

MAP 40: PORT DONNEL TO PORTLING BAY

Hinterland Geology and Coastal Geomorphology: Castle Hill Point forms a promontory headland comprising of greywackes assigned to the Ross Formation containing Silurian greywackes. Sandstone and silty mud stones are common forming precipitous cliffs. Eastwards from Castle Hill to Needles Eye (a natural arch), till and isolated pockets with fluvio-glacial and morainic deposits occur over a high cliff-edge.

Erosion Class: The coastline is exposed but the resilient nature of the underlying geology suggests that erosion is occurring at a slow rate.

Built Heritage & Archaeology: The surviving archaeology of this section is of an industrial nature; Glenstocken Quarry and the related ruined buildings at Gutcher's Isle, and the quarry at Barcloy Hill. Coastal erosion was not evident and no further action is required. A promontory fort (Feachem, 1956) once survived at Portowarren but was destroyed by the erection of a coastguard bungalow and landscape gardening (RCAHMS, NX85SE 2).

Map 40: Hinterland Geology and Coastal Geomorphology

1. KIPFORD ON SCAUR PIER to PORTOBEAGLE BAY

NX 844 540

3km

Low edge (< 5m)

Till and marine sands and gravels

Till occurs on the hinterland at Kipford on Scour and at Port Donnel (NX 846537) where it outcrops over visible granite rock. Fluvioglacial drift outcrops to the south. The foreshore consists of a mixture of estuarine sands and mud.

2. PORTOBEAGLE BAY to NEEDLES EYE

ARCH

NX 873 530

4.5km

Cliff (> 10m)

Till and fluvioglacial drift over visible rock

This is an exposed stretch of irregular coastline with a highly incised cliff-edge. Till occurs over visible rock platform with fluvioglacial deposits and marine sands and gravels evident towards to the east of the unit. The shoreline consists of precipitous cliffs with steeply folding Wenlock series greywackee with natural arches.

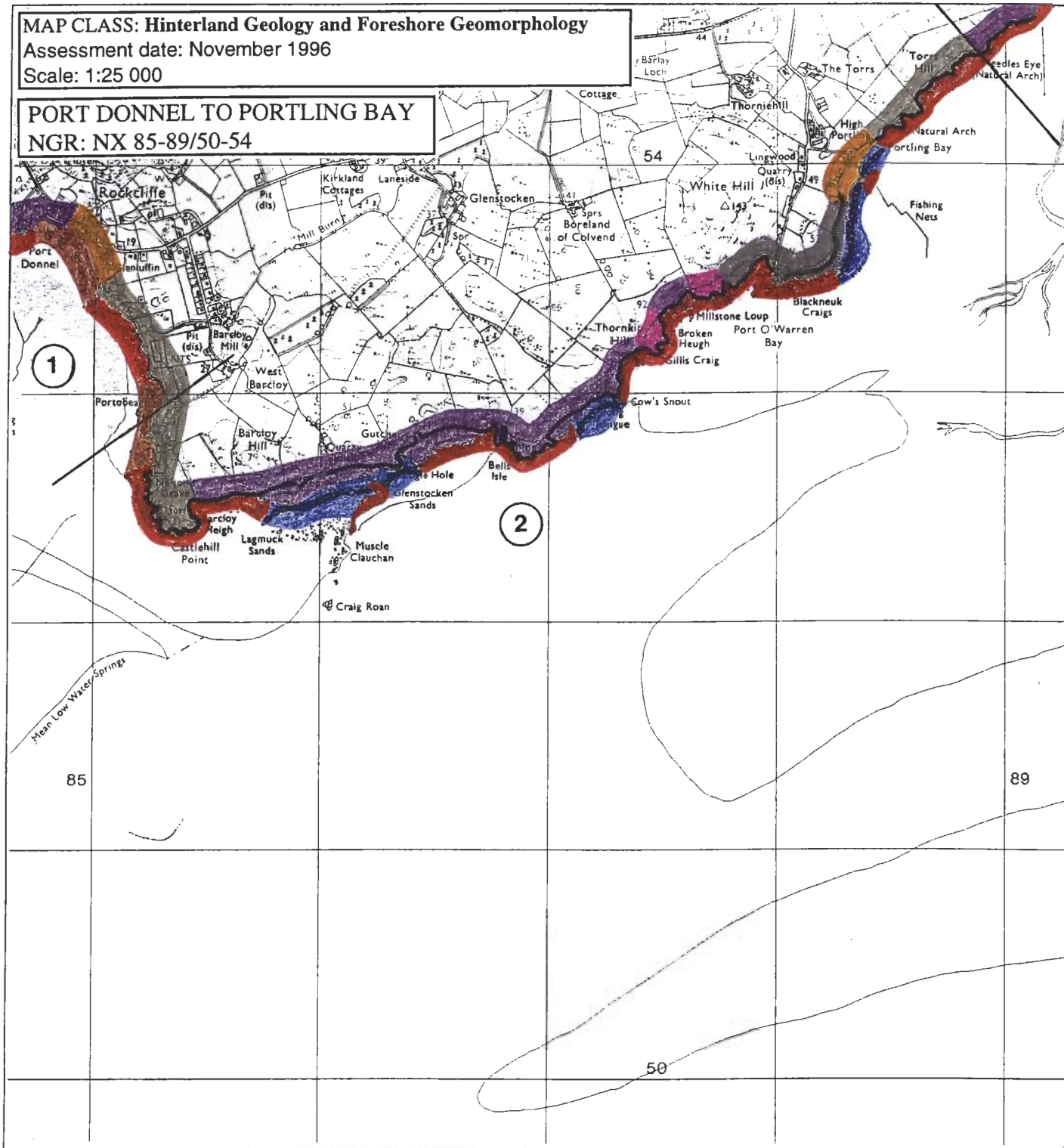
MAP CLASS: Hinterland Geology and Foreshore Geomorphology

