

## MAP 43 WEST PRESTON (SOUTHERNESS POINT) TO ARBIGLAND

**Hinterland Geology and Coastal Geomorphology:** Dunes and marine sands and gravel cover exposed rock platform at Southernness Point which forms an exposed promontory headland.. Northwards to Powillimount farm, glacial sands and gravels, and till covers a low cliff-edge. Here greywackee rock is visible down to the HWM. The beaches are gradual with an admixture of sand and shingle. The foreshore at Southernness contains wave cut platforms.

**Erosion Class:** At Southernness Point attempts to consolidate the foreshore are failing. The shore in front of the caravan park is seriously eroding. A local resident commented on the severity and impact of recent autumnal gales. These have had an adverse effect on the earlier repairs undertaken at this particular section of the cliff section. To the north east the beach appears to be stable but liable to erosion. Towards Thirl Stone this region of coastline is attacked from easterly gales and is considered to be definitely eroding.

**Built Heritage & Archaeology:** This section contains two sites, both situated at Southernness Point. Southernness Lighthouse, built circa 1748 (Stell, 1984, 64), survives in a slightly dilapidated state. Wave erosion, probably on an infrequent basis at exceptionally high tides, may be inflicting limited damage on the base of the tower and monitoring is recommended. Located in the immediate hinterland behind the lighthouse are a collection of cottages, representing the old village of Southernness, which are inhabited and under no threat from coastal erosion.

## Map 43: Hinterland Geology and Coastal Geomorphology

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### 1. BLACKBURN BRIDGE to west of SOUTERNESS POINT

NX 950 550

8.3km

#### *Sand dunes*

This unit has a uniform hinterland of Holocene raised sand and gravel coastal deposits that form a series of elongate terraces and ridges. These overlook wide sand flats with an estimated tidal reach (springs) of 4km towards Southerness Point.

### 2. SOUTERNESS POINT

NX 975 545

2km

Low edge (< 5m)

#### *Marine deposits over visible rock*

Southerness Point is a promontory headland with outcropping folded limestone platforms. The hinterland consists of marine sands and gravels.

### 3. GILLFOOT BAY to HOGUS POINT

NX 998 580

3.8km

Low edge (< 5m)

