# GEOLOGIC MAP
## OF
# YORK COUNTY
## PENNSYLVANIA

BY

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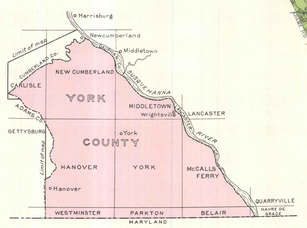
Surveyed in cooperation with

Geological Survey, United States Department of the Interior

1939
Second Printing, 1970
Third Printing, 1973

Note.—The topographic maps were surveyed in or before 1910. The Holtwood, Safe Harbor, and Conowingo dams have been constructed and the topographic maps were surveyed, and the shore lines and islands have not been adjusted to the new levels of the water ponded above these dams. Some of the alluvium mapped along the shores and on the islands is now submerged.




INDEX MAP OF YORK COUNTY
Showing the names of quadrangles comprising the county

## MINERAL PRODUCTS

**Magnetite.**—Large deposits of high-grade magnetic iron ore east of Dillsburg and near Grantham have been largely mined out. This ore is a replacement of Paleozoic limestone by solutions emanating from bodies of intrusive diabase rich in iron, probably because of their close proximity to the deep-seated intrusive vent. Deposits of magnetite replacing Triassic limestone-conglomerate have been mined on a smaller scale near Minebank Schoolhouse and Mt. Pleasant Schoolhouse. Other workable deposits may be found in the area of Triassic rocks in the southeastern part of the county. Magnetite of crystals up to ¼ inch in size occurs in the Chickies shale and Harpers phyllite south of the Hanover-York Valley and has been prospected where it is more concentrated, but no ore of commercial value has been developed.

**Limonite, or brown iron ore,** occurs at most of the contacts of the Vintage dolomite and Antietam quartzite, and along faults associated with these formations. The most concentrated deposits of this ore have been largely mined out from mines located in Dogwood Hollow, in the vicinity of Mt. Carmel School, Iron Ridge, and Nashville, in the foothills along the south side of Hellam Hills, at Ore Valley, near Margaretta Furnace, and in the Jefferson syncline. Many other deposits are still available at the top of the Antietam quartzite and along faults where limestone is on one side of the break.

**High-calcium limestone,** used for flux in the steel and glass industries, for portland cement, and whiting, occurs chiefly in the middle member of the Kinzers formation in the vicinity of West York and of Thomasville, where these beds are of unusual thickness and purity and are being extensively quarried. Elsewhere in the county this middle member contains thinner beds of pure limestone formerly quarried locally and burned for lime.

**Limestone suitable for crushed stone,** used as road material and in concrete, and for **lime production** is plentiful in the county, and can be obtained from most of the limestone-bearing formations shown on the map. The Conestoga and other limestones in the Hanover-York-Wrightsville Valley have been locally quarried at many places for these purposes. A large quarry north of Dillsburg produces crushed stone for road material from the Tomstown dolomite.

**Dolomite,** suitable for furnace lining in the iron and glass industries, occurs chiefly in the Ledger dolomite. Much of this dolomite is of sufficient purity to be used for this purpose, but in the lowlands around Spring Grove and from West York to Botts it is deeply covered with soil, and rock outcrops are scarce. Hence it has been quarried and burned at few places in the county. The outcrops of the Ledger dolomite, largely covered by soil, however, are shown on the geologic map. The upper part of the Tomstown dolomite, equivalent to the Ledger, is quarried for dolomite at Saginaw.

**White paper clay,** suitable for filler in paper and paint manufacture, occurs in Dogwood Hollow west of Dillsburg and south of Boiling Spring. It occurs associated with the limonite deposits along faults. The deposit seems to be pure and extensive, but, because the cost of mining it is too great, little white clay has been mined in the county. Similar white clay has been produced in the Hellam Hills south of Hightmount.

**Roofing slate** has been extensively quarried in the Peach Bottom syncline in the southeastern corner of the county, and one company is at present producing high-grade roofing slate and slate granules. The granules are used in the production of artificial slate for roofing purposes, and the fines are used for filler in rubber manufacture. Many old deep pits along the strike of the beds mark its extent, but all of the high-grade slate has not been removed, and there is an unlimited quantity of slate suitable for the production of granules and slate dust for filler. Roofing slate has been prospected at several places in the Chickies slate and Marburg schist in the southern county, but none of commercial value has been obtained.

