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SCAN Line 16 runs south to north across the Peel-Maasbommel Complex at a rather oblique angle with the main structural trend. The seismic line does not cross the Peel Boundary Fault Zone that delineates this horst structure to the south. The Peel-Maasbommel Complex represents a high at its southern and northern edges because here the Permo-Triassic is preserved. In its center part where no Permo-Triassic is preserved, it is defined as a structural high.

A thick Carboniferous sequence and a substantial Chalk Group are present, locally separated by a thin interval of Permo-Triassic strata. The relatively thick Carboniferous interval comprises the Carboniferous Limestone Group (also known as the Zeeland Formation), a complete Namurian sequence (including Namurian A en B), followed by the Baarlo and Ruurlo Formations which correspond to Westphalian A. Younger Upper Carboniferous units (Westfalien B-D) units are not encountered on the PMC.

The thin Permo-Triassic interval locally shows a clear angular relationship with the underlying Carboniferous strata. Due to the limited thickness, the Rotliegend and Zechstein strata cannot be differentiated in the seismic data. The Peel-Maasbommel Complex experienced strong uplift and erosion during the main Late Jurassic-Early Cretaceous rifting event. Thinning of the Permo-Triassic and truncation of the Carboniferous can be seen below the Cretaceous unconformity, especially in the central part of the Peel-Maasbommel Complex. This thinning is also evident in crossing Line 20.

The Chalk Group is thickly developed and reaches a thickness of minimally 750 m. A thickness of 650 m was interpreted in well OPL-16, but the seismic section clearly shows that the Chalk Group onlaps the PMC from the North where the thickness is greater. Rather, the Chalk Group downlaps onto older units, but this arrangement is caused by younger compression phases (both Laramide and Pyrenean inversions). The dashed lines in the Chalk Group correspond to the seismostratigraphic units that could be discriminated throughout the PMC. Based on well OPL-16 these units can be tentatively correlated the Aken, Vaals, Gulpen, Maastricht and Houthem formations. Older strata of the Ommelanden Formation likely occurs beneath these units in the North. Like in line 20 that runs parallel to this seismic section, faults don't show significant offset, which can be explained by the high angle between the faults and the seismic line.

A detailed subdivision of the North Sea groups was made for the project H3O-Peelhorst & Venloslenk. This subdivision in here indicated with thin black lines only.



The interpretation presented here is based on available public data and is subject to inherent uncertainties. Additional information (e.g. lithological descriptions, depositional environment) of lithostratigraphic units can be found on DINOloket Stratigraphic Nomenclature website by clicking the hyperlinks on each labelled formation or group name.