeological features or deposits were revealed in trench 6.

**Trench 7** (table 7; photo 10)

Trench 7 measured 19.6m x 2.4m and excavated to an average depth of 0.79m. The trench was aligned north – south and was positioned in an area where no geophysical survey anomalies were identified.

No archaeological features or deposits were revealed in trench 7.

**Trench 8** (table 8; photos 11 & 12)

Measuring 21.2m x 2.3m and excavated to an average depth of 0.43m, trench 8 was aligned northwest – southeast and positioned in an area containing no geophysical survey anomalies.

A northeast – southwest aligned linear feature with northwest – southeast linear indentations along its length (803) was revealed at the northwest end of the trench.

No further archaeological features or deposits were revealed in trench 8.

**Trench 9** (table 9; photo 13)

Trench 9 was aligned northeast – southwest and positioned in an area containing no geophysical survey anomalies. The trench measured 20.3m x 2.3m and was excavated to an average depth of 0.23m.

No archaeological features or deposits were revealed in trench 9.

**Trench 10** (table 10; photo 14 & 15; **Figure 7**)

Trench 10 was aligned north – south and targeted on a series of linear anomalies identified following the geophysical survey and interpreted as former field boundaries and ploughmarks. The trench measured 21.14m x 2.40m and was excavated to an average depth of 0.25m.

An east – west aligned linear feature [1003] was revealed towards the south end of the trench that corresponded with the geophysical anomaly the trench was targetting. A further east – west aligned irregular linear feature [1006] was also revealed.

No further archaeological features or deposits were revealed in trench 10.

**Trench 11** (table 11; photos 16, 17 & 18; **Figure 8**)

Trench 11 was aligned east – west and measured 18.9m x 2.4m and was excavated to an average depth of 0.33m. The trench was positioned to target a north – south aligned linear geophysical survey anomaly interpreted as a former trackway.

A single, 2m wide, northwest – southeast aligned ditch [1103] was revealed at the south end of the trench. The fill of the ditch contained coal and early to mid 19<sup>th</sup> century bottle glass.

No further archaeological features or deposits were revealed in trench 11.

**FIELD 2**

**Trench 12** (table 12; photo 18)

This trench was positioned to target an anomaly interpreted as a possible ditch and bank or ploughing evidence. Trench 12 was aligned east – west and measured 20m x 2.5m. It was excavated to an average depth of 0.6m. The trench did not reveal any trace of the geophysical survey anomaly.

No archaeological features or deposits were revealed in trench 12.



**Trench 13** (table 13; photo 19)

Aligned northwest – southeast, trench 13 measured 20.84m x 2.49m and was excavated to an average depth of 0.54m. The trench was positioned to target a strong geophysical anomaly running northwest –southeast across the field. No trace of the anomaly was revealed within the trench.

No archaeological features or deposits were revealed in trench 13.

**Trench 14** (table 14; photo 20)

Trench 14 was positioned to target a series of linear geophysical survey anomalies and interpreted as possible plough lines or drains. The trench measured 19.6m x 2.4m, was excavated to an average depth of 0.33m and aligned northeast – southwest. No evidence for the geophysical survey anomalies was revealed within the trench.

No archaeological features or deposits were revealed in trench 14

**Trench 15** (table 15; photo 21)

Trench 15 was positioned to target a series of linear anomalies identified through the previous geophysical survey and interpreted as possible plough lines or drains. The trench was aligned northwest – southeast, measured 21.2m x 2.5m and was excavated to an average depth of 0.28m. No traces of the geophysical survey anomalies were revealed within the trench.

No archaeological features or deposits were revealed in trench 15.

**Trench 16** (table 16; photo 22)

Trench 16 was positioned to target a series of linear geophysical survey anomalies and interpreted as possible plough lines or drains. The trench was also positioned to target a large anomaly thought to represent evidence for a former bank. The trench was aligned northwest – southeast, measured 21.8m x 2.4m and was excavated to an average depth of 0.29m. No traces of the linear features or bank were revealed in trench 16 suggesting that the anomalies are most likely as a result of geological variations.

No archaeological features or deposits were revealed in trench 16.

**FIELD 3**

**Trench 17** (table 17; photo 23)

Trench 17 was positioned in an area shown as blank in the previous geophysical survey of the site. The trench was aligned northeast – southwest and measured 22m x 2.4m and was excavated to an average depth of 0.29m.

No archaeological features or deposits were revealed in trench 17.

**Trench 18** (table 18; photo 24)

Aligned northwest – southeast trench 18 was positioned to target a small area containing two geophysical anomalies considered to represent possible pits. The trench measured 21.5m x 2.06m and was excavated to an average depth of 0.31m. No evidence for the possible pits was revealed in the trench.

No archaeological features or deposits were revealed in trench 18.

**Trench 19** (table 20; photo 25)

Aligned northeast – southwest, trench 19 measured 21m x 2.2m and was excavated to an average depth of 0.34m. The trench was positioned to target an 'L' shaped geophysical anomaly that may represent an early field bank or possible

enclosure. No evidence for either a field bank or enclosure was revealed in trench 19 and it is considered that the anomaly was a result of geological variations.

No archaeological features or deposits were revealed in trench 19.

**Trench 20** (table 20; photo 26)

Trench 20 was positioned to target a scattering of geophysical survey anomalies which included what were possible spreads of magnetic debris. The trench was aligned northwest – southeast and measured 20m x 2.37m with an average depth of 0.28m. No evidence of the geophysical anomalies was revealed in trench 20.

No archaeological features or deposits were revealed in trench 20.

**Trench 21** (table 21; photo 27)

Trench 21 was aligned northwest – southeast and measured 21.9m x 2.4m with an average depth of 0.29m. The trench was positioned to target a geophysical survey anomaly thought to represent a buried bank or wall. No evidence for the geophysical anomaly was revealed in trench 21.