**Brick clay** is obtained from deeply weathered impure limestone, chiefly the Conestoga limestone. The most promising deposits in the county are the residual clays from this formation in the vicinity of York and Hanover, where several brick companies have been operating. Brick is also made from weathered shale in the New Oxford formation at Biglerville, Adams County, in the county. A brick plant in this shale is located one mile north of Biglerville.

**Building sand** is derived from disintegrated quartzite and by crushing little-weathered quartzite. The Chickies quartzite is the chief source, and it has been extensively quarried in the Hellam Hills, northeast of York, and in the same formation east of the river in Lancaster County. The Harpers phyllite and Chickies formation in the Hellam and Pigeon Hills is shown on the map. Disintegrated, residual limestone in the Conestoga limestone locally furnishes building sand near Hanover.

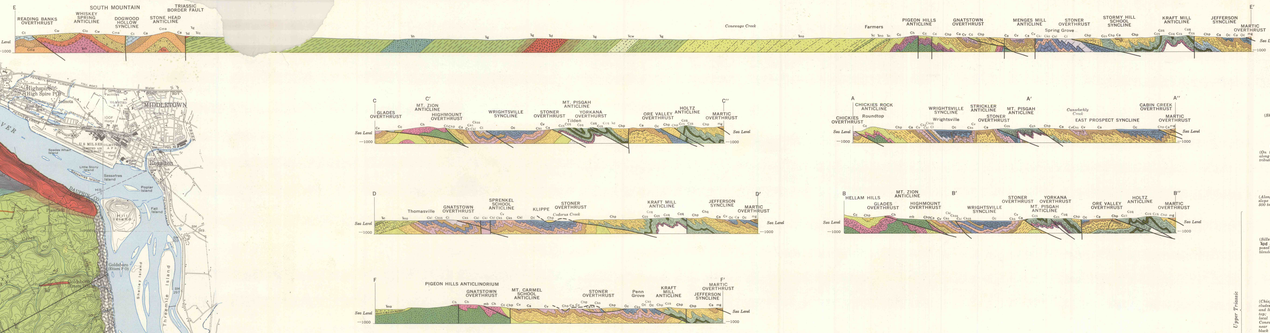
**Building stone** is obtained chiefly from the Chickies and Antietam quartzites, and from quartzite beds in the Chickies slate, south of the Wrightsville-York Valley. The distribution of these formations is shown on the map. Limestone was formerly extensively used for rough building stone, but the limestones in the county are not well bedded, and slabs of uniform size and shape are not readily obtainable. The harder red and reddish-gray sandstones in the Gettysburg shale can be obtained in suitable size and shape for building purposes, and this stone was formerly very popular as a building stone but is little used at present. The distribution of the Gettysburg shale is shown on the map.

**Crushed stone,** for road material and concrete, can be obtained from many of the formations in the county. The formations that produce limestone and building stone, described above, also produce crushed stone. The tough and resistant Triassic diabase or trap makes excellent road material but is expensive to crush into suitable sizes, and has not been utilized to any extent for this purpose in the county. The baked Triassic shale, adjacent to the diabase, is used extensively for road material in the vicinity of Gettysburg, but has not been quarried in the county. The distribution of these rocks is shown on the map.

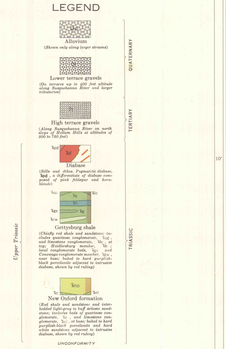
**Mineral Products**

| | | |
|---|---|---|
| x Abandoned quarry | ≈ Building sand | Cl. Clay |
| ⁂ Active quarry | ST Stone | Sl. Slate |
| BR Brick | LS Limestone | IR Iron |
| | | CP Copper |

Base from topographic maps published by the Geological Survey, United States Department of the Interior




## LEGEND

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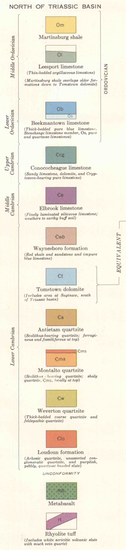


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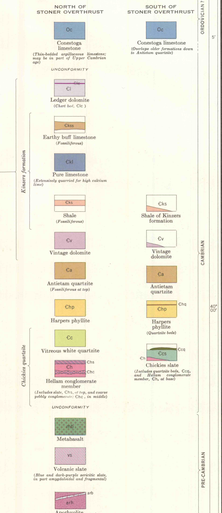


Fault
U Upthrow; D, Downthrow
T Overthrust side of thrust fault
Strike and dip of beds
Strike and dip of overturned beds
F Fossil locality

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