

Mancini and others, 1990

Data Set 39

Reference: Mancini, E.A., R.M. Mink, B.L. Bearden, S.D. Mann and D.E. Bolin, 1990, Desert environments and petroleum geology of the Norphlet Formation, Hatter's Pond Field, Alabama: in Sandstone Petroleum Reservoirs, J.H. Barwis, J.G. McPherson, and J.R.J. Studlick, eds, Springer-Verlag, p. 153-180.

Author's affiliation: Geological Survey of Alabama

Age: Late Jurassic (Oxfordian)

Formation: Norphlet Formation

Location: Hatter's Pond Field, Mississippi Interior Salt Basin, Mobile County, southwestern Alabama, United States

Well: not specified; there is a total of 40 wells in the field.

Depth range: 18,000 - 18,500 feet.

Depositional environment: "...interpreted as eolian. ... The Norphlet dunes have been interpreted as barchan or transverse ridges with the general direction of wind transport being north to south. Principal sources of the sandstone deposited in the area of the Hatter's Pond Field were updip alluvial fan, alluvial plain, and braided stream deposits and wadi systems. ... Water-deposited sediments accumulated in wadis and playa lakes in interdune areas."

Lithology: "Norphlet eolian sandstones are usually texturally mature subfeldsarenites to feldsarenites (subarkosic to arkosic). Grains are well-sorted, mostly very fine- to medium-grained, angular to well-rounded quartz and feldspar. Angular and rounded grains of similar size and composition occur together and are indicative of multiple source areas. ... Feldspar in the sand fraction is predominantly orthoclase, with albite, the dominant type of plagioclase, much less common. ... Rock fragments comprise only about 1% of the framework grains."

Alteration: the summary of diagenesis on p. 172-173 is taken from references.

Production: condensate

Core measurement conditions: not given.

Data entry: manual entry from Figure 7-19 of the referenced paper.