No archaeological features or deposits were revealed in trench 21.

## **DISCUSSION**

The excavation of the 21 evaluation trenches revealed that a total of 18 were devoid of archaeological features and deposits. Of these 18 trenches, 10 had been positioned to target anomalies of possible archaeological origin that had been revealed on the geophysical survey. No evidence for the features being of archaeological origin was revealed within the trenches, and it is thus considered that the anomalies represented changes in the underlying geology of the site, as. The remaining 8 trenches were located in areas where the geophysical survey did not show any anomalies, as a means by which to test the success of the geophysical survey and confirm that the area was archaeologically empty. All but one of these 8 trenches confirmed that no archaeological features were present within these areas.

Three trenches targeting geophysical survey anomalies returned positive results in that they confirmed the presence of archaeological features in trenches 4, 10 and 11. Trench 8 was located in an area where no geophysical survey anomalies were identified, yet a single hitherto unknown linear feature was revealed, (803).

### ***Trench 4***

A single north – south aligned linear feature [403] was revealed in trench 4 that corresponded to the anomaly identified in the geophysical survey. This had been interpreted as a possible bank and adjoining ditch.

Early mapping of the area shows that field 1 was formerly three separate fields and depicts a north – south field boundary located in close proximity to the trench location (Tithe Map, 1842; Ordnance Survey, 1908). It is considered that the linear feature [403] represents a former field boundary of probable 18<sup>th</sup> – 19<sup>th</sup> century date. It is unclear when the field boundary was removed.

### ***Trench 8***

A northeast – southwest linear feature was revealed within Trench 8 (803). The feature had oblique linear indentations running northwest – southeast along its length. The feature was imprinted on the underlying shattered old red sandstone bedrock.

It is considered that the linear feature and its associated indentations represent the base of a wheel track. Given the presence of oblique linear indentations it is considered that the wheel track was produced by a steam ploughing engine which often utilised the pattern on the rear wheels to aid grip. When operating on wet ground, lugs known as 'spuds' would be fitted to the wheels to further enhance grip. It is considered that feature (803) was caused by the wheels and 'spuds' of a ploughing engine whilst working on wet ground.

Steam ploughing engines were the largest and longest traction engines constructed, each weighing in the region of 22 tons and were in use from the latter part of the 19<sup>th</sup> century up until the earlier part of the 20<sup>th</sup> century when the internal combustion engine began to take over.

Steam ploughing was undertaken by a pair of engines, with a metal cable running across the field connected to a winding drum usually situated beneath the boiler of the engine. A reversible plough would be joined to the cable and hauled up and down the field. A pair of ploughing engines were able to plough more in an hour than a horse team could achieve in a whole day (Harvey, 1980, 126). In addition to ploughing, ploughing engines could be employed to install drainage and to clear ditches.

Despite the obvious advantages of steam ploughing the initial investment deterred all but the wealthiest landowners from adopting the steam ploughing

method. However, groups of travelling ploughing contractors were set up usually consisting of four men and a boy who travelled from farm to farm with the engines, implements, water cart and living van. It is considered that contractors were employed to plough the land in this location as opposed to the landowner purchasing and operating their own equipment.

### ***Trench 10***

Two east – west aligned linear features [1003] and [1006] were revealed in trench 10 that were identified as a single linear anomaly on the geophysical survey.

Feature [1003] corresponds with the location of a field boundary identified from early mapping of the area and appears to have been in place since at least 1842 (Tithe Map. 1842) and is still marked as present on the 1908 1:2500 scale Ordnance Survey Map (Ordnance Survey, 1908) although on a slightly different alignment towards its western end.

A second irregular linear feature [1006] revealed to the north of [1003] does not appear on any of the earlier mapping. The feature had a very archaeologically sterile fill and it is considered most likely that it is of geological origin as opposed to archaeological.

### ***Trench 11***

Trench 11 revealed a single northwest- southeast aligned, 1.58m wide ditch [1103] that contained coal, 19<sup>th</sup> century bottle glass and white ceramic material. The 1842 Tithe Map shows a northwest – southeast aligned trackway leading from Castle Hall and terminating in an open field. By 1908 the trackway appears to have been cleared and the field boundaries realigned to a short distance to the east.

It is considered that ditch [1103] forms the western boundary ditch of this former trackway and dates from at least the earlier part of the 19<sup>th</sup> century.

## **CONCLUSIONS**

The archaeological evaluation returned positive results in that it confirmed the existence and characterised the nature of a number of anomalies identified during geophysical survey of the pipeline corridor.

Two former field boundaries were identified in trench 4 [403] and trench 10 [1003] and are considered to date from at least the earlier part of the 19<sup>th</sup> century. A further linear feature [1006] was considered to be geological as opposed to archaeological. The boundary ditch [1103] of a former trackway was also identified in trench 11 and is considered to date from at least the early 19<sup>th</sup> century.

In addition to the field and trackway boundaries identified, a wheel track probably caused by a steam ploughing engine, was revealed in trench 8 (803) and is considered to date between the late 19<sup>th</sup> to early 20<sup>th</sup> centuries. The presence of evidence for steam ploughing suggests a desire by the landowner to increase the agricultural efficiency and profitability of the land.

With the exception of the above features the remainder the trenches revealed no archaeological features or deposits. It is considered that these anomalies were caused by variations in the underlying geology.

In all the archaeological evaluation has not shown any significant archaeological remains within the proposed South Haven pipeline route. The features that have been revealed would appear to be associated with agricultural activities (field boundaries, ploughing and trackway) of 19<sup>th</sup> century and later date. Such features are considered to be of low archaeological significance.