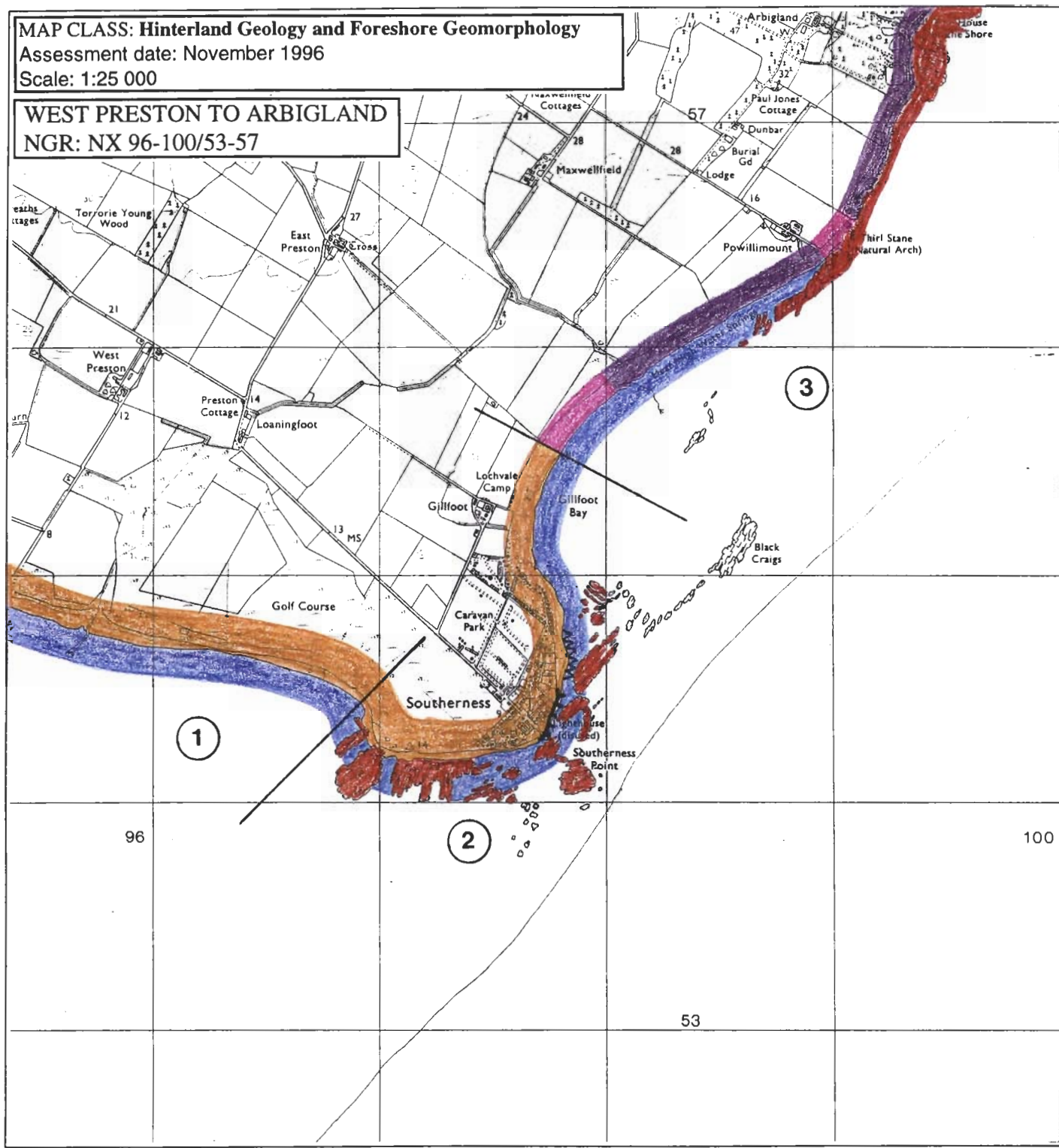
#### *Glacial sands and gravel/till over visible rock*

This unit contains a fairly regular coastal edge with a headland formed at Boron Point. Here till overlies outcropping argillaceous and sandy limestones. Glacial sands and gravels occur at Powillimount. The intertidal zone is wide consisting of sand and boulders.

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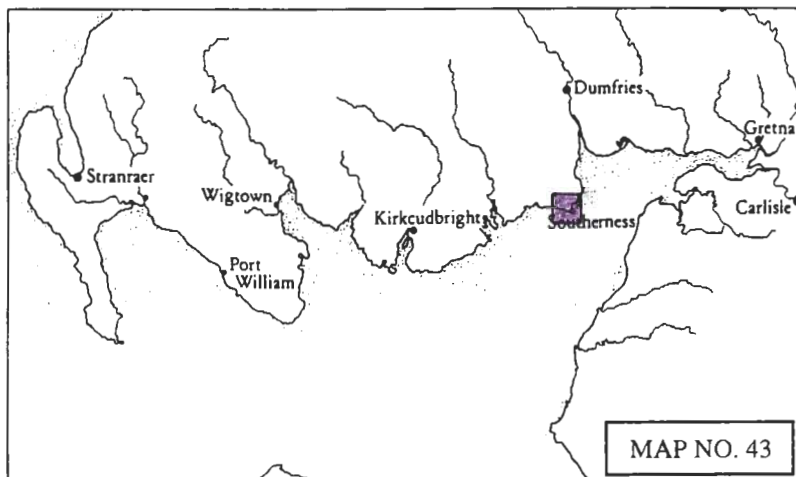
**MAP CLASS: Hinterland Geology and Foreshore Geomorphology**  
 Assessment date: November 1996  
 Scale: 1:25 000

