

## MAP 12 BIRKHIL LODGE TO SCALP LODGE

**Built heritage and archaeology** - Fishing lodges and their associated remains dominate this coastal sector and these are described in more detail elsewhere in the wider context of the Tay salmon fishing industry (site description 5). Intermittent sections of the foreshore between Birkhill and Scalp Lodges also preserve environmental evidence from a much earlier period. Remains of a post glacial shoreline can be seen (NO326231 - NO312227) intermittently along a 1.5 km stretch of coast, visible where localised scour has removed the thick alluvial mud which dominates the mud-flats elsewhere. This feature is characterised by outcrops of waterlogged organic remains of trees, shrubs, and seeds of other plants in a 17 metres wide strip which runs parallel to the shoreline and is exposed only at low water. This land surface probably dates to the Mesolithic or Neolithic periods and illustrates the significant archaeological potential of this section and the favourable burial environment of the foreshore here. Although no manmade material was identified, the discovery of Mesolithic settlements along the Tay estuary to the east at Morton (Wickham Jones 1994, 67-68) confirm the potential of the area.

**Hinterland geology and coastal geomorphology; Erosion class**-West of Corbie Den Upper Devonian sandstone cliffs form the coast edge. The hard rock is overlain with sandy drift deposits, with localised raised beach deposits at Dominies Den. The curved bay inbetween the resistant rock promontories of Birkhill and Flisk Point is favourable to the deposition of thick muds. A Postglacial mud flat up to 200 metres long outcrops beneath alluvial muds. Although the area may be currently experiencing accretion, localised scour at the visible edge of this mud flat caused by the flow of the estuary, and hollows in the flat indicate that these prehistoric mud-flats do experience cyclical erosion. Consequently, a survey of the area should be undertaken including scientific dating of some of the organic remains. In addition, this whole coastal stretch should be periodically monitored to establish the extent of this land surface, and to assess the effects of sediment accretion and erosion more accurately (Erosion Unit 4). Flisk Point is a shingle promontory that extends into muds on the lower foreshore. The low undercut coast edge at the Point is protected by a sloping wall of basaltic boulders. (Erosion Unit 5). To the west the coast edge lowers at Durwards Scalp the low coast edge is composed of raised beach deposits with glacial sands and gravels. The coast edge is protected with reed and marsh, however undercutting occurs where marsh is sparse.

**MAP 12 BIRKHILL LODGE TO SCALP LODGE**

**EROSION UNITS**

**1**  
NO33452356  
0.2 km  
Stable  
*Resistant andesitic cliffs compose the coast edge. The foreshore has flat lying stable muds. The shingle and cobbles on the upper foreshore are stabilised by muds and seaweed.*

**2**  
NO33212341  
0.4 km  
Both accreting and eroding  
*On the lower foreshore there is the accretion of thick muds. To the west, reed and marsh development stabilise the muds at the coast edge. The irregular edge of the mud flat is attributed to shingle scour during high wave action.*

