

## MAP 56: RIGG TO GRETNA

**Hinterland Geology and Coastal Geomorphology:** This is the final section of the study and details the hinterland geology from Rigg to the River Sark at Gretna. The hinterland geology is marine deposits over carse clays and silts. The lower tidal reach of Kirtle Water is surrounded by alluvium deposits which continue up to Gretna. Redkirk point has been the focus of palaeoenvironmental study and is discussed in greater detail below.

**Erosion Class:** Coastal barriers have been constructed along this stretch of the River Esk but it is still being seriously eroded, particularly at Redkirk Point. Farmland is being lost immediately east of Redkirk Point. Here fence posts were seen to overhang exposed sections. The current rate of cliff-edge retreat is difficult to determine without more precise data from a programme of monitoring. An attempt to reconstruct what has been lost over the last 250 years, and its implications for archaeology and palaeoenvironmental history in this area has been undertaken using cartographic sources. This work is shown in section 4.

**Built Heritage & Archaeology:** A cluster of archaeological remains at Redkirk Point dominates the distribution of archaeological monuments in this section. These comprise early Mesolithic remains (Masters, 1981), the remains of a medieval church, cemetery, pottery kiln and pottery finds (Truckell, 1967), WW2 defences, and nineteenth century fishing stakes. Although a coastal defence barrier at the moment protects the coastal edge, the foreshore, where all the known monuments are situated, is being severely eroded and a monitoring programme is urgently required. The erosion of the shingle beach has revealed a small (5 x 5m) patch of an underlying dark organic layer, which may be of archaeological significance given previous work (Masters, 1981, 113). Further east, landing places on the coastal edge and the remains of a stone circle, Lochmabenstone, in the hinterland, are situated. The landing place at Stormont is badly eroding and requires monitoring. Across the river Sark, at the eastern terminal of the Coastal Survey are the Sark bridges and the disused Sark Viaduct. Both monuments survive in good condition.

## Map 56: Hinterland Geology and Coastal Geomorphology

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**1. SOUTH of BAURCH HOLDINGS to east of REDKIRK HOLDINGS**

NY 304 655

4.5km

Low edge (< 5m)

*Marine sands and gravels over carse clays*

Channel of the River Esk. Marine sands and gravels overly bands of Carse clay which overlies fluvioglacial gravels. The foreshore is steep down to the main channel of the River Eden and consists of salt-marsh alluvial mud and silt.

**2. East of REDKIRK HOLDINGS to SARK BRIDGE**

NY 324 664

4km

Low edge (< 5m)

*Alluvial clay*

The hinterland of this unit consists of alluvial clays are bounded by salt-marsh. The foreshore along the channel of the River Esk up to Sark Bridge (NY 327 670).

