

BALLYGLASS EAST, CO MAYO

PITS

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REGISTRATION NO. E3335

MINISTERIAL DIRECTION NO. A020/007

Ballyglass East, Co Mayo

Pits

NGR 147744/300699

Ministerial Direction No. A020/007: Registration No. E3335

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Abstract

Three pits with charcoal-rich fills were excavated within this test area and were dated from oak charcoal to 405 ± 40 BP, Cal. AD1429-1631 (GrN-30746). They may be the remains of charcoal production.

Contents

Figures	2
Location.....	3
Site Description	3
Pit 1	4
Pit 2	5
Pit 3	6
Discussion	7

Figures

Figure 1: Site Location Map.	3
Figure 2: Plan and section of pit 1	5
Figure 3: Site location map: Extract from RMP map no. MA063.....	9
Figure 4: Site location in relation the road: Extract from the archaeological section of the E.I.S.....	10
Figure 6: Site location map. 1:2500 scale map with the road take outlined in red.....	11

Plates

Plate 1: East facing section of Pit 1.	4
Plate 2: South-facing section of pit 2.....	6
Plate 3: South-facing section of Pit 3.....	7

Introduction

This potential archaeological site was identified in the Environmental Impact Assessment for the N5 Charlestown Bypass as Cultural Heritage Site No. 51 a possible *fulacht fiadh*. It was located in Ballyglass East townland, Co. Mayo. There were no visible archaeological remains within the road take in this area. A programme of archaeological testing was carried out in advance of road construction. This testing identified three pits which were fully excavated in June 2005 under Ministerial Order A020/007 (Registration No. E3335).

Location

The area of archaeological potential was located 2.5km south-west of Charlestown, Co. Mayo (National Grid Reference : 147744 /300699). It was located on flat ground on the eastern bank of the Mullaghanoe river, at the base of a west facing slope. The site was at an altitude of 73m OD.

A possible *fulacht fiadh* was identified 10m outside the lands made available and two further *fulachta fiadh*/burnt spreads occurred on the opposite side of the Mullaghanoe river in Ballyglass west townland 100m west of this site (Fig. 1). One of these (RMP MA063:053) was also excavated by the writer in advance of the construction of the N5 Charlestown Bypass (Excavation licence no.04E1507) and uncovered a burnt spread which was dated to the Neolithic, an Early Medieval corn drying kiln and a charcoal rich pit.