Assessment date: November 1996

Scale: 1:25 000

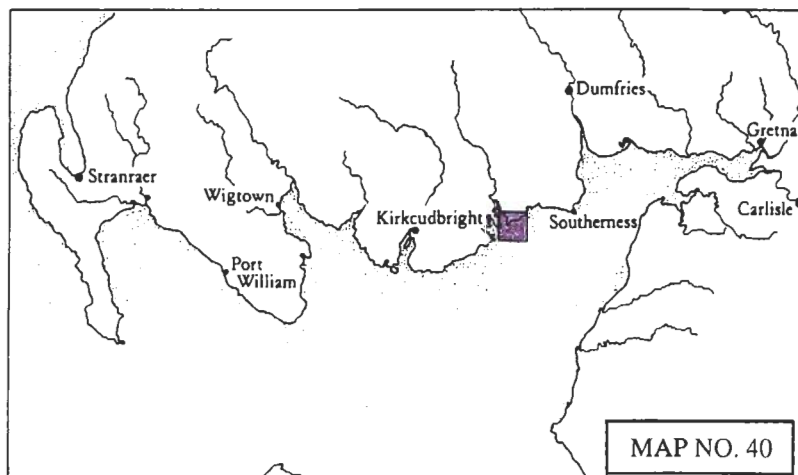
PORT DONNEL TO PORTLING BAY

NGR: NX 85-89/50-54



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. 40

MAP 40: EROSION

1..CASTLE HILL POINT to COWS SNOUT

NX 865 527

2.3km

Eroding or stable

With a highly indented cliff-edge this unit has steep and low outcropping platforms that are being slowly eroded but the cliff-edge appears stable at the present.