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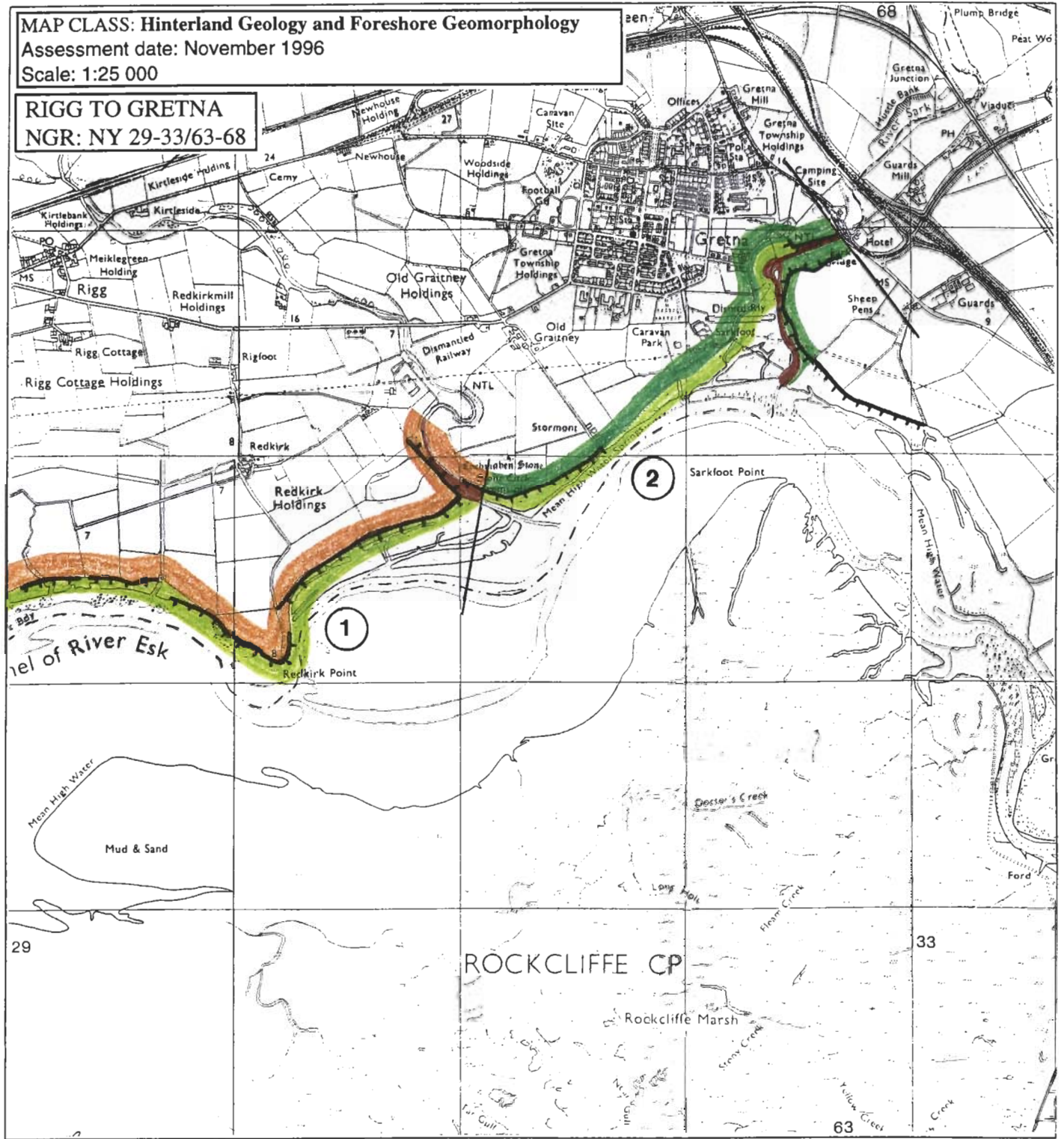
**MAP CLASS: Hinterland Geology and Foreshore Geomorphology**

Assessment date: November 1996

Scale: 1:25 000

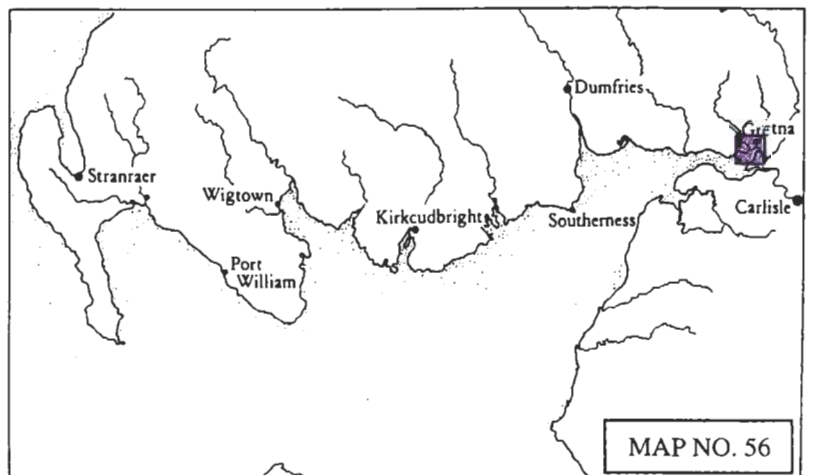
**RIGG TO GRETNA**

NGR: NY 29-33/63-68



**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	
<b>Coastal Geomorphology</b>		
Mainly rock platform	Deep vermilion	
Mainly sand	Ultramarine	
Mainly alluvial/marine mud	Venetian Red	
Marsh	May Green	
<b>Coast Edge</b>		
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 56: EROSION

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**1. REDKIRK POINT to south of GRETNA**

NY 310 656

2.5km

*Definitely eroding*

This section of the River Annan is severely eroding. Soft clay banks are slipping and attempts to consolidate the banks have failed with the loss of grazing land.

