

INFORMATION AVAILABLE

The North Carolina Geological Survey sells publications on gold in North Carolina. For information on publications and prices, please contact us at the address below.

Many of the North Carolina publications written about gold in the late 1800's and early 1900's contain valuable information, but are now out-of-print. Bulletin 3, *Gold Deposits of North Carolina*; Bulletin 10, *Gold Mining in North Carolina and Adjacent South Appalachian Regions*; and Bulletin 38, *Gold Deposits in North Carolina*, are especially useful. These publications are on file in the Raleigh office of the North Carolina Geological Survey, and are also available in many university libraries. Public libraries can obtain the publications through inter-library loan. A complete list of these publications, as well as many others concerning geology, is available from this office.

U. S. Geological Survey Professional Paper 213, *Gold Deposits of the Southern Piedmont*, is a good source of information, but is also out-of-print. The U. S. Geological Survey distributes several pamphlets on gold prospecting. These pamphlets are available from the Books and Open-File Reports Section, U. S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225. Many book stores and rock and mineral dealers sell books on gold panning and prospecting.

Topographic maps provide useful information in locating good panning sites by showing stream meanders and the locations of rapids. These maps and map indexes are available from Map Distribution, U.S. Geological Survey, Federal Center, Box 25286, Denver, Colorado 80225. Topographic maps are also available from various map dealers across the state.

A complete list of publications is available from the North Carolina Geological Survey, Post Office Box 27687, Raleigh, North Carolina 27611, telephone (919) 733-2423. All orders require prepayment, and checks should be made payable to the North Carolina Geological Survey. North Carolina residents please add 6% sales tax.

STATE OF NORTH CAROLINA
JAMES B. HUNT, JR., GOVERNOR

DEPARTMENT OF ENVIRONMENT, HEALTH, AND
NATURAL RESOURCES
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GOLD in North Carolina



GOLD IN NORTH CAROLINA

Gold has been an important part of North Carolina's history since 1799, the date of the first authenticated discovery of gold in North America. North Carolina was the nation's only gold producing state from 1803 until 1828, and continued as a leading producer until 1849 when gold was discovered in California. Production continued sporadically in the late 1800s and early 1900s, but since that time gold output has been minor. The last major production was from 1954 to 1963 as a byproduct of copper mining in the Blue Ridge.

In response to the rise in gold prices since the mid-1970's, interest in North Carolina gold has been renewed. Interest is particularly high around the once-active mining areas, but exploration to find new deposits is also underway. Numerous mining companies currently have exploration programs in the state. Amateur prospectors are also showing increased interest in prospecting and panning as a hobby or recreational activity. It is difficult to find large amounts of gold in stream sediments, but the possibility of finding even a little "color" in a gold pan is hard to resist.

The following information should answer the most common questions about gold and serve as a guide to gold panning and prospecting in North Carolina.



Removing overburden at the Portis Mine, Franklin Co., 1935. (NCGS Bulletin 38.)

HOW TO IDENTIFY GOLD

If you aren't sure it's gold, it probably isn't! Pyrite and yellow-colored mica are frequently mistaken for gold, but can easily be distinguished. Gold is very soft (2.5-3 on Mohs scale of hardness) and can be hammered into thin sheets without shattering. It is heavy (specific gravity of 19.3 when pure) and is insoluble in all acids except aqua regia (a mixture of hydro-chloric and nitric acids).

Pyrite is harder than gold (6-6.5 on Mohs scale) and is brittle. When struck with a hammer, it shatters. It is also relatively light (specific gravity of 5.02). Pyrite frequently forms small cubes.

Mica, on the other hand, is as soft as gold (hardness 2-2.5), but naturally occurs in thin sheets or flakes which can be split into individual sheets. It is lighter than gold (specific gravity of 2.76-3.1) and can be smeared out with a fingernail or a sharp object.

LANDS OPEN TO PROSPECTING

Most property in North Carolina is privately owned. Individuals interested in non-commercial prospecting should obtain permission from the landowner prior to entering private property. Most landowners are cooperative, but do not tolerate trespassers.

For serious mining, a lease agreement or purchase of mineral rights can be negotiated with the landowner. Unless bought separately, mineral rights are normally retained by the landowner. Property deeds are recorded in courthouses in the county seat of each county. These records can be examined to determine land ownership.

STATE & FEDERAL LANDS

Most federal lands in North Carolina are in parks and forests. Although prospecting is not permitted in national parks, prospecting or exploration permits are occasionally granted in national forests. The district forest ranger should be contacted for permits and regulations. Prospecting is not allowed in state-owned parks or forests.