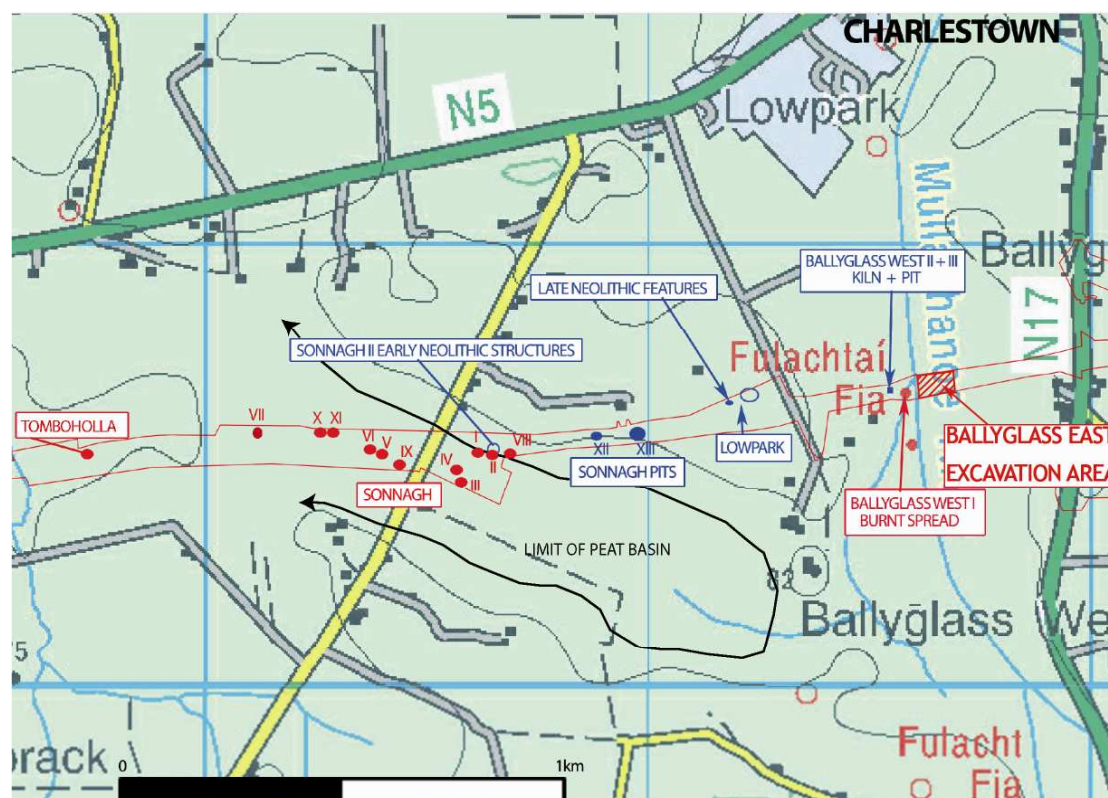


Figure 1: Site Location Map.

Site Description

The total area tested measured 160m east to west by 50m north to south. All of the topsoil was removed from this area to undisturbed subsoil using a mechanical digger with a toothless bucket. There was no *fulachta fiadh* evidence within the area,

however three pits were uncovered as a result of this testing and were stratigraphically excavated by hand to assess their archaeological potential.

The stratigraphy of the area consisted of orange brown sandy boulder clay, overlain by 0.45m of mid to dark brown loamy topsoil and a 0.15m thick sod layer. The pits, were cut into the boulder clay below the topsoil between 70 and 170m east of the Mullaghanoe river.

Pit 1

A circular pit (C6) was located 100m east of C7. It was 2.20m in diameter by 0.50-0.65m thick with concave sides and a flat base. The base was oxidised suggesting *in situ* burning. The pit had five fills (C1-C5). The basal fill (C5) was a 0.04-0.06m thick layer of black clayey silt concentrated on the east side of the pit, which measured 0.38m east/west by 0.35m north/south. This was sealed by a 0.08-0.22m thick layer of charcoal (C4), which measured 1.85m north/south by 1.56m east/west. A 0.04-0.14m thick layer of black clay silt (C3) overlay C4 and measured 0.64m east/west by 0.90m north/south. The main pit fill (C2) was a 0.032-0.38m thick layer of black clay silt with charcoal and stones and measured 2.20m in diameter. The upper fill (C1) was a 0.05m thick layer of grey clay silt with inclusions of charcoal and stones and measured 1.85m east/west (Fig. 2 and Plate 1).