The area in which the pipeline lies is still one that is considered to be of high archaeological potential, as seen by other archaeological sites recorded in the vicinity. Although no significant remains have been located within the pipeline route, the potential for significant archaeological remains to be present within the wider area still remains. Potentially the lack of archaeological features within the pipeline route may have been caused by centuries of agricultural activity (especially ploughing) which may have truncated any earlier remains (although the absence of any significant finds within the topsoil may be seen to suggest that no such remains existed).

It is considered that the gas pipeline route will have a minimal impact on the buried archaeological resource.

## **SOURCES**

### **Map**

Tithe Map and Apportionment 1842 *Steynton Parish*

British Geological Survey 1994 *The Rocks of Wales* 1:250,000

Ordnance Survey 1881 & 1895 1<sup>st</sup> Edition 1:2500 Pembrokeshire.XXXIII.14 & 15

Ordnance Survey 1908 2<sup>nd</sup> Edition 1:2500 Pembrokeshire.XXXIII.14 & 15

### **Unpublished**

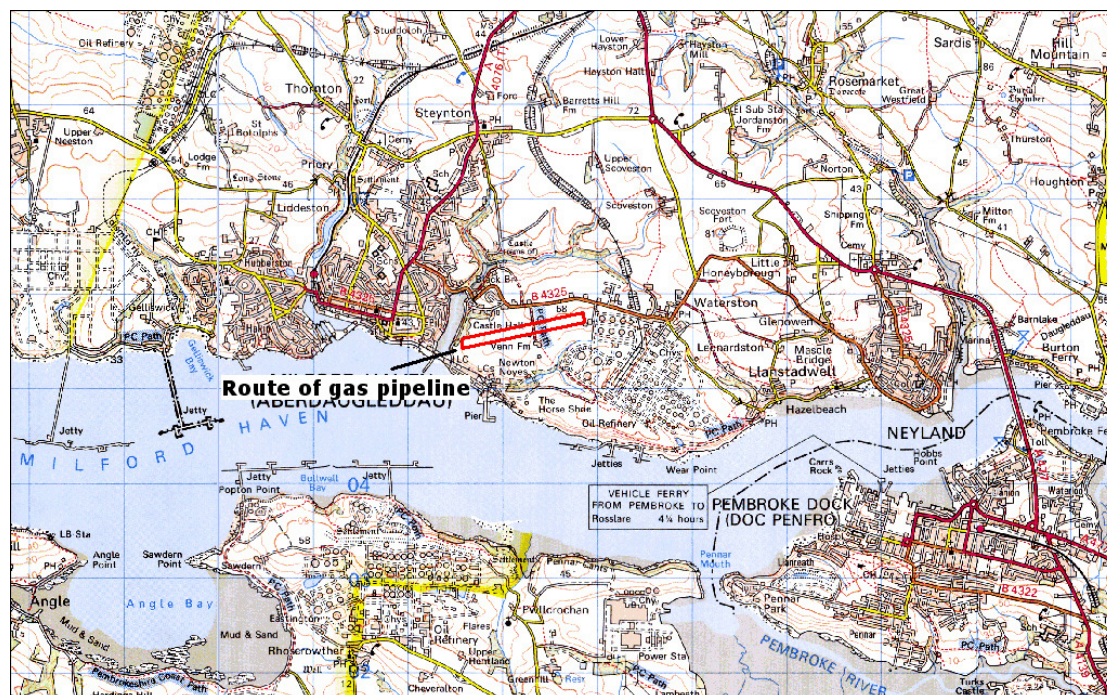
Poucher, P 2009 *South Haven Pipeline Geophysical Survey* Dyfed Archaeological Trust Report No. 2009/8

### **Published**

Harvey N 1980 *The Industrial Archaeology of Farming in England and Wales*. London. B T Batsford.