**2. South of GRETNA to SARK BRIDGE**

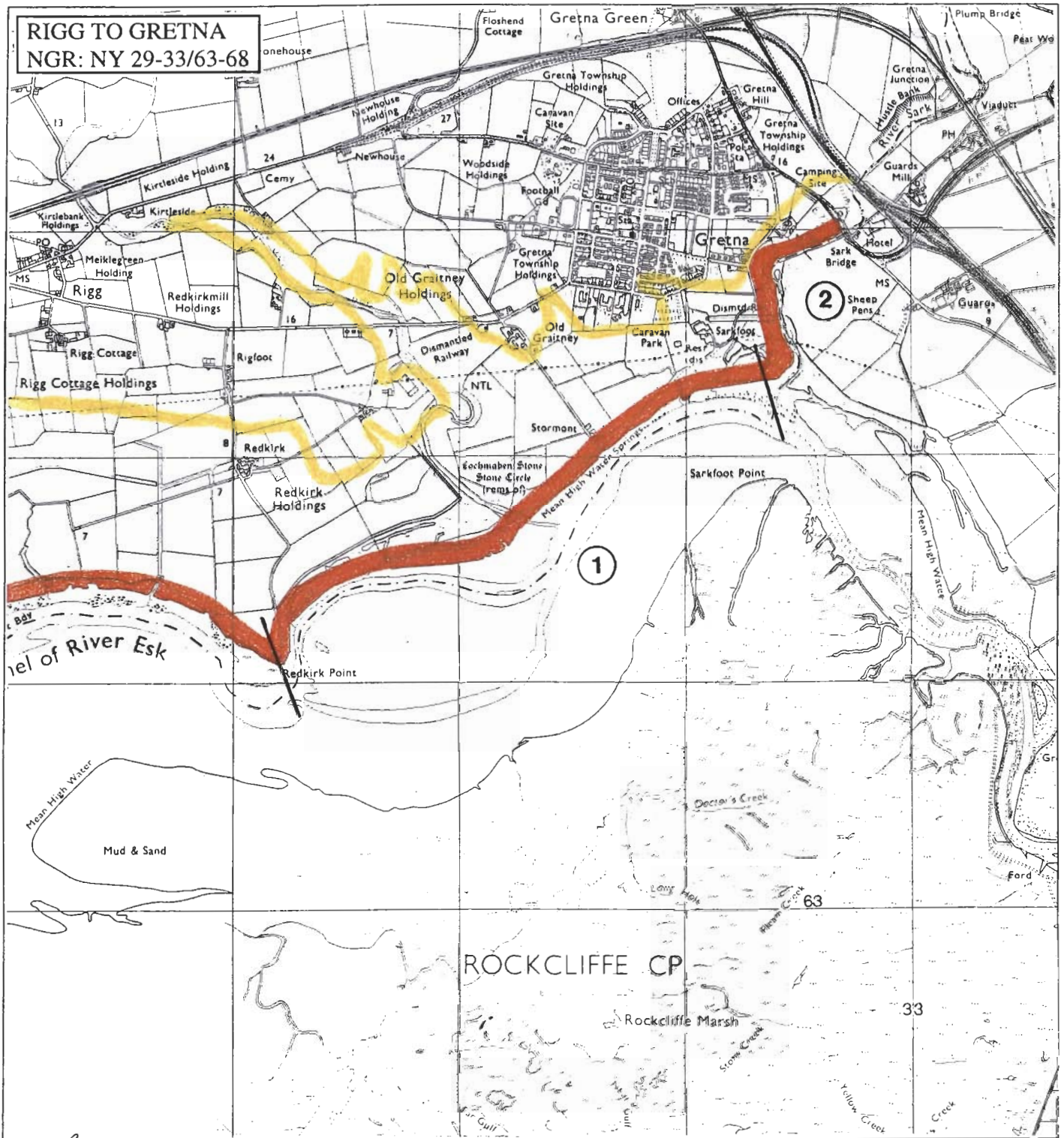
NY 325 667

0.8km

*Definitely eroding*

Part of the tidal reach of the River Sark. The banks of the river are scoured and eroding at the HWM.