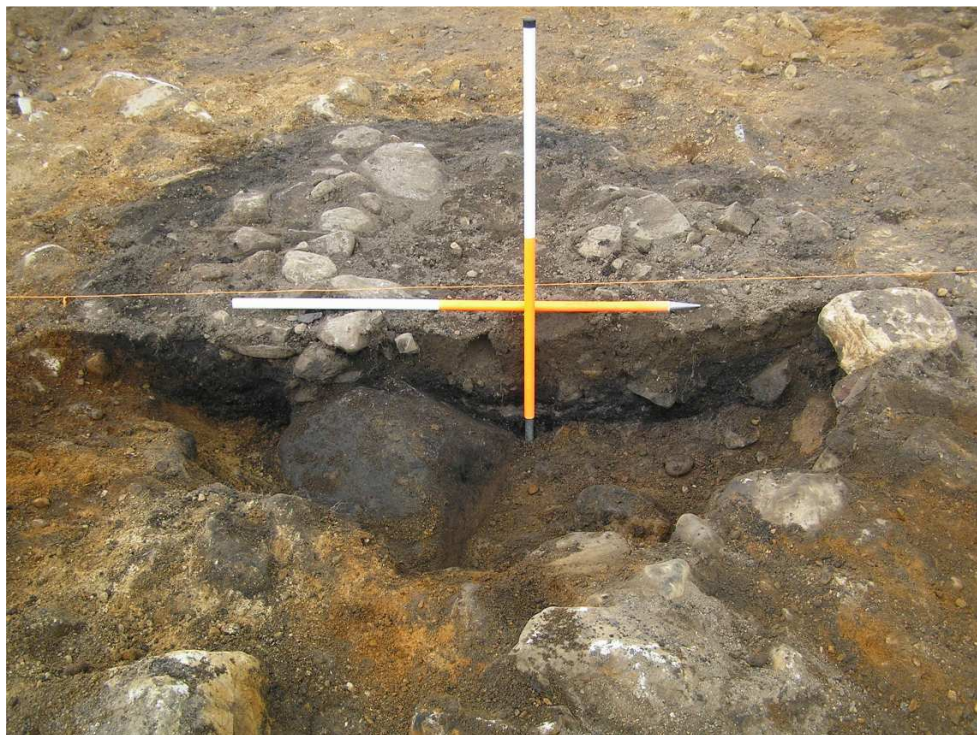


Plate 1: East facing section of Pit 1.

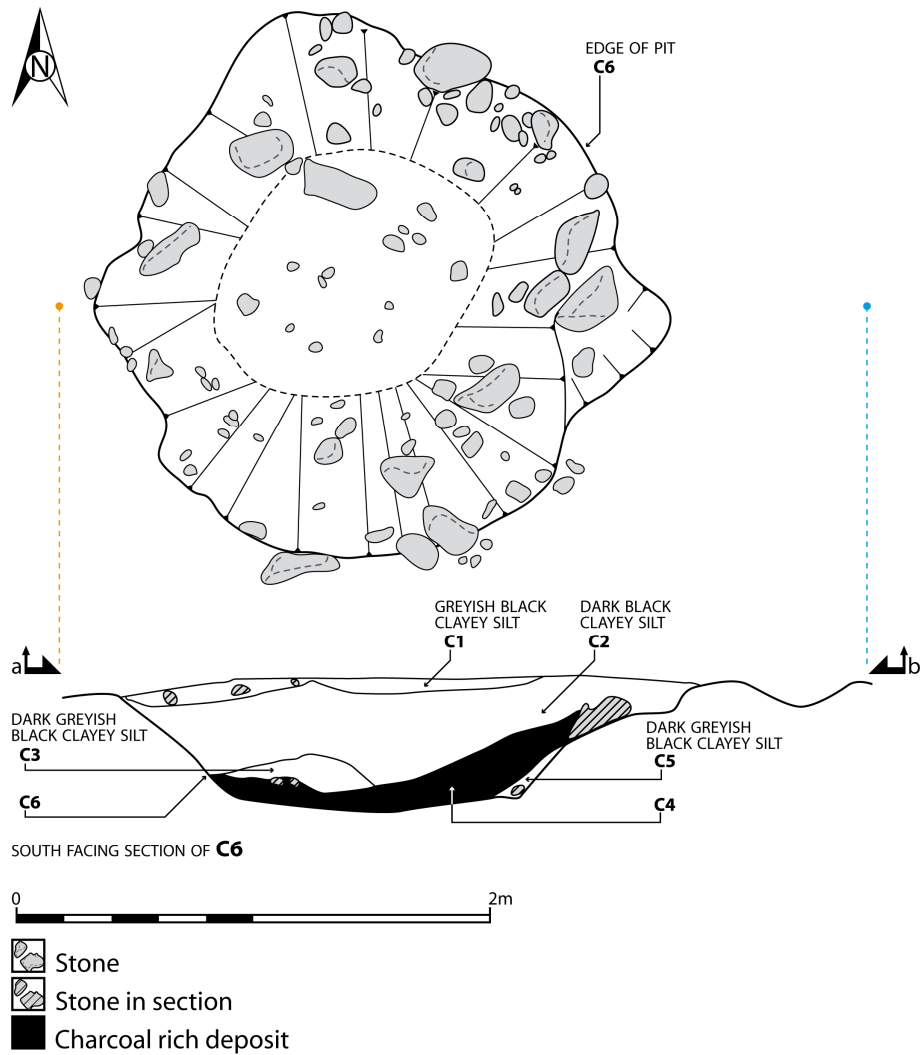


Figure 2: Plan and section of pit 1

Pit 2

This pit (C7) was located 100m east of Pit 1. It was circular cut measuring 2–2.1m in diameter and had a maximum depth of 0.42m. It had a sharp break of slope at the top, steep sides, a gradual break of slope at the bottom and a flat base. The southern and eastern sides along with the base of the cut were scorched, indicating in-situ burning. There were a number of small stones along the sides of the cut, but they were not as frequent as in Pit 1. The cut was filled by charcoal-rich dark greyish black silty clay. The basal 0.18m of the fill was almost entirely comprised of charcoal. A clay pipe fragment was retrieved from the surface of this fill (Find No: E3335:9:01).