**Figure 1:** Location map of South Haven gas pipeline route.

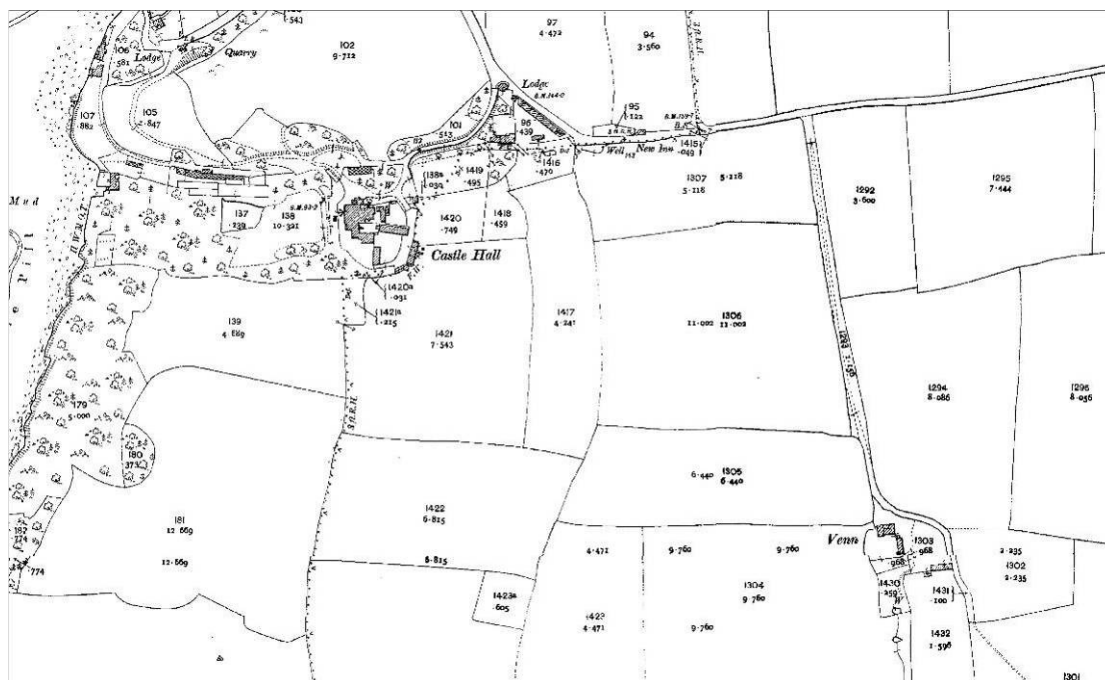


**Figure 2:** Extract of 1842 Tithe Map showing area of pipeline route.



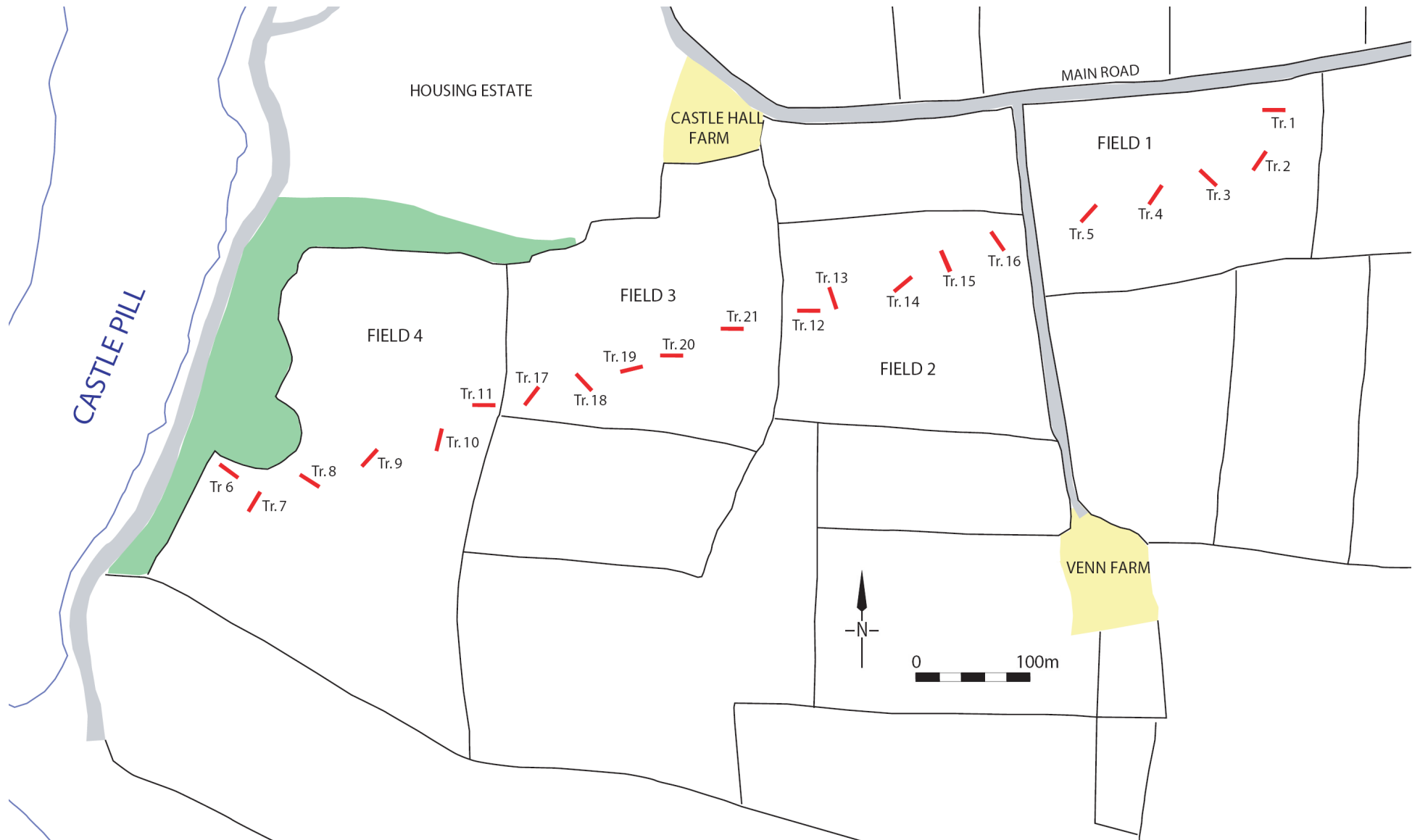


**Figure 3:** Extract of 2<sup>nd</sup> edition 1:2500 Ordnance Survey Map 1908.

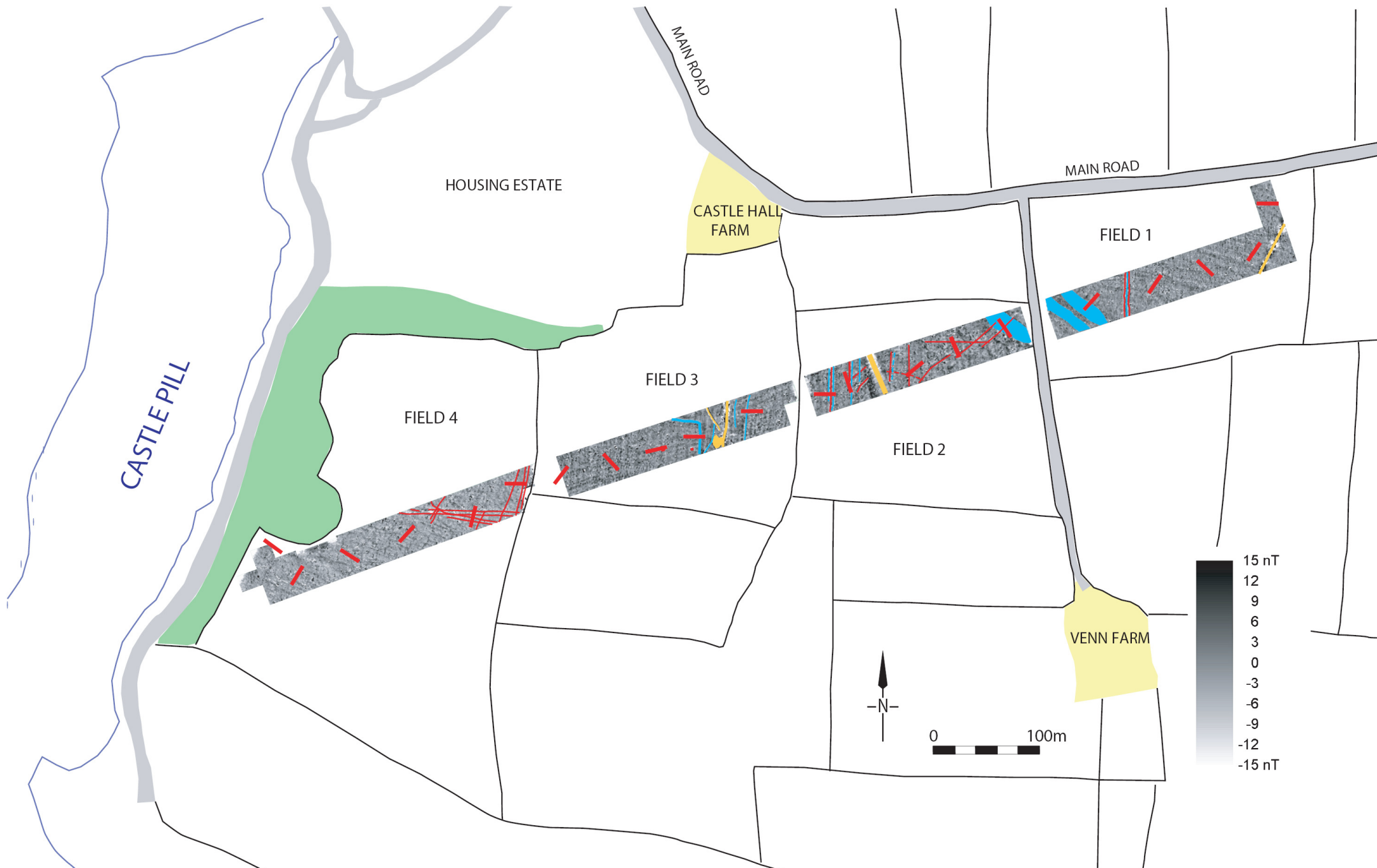


**Photo 1:** Former standing stone removed from western most field during 1950s.





**Figure 4:** Trench Location Plan



**Figure 5:** Location plan of trenches overlain the results of the geophysical survey, including interpretation  
Red – probable cut features; Blue – earth banks



## APPENDIX I: THE TRENCHES

### ***Trench 1***

**Table 1:** Soil descriptions for trench 1.

Number	Description	Depth
Layer 100	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone. Modern ceramic recovered from surface but not retained.	0.27m
Layer 101	Subsoil Light red brown silty clay of moderate compaction containing occasional small angular stone.	0.14m
Layer 102	Shattered old red sandstone bedrock rising towards the west	

**Photo 2:** West facing view of trench 1.



## Trench 2

**Table 2:** Soil descriptions for trench 2.

Number	Description	Depth
Layer 200	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.17m