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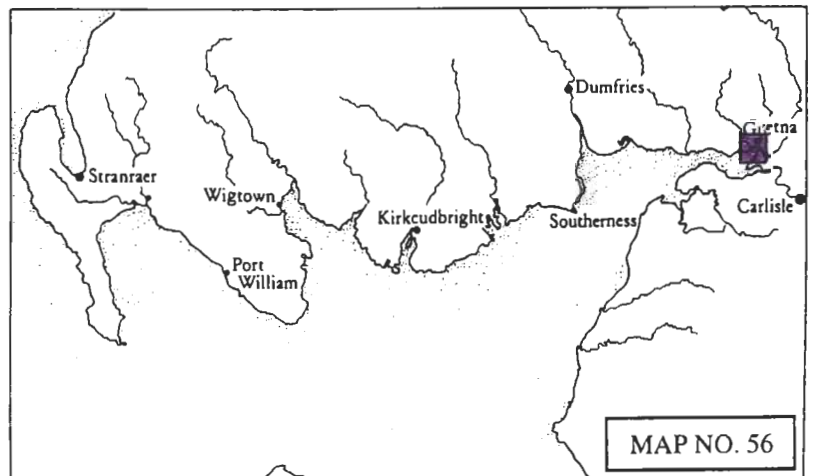
**KEY**

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: 07.10.96

Scale 1:25 000



MAP NO. 56

## MAP 56: BUILT HERITAGE AND ARCHAEOLOGY

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### Sites on the Coast Edge & Foreshore

**NY 2990 6530**  
 REDKIRK POINT  
 WW2 Defences  
 Mid 20<sup>th</sup> century  
 Poor  
 Survey & Monitor

**NY 2982 6520**  
 REDKIRK POINT  
 Fishing Stakes  
 Uncertain  
 Poor  
 Monitor

**NY 304 651**  
 REDKIRK POINT  
 Buried Land Surface  
 Uncertain  
 Poor  
 Survey & Monitor

**NX36NW 5**  
 NX 3010 6503  
 REDKIRK POINT  
 Church & Burial Ground  
 12<sup>th</sup> century  
 Poor  
 Nil

**N36NW 13**  
 NY 302 650  
 REDKIRK POINT  
 Flints Findspot  
 7<sup>th</sup> Mill BC  
 Poor  
 Monitor

**NY36NW 22**  
 NY 302 651  
 REDKIRK POINT  
 Pottery & Pottery Kiln  
 Findspot  
 13-15<sup>th</sup> centuries  
 Poor  
 Monitor

**NY36NW 34**  
 NY 3005 6514  
 REDKIRK POINT  
 Mesolithic Hearth  
 7<sup>th</sup> Mill BC  
 Poor  
 Monitor

**NY36NW 44**  
 NY 302 650  
 REDKIRK POINT  
 Flint Blade Findspot  
 7<sup>th</sup> Mill BC  
 Poor  
 Monitor

**NY36NW 48**  
 NY 302 650  
 REDKIRK POINT  
 Landing Place  
 Uncertain  
 Poor  
 Monitor

**NY36NW 46**  
 NY 316 660  
 STORMONT  
 Landing Place  
 Uncertain  
 Poor  
 Monitor

**NY 3242 6662**  
 SARK VIADUCT,  
 GRETNA  
 Disused Railway Bridge  
 19<sup>th</sup> century  
 Good  
 Nil

**NY36NW 76**  
 NY 3269 6698  
 SARK BRIDGES, GRETNA  
 Road Bridges & Weir  
 Statutory Listed Buildings  
 Early 19<sup>th</sup> century  
 Good  
 Nil

### Sites in the Hinterland

**NY 312 659**  
 LOCHMABEN STONE CIRCLE  
 Remains of Stone Circle  
 Scheduled Ancient Monument  
 3<sup>rd</sup>-2<sup>nd</sup> Mill BC  
 Good  
 Nil