Plate 2: South-facing section of pit 2.

Pit 3

This pit (C9) was located between pits 1 and 2, 75m east of Pit 1 and 25m west of pit 2. It was the smallest of the three pits. It was sub oval in and measured 1.09m north/south by 0.54m east/west by 0.04-0.18m deep with concave sides and base. It had a gradual break of slope at the top, gradually sloping sides and a concave base. It was filled with charcoal-flecked dark brown clayey loam (C10). A radiocarbon determination of 405 ± 40 BP, Cal. AD1429-1631 (GrN-30746) was returned from oak charcoal retrieved from the pit (C7) fill (C8).



Plate 3: South-facing section of Pit 3.

Discussion

These pits were located in an area of intense archaeological activity. They may be contemporary with each other, and have many similar characteristics with other pits excavated along the route of the N5 Charlestown Bypass, including a nearby example in Ballyglass West townland, located 300m to the west. The radiocarbon determination of 405 ± 40 BP, Cal. AD1429-1631 (GrN-30746) was returned from oak charcoal from Pit 3 places this activity in the late medieval period slightly later than the Ballyglass west pit (Table 1).

Radiocarbon dates were returned from eight similar charcoal-rich pits excavated as part of this scheme. The results fall into three distinct phases; the earliest group, Cashelduff I and Cloonfane VII were in use between the eleventh and thirteenth century. Four pits were dated to between the fourteenth and fifteenth century, Ballyglass West III, Gortanure I, Sonnagh XIII and Cloonaghboy II. Two pits were dated to between the fifteenth and seventeenth century, Currinah III and Ballyglass East. The pits had a large geographical spread over the area and dates ranging from the eleventh to the seventeenth century (Table 1).

The most likely function of these pits was for charcoal production. Wood, charcoal and peat were the primary fuel sources in Ireland and Europe, prior to the development of the Industrial Age in the eighteenth century. Therefore the importance of wood and woodlands to ancient populations was immense; it provided the raw materials for the almost all of life's necessities, including fuel, housing, fencing, agricultural equipment and a myriad of others. This reliance on wood and charcoal was most pronounced in the Iron Age, as charcoal was the only fuel that could produce the temperatures required for iron smelting (Muir 2005, 244).

Charcoal can be produced from bundles of hardwood stacked together in a semi-upright position around a thick stake to form a domed mound that may or may not stand in a shallow saucer-shaped pit. Some of these mounds could be over 12.20m in diameter (Muir 2005, 244). These mounds were then turfed over and fired, preferably in calm conditions and the burning may last for a week. Wood processed in this way was converted to charcoal and used in iron smelting and various other activities (Muir 2005, 244).

Pits, where oak is mainly identified from the charcoal remains suggests charcoal production areas (O'Carroll, Specialist Report). The use of quickly renewable oak coppiced trees in an area would have been the most efficient way of maintaining a continuous supply of charcoal. The charcoal maker or collier would have moved from area to area utilising coppiced woodlands and then allowing them to regenerate, while the collier moved on to a fresh stand of coppiced woodland (O'Carroll, Report No: 8). This pattern could be applied to the Charlestown pits, as they are scattered in distribution, with just a cluster at Sonnagh XIII of seven pits. It is likely that charcoal was produced near to where it was harvested as charcoal was easier to transport than wood.

It is difficult to accurately identify charcoal production pits and it is possible that some of the shallower pits had alternative functions such as hearths or refuse pits.

Table 1: Radiocarbon dates from possible charcoal production pits excavated on the N5 Charlestown bypass.