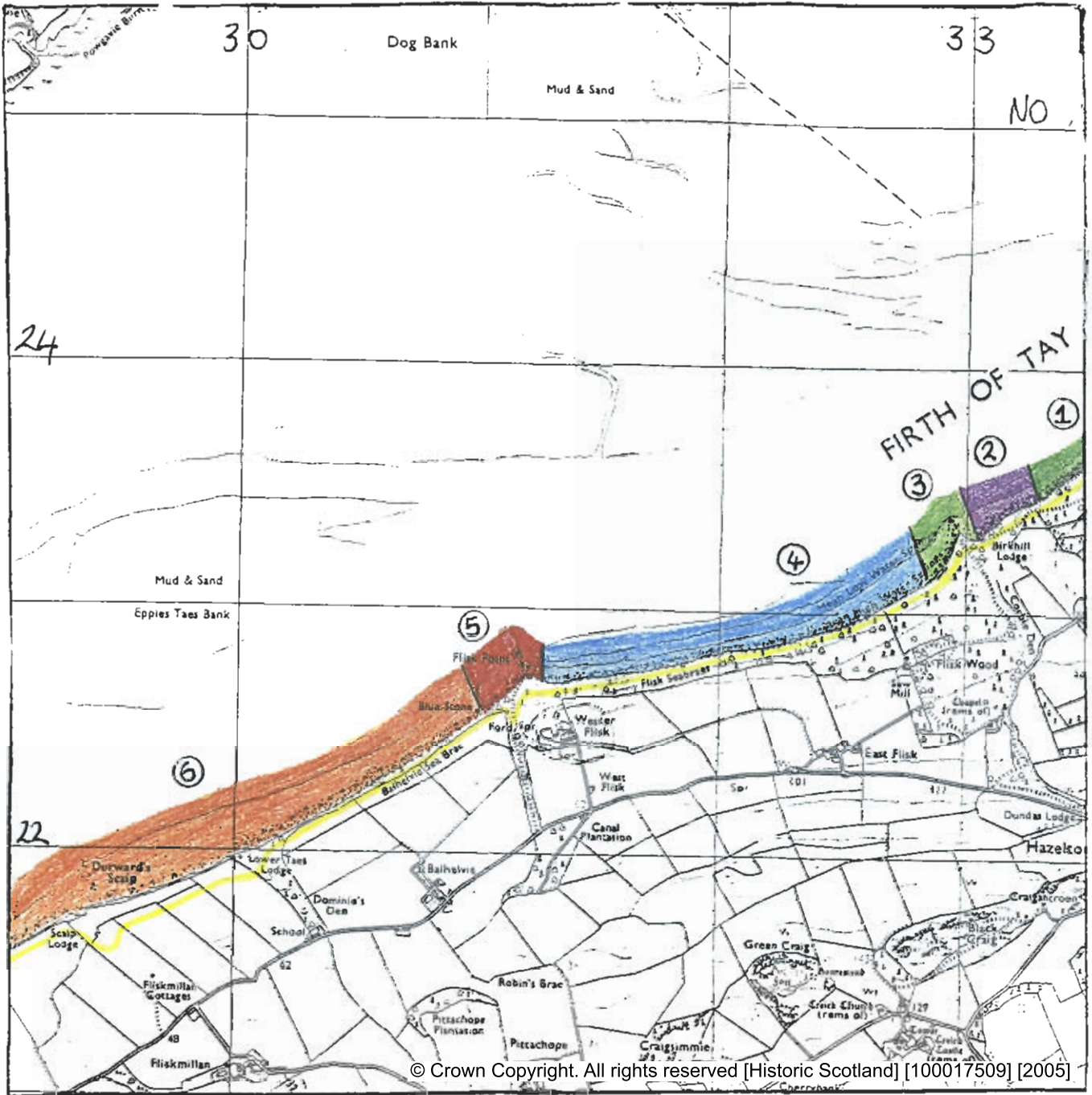
**3**  
NO32952326  
0.4 km  
Stable  
*The accumulation of shingle has created a stable promontory which is perpendicular to the shoreline.*

**4**  
NO32092290  
2 km  
Accreting or stable  
*Between the shingle promontories at Birkhill and Flisk Point there is a sheltered low energy zone for the deposition of muds. A Postglacial mud flat decomposed to peat is situated in centre of the bay. The irregular surface of the flat is the result of repeated advance and retreat of the water level. Mud is accreting in the erosion hollows in the peaty flat and to the west, the peaty flat is buried beneath alluvial muds.*

**5**  
NO31112276  
0.6 km  
Definitely eroding  
*At Frisk Point a shingle promontory stabilises the foreshore. The raised beach deposits at the low coast edge are undercut and the stone seawall protecting the fishing lodge is in disrepair. Basalt boulders have been placed at the edge for protection.*

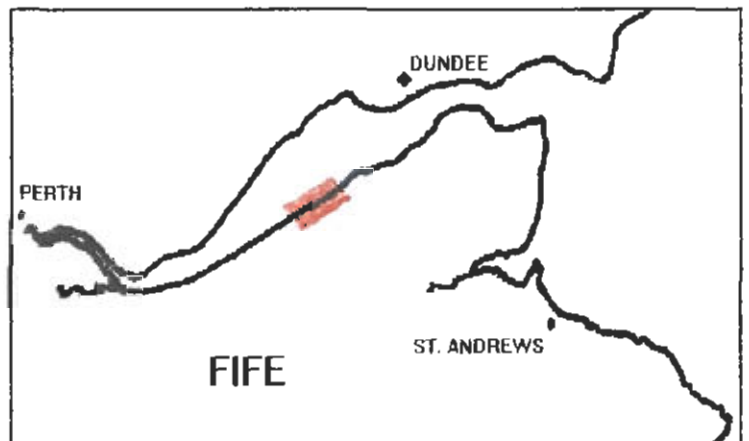
**6**  
NO30002200  
2.6 km  
Eroding or stable

