

From:

10⁹ Years, A Guide to the Geology of Westchester County, NY

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(excepted 2011 by the author)

Chapter 5: Rock and Mineral Localities In and Near Westchester County

Three points should be made very emphatically.

Many of these sites are on private land, or land to which access is restricted. In many places, rocks should be observed without collecting, as the collecting of samples may destroy a valuable natural resource. At each location, the tact and good judgement of the reader is essential.

Unfortunately, as time passes, outcroppings become weathered or made unavailable by land development. At the same time, new sites become exposed by construction of roads and buildings. Updating this document is an ongoing activity and the help of the reader is requested. The author would appreciate hearing of new exposures.

Please be careful. Watch your footing. Proper footwear is very important. Also, whenever a rock hammer is used, be sure to use goggles to protect your eyes and the eyes of those nearby. Flying rock chips are a very real danger to the person using the rock hammer, as well as to companions.

1. Croton Point This location is easily accessible and it contains an unusual (County Park) variety of rock types; igneous, metamorphic and sedimentary.

Visit this location at low tide. (Check the weather report section in a local newspaper for the time of low tide.) It is about 1 mile west of the Croton-Harmon railroad station. From Route 9 at the railroad station, follow the viaduct and the road west to the main parking lot. (In the summer, there is a parking fee.) Samples may be found along the shore either north or south of the parking lot. Some of the best samples can be seen along the beach 100 meters south of the large grassy picnic area. (See field trip D.)

Samples that may be observed include good specimens of SANDSTONE, CONGLOMERATE, GNEISS, SCHIST, NORITE GABBRO, PYROXENITE, and other rock types.

2. Tilly Foster Mine The Tilly Foster mine was a source of magnetite iron ore in (Private land; may be posted) the early part of this century. The rocks were extracted from a very deep pit along the east side of the entry road. This location is famous for a great variety of common and unusual minerals, including some displayed in the American Museum of Natural History in New York City. A variety of minerals can be found in the piles of

spoils, mostly to the south of the mine pit. (Tilly Foster was named after a local farmer (Tillingham Foster) who was an early settler of the area.)

The Tilly Foster mine is located near the south side of US Route 6 about half way between Brewster and Carmel in Putnam County. It is on a point in the Middle Branch Reservoir just east of the intersection of Route 6 and County Road 57.

Samples of GNEISS, AMPHIBOLITE, MAGNETITE, CLINICHOLORE CHLORITE (rust stained), and MILKY QUARTZ can be found here. A total of about 80 different minerals have been identified from the Tilly Foster Mine.

3. Baylis Quarry This pegmatite body was mined primarily for high grade feldspar (Private; land now used in the manufacture of ceramics. Large books of biotite and being developed) muscovite mica, and masses of pink rose quartz can be observed in the quarry walls.

About 1/2 mile east of Bedford Village on the road to Greenwich, CT, turn left (east) onto Oliver Road. About 1/2 mile up this road a small road leads up to the right (south). The pegmatite quarry is about 75 meters up this road.

(At the time of writing the quarry was closed to visitors because it was at the center of a residential development project. However, it is the understanding of the writer that the quarry pit is to be preserved.)

A wide variety of minerals have been identified from this location, but the most common minerals include FELDSPAR (plagioclase and orthoclase), QUARTZ (milky & rose), BIOTITE, and MUSCOVITE MICA.

4. Road Cut At Goldens Bridge: Small pods of garnet are common in this exposure of the Manhattan formation.
(Public access)

About 1/4 mile north of the intersection of Route 138, along New York Route 22, stop at a large exposure along the east side of Route 22. A car dealership is at the top of the outcrop. Samples of SCHIST, QUARTZ (milky) and small GARNET pods are common here.

5. Peekskill Granite Quarries: A quarry in the north side of Route 202 was used to (Private land) supply some of the facing stone for the Cathedral of St. John the Divine in northern Manhattan. The quarry south of US 202 was used to mine the facing stones for the Croton Dam, about 5 miles to the south. A railroad led from the quarry down grade to the dam site.

About half way between Peekskill and Yorktown Heights, one quarry is on the west side of a hill opposite Curry Chevrolet, about 1/2 mile north of Route 202. The other quarry is located about a mile to the west, along the north side of a hill 1/2 mile south of 202 and about 1/2 mile east of Croton Avenue.

Attractive samples of gray and rusty GRANITE can be found at these quarries

6. Migmatite on I 684 near Mt. Kisco: This road cut exposes an attractive pink (Public access) granite pegmatite, gneiss and amphibolite.
Park along I 684 southbound just before the exit at NY 172, or along New York Route 172 at the southbound exit from Interstate 684.
(From route 172 only, walk about 1/2 mile north to the road cut.)

See Field Trip B for a description. Good samples of GRANITE, PEGMATITE, GNEISS, and AMPHIBOLITE can be found here.

7. Serpentinite Along I 287: This exposure, under the Ridge Street bridge, is a rock (Public access) type called serpentinite. It was formed from a mafic intrusion near the suture of two tectonic plates. (See Field Trip B.)
Also, note the Origins of Common Metamorphic Rocks diagram.
(NOTE: State Police may not allow you to stop along this busy highway.)

SERPENTINITE is a retrograde metamorphic rock formed by the slow cooling of a rock rich in minerals of iron and magnesium.

(Text added in 2011)

Other parts of New York State where various rock samples can be collected:

Shale: Finger Lakes Region, Some Catskill locations along NY 17

Sandstone & Conglomerate: Central and high elevations in the Catskills

Limestone: Hudson River Valley and a line across NY roughly from Utica to Buffalo

Coal (anthracite): Mined in NE Pennsylvania

Slate: Various road cuts in the Hudson Valley across the river from Poughkeepsie

Quartzite (& mineral quartz): Scattered outcrops in Harriman State Park

Quartz crystals can be collected in commercial locations in Herkimer County.)

Halite (rock salt): Mined in the Finger Lakes Region & Retsoff

Periodic rock and mineral “Shows” are presented in several New York urban areas. These show events concentrate on gems and semi-gems. But they may have some useful and inexpensive mineral samples. Google: New York State mineral shows.