<i>Reg. No.</i>	<i>Townland</i>	<i>Site Type</i>	<i>Context</i>	<i>Lab No</i>	<i>Uncalibrated</i>	<i>Calibrated Dates (2 Sigma)</i>	<i>Species Type</i>
E3356	Currinah III	Charcoal Production Pit	C7; Pit fill	GrA-35163	330±35 BP	AD1470-1643	Oak (AMS)
E3335	Ballyglass East	Charcoal Production pit	Pit fill	GrN-30746	405±40BP	AD1429-1631	Oak
04E1507	Ballyglass West III	Charcoal Production pit	C9; Pit fill	GrA-35581	570±30BP	AD1305-1421	Oak (AMS)
E3336	Cashelduff I	Charcoal production pit	C28; Pit fill	GrA-35585	835±35BP	AD1055-1270	Oak (AMS)
E3336	Cashelduff I	Charcoal production pit	C18; Pit fill	GrA-35583	945±30BP	AD1026-1156	Oak (AMS)
E3413	Cloonfane VII	Charcoal Production Pit	C3; Pit fill	GrN-35165	945±35BP	AD1022-1161	Oak
E3354	Gortanure	Charcoal Production Pit	C4; Pit fill	GrN-35152	540±35BP	AD1314-1438	Oak
E3528	Sonnagh XIII	Charcoal Production Pit	C305; Pit fill	GrN-35151	475±35BP	AD1405-1460	Oak
E3333	Cloonaghboy II	Charcoal Production pits	C6; Pit fill	GrN-30844	480±20BP	AD1418-1445	Oak



Figure 3: Site location map: Extract from RMP map no. MA063.