Layer 201	Subsoil Light red brown silty clay of moderate compaction containing occasional small angular stone.	0.13m
Layer 202	Shattered old red sandstone bedrock rising towards the west	

**Photo 3:** Southwest facing view of trench 2.



### **Trench 3**

**Table 3:** Soil descriptions for trench 3.

Number	Description	Depth
Layer 300	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.25m
Layer 301	Subsoil Light red brown silty clay of moderate compaction containing occasional small angular stone.	0.10m
Layer 302	Natural Shattered old red sandstone bedrock	

**Photo 4:** Southeast facing view trench 3.





#### **Trench 4**

**Table 4:** Context and soil descriptions for trench 4.

Number	Description	Depth
Layer 400	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.36m
Layer 401	Natural Shattered old red sandstone bedrock rising towards the west	
Layer 402	Fill of [403] Moderately compacted med reddish brown silty clay containing occasional small to medium angular stone.	
Cut [403]	Linear North – south aligned with moderately sloping sides tapering to shallow concave u shaped base.	0.16m

**Photo 5:** Northeast facing view of trench 4.



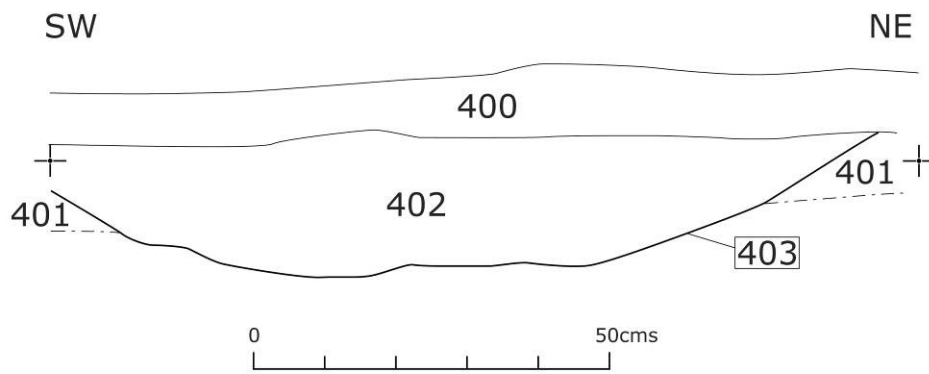
**Photo 6:** Northeast facing pre-excitation view of linear feature [403].



