# AREAL GEOLOGY

STATE OF MARYLAND
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U.S. GEOLOGICAL SURVEY
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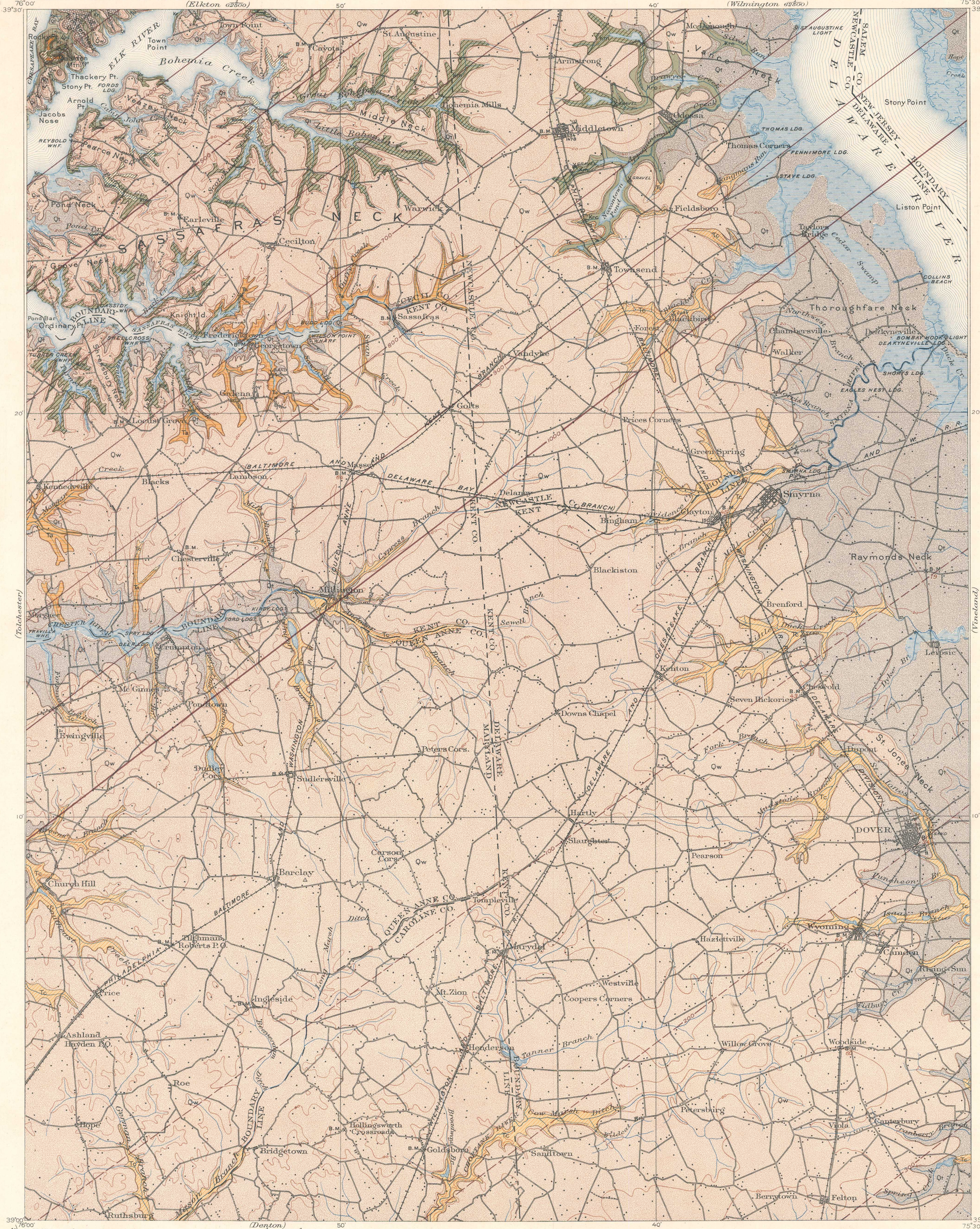
## DELAWARE-MARYLAND-NEW JERSEY
## DOVER QUADRANGLE

(Havre de Grace 62500) (Elkton 62500) (Wilmington 62500) (Camden)

76°00′ 50′ 40′ 75°30′ — 39°30′ — 20′ — 10′ — 39°00′

(Tolchester) (Choptank) (Denton 62500) (Vineland)




## LEGEND

SEDIMENTARY ROCKS

**QUATERNARY**

*Pleistocene (Columbia group)*

Qt — **Talbot formation** (loam, sand, and gravel, with clay lenses and ice-borne bowlders; forms low terraces and flat low lands from 0 to 45 feet above sea level.)

Qw — **Wicomico formation** (loam, sand, and gravel, with ice-borne bowlders; covers rolling terraces and broad divides from 40 to 100 feet above sea level.)

Qs — **Sunderland formation** (coarse sand and gravel, covering undulating uplands from 90 to 180 feet above sea level.)

**TERTIARY**

*Pliocene?*

Tl — **Lafayette formation** (coarse sand and gravel, often cemented by iron into conglomerate; covers high, flat or rolling lands 200 feet above sea level.)

UNCONFORMITY

*Miocene*

Tc — **Calvert formation** (blue clay, light-colored sand, diatomaceous earth.)

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*Eocene*

Ta — **Aquia formation** (light and dark-colored sand largely glauconitic, occasionally firmly indurated by iron oxide.)

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**CRETACEOUS**

*Upper Cretaceous*

Krc — **Rancocas formation** (dark greensand marl.)

Km — **Monmouth formation** (green to brown sand with numerous ferruginous plates.)

Kmw — **Matawan formation** (dark-colored, micaceous, glauconitic sand, locally indurated.)

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Kma — **Magothy formation** (light-colored sand alternating with drab and lignitic clays.)

UNCONFORMITY

*Lower Cretaceous (Potomac group)*

Kr — **Raritan formation** (variegated clays, cross-bedded sand, gravel, and conglomerate.)

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Kpt — **Patapsco formation** (variegated clays, locally lignitic; cross-bedded sands, and gravel lenses.)

Note—Brick and tile clay and gravel are obtainable from Wicomico and Talbot formations; marl from Monmouth, Rancocas, and Aquia formations; sand from all Pleistocene and Miocene formations; diatomaceous earth from Calvert formation.

Gravel, sand, and clay pits

⊙1478 Artesian wells, showing depth

F Indicates flowing well

300 — Depth below sea level to artesian water horizons (solid lines refer to horizon in Potomac formation; dashed lines to horizon in Calvert formation; contour interval is 100 feet. Flowing wells can be obtained only on very low land.)

H. M. Wilson, Geographer in charge.
Triangulation by U. S. Coast and Geodetic Survey.
Topography by H. S. Wallace and J. W. Thom.
Surveyed in 1896. Southwest quarter revised in 1904 by Robert Coe.

SURVEYED IN COOPERATION WITH THE STATE OF MARYLAND.

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1905.

Scale 1/125000
1 ½ 0 1 2 3 4 5 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 20 feet.
*Datum is mean sea level.*

Edition of Mar. 1906.

Geology by Benj. L. Miller.
Lower Cretaceous rocks by A. Bibbins.
Surveyed in 1902 and 1905.

SURVEYED IN COOPERATION WITH THE STATE OF MARYLAND.