GEOLOGIC MAP AND SECTIONS OF THE HANOVER-YORK DISTRICT, PENNSYLVANIA

By Anna J. Stose and G. W. Stose, 1943

Scale 1:62500

Contour interval 20 feet.
Datum is mean sea level

Base surveyed by the Geological Survey of the United States Department of the Interior in cooperation with the State of Pennsylvania.

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Geology by Anna J. Stose and G. W. Stose. Surveyed in 1919-1937, in cooperation with the State of Pennsylvania

EXPLANATION

QUATERNARY

- Alluvium (*Only wider areas in floodplains of larger streams shown*)
- Terrace gravels

TRIASSIC

- Diabase (*Thick intrusive sill and dikes*)
- Gettysburg shale (*Chiefly red shale and soft red sandstone. Tcw, Conewago conglomerate member, composed of conglomerate and thick sandstone. Shale baked to hard dark-blue to black porcellanite, adjacent to diabase sills, shown by red ruling*)
- New Oxford formation (*Red shale and sandstone and light-colored micaceous and arkosic sandstone. Tc, conglomerate at and near base; composed of very coarse unassorted local material on north flank of Pigeon Hills*)

Upper Triassic

UNCONFORMITY

ORDOVICIAN(?)

- Conestoga limestone (*Thin-bedded blue limestone with many argillaceous partings; thicker beds of crystalline limestone and coarse limestone conglomerate at and near base; Ocs, coarse sandy limestone, weathering to sand, locally mapped. May be in part Upper Cambrian in age*)

Lower Ordovician (?)

UNCONFORMITY

CAMBRIAN

- Ledger dolomite (*Massive pure gray granocrystalline dolomite. Clc, ferruginous granular chert*)
- Kinzers formation (*Cks, dark shale at base; Ckl, pure limestone and marble with irregular argillaceous partings; Ckss, earthy limestone weathering to fine porous sandstone or tripoli, at top, separately mapped in places*)
- Vintage dolomite (*Dark-blue, knotty argillaceous dolomite*)
- Antietam quartzite (*Ferruginous granular quartzite, calcareous and weathering porous at the top; source of many iron-ore deposits*)
- Harpers phyllite (*Gray and dark-banded phyllite with thin quartzite layers; Chq, thicker green ferruginous quartzite, locally mapped*)

Lower Cambrian

PIGEON HILLS AND HELLAM HILLS — SOUTH OF HANOVER-YORK VALLEY

- Chickies quartzite (*Vitreous white quartzite, sec. lithsharbearing in part Ch, Hellam conglomerate member. Chs, shale, bearing beds of base, mapped in Pigeon Hills. Subdivisions of the Hellam in Hellam Hills indicated by black lines*)
- Chickies slate (*Dark slate with thin platy quartzite layers. Ccq, thicker quartzites locally mapped; Ch, Hellam conglomerate member at base*)

FAULT RELATIONS

UNCONFORMITY

PRECAMBRIAN

- Metabasalt (*Basalt flows, in part amygdaloidal; schistose in places*)

SOUTH OF MARTIC OVERTHRUST

NORTHERN PART OF MARTIC BLOCK — SOUTHERN PART OF MARTIC BLOCK

- Marburg schist (*Blue and green chloritic muscovite schist and chloritoid schist, probably in part volcanic tuff, and thin quartzite layers. qt, thicker quartzite and conglomerate with interbedded black shale, inhibited at top of Formation; sl, black slate associated with the infolded quartzite*)
- Wissahickon formation Albite-chlorite schist facies (*Includes albite-chlorite-muscovite schist, chloritoid-chlorite-muscovite schist, thin graphitic quartzite, and white muscovite quartzite; wq, thicker beds of quartzite, locally mapped*)

PRECAMBRIAN (?) (Uniontown series)

- Metabasalt (*Schistose basalt flows, in part amygdaloidal*)
- Wakefield marble (*Crystalline bluish-white marble*)

Thrust fault
T, overthrust side

Normal fault
D, downthrow; U, upthrow
Dotted lines, faults that have been removed by erosion

Active quarries

Abandoned quarries and mines, and prospect pits

PRODUCTS
ir—iron; sr—stone; l—limestone; sl—slate; so—sand; br—brick; cl—clay

Fossil locality

Strike and dip of bedding

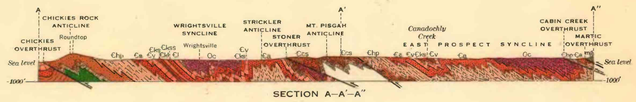
Strike and dip of overturned beds

General strike and dip of closely folded beds

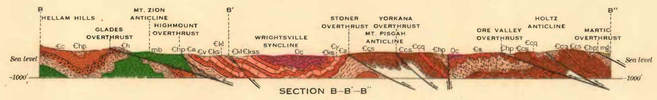
INDEX OF QUADRANGLES

HANOVER	YORK
G. W. S. and A. J. S. / MARTIC OVERTHRUST / Largely by A. J. S.	
WESTMINSTER	PARKTON

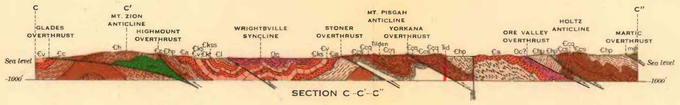
SECTION A–A'–A''



SECTION B–B'–B''

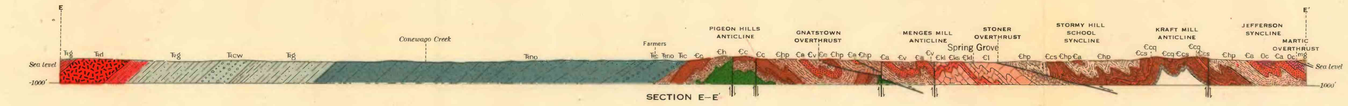


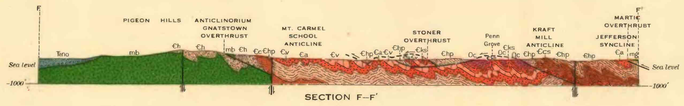
SECTION C–C'–C''



SECTION D–D'

SECTION E–E'



NOTE—The structure sections are somewhat generalized because of their small scale. Minute folds and slipping on transverse cleavage planes in area south of the Hanover-York Valley are not shown. The dip of the Martic overthrust is not known. Sections A–A', B–B', and C–C' show the structure of the Mount Zion and Chickies anticlines north of the York quadrangle.

SECTION F–F'