**Photo 7:** Southeast facing section of [403].



**Figure 6:** Southeast facing section of [403].





### **Trench 5**

**Table 5:** Soil descriptions for trench 5.

Number	Description	Depth
Layer 500	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.30m
Layer 501	Natural Shattered old red sandstone bedrock.	

**Photo 8:** Southwest facing view of trench 5.



## Trench 6

**Table 6:** Soil descriptions for trench 6.

Number	Description	Depth
Layer 600	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.33m
Layer 601	Subsoil Mid red brown silty clay of moderate compaction containing rare small angular stone.	0.14m
Layer 602	Natural Shattered old red sandstone bedrock.	

**Photo 9:** Southeast facing view, trench 6.





## Trench 7

**Table 7:** Soil descriptions for trench 7.

Number	Description	Depth
Layer 700	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.30m
Layer 701	Subsoil Mid orange brown silty clay of moderate compaction containing rare small angular stone.	0.26m
Layer 702	Natural Shattered old red sandstone bedrock.	

**Photo 10:** South facing view of trench 7.



## Trench 8

**Table 8:** Context and soil descriptions for trench 8.

Number	Description	Depth
Layer 800	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.33m
Layer 801	Subsoil Mid red brown silty clay of moderate compaction containing rare small angular stone.	0.14m
Layer 802	Natural Shattered old red sandstone bedrock.	
Layer 803	Wheel track 0.4m wide linear with oblique linear impressions	

**Photo 11:** Northwest facing view of trench 8.





**Photo 12:** Northeast facing view of wheel track (804).



## Trench 9

**Table 9:** Soil descriptions for trench 9.

Number	Description	Depth
Layer 900	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.23m
Layer 901	Natural Shattered old red sandstone bedrock.	0.14m

**Photo 13:** Southwest facing view, trench 9.





## Trench 10

**Table 10:** Context and soil descriptions for trench 10.

Number	Description	Depth
Layer 1000	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.30m
Layer 1001	Subsoil Mid reddish brown silty clay of moderate compaction containing rare small angular stone.	0.12m
Layer 1002	Natural Shattered old red sandstone bedrock.	
Cut [1003]	Field Boundary East – west aligned boundary ditch with moderately sloping sides and concave U shaped base	0.18m
Layer 1004	Fill of [1003] Friable mid brown silty clay containing occasional small angular stone. Modern ceramic recovered but not retained.	
Cut [1005]	Geological feature Northwest- southeast aligned geological fissure	0.18m
Layer 1006	Fill of [1005] Friable light grey yellow sandy silty clay with no inclusions.	

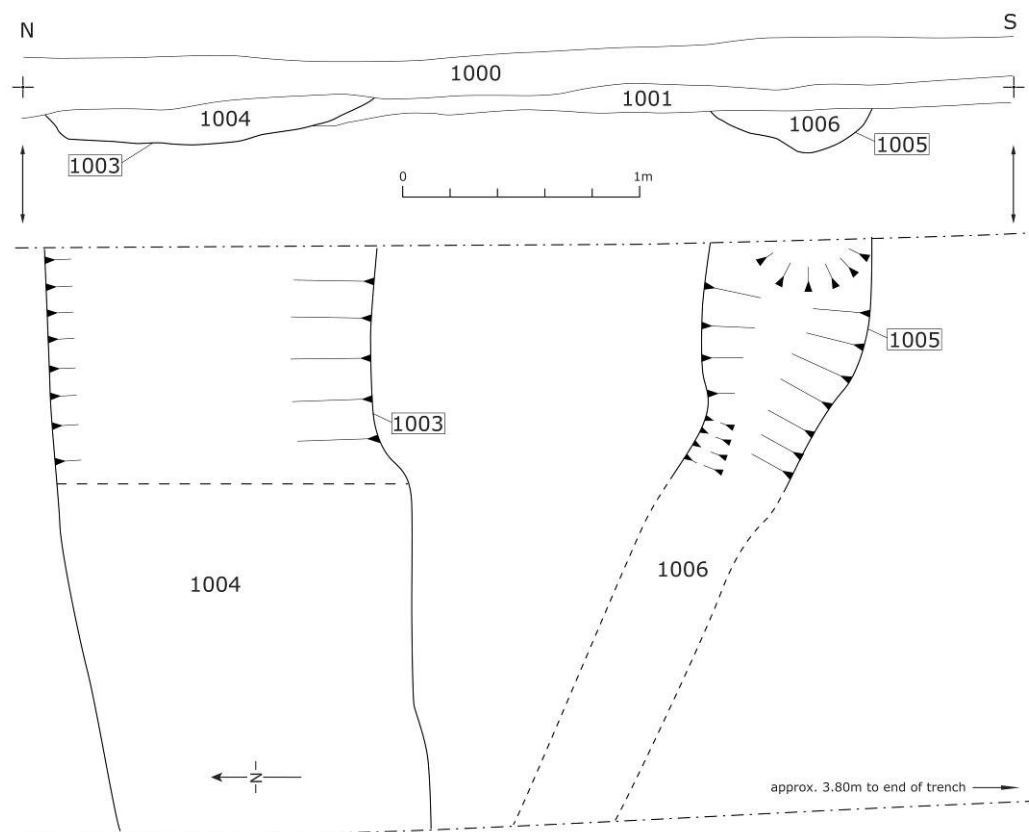
**Photo 14:** North facing view of trench 10.