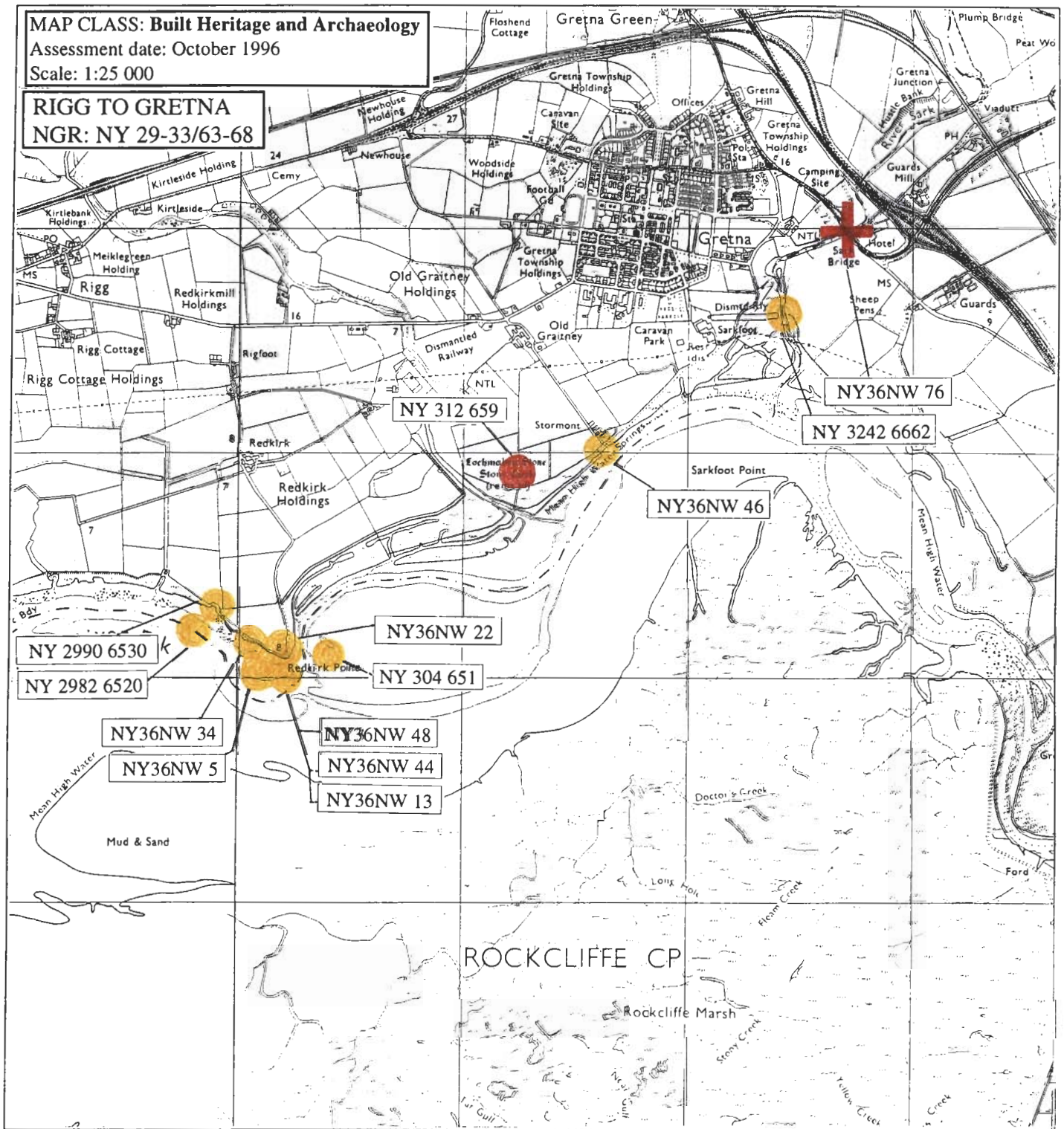
**MAP CLASS: Built Heritage and Archaeology**

Assessment date: October 1996

Scale: 1:25 000

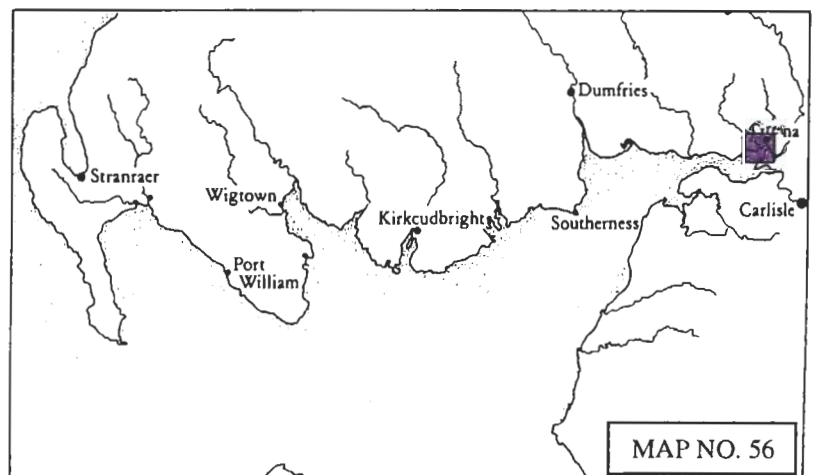
**RIGG TO GRETNA**

NGR: NY 29-33/63-68



**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
NX13 SW17	Roundel - Solid. (or area)	Yellow	Undesignated wreck
	Area	Green	Insufficient information, more work needed
	Area	Blue	Probably archaeologically sterile



MAP NO. 56