*The drift deposits at the coast edge are prone to slip due to surface processes, which accounts for the toppled trees. To the west there is localised erosion of the low coast edge where the protective marsh flats are absent. The low edge composed of sandy drift deposits is undercut at high waters, especially where reed beds which absorb wave energy are less well developed or absent. A fence has come adrift the edge. Basaltic boulders are placed along the edge for protection.*



KEY

Erosion class	Staedtler colour	Colour
Definitely Accreting	ultramarine blue	
Accreting or stable	light blue	
Stable	light green	
Eroding or stable	orange	
Definitely Eroding	scarlet	
Both accreting and eroding	purple	
No access	blank	
Land below 10m	canary yellow	



**MAP 12 BIRKHILL LODGE TO SCALP LODGE**

**GEOLOGY UNITS**

**1**  
 NO33322349  
 0.5 km  
 Alluvial/marine muds  
 Cliff (>5 metres)  
 Drift, boulder clay over visible rock  
*Muds dominate the foreshore with a narrow coarse beach of shingle and cobbles on the upper foreshore. The veneer of mud and seaweed over the shingle reaches the coast edge. Basaltic boulders at the base of the cliff are the result of past rockfall. The cliffs at the coast edge are composed of resistant basalts.*

**2**  
 NO33022349  
 0.1 km  
 Marsh  
 Low edge (<5 metres)  
 Drift, boulder clay over visible rock  
*Muds compose the foreshore with reed and marsh beds on the upper foreshore. Shingle scour of the mud flats creates an irregular coast edge.*

**3**  
 NO32922321  
 0.2 km  
 Alluvial/marine muds  
 Shingle  
 Drift, boulder clay over visible rock  
*The foreshore is dominated by shingle, a shingle promontory perpendicular to the shoreline extends into the lower foreshore muds.*

**4**  
 NO32692312  
 0.3 km  
 Alluvial/marine mud  
 Cliff (>5 metres)  
 Drift, boulder clay over visible rock  
*The lower foreshore is composed of muds with an upper foreshore of sand and shingle. The cliffs at the coast edge are composed of Upper Devonian sandstones with a dense tree cover in the overlying the drift.*

**5**  
 NO32092290  
 2 km  
 Alluvial /marine muds  
 Shingle  
 Drift, boulder clay  
*The lower foreshore is composed of muds. An irregular Postglacial mud flat is situated on the foreshore 20-30 metres from the coast edge. Postglacial sealevel rise*

*flooded a previously forested area. The vegetation has been partially decomposed to peat with wood, plant fragments and seeds. The peaty flat extends approximately 200metres to the west and is 12 metres wide. The surface is irregular as a result of the advance and retreat of the water level, which cuts channels into the flat. A shingle bank occurs on the upper foreshore. At the coast edge red boulder clay deposits overlies Devonian sandstones.*