**Photo 15:** West facing section of linear features [1003] and [1005].



**Figure 7:** Plan and section of linear features [1003] and [1006].





## **Trench 11**

**Table 11:** Context and soil descriptions for trench 11.

Number	Description	Depth
Layer 1100	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.58m
Layer 1101	Natural Shattered old red sandstone bedrock	
Cut [1102]	Trackway boundary ditch 1.58m wide linear aligned northwest – southeast. Moderately sloping sides with shallow concave u-shaped base.	0.22m
Layer 1103	Fill of [1102] Dark red brown silty clay of moderate compaction containing frequent small to medium angular stone. Glass and coal recovered but not retained.	

**Photo 16:** East facing view of trench 11.



**Photo 17:** North facing pre-excitation shot of boundary ditch [1102].

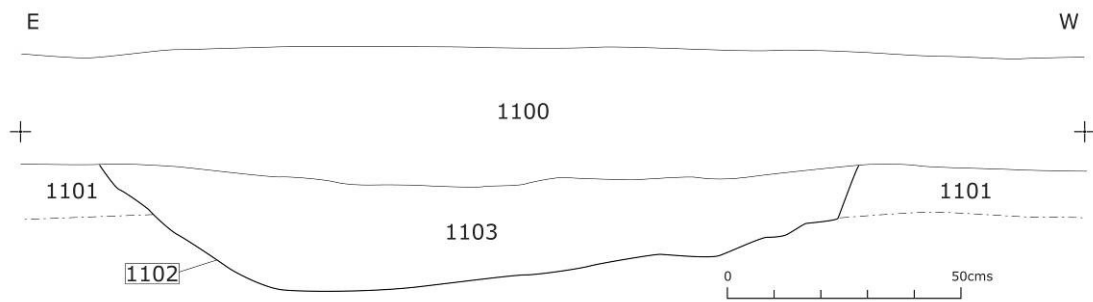


**Photo 18:** South facing section of boundary ditch [1102].





**Figure 7:** South facing section of boundary ditch [1102].



## **Trench 12**

**Table 12:** Soil descriptions for trench 12.

Number	Description	Depth
Layer 1200	Topsoil Dark red brown silty clay of moderate compaction containing occasional small angular stone.	0.4m
Layer 1201	Natural Mid reddish brown silty clay of moderate compaction containing abundant small angular stone.	0.14m

**Photo 19:** East facing view of trench 12.





### **Trench 13**

**Table 13:** Soil descriptions for trench 13.

Number	Description	Depth
Layer 1300	Topsoil Dark red brown silty clay of moderate compaction containing occasional small angular stone.	0.5m
Layer 1301	Subsoil Mid reddish brown silty clay of moderate compaction containing occasional small angular stone.	0.08m
Layer 1302	Natural Shattered old red sandstone bedrock.	

**Photo 20:** Northwest facing view of trench 13.



### **Trench 14**

**Table 14:** Soil descriptions for trench 14.

Number	Description	Depth
Layer 1400	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone. Modern ceramic recovered from surface but not retained.	0.24m
Layer 1401	Natural Shattered old red sandstone bedrock.	

**Photo 21:** Northeast facing view of trench 14.



### **Trench 15**

**Table 15:** Soil descriptions for trench 15.

Number	Description	Depth
Layer 1500	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.24m
Layer 1501	Natural Shattered old red sandstone bedrock.	

**Photo 22:** Northeast facing view of trench 15.





### **Trench 16**

**Table 16:** Soil descriptions for trench 16.

Number	Description	Depth
Layer 1600	Topsoil Mid red brown silty clay of moderate compaction containing occasional small angular stone.	0.29m
Layer 1601	Natural Shattered old red sandstone bedrock.	

**Photo 23:** Northeast facing view of trench 16.



### **Trench 17**

**Table 17:** Soil descriptions for trench 17.

Number	Description	Depth
Layer 1700	Topsoil Mid red brown silty clay of moderate compaction containing frequent small angular stone. Coal fragments recovered but not retained.	0.25m
Layer 1701	Subsoil Moderately compacted mid reddish brown silty clay containing abundant small angular stone	0.1m

**Photo 24:** Northeast facing view of trench 17.



### **Trench 18**

**Table 18:** Soil descriptions for trench 18.

Number	Description	Depth
Layer 1800	Topsoil Mid red brown silty clay of moderate compaction containing frequent small angular stone. Coal fragments recovered but not retained.	0.20m
Layer 1801	Subsoil Moderately compacted mid reddish brown silty clay containing abundant small angular stone	0.17m

**Photo 25:** Southeast facing view of trench 18.





## Trench 19

**Table 19:** Soil descriptions for trench 19.

Number	Description	Depth
Layer 1900	Topsoil Mid red brown silty clay of moderate compaction containing frequent small angular stone. Coal fragments and post medieval pottery recovered but not retained.	0.32m
Layer 1901	Subsoil Moderately compacted mid reddish brown silty clay containing abundant small angular stone	0.1m
Layer 1902	Natural Shattered old red sandstone bedrock.	

**Photo 26:** East facing view of trench 19.



## **Trench 20**

**Table 20:** Soil descriptions for trench 20.

Number	Description	Depth
Layer 2000	Topsoil Mid red brown silty clay of moderate compaction containing frequent small angular stone. Coal fragments and modern pottery recovered but not retained.	0.18m
Layer 2001	Subsoil Moderately compacted mid reddish brown silty clay containing abundant small angular stone	0.15m

**Photo 27:** West facing view of trench 20.





## **Trench 21**

**Table 21:** Soil descriptions for trench 21.

Number	Description	Depth
Layer 2100	Topsoil Mid red brown silty clay of moderate compaction containing frequent small angular stone. Coal fragments and modern pottery recovered but not retained.	0.45m
Layer 2101	Subsoil Moderately compacted mid reddish brown silty clay containing frequent small angular stone	0.11m