PERMITS & REGULATIONS

Any mining must be carried out in accordance with the North Carolina Mining Act of 1971. Anyone operating a mine which affects greater than one acre of surface area must obtain a permit, post a bond, and develop a reclamation program. Further information is available from the Land Quality section of the Division of Land Resources, Post Office Box 27687, Raleigh, North Carolina 27611, telephone (919) 733-4574.

Core-drilling activities and operations using large volumes of water or discharging into streams will require permits from the Division of Environmental Management, Post Office Box 29535, Raleigh, North Carolina 27626, telephone (919) 733-7015.

All mining operations must comply with state and federal laws pertaining to safety and health requirements. Prior to opening a mine, operators should contact the Mine and Quarry Division of the North Carolina Department of Labor, 4 West Edenton Street, Raleigh, N. C. 27601, telephone (919) 733-7428.

WHERE GOLD WAS MINED

Gold occurs in North Carolina in both lode (veins or mineralized zones) and placer (stream sediment or residual) deposits.

Although deposits were mined in both the Piedmont and Mountain regions, most of the early production was in the central Piedmont, particularly in the Carolina slate belt and in Mecklenburg County. The slate belt includes the Gold Hill and Cid Mining districts and such mines as the Reed

Mine in Cabarrus County, the Gold Hill Mine in Rowan County, and the Silver Hill Mine in Davidson County. Mecklenburg County contained more mines and prospects than any other county in the state. The most important mines in Mecklenburg County were the Capps, Rudisil and St. Catherine Mines.

Other counties in the slate belt where gold was mined include Guilford, Montgomery, Moore, Orange, Randolph, Stanly and Union. In the western Piedmont, mines were located in Caldwell, Catawba, Davie, Gaston, Lincoln, Mecklenburg, McDowell, Polk, Rutherford, Wilkes and Yadkin counties.

In the Mountain region, mines and prospects were located in Ashe, Buncombe, Cherokee, Clay, Hen-

derson, Jackson, Transylvania and Watauga counties. Copper mines in Ashe and Swain counties produced byproduct gold.

WHERE TO FIND GOLD

Most of the gold-exploration companies in North Carolina are looking for invisible gold associated with volcanic rocks. Amateur prospectors are looking for the coarser gold found in streams and quartz veins. Streams flowing through former gold-producing districts

offer the best opportunities for panning. Although these streams were prospected many times, much of the fine gold was lost during earlier activities. Because stream action and erosion redistributed the gold, it is still possible to find small amounts of gold in the stream sediments (placers). It

is also possible to find gold in quartz veins exposed at the surface of the ground. Although there are many quartz veins, it is rare to find one that contains gold.

The best place to find gold in streams is where they begin to widen or change in velocity, such as along the insides of bends or in slow-water areas below rapids. Gold also tends to work its way to the bedrock and often accumulates in crevices, depressions, and potholes in rock underlying the stream.

Streams such as Little Buffalo Creek in Rowan and Cabarrus counties, Dutch Buffalo Creek in Cabarrus County, Cabin Creek in Moore County, the Uwharrie River in Montgomery County and streams in the South Mountain area might be good places to try panning. The Cotton Patch Mine near



Remains of the first Chilean Mill erected in North Carolina at the Reed Mine, Cabarrus Co. (NCGS Bulletin 38.)

New London, Stanly County, is open to the public for panning. For a fee, gold seekers can pan from sediments dug from a small creek.

Gold can also be panned at the Reed Gold Mine in Cabarrus County. This mine was purchased by the state in 1972, and is now operated as a State Historic Site. A portion of the underground workings have been restored and a visitors' center offers exhibits illustrating the history of the mine. Additional information is available from the Reed Gold Mine, 9621 Reed Mine Road, Stanfield, N. C. 28163, tele. (704) 786-8337.

EQUIPMENT TO USE IN PANNING

The two basic tools needed for panning are the miner's pan and a shovel. Other equipment can be added depending upon how seriously intent one is at finding the hard-to-get-at gold. A sturdy hook or spoon for gouging out crevices in bedrock, a magnet for removing magnetite from the heavy mineral concentrates, a magnifying glass, a geologist's pick, and containers in which to keep the gold and concentrates are all helpful.

Additional equipment such as rockers, longtoms, sluices, or portable suction dredges can be used when larger volumes of material are worked. Much of the equipment can be purchased from rock and mineral dealers.

WHERE TO SELL GOLD

Gold concentrates and nuggets can usually be sold to individual buyers as well as rock and mineral dealers. Nuggets usually have a higher value as specimen samples and jewelry than at world market prices. Gold obtained from lode deposits can also be sold as specimens or, when refining is necessary, the unrefined gold can be sold to a refinery. Large lots are needed for shipping since handling costs often exceed the value of the gold.