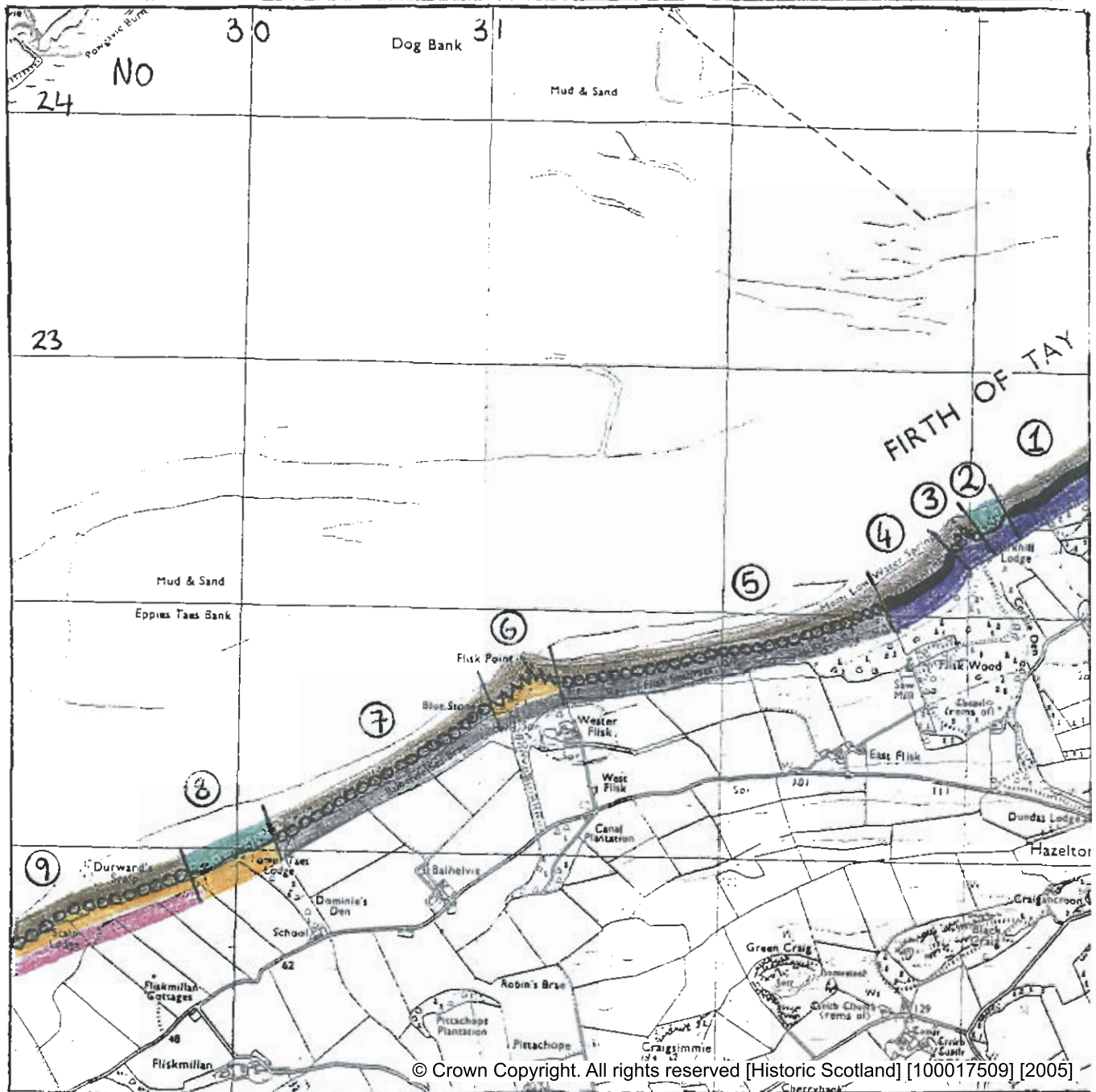
**6**  
 NO31112276  
 0.6 km  
 Alluvial/marine muds  
 Human disturbance  
 Raised beach and marine deposits with drift, boulder clay  
*At Fliisk Point a shingle promontory extends into the lower foreshore muds. The low coast edge is composed of raised beach deposits. Human disturbance to reduce the erosion of the edge in front of the fishing lodge consists of dolerite boulders placed in a sloping wall to absorb wave energy.*

**7**  
 NO30512223  
 1 km  
 Alluvial/marine muds  
 Shingle  
 Drift, boulder clay  
*Muds compose the lower foreshore. Shingle on the upper foreshore creates a ridge at the coast edge. At certain locations shingle bars perpendicular to the shoreline extend into the lower foreshore muds. The adjacent cliffs are composed of boulder clays, a red sandy clay matrix encloses local and foreign clasts.*

**8**  
 NO30012202  
 0.4 km  
 Marsh  
 Low edge (<5 metres)  
 Raised beach and marine deposits  
*On the foreshore muds are stabilised with marsh and reed beds. Sandy raised beach deposits form the low edge.*

