

COLUMNAR SECTIONS

GENERALIZED SECTION OF THE PRE-CRETACEOUS ROCKS OF THE TRENTON DISTRICT.						
SCALE: 1 INCH=1000 FEET.						
SYSTEM	FORMATION.	SYMBOL.	SECTION.	THICKNESS IN FEET.	CHARACTER OF ROCKS.	CHARACTER OF TOPOGRAPHY AND SOIL.
TERTIARY (Newark Group)	Quaternary, Tertiary, and Cretaceous rocks.				Described in columnar section of post-Triassic rocks.	Described in columnar section of post-Triassic rocks.
	UNCONFORMITY					
TERTIARY (Newark Group)	Brunswick shale.	Fb		6000±	Soft red shale, with local beds of red sandstone.	Wide rolling valleys with red sandy clay-loam soil.
	Lookatong formation.	Fl		1800-3600	Dark-colored argillite and fine-grained slabby sandstone.	Ridges and plateaus rising steeply above adjacent plains. Sandy clay-loam soil.
	Stockton formation.	Fs		2300-3100	Gray, yellowish, and reddish-brown sandstone mostly massive and moderately hard. Basal beds arkosic and locally conglomeratic. Red shale intercalations at various horizons.	Low ridges. Sandy clay-loam soil.
ORDOVICIAN CAMBRIAN	UNCONFORMITY					
	Shenandoah limestone.	COs		1500±	Crystalline, siliceous, magnesian blue limestone.	Open lowlands. Reddish clay soil.
CAMBRIAN	Chickies quartzite.	Cc		1800±	Quartz conglomerate and quartz schist.	Well-defined ridges. Sandy soil.
	UNCONFORMITY					
PRE-CAMBRIAN	Wissahickon mica gneiss.	wg		2000±	Banded quartz-feldspar rock with an excess of biotite. Small isolated area of crystalline white limestone, probably Franklin limestone.	Relatively low rolling country. Yellow micaceous clay-loam soil.
	Baltimore gneiss.	bgn			Granite and gabbro intrusive in pre-Cambrian gneisses. Banded quartz-feldspar rock.	

GENERALIZED SECTION OF THE POST-TRIASSIC ROCKS OF THE TRENTON DISTRICT.						
SCALE: 1 INCH=200 FEET.						
SYSTEM	FORMATION.	SYMBOL.	SECTION.	DEPTH IN FEET.	CHARACTER OF ROCKS.	CHARACTER OF TOPOGRAPHY AND SOIL.
QUATERNARY	Cape May formation.	Qcm	Occur on terraces on older formations.	0-40	Loam, sand, and gravel, with a few ice-borne boulders.	Low terraces along the Delaware and tributaries. Loam, clayey, sandy, black soil.
	Pensauken formation.	Qps		0-90	Loam, sand, and gravel, with decomposed pebbles and some ice-borne boulders.	Caps low hills and divides. Loam to a loamy gravel soil.
	Bridgeton formation.	Qb		0-30	Loam, sand, and gravel, with decomposed pebbles.	Caps higher hills and gently rolling uplands. Loamy to gravelly soils.
TERTIARY	Cohansey sand.	Tc		50	Coarse sand with clay lenses.	Valley sides near headwaters. Loose sandy soils.
	Kirkwood formation.	Tk		90	Fine, mealy, micaceous sand, in places buff and pink mottled.	Usually rolling uplands, and some isolated hill tops. Fine sandy to clayey soil.
CRETACEOUS	UNCONFORMITY					
	Manasquan formation.	Kma		25	Glaucous, fine sand, and whitish clay.	Valleys. Mostly covered.
	Vincetown sand.	Kv		25-30	Glaucous quartz and lime sand.	Steep valley slopes. Sandy soil.
	Hornerstown marl.	Kh		25-30	Largely glauconitic with sand and clay.	Hilltops and slopes. Rich clayey soil.
	Redbank sand.	Krb		0-50	Black clayey red sand, with iron crusts.	Hills and steep slopes. Soil, reddish sand.
	Navesink marl.	Kns		30	Glaucous, quartz sand, calcareous clay.	Narrow bands. Rich dark loamy soil.
	Mount Laurel and Wenonah sands.	Kml Kw		40-60	Ferruginous sand, glauconitic near top, finer and micaceous near base.	Uplands, slopes, and valley bottoms. Reddish-brown sandy, loamy soils.
	Marshalltown formation.	Kmt		30	Glaucous sandy clay, locally a greensand marl.	Valley slopes. Soil usually covered by wash.
	Englishtown sand.	Ke		30-50	Ferruginous varicolored sand with laminae of clay.	Gentle valley slopes and low interstream areas. White to brown sandy soil.
	Woodbury clay.	Kwb		50	Black to dove-colored plastic clays, mostly nonglaucous.	Steep stream banks and gentle interstream areas. Light-colored stiff clay soil.
	Merchantville clay.	Kmv		40-60	Black clay, somewhat sandy and laminated, usually glauconitic.	Valley slopes; some gently rolling surfaces. Brown ferruginous loam.
	Magothy formation.	Km		30-40	Cross-bedded sand and dark lignitic clay.	Rolling lowlands. Sandy to clayey soil.
	UNCONFORMITY					
	Raritan formation.	Kr			150-300	White to red refractory clay with cross-bedded sand and gravel lenses.
Pre-Cretaceous rocks.					Described in columnar section of pre-Cretaceous rocks.	Described in columnar section of pre-Cretaceous rocks.