**WEST PRESTON TO ARBIGLAND**  
 NGR: NX 96-100/53-57



**KEY**

Hinterland Geology	Derwent Code	Colour
Drift, boulder clay	French Grey	
Drift, boulder clay over visible rock	Dark Violet	
Raised beach and marine deposits	Golden Brown	
Blown sand	Pink Madder Lake	
Glacial sand and gravel	Magenta	
Alluvium	Emerald Green	
Coastal Geomorphology		
Mainly rock platform	Deep vermilion	
Mainly sand	Ultramarine	
Mainly alluvial/marine mud	Venetian Red	
Marsh	May Green	
Coast Edge		
Low edge (<5m)	Thin black line	
Cliff (>5m)	Solid black line	
Man made barrier	Black line with spines	
Shingle beach	Small circles	
Human disturbance	Black carats	



MAP NO. 43

## MAP 43: EROSION

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**1. West of SOUTHERNESS POINT to south of GILLFOOT BAY**

NX 975 542

1.6km

*Definitely eroding*

This unit contains the exposed promontory headland of Southernness. Rock platform outcrops on the low intertidal area, with sand and shingle bars in between. East of the caravan park, a sea wall has collapsed and has been repaired with concrete caravan anchor blocks. Wave action is now eroding these repairs.

**2. GILLFOOT BAY to south of POWILLIMOUNT FARM**

NX 980 558

1.5km

*Eroding or stable*

This unit consists of mainly sand and shingle at the HWM with shingle and poorly sorted boulders across a wide intertidal zone. Some scouring is occurring between the rocky outcrops.