2. COWS SNOUT to SALTPAN ROCKS

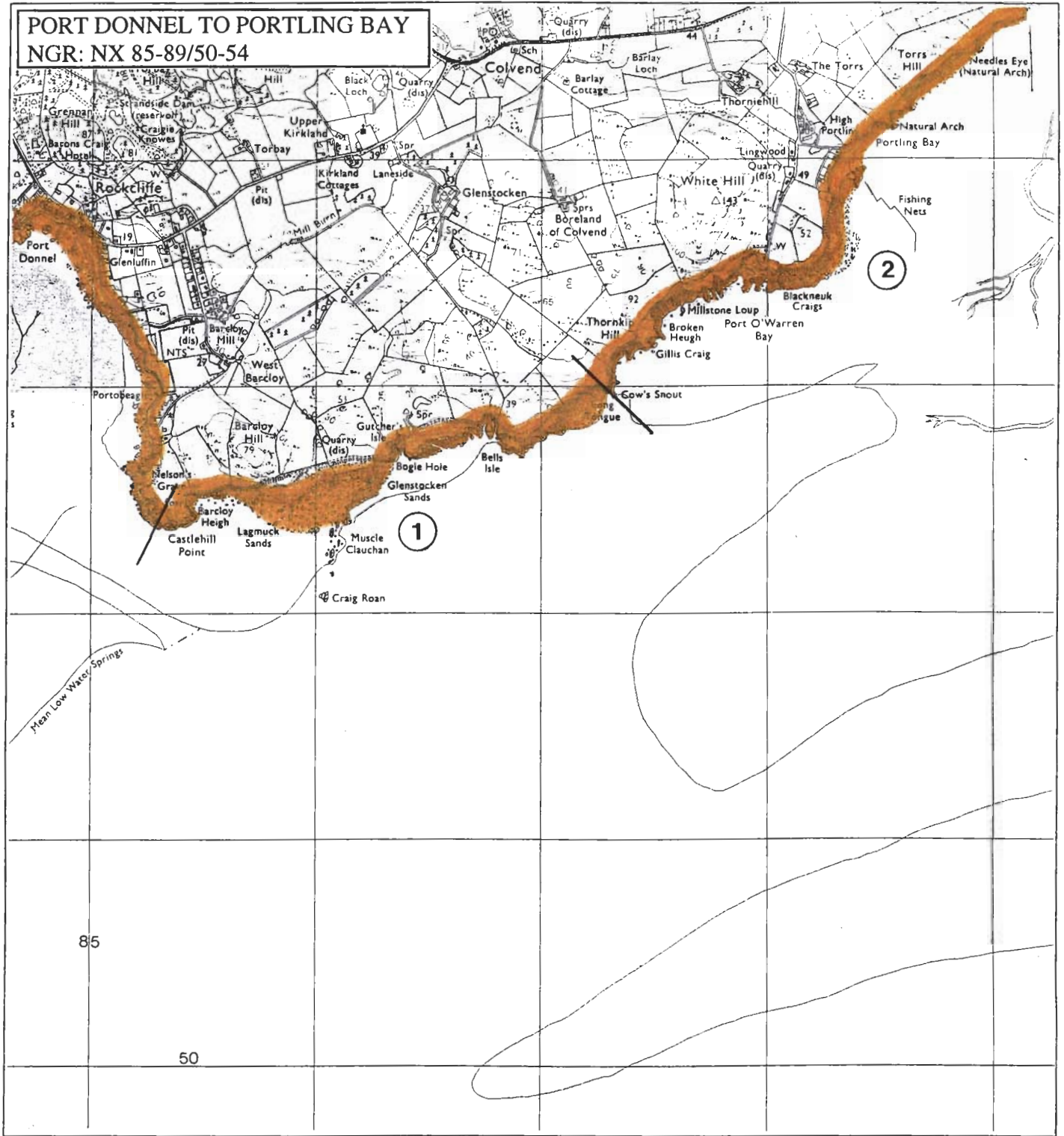
NX 880 535

3km

Eroding or stable

This unit continues to be highly indented with a boulder and shingle shore between rock platforms. Abrasion by rock scour is occurring and the formation of arches suggests erosion is occurring slowly.