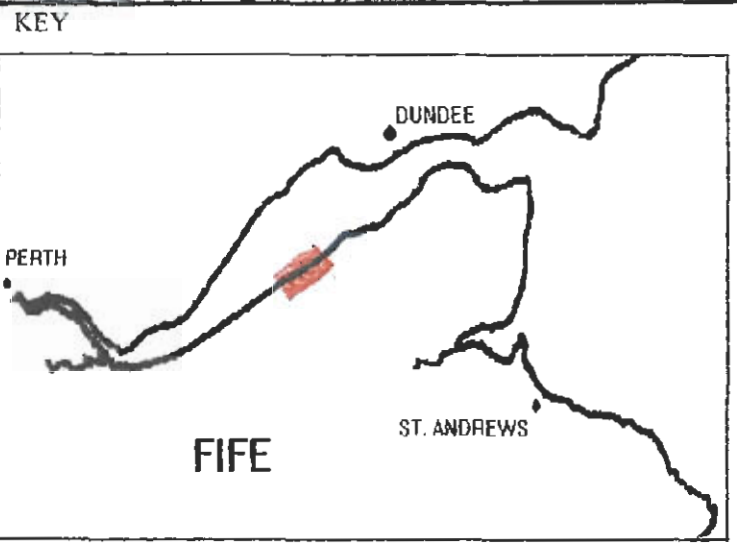
**9**  
 NO29482187  
 0.9 km  
 Alluvial/marine muds  
 Shingle  
 Raised beach and marine deposits with glacial sand and gravel  
*Muds dominate the lower foreshore with localised marsh development. On the upper foreshore a steep shingle bank is situated at the low coast edge. The hinterland consists of undulating fields of raised beach deposits with glacial sands and gravels. The land rises steeply to the south.*





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Hinterland Geology	Stuetler colour	
Drift, boulder clay	light grey	
Drift, boulder clay over visible rock	Canon D'ashe violet	
Raised beach and marine deposits	golden brown	
Blown sand	peach	
Glacial sand and gravel	magenta	
Alluvium	grass 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 curats	
<b>Coastal Geomorphology</b>		
Mainly rock platform	vanation	
Mainly sand	indigo	
Mainly alluvial/marine mud	sienna brown	
Marsh	iris green	



**MAP 12- BIRKHILL LODGE TO SCALP LODGE**

**BUILT HERITAGE AND ARCHAEOLOGY UNITS**

*Sites on the coast edge and foreshore*

**NO33082340**

Birkhill Fishing Lodge, breakwater spit, trackway and cart remains

19th Century

Fair

*Survey*

**\*See site description 6**

**NO326231 - NO312227**

Prehistoric land surface exposed at LW

Mesolithic or Neolithic

Poor

*Survey and Monitor*

**NO32302297**

Derelict stone building and concrete platform marking possible remains of fishing lodge

Uncertain

Poor

*Nil*

**\*See site description 6**

**NO32002276**

2 lines of stones on foreshore perpendicular to shore marking possible boundary wall