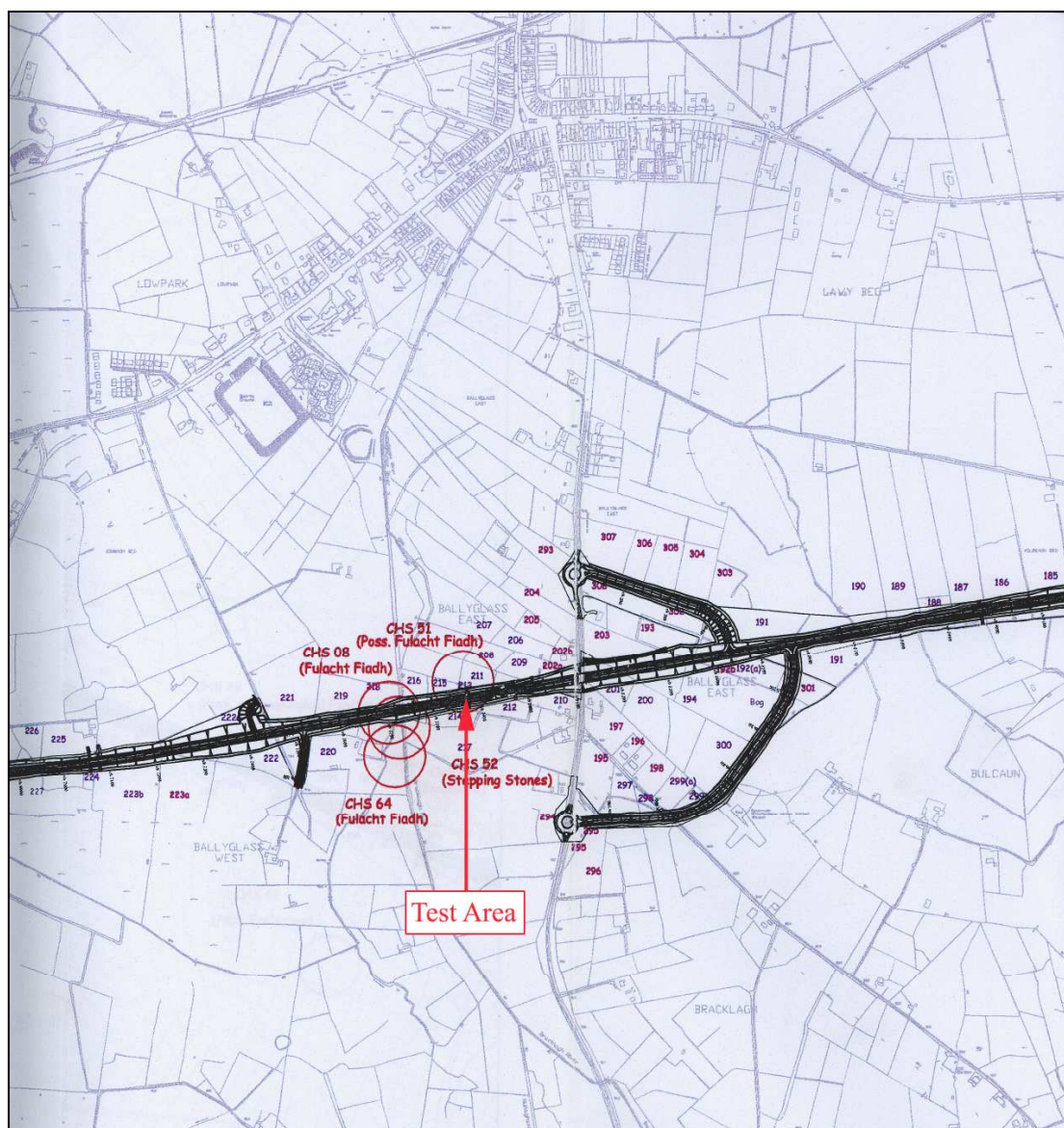


Figure 4: Site location in relation the road: Extract from the archaeological section of the E.I.S.

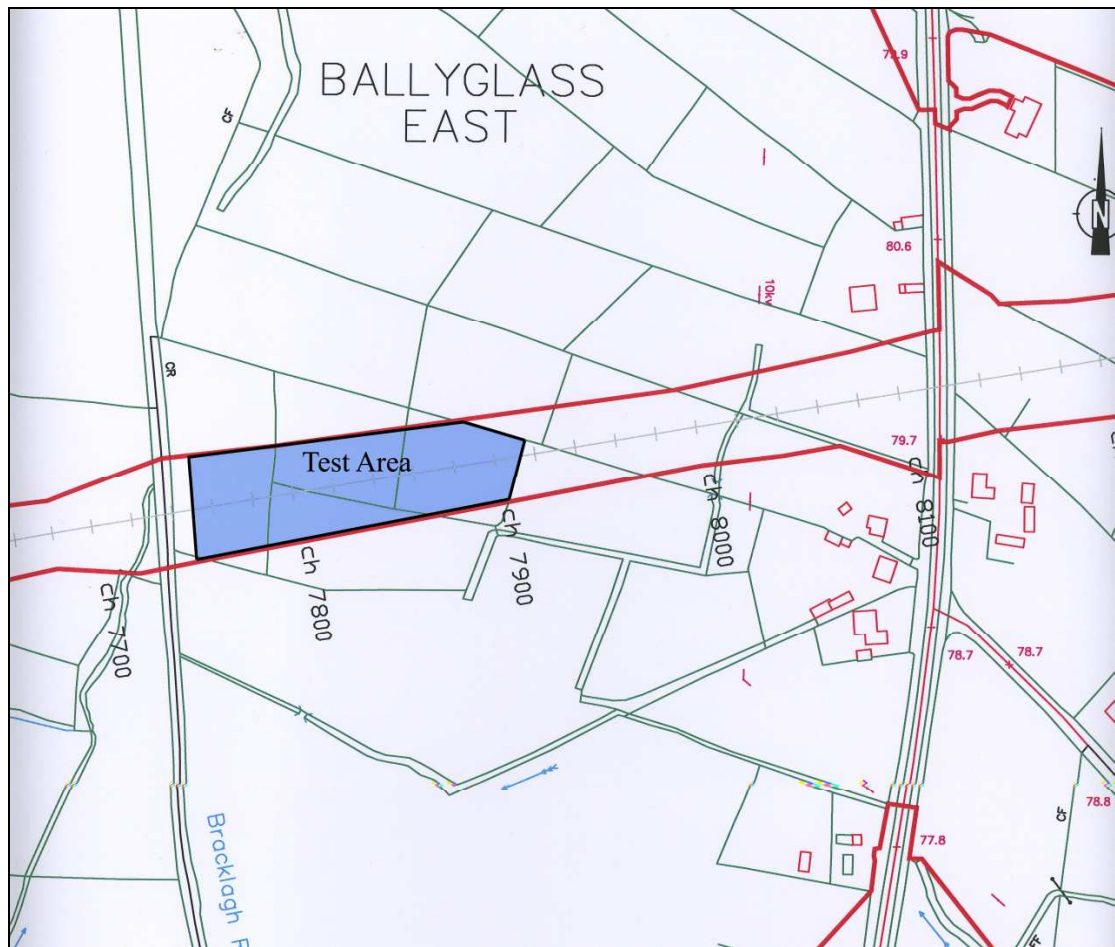


Figure 5: Site location map. 1:2500 scale map with the road take outlined in red.