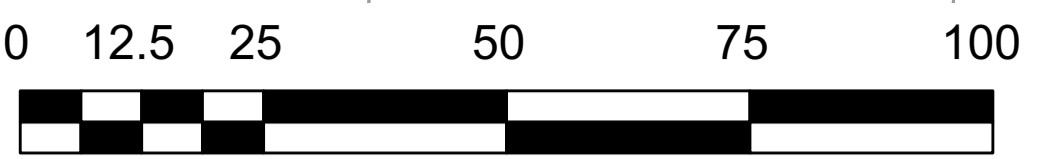


# Pre-Permian Subcrop Map



0 12.5 25 50 75 100  
Kilometers

17 18 19 20 21

Highland Scotland

Precambrian

Upper Devonian

Lower Carboniferous (undiff)

Forth Approaches Basin

Lower Devonian

Devil's Hole Horst

Silurian

Upper Devonian

25 26 27 28 29 30 31

Lower Carboniferous (undiff)

Southern Uplands

Tweed Basin

Cheviot Block

33 34 35 36 37 38 39

Upper Devonian

Devonian-Carboniferous Mid North Sea High

Northumberland Trough

Westphalian B

Alston Block

36 37 38 39 40 41 42 43 44 45

Namurian/upper Visean

Stainmore Trough

Cleveland Basin

Westphalian A

Westphalian B

Westphalian C

Westphalian B

46 47 48 49 50

**Key**

Chronostratigraphy	Lithostratigraphy
Westphalian D	Approx. Ketch Fm., or Lower Flora Sandstone.
Westphalian C	Approx. Cleaver Fm./Upper Coal Measures.
Westphalian B	Approx. Westoe Fm./Middle Coal Measures.
Westphalian A	Approx. Calster Fm./Lower Coal Measures.
Westphalian	Yoredale Fm., Millstone Grit Fm., Cleveland Group and onshore equivalents.
Namurian/upper Visean	Scremerston Fm./Firth Coal Fm. and onshore equivalents.
Upper Visean (Scremerston)	Fell Sandstone Fm. and onshore equivalents (volcanics in Scotland).
mid Visean (Fell)	Cementstone Fm. (Ballagan, Kinnesswood Fm. onshore)
Tournaisian (Cementstone)	Lower Carboniferous (undiff) - undifferentiated Scremerston, Fell, Cementstone Fms.
Lower Carboniferous (undiff)	Carboniferous (undiff)
Carboniferous	Buchan Fm., part of Tayport Fm. and onshore equivalents.
Upper Devonian	'Lower Old Red Sandstone' equivalents.
Lower Devonian	
Silurian	
Precambrian	

wells penetrating pre-Permian  
 simplified traces of the largest faults cutting Carboniferous

For use at regional scales of 1: 250,000 to 1:750,000.

Pre-Permian subcrop map created from seismic and well data. Westphalian strata modified after version in South Basin Permian Atlas, Kombrink et al., 2010 (GIS data from TNO-Doomenbal J.C., 2010. "SPBA GIS Maps and Database" - Petroleum Geological Atlas of the Southern Permian Basin Area. TNO-Geological Survey of the Netherlands. ISBN 978-90-5986-349-1). Note that faults and new interpretation are absent in the SW side Q41/42 due to lack of seismic data/interpretation during this study

