



MAP OF
MARYLAND
 SHOWING THE
GEOLOGICAL FORMATIONS

AND
AGRICULTURAL SOILS

PREPARED BY
MARYLAND GEOLOGICAL SURVEY
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 IN COOPERATION WITH
 U. S. GEOLOGICAL SURVEY AND U. S. BUREAU OF SOILS.

SCALE: 800000 - 8 miles - one inch

1906

LEGEND

CRYSTALLINE ROCKS		PALEOZOIC FORMATIONS		MESOZOIC AND TERTIARY FORMATIONS		QUATERNARY FORMATIONS	
GEOLOGY.	SOILS.	GEOLOGY.	SOILS.	GEOLOGY.	SOILS.	GEOLOGY.	SOILS.
ACID VOLCANICS This colored rock, usually much altered by development of epidote or quartz.	This clay loam with occasional small boulders; moderately productive; wheat, grass and small crops.	CATSKILL (Schoenherk) Red and gray shales and sandstones with thin bedded limestone above, 1200 ft.	Heavy red loams or sandy loams; fair grass and wheat lands.	DORCHESTER Thin shales and limestones with coal; 300 ft.	Yellow sandy and clay loam and thin sandy loams; hilly pasture land.	LOESS A complex of acid and basic volcanic; argillaceous sandstone and sandstone metamorphosed to schist. Individual members ungrouped.	Heavy clay loam and micaceous soils on low lands; rocky thin soils on ridges; good farm lands.
BASIC VOLCANICS Dark colored compact rocks, changed to gneiss and chlorite and quartzite.	Micaceous clay soils with boulders; moderately productive; wheat, grass and small crops.	NIAGARA Alternating thin bedded limestones and shales; 1800-200 ft.	Yellow clay loam and loams; fair grass and wheat lands.	MORNINGSTAR Black shales, sandstones, and limestones; 100 ft.	Heavy loams, thin shaly soils; pasture land and locally truck crops.	CONROCK Sandstone and shales with nodules of iron ore; 800-1000 ft.	Yellow shaly loams and thin shaly soils with boulders; hilly pastures.
QUARTZITE Light greenish rocks often with mica in parallel folia.	Loam, slightly sandy; good farm lands, wheat, hay, corn and oats.	CLINTON Particled shales and sandstones with iron ore bands; 100-200 ft.	Shallow loams filled with shale fragments; light grass and grain.	CONROCK Sandstone and shales with nodules of iron ore; 800-1000 ft.	Yellow shaly loams and thin shaly soils with boulders; hilly pastures.	ALLEGHENY Sandy and carbonaceous shales and sandstones with coal seams; 200-300 ft.	Yellow loams and thin shaly soils with boulders; pasture land and forest areas with some truck lands.
DIORITE Dark greenish gray porphyritic rock with much hornblende.	Brown clay, somewhat sandy; wheat, corn and hay.	TUNNICLIFFE Massive white quartzite sandstone; 2000 ft.	Shallow, grayish, clay, sandy loams; crops mostly forested.	PUTNEYVILLE Massive conglomerates and sandstones with coal seams; 200-300 ft.	This rocky soils or heavy loams on mountain tops; areas mostly forested.	MAJON CHIEF Red shales and sandy shales and thin sandstones; 400 ft.	Red sandy loam on steep hillside, mostly forested.
GNEISS Dark hard, sometimes coarse grained rocks, weathering into rounded boulders.	Heavy reddish clay loam underlain by clay, sometimes thin, shaly, grass and small crops.	JURASSIC Alternating thin bedded red shales and sandstones; 100 ft.	Red sandy loams of limited extent; little under cultivation.	GREENSBURG Gray and brown siliceous limestones; 2000 ft.	Shallow clay loams in narrow valleys; crops, wheat and oats.	POCONO Massive gray coarse sandstone; 100 ft.	Shallow, clay and sandy soils; crops, wheat and oats.
SEPIENTINE Bright green, gray or reddish brown rock, with characteristic, broken outcrop.	Light yellow, thin loam; unproductive; shaly growth of small pine and oaks.	MARTINSBURG Dark shaly shales; 700-1000 ft.	Yellow clay loam and loams; fair grass and wheat lands.	GREENSBURG Gray and brown siliceous limestones; 2000 ft.	Shallow clay loams in narrow valleys; crops, wheat and oats.	MAJON CHIEF Red shales and sandy shales and thin sandstones; 400 ft.	Red sandy loam on steep hillside, mostly forested.
FRACONITE SLATE High grade, black roofing slate.	Heavy clay loam with rock flakes; seldom farmed extensively.	SHERIDAN Massive bedded blue and white limestones; 1000 ft.	Red clay soil; excellent farming lands, wheat, corn, hay and oats.	POCONO Massive gray coarse sandstone; 100 ft.	Shallow, clay and sandy soils; crops, wheat and oats.	MAJON CHIEF Red shales and sandy shales and thin sandstones; 400 ft.	Red sandy loam on steep hillside, mostly forested.
CARBONYL QUARTZITE Folky conglomerate quartzite.	Rocky, sandy soil on hill slopes; forest land with pine, oak and chestnut.	ANTWERP Thin brown sandstone grading into shale; 100 ft.	Thin, rocky soils; high rounded hills and mountains; unproductive.	HARSHBARGER Alternating red shales and sandstones; 100-200 ft.	Light yellowish loams; pasture lands.	JURASSIC Dark gray shales and sandstones; 200 ft.	Light loams with broken shales; pasture land.
PELLITE Serpentine and chlorite schists with numerous quartz veins.	Yellow-brown loam, sometimes sandy or clayey; good farm lands, wheat, oats, corn and hay.	HARPER Gray, sandy shales with sandstone layers; 100 ft.	Yellow, sandy soils; pasture lands, grass and mountain pastures.	JURASSIC Dark gray shales and sandstones; 200 ft.	Light yellowish loams; pasture lands.	CHERRY Oolitic sandstones; 200-300 ft.	Shallow gray sandy soil, steep slopes; forested or pasture.
WHALEBOON GNEISS Blue white and gray usually with crystalline and carrying quartz, quartzite and sawtooth.	Yellow-brown loam, micaceous; good farm lands, wheat, corn and grass.	WYOMING White sandstone quartzite and conglomerate; 100-300 ft.	Thin, rocky soils; high peaks and ridges; unproductive.	HELENSBURG Chertaceous New London shales; 200 ft.	Heavy clay loam and micaceous soils on low lands; rocky thin soils on ridges; good farm lands.	LOESS Dark shales with limestones, shales, sandstones and conglomerates; 1000 ft.	This, micaceous, sandy soil in low ridges and valleys; grass, pasture lands and mountain pastures.
MARBLE Fine and coarse bedded crystalline marble; frequently dolomitic.	Heavy clay loam and micaceous soils on low lands; rocky thin soils on ridges; good farm lands.						
QUARTZITE Micaceous quartz schist or micaceous quartzite usually carrying black ironstone.							
BALTIMORE GNEISS Highly crystalline parts of alternating hornblende, mica and quartzite layers, often intruded with pegmatite and granite.							

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