NAMES OF FORMATIONS.						
NAMES APPLIED BY VARIOUS AUTHORS TO THE FORMATIONS OF THE TRENTON DISTRICT OR THEIR APPROXIMATE EQUIVALENTS IN ADJOINING REGIONS.						
SYSTEM	NAMES USED IN FOLIO.	SYMBOL	GEOLOGICAL SURVEY OF MARYLAND.	GEOLOGICAL SURVEY OF NEW JERSEY. (1868-1897)	SECOND GEOLOGICAL SURVEY OF PENNSYLVANIA.	N. H. DARTON, WASHINGTON FOLIO. U. S. GEOLOGICAL SURVEY.
QUATERNARY	Cape May formation.	Qcm		Cape May formation.	Trenton gravel. Philadelphia brick clay.	Later Columbia formation.
	Pensauken formation.	Qps		Pensauken formation.	Red gravel. Philadelphia brick clay.	Earlier Columbia formation.
	Bridgeton formation.	Qb		Bridgeton formation.	Yellow gravel.	Chesapeake formation (in part).
TERTIARY	Cohansey sand.	Tc				
	Kirkwood formation.	Tk				
CRETACEOUS	Manasquan formation.	Kmq		Upper marl.		
	Vincetown sand.	Kv	Rancocas group.	Rancocas formation.	Lime sand.	
	Hornerstown marl.	Kh			Middle marl.	
	Redbank sand.	Krb	Monmouth group.		Red sand.	
	Navesink marl.	Kns		Monmouth formation.	Lower marl.	Monmouth formation.
	Mount Laurel sand.	Kml			Sand marl.	
	Wenonah sand.	Kw				
	Marshalltown formation.	Kmt	Matawan group.	Matawan formation.	Clay marl.	Matawan formation.
	Englishtown sand.	Ke				
	Woodbury clay.	Kwb				
Merchantville clay.	Kmv					
Magothy formation.	Km	Magothy formation.		Plastic clays.	Potomac formation (in part).	
Raritan formation.	Kr	Raritan formation.				
TRIASSIC	Brunswick shale.	Fb		H. D. ROGERS, FIRST GEOLOGICAL SURVEY OF PENNSYLVANIA, 1858.	Landsdale shales (approximately).	T. D. RAND, PROC. ACAD. NAT. SCI. PHILADELPHIA, 1900.
	Lookatong formation.	Fl		Mesozoic red sandstone.	Gwynedd shales (approximately).	
	Stockton formation.	Fs			Norrstown shales (approximately).	
ORDOVICIAN CAMBRIAN	Shenandoah limestone.	COs		Auroral limestone.	Limestone No. II.	Limestone No. II.
	Chickies quartzite.	Cc		Primal white limestone.	Chiques sandstone, formation No. I.	Cambrian sandstone.
PRE-CAMBRIAN	Wissahickon mica gneiss.	wg		First and second gneissic belts and mica slate.	Chestnut Hill, Manayunk, and Philadelphia mica schists and gneisses (in part).	Chestnut Hill, Manayunk, and Fairmount schists and gneisses (in part).
	Baltimore gneiss.	bgn		Primal lower slate. Northern or Third gneissic belt (in part).	Laurentian or Azoic gneiss (in part).	Ancient gneiss (in part).