House Bill 1186

Senate Energy and Natural Resources Committee
March 14, 2025
Testimony of Ed Murphy, State Geologist, DMR – Geological Survey

I appear today in support of Knife River Flint as the North Dakota State Rock. In fact, I appeared before this committee 30 years ago in support of Knife River Flint as the State Rock. However, that bill went down in defeat along with the hopes and dreams of the students that had supported that bill.

I believe there are six rocks that could rightfully be considered for state rock status. By far the most abundant rocks throughout 75% of the state are glacial erratics, rocks that the glacier brought down from Canada. Although these encompass a wide variety of igneous, metamorphic, and sedimentary rock types, they fall under the category of glacial erratics. The vast majority of rocks picked by North Dakota farmers over the years have been glacial erratics.

The other five are all silica-rich or siliceous rocks, cryptocrystalline quartz; the Taylor Bed, Rhame Bed, HS Bed, Knife River Flint and Rainy Butte Chert. These five rocks are all found in southwestern North Dakota.

- Rainy Butte Chert is reddish-brown in color and is often found as silicified wood.

- The Taylor and Rhame beds are silcretes that are associated with ancient soil horizons and are found throughout much of southwestern ND, in places they are so abundant at the surface that those areas are difficult to walk across.

- The HS Bed and Knife River Flint are both flints, but the HS Bed is found in place stratigraphically in Stark County while Knife River Flint has never been found in place stratigraphically. It is present at the surface or in gravel deposits in Dunn, Mercer, Oliver, Morton, and Burleigh counties. Knife River Flint is typically black where the HS Bed is grayish-black to gray. Both rocks can have a thick, well-developed white to cream colored weathering rind called a patina.

Although all five of these siliceous rocks have been found as projective points and tools, Knife River Flint rises above all others due to its workability. For that reason, it was first mined in North Dakota 11,000 or more years ago and was an important trade commodity. It has been found in archaeological sites throughout a large portion of the U.S.