Uncertain

Fair

*Nil*

**NO31262271**

Flisk Point fishing lodge

Uncertain

Poor

*Survey*

**\*See site description 6**

**NO30632229**

Manmade stone spit on foreshore

Uncertain

Fair

*Nil*

**NO30052200**

Lower Taes Fishing Lodge - single storey stone cottage heavily overgrown

Uncertain

Poor

*Survey*

**\*See site description 6**

**NO29402177**

Collapsing fishing lodge (possible) near Durward's Scalp

Uncertain

Poor

*Survey*

**\*See site description 6**

**NO29322166**

Scalp Fishing Lodge - single storey cottage

Uncertain

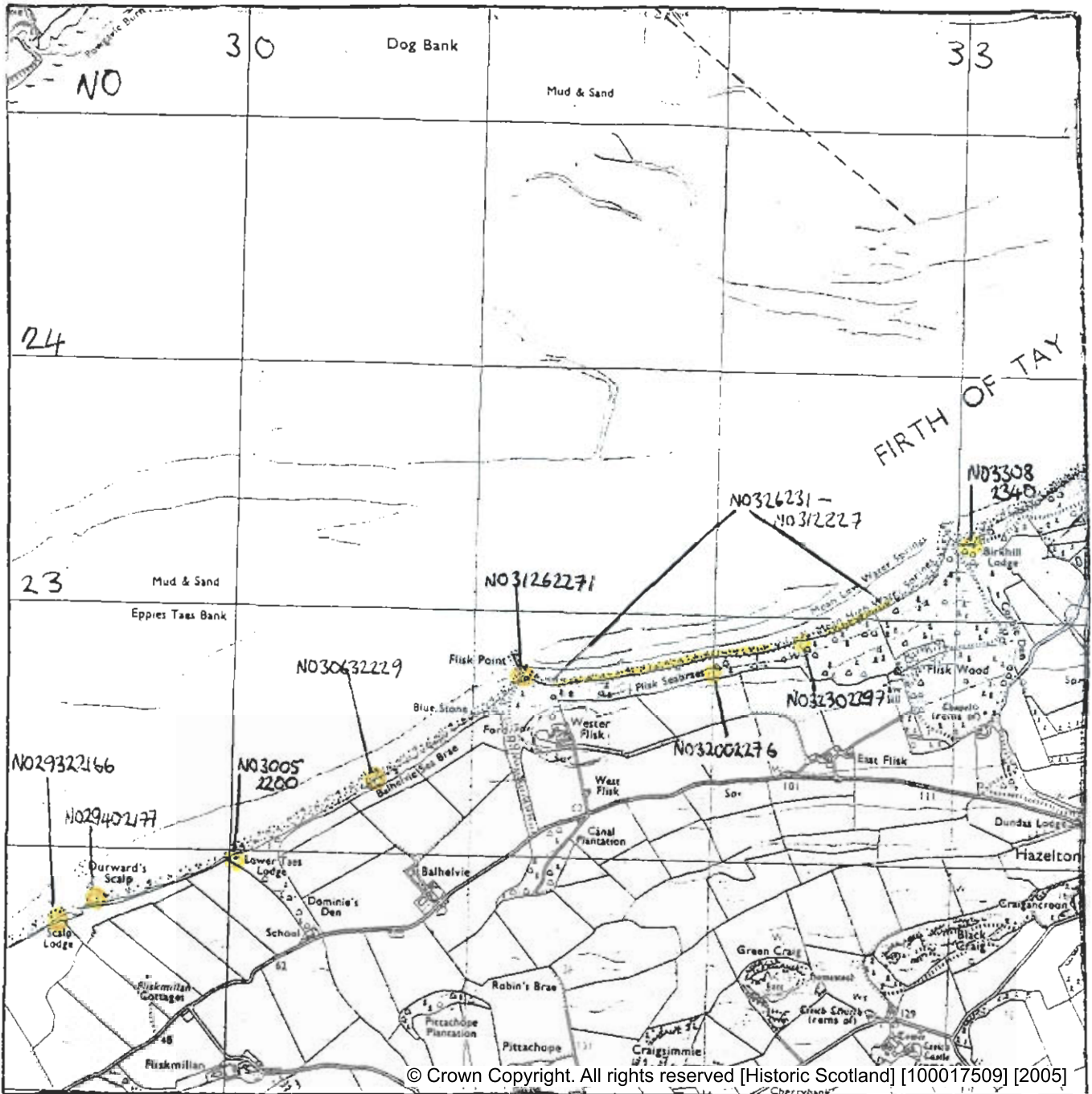
Fair

*Survey*

**\*See site description 6**

MAP CLASS: Built Heritage and Archaeology  
 (Assessment date: 16 October 1996 )  
 NO 22/32. Scale 1:25,000

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KEY

Site location	Symbol	Staedtler colour	Significance
	solid roundel	carmine	Protected Ancient Monument
NGR e.g.	cross	carmine	Listed Historic Building
NO12345678	open roundel	carmine	Monument formally proposed by Historic Scotland for designation
	solid roundel	yellow ochre	Other known monument
NMRS e.g.	dashed outline	yellow ochre	Designed landscape
NO28NW35	open roundel	yellow ochre	Undesignated wreck
	area	green	Insufficient information, more work needed (no access, or not walked)
	area	blue	Probably archaeologically sterile

