

## **Industries**

### **Pyrite Mining**

A band of mineral-bearing rock runs diagonally through Stafford from central Prince William County through the Garrisonville area, through Hartwood, and into Spotsylvania County. This band of rock contains deposits of graphite, sulfur, iron, pyrite, copper, gold, and silver and provided iron for the foundries at Accokeek and Falmouth. For years, gold was mined and panned throughout the southwestern portion of Stafford, those deposits extending into Fauquier County; a village there still bears the name, Goldvein. Pyrite in this area is part of what is known as the Chappawamsic Formation, formed during the lower Ordovician period about 480 million years ago. Pyrite often occurs in fine-grained, grey-green schist created by regional metamorphism and this describes the pyrite found in Stafford.



Pyrite, also known as fool's gold, is a common sulfide mineral and ore of iron. Pyrite is rarely used in the manufacture of iron and steel, but by simply mixing pyrite with water, sulfuric acid may be produced. By the waning years of the 19<sup>th</sup> century, numerous industrial uses were found for this acid including in the manufacture of munitions, glass, soap, bleach, textiles, paper, dyes, medicine, sugar, kerosene, rubber starch, syrup, fertilizer, and leather processing. In 1902 a major pyrite deposit was found in Louisa County. Shortly thereafter, pyrite was found in what is now Prince William Forest Park. In early 1903 the National Copper Ore Company of New York began digging on the south side of Aquia Run next to what is now Smith Reservoir. Although the company representative expected to find copper, he found pyrite instead. National Copper disappeared, but its representative remained in Stafford and found an even better deposit on the south side of Garrisonville Road in what is now Hampton Oaks subdivision. This became known as the Austin Run Pyrite Mine.

This second mine consisted of a vertical shaft over 350 feet deep. From that ran horizontal tunnels at varying levels. Some of these tunnels were a mile or more in length and remain today. Machinery at the site included a large jaw crusher, ten ball mills, and numerous large buildings to house the equipment. In 1909 the mining company purchased a small, but powerful steam engine called a dinky. They built a narrow gauge railway from the mine to Coal Landing on Aquia Creek. Pyrite ore was loaded into several open cars that the dinky pulled along the railway to Coal Landing on Aquia Creek. The bottom of each car could be opened and the ore dropped down on awaiting barges. From Coal Landing the ore was taken to processing plants.

Between 1904 and 1920 this mine was run by several companies, including the Horine Mining Company, the Austin Run Mining Company, Old Dominion Pyrite Company, Western Pyrite Company, and Fer-Sul Company. While this was a rather extensive operation, none of the companies profited financially and most bankrupted. By 1919 a new process was producing sulfuric acid without pyrite, thus making these mines unnecessary. Austin Run Mine was abandoned around 1920, though the buildings and equipment remained on the site for many years. A sale was held at which the movable property was sold. The railroad tracks were sold but no one wanted the dinky engine. At some point, the engine was taken down between the north and southbound lanes of U. S. Route 1 to what is now the northern-most crossover at old Stafford Wayside Park. It was pushed off its tracks and into Jackson Branch of Austin Run where it remained until the 1970s when it was dug up during installation of a water line.

Although the pyrite mine has long been closed, the mineral remains in the area in high concentrations and is exposed each time excavations are conducted. While building Mine Road (Route 684) to Hampton Oaks and other subdivisions, great quantities of pyrite were exposed. As rain water runs over the mineral, the resulting sulfuric acid trickles down and dissolves the concrete curbing along the road. The pyrite has also made it very difficult to establish lawns in the surrounding subdivisions.