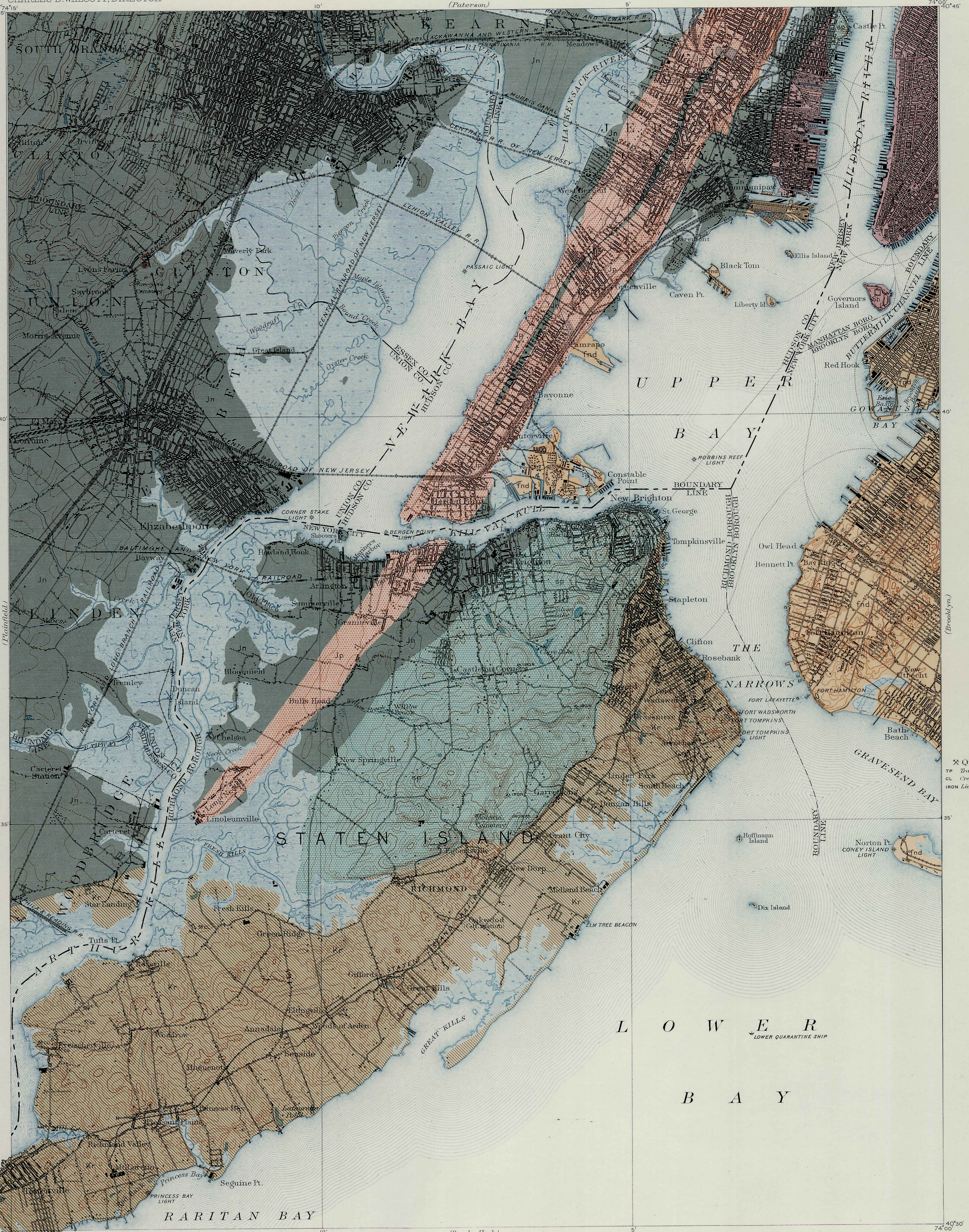
U.S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

HISTORICAL GEOLOGY SHEET

NEW JERSEY - NEW YORK
STATEN ISLAND QUADRANGLE

(Morristown) (Paterson) (Harlem)

74°15' 10' 5' 74°00'
40°45' 40°45'
40° 40'
35' 35'
40°30'
(Plainfield) (Brooklyn)
(New Brunswick) (Sandy Hook)



LEGEND

SEDIMENTARY ROCKS

(Areas of Sedimentary rocks are shown by patterns of parallel lines. Metamorphism is indicated by short dashes combined with the parallel lines.)

Kr — Raritan formation *(plastic clay and gravel, possibly including clay marl of the Matawan formation in eastern portion)* — CRETACEOUS

Jn — Newark formation *(red sandstone and shales)* — JURATRIAS

Sh — Hudson schist *(mica-schist, consisting of biotite and quartz, with garnet, staurolite, fibrolite, and cyanite)* — SILURIAN

IGNEOUS ROCKS

(Areas of Igneous rocks are shown by patterns of triangles and rhombs.)

Jp — Palisade diabase *(intrusive sheet forming the Palisades and small dikes)* — JURATRIAS

sp — Serpentine *(resulting from local alteration of horn blende, bronzite, and allied minerals in basic dikes and masses)*

gr — Granite dike *(white to reddish granite and pegmatite)*

— SILURIAN OR LATER

fnd — Formation not determined *(areas deeply covered by drift and artificially made land)*

Faults

⚒ Quarries, clay pits, and mines
TP *Trap rock (diabase and basalt) used for roads*
CL *Cretaceous clay used for firebrick and stoneware*
IRON *Limonite*

H.M. Wilson, Geographer in charge.
Triangulation by U.S. Coast and Geodetic Survey.
Topography by U.S. Coast and Geodetic Survey.
S.H. Bodfish, Frank Sutton, J.W. Thom, and J.H. Wheat.
Surveyed in 1888-89 and 1897 in cooperation with the State of New York, Campbell W. Adams, State Engineer and Surveyor.

Scale 62500

1 0 1 2 3 4 Miles
1 0 1 2 3 4 5 Kilometers

Contour interval 20 feet.
Datum is mean sea level.
Edition of Dec. 1901.

Darton Merrill Hollick

Geology by Arthur Hollick, N.H. Darton, and Frederick J.H. Merrill.
Surveyed 1883-1900.

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