The Rose Hill Mine.—The lignite of the Rose Hill mine outcrops on each side of a small coulee that heads back into the hill facing Dogden Butte on the south. A small stream of fairly good water issues from the coal. The seam lies thirty feet below the edge of the hill and twelve feet above the creek bottom, and has a thickness of five feet, appearing to thicken under the hill. The lignite is crushed and greatly distorted at the outcrop in the coulee, a