PORT DONNEL TO PORTLING BAY
NGR: NX 85-89/50-54



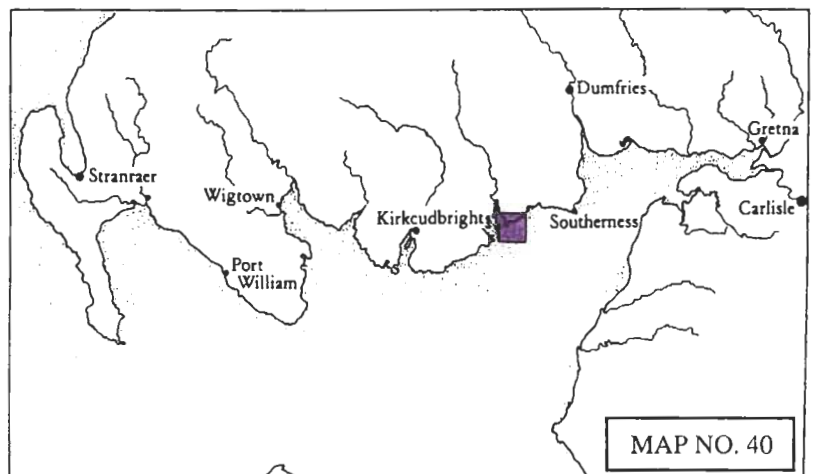
KEY

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: 10.10.96

Scale 1:25 000



MAP NO. 40

MAP 40: BUILT HERITAGE AND ARCHAEOLOGY

Sites on the Coast Edge & Foreshore

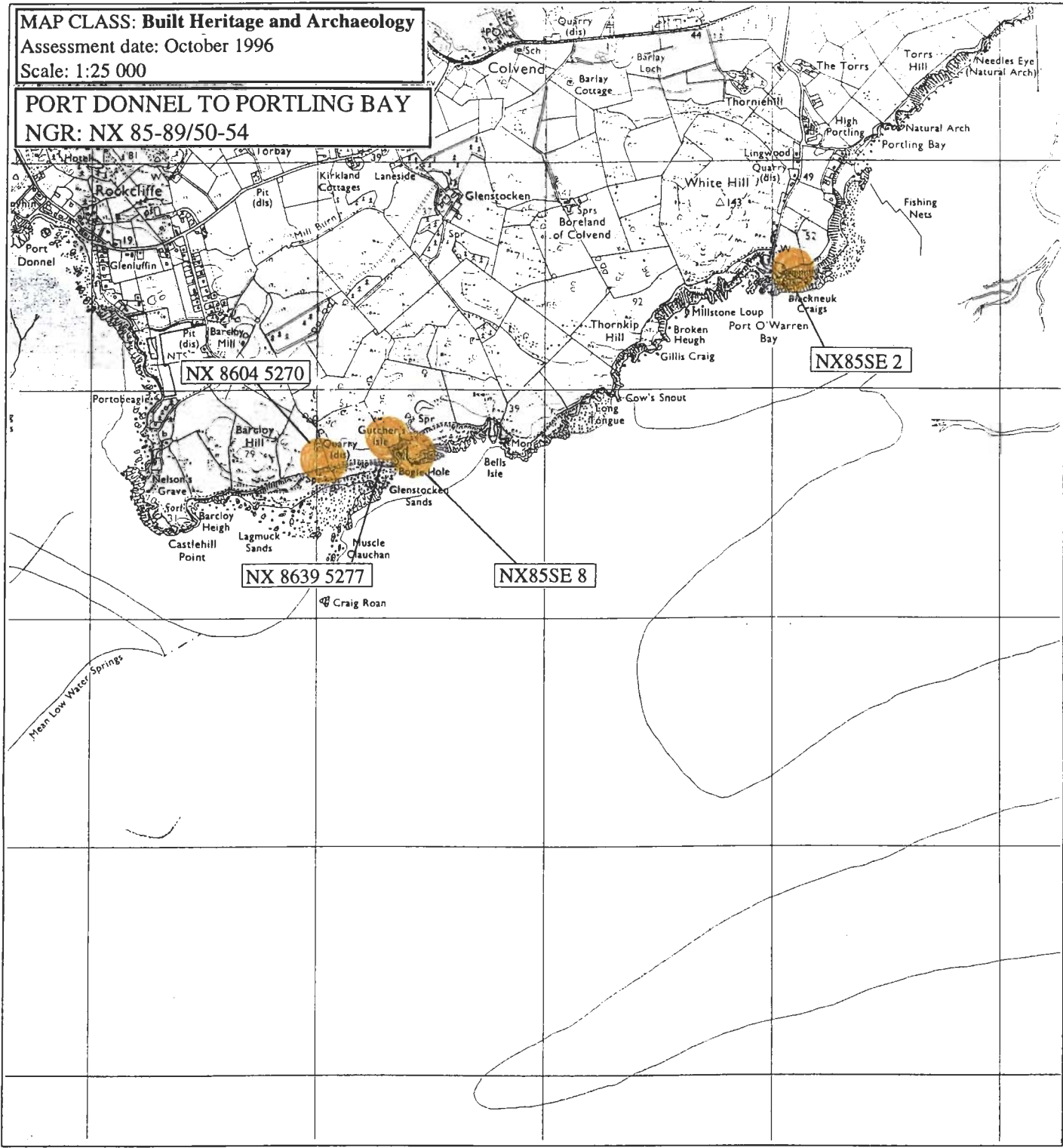
NX85SE 8
NX 8640 5270
GLENSTOCKEN QUARRY
Quarry
Uncertain
Uncertain; not located
Nil

NX 8639 5277
GUTCHER'S ISLE
Ruined Buildings
Uncertain
Good
Nil

NX85SE 2
NX 8804 5352
PORTOWARREN
Promontory Fort
1st Mill.BC/AD
Destroyed
Nil

Sites in the Hinterland

NX 8604 5270
BARCLOY HILL
Disused Quarry
Uncertain
Good
Nil



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

