The Eocene, Aller Gravel Formation is mainly composed of grey and brown flints with sand and silty clay, and has a restricted distribution in the north of the county. It is mainly composed of flint and sandstone derived from the underlying Skiddaw Group.

The Middle Jurassic, the Lias Formation is the main source of building stone in Devon. The formation is dominated by shale, with thin interbeds of turbidite sandstone, but in places there are substantial developments of Lower Lias sandstone. This provides a good source of sand and gravel for use as aggregate.

Carboniferous limestones and dolomites have been worked in north Devon from the Devonian (Ilfracombe Slates, Pilton Mudstone Formation). Limestones have also been worked in north Devon from the Devonian (Ilfracombe Slates, Pilton Mudstone Formation). Limestones have also been worked in north Devon from the Devonian (Ilfracombe Slates, Pilton Mudstone Formation). Limestones have also been worked in north Devon from the Devonian (Ilfracombe Slates, Pilton Mudstone Formation). Limestones have also been worked in north Devon from the Devonian (Ilfracombe Slates, Pilton Mudstone Formation).

A wide variety of fine-grained, basaltic rocks from the Permian succession around Exeter and Tavistock have been used for building and road surfacing aggregate. These include the Bridford and Taw Torridge Estuary formations.

Granite is a significant source of road surfacing material in Devon. The County of Devon has a series of granite workings in the Tavistock district, including the Hemerdon Ball Granite near Plymouth, which was worked during the Second World War. The deposit has been subject to further extraction and processing to enhance its texture and properties for use in road surfacing.

Peat, a valuable source of fuel and energy, is extracted from the Bovey Basin in the southwest of the county. Peat is a naturally occurring sedimentary deposit of decayed plant material. The Bovey Basin is one of the largest peat deposits in the UK, and its extensive outcrop is likely of economic interest. However, the potential for road surfacing aggregate is limited due to the fine-grained nature of the deposit.

Hydrocarbons: British Gas is the only company to have explored for hydrocarbons in the county. No oil or gas shows were recorded in an exploratory well near Plymouth. The presence of hydrocarbon deposits in Devon is based on the presence of suitable rock types and the presence of suitable structural features.

Graphite: copper occurs in veins around the margin of the Dartmoor Granite and in the Tavistock district. In the past, both copper and graphite were mined in the area. The graphite occurs in a variety of forms, including a graphite-like variety of hematite ('micaceous hematite' or 'shiny ore') that was much in demand for use in anti-corrosion paints. The deposit is located near Bridford in the middle Teign Valley.

Ball Clay: Ball clays in the Bovey Basin contain both well-ordered and disordered kaolinite, which accounts for the diversity of their properties. The Ball Clay Formation, which is part of the Cretaceous period, is one of the most important sources of kaolin in the world. The formation is a result of the deposition of kaolinite-rich sediments in a clay-rich environment. The Ball Clay Formation is found in the Bovey Basin, which is located in the southwest of Devon, and is one of the largest kaolin deposits in the world.