**3. South of POWILLIMOUNT FARM to BORRON POINT**

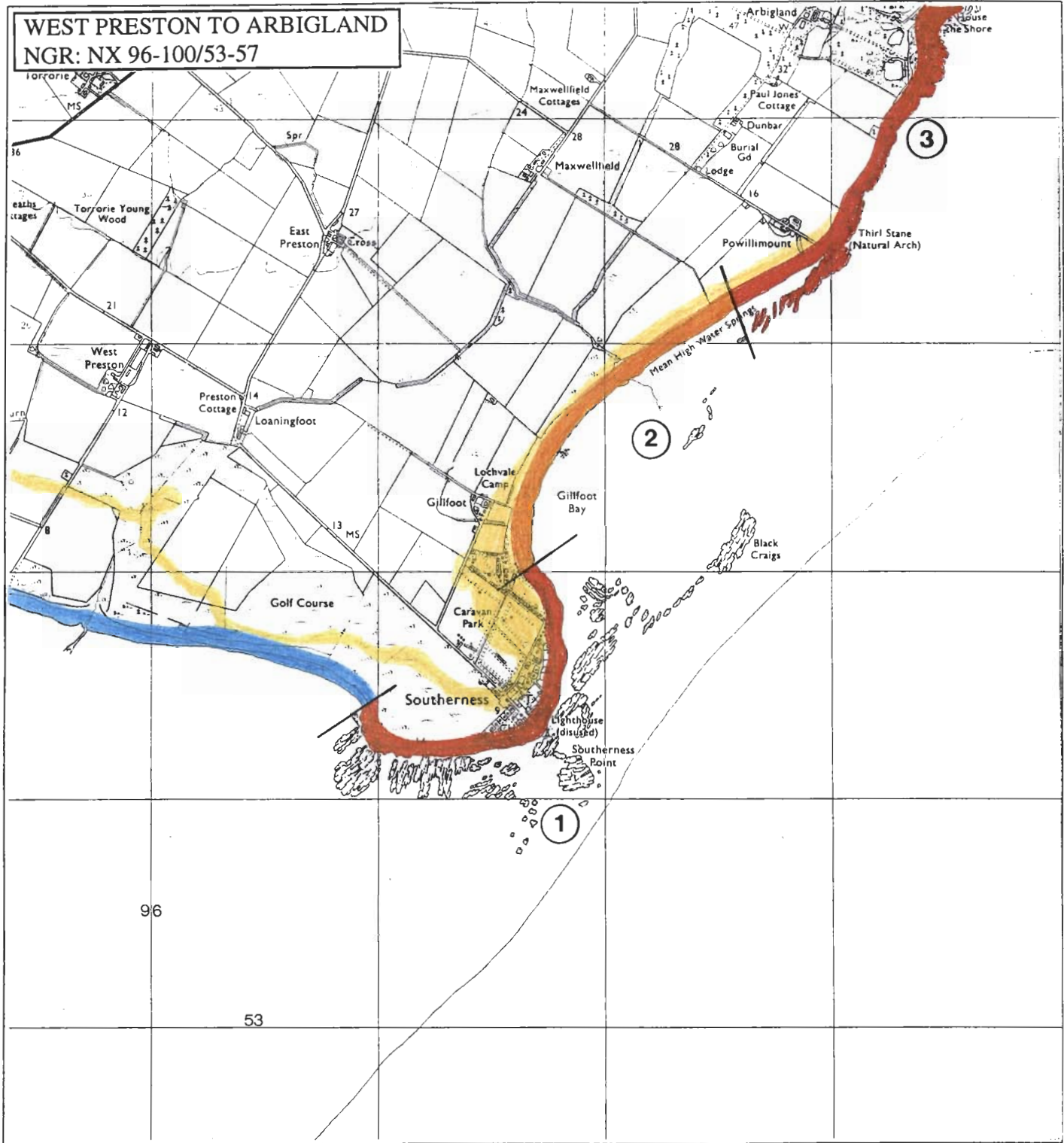
NX 993 570

2km

*Definitely eroding*

Deeply incised rock platforms with basal erosion due to boulder and shingle abrasion. Gullies have been scoured along fault lines within the Carboniferous Limestone. The rate of erosion is estimated to be slow.

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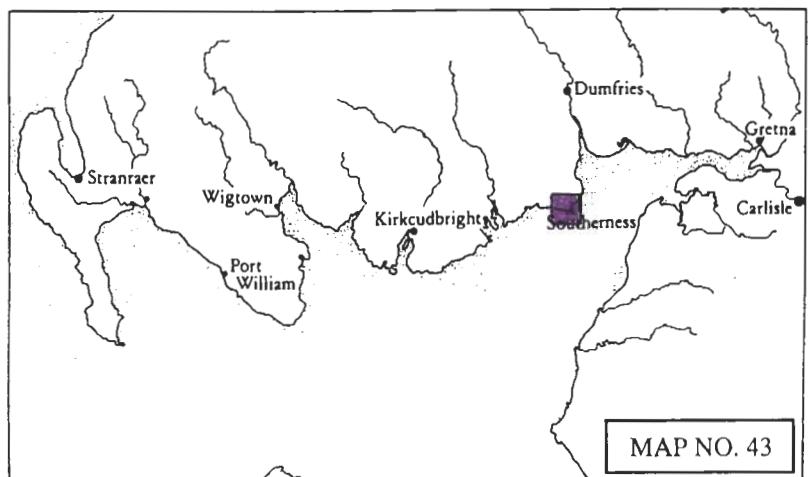
**KEY**

Erosion class	Derwent Code	Colour
Definitely accreting	Prussian Blue	
Accreting/stable	Light Blue	
Stable	Grass Green	
Stable/eroding	Deep Chrome	
Definitely eroding	Deep Vermilion	
Both accreting and eroding	Imperial Purple	
No access	Blank	
Land below 10m	Straw Yellow	

**MAP CLASS: EROSION**

Assessment date: 09.10.96

Scale 1:25 000



## MAP 43: BUILT HERITAGE AND ARCHAEOLOGY

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### Sites on the Coast Edge & Foreshore