**Photo 28:** Northwest facing view of trench 21.



**APPENDIX I:**  
**SCOVESTON – BURTON HISTORIC LANDSCAPE CATEGORISATION**  
**AREA**

## **Historic Background**

A large character area lying the north of the Milford Haven waterway, within the ecclesiastical parishes of Llangwm, Llanstadwell, Rosemarket and Steynton. Much of the area formed part of the medieval Manor of Pill, part of the larger Manor (or Sublordship) of Pill and Roch, which was created under the de Roches between 1100 and 1130. Its relationship with the Lordship of Haverford, of which it was notionally a member, was always a matter of dispute. Pill was a large and important manor with a caput at the head of Castle Pill (pill is a local term for a tidal inlet) at the west end of the area – possibly on the site of an iron age hillfort and later a Civil War defence. The southeast end of this area lies within the parish of Burton, which represented a detached portion of the Lordship of Pembroke. Burton parish church was present by 1291. The Manor (and parish) of Llangwm, to the north, was a holding of the de Vales until a Roche kinsman, Gilbert de la Roche, acquired it in the late 13th century. The Roches granted 'six bovates of land in Studdolph, and five acres of land with half a carucate of land in the same township' to the Tironian Pill Priory in its late 12th century foundation charter. Hayston was present in the 14th century. The present settlement pattern appears to be of relatively late origin as only a few of today's farms and landholdings can be identified with medieval manors and townships. Scoveston is not recorded until the mid 15th century, while the remainder – Jordanston, Norton, Milton, Westfield etc – were not recorded until the 16th- and 17th-centuries. Some, such as Oxland, are 18th century in origin. Nevertheless, these different periods of origin are not reflected in any differing tenurial arrangements, and a homogenous pattern of enclosure has resulted. By the time of the first estate maps in the late 18th century and the tithe survey in the 1840s the landscape of today had been established. There are hints that at least parts of the area had evolved from open field systems. For instance, enclosed strip fields are shown on estate maps on the east side of Castle Pill and close to the very small village of Burton. No traces of these strips now remain. The area has remained primarily agricultural but its military potential has long been apparent. Castle Pill was fortified by Royalist forces in 1643, with an 18 gun fort garrisoned by 300 men. The massive inland Scoveston Fort was the only defensive work to be constructed after the 1860 Royal Commission report on defence proposed a ring of forts around the Milford Haven waterway to prevent it from landward attack. Railways also crossed the area, to Neyland in 1856 and Milford Haven in 1859.

## **Description and essential historic landscape components**

This very extensive historic landscape character area extends from the town of Milford Haven in the west, along the northern shore of the waterway past Neyland and up to and past the village of Llangwm. Despite its size it is a remarkably coherent landscape consisting of large farms, dispersed houses and large, regular fields. Although it lies close to Milford Haven waterway, this area only directly borders the sea at a few locations near Burton and Llangwm. Pasture is the dominant land-use, with a little arable land particularly in the western part of the area. There is virtually no rough or waste ground. Apart from deciduous trees on steep valley sides, such as at Castle Pill and Barnwell Pill, in some sheltered hollows, and on the banks of the Milford Haven waterway, this is not a landscape characterised by woodland. Occasional trees are also present in some hedgerows. Earth banks topped with hedges are the main boundary type. Hedges are generally well-maintained, although in the northern part of the area some are becoming overgrown and a few are derelict. Burton Mountain and Williamston Mountain, once one of the few open areas on the Milford Haven waterway is divided into large fields by banks and hedges. Apart from Burton village the

settlement pattern is one of dispersed farms and houses. There are several mansions and large farms within this area, including Jordanston Farm, Williamston, East Hook and Studdolph Hall. Some of these houses are of some antiquity, such as East Hook, a 17th century and 18th century house next to the ruins of a 16th century house, and others indicate the minor gentry origins of the larger farms, such as the three storey Georgian house of Jordanston. Some of the larger houses, Castle Hall for example, have been demolished. Attached to most of these large houses are ranges of stone-built, 19th century, and sometimes earlier, outbuildings, often arranged around a courtyard, and sometimes set some distance from the dwelling. The wide range of buildings at Castle Hall Farm are a good example of this type. Gardens and parkland survive at some of these larger houses. Interspersed across the landscape are smaller farms. The houses take a variety of forms, but in the main they date to the 19th century, and are stone-built, rendered, slate-roofed, and broadly in the Georgian tradition. Many have been modernised. Older farmhouses and modern farmhouses are also present, presumably replacements of earlier structures. Old outbuildings are also stone-built, but usually of just one or two ranges. Most farms of this size have large ranges of modern steel and concrete outbuildings. Dispersed modern houses are present in this area, but are not a defining characteristic, apart from west and north of Jordanston. Here mid 20th century semi-detached houses in a fairly dense scatter are a distinct feature of the landscape. At Burton, the only village within this area, the medieval parish church of St Mary together with a cluster of late 18th century and 19th century dwellings is surrounded by late 20th century housing, including a small estate. Other buildings include the massive remains of Scoveston Fort, an element of the mid 19th century military defence of the Milford Haven waterway. Given the large extent of this area it is not surprising that there are a large number and variety of archaeological sites. However, these do not greatly characterise the landscape. Of interest are: several prehistoric funerary and ritual sites, including standing stones, chambered tombs and round barrows, an iron age fort with the slight remains of a Civil War fort, several prehistoric find spots, medieval mill and windmill sites, and World War 2 defensive features.

To the south and east the boundary of this area is very well-defined against the Milford Haven waterway, the town of Milford Haven, the town of Neyland, an Oil Refinery and a large tract of woodland. On other sides this area is very difficult to define, and any boundary should be considered a zone of change rather than hard-edged.

(Murphy and Ludlow, 2000).