**NX95SE 1**  
NX 9774 5428  
SOUTHERNESS  
Lighthouse  
18/19<sup>th</sup> century  
Fair  
Monitor

### Sites in the Hinterland

**NX95SE 2**  
NX 975 543  
SOUTHERNESS  
Cottages  
Uncertain  
Good  
Nil

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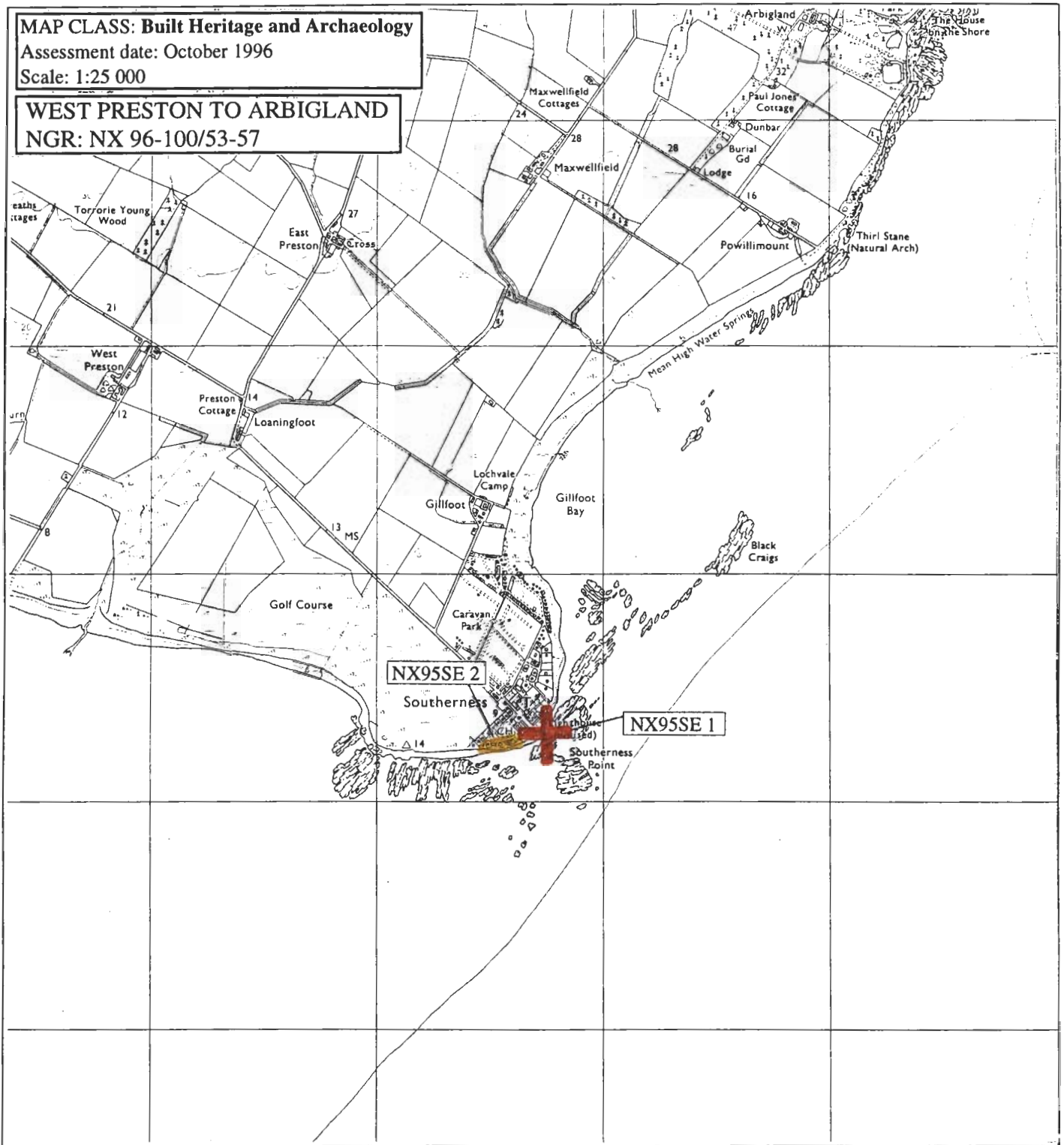
**MAP CLASS: Built Heritage and Archaeology**

Assessment date: October 1996

Scale: 1:25 000

**WEST PRESTON TO ARBIGLAND**

NGR: NX 96-100/53-57



**KEY**

Site location	Symbol	Colour	Significance
NGR ref. - eg.	Roundel - Solid, (or area)	Red	Protected Ancient Monument
	Cross	Red	Listed Historic Building
NX 143 368	Roundel - Open, (or area)	Red	Monument formally proposed by Historic Scotland for designation
	Roundel - Solid, (or area)	Yellow	Other known Ancient Monument
NMRS ref. - eg.	Dashed outline	Yellow	Gardens/Designed landscape
NX 13 SW 17	Roundel - Solid, (or area)	Yellow	Undesignated wreck
	Area	Green	Insufficient information; more work needed
	Area	Blue	Probably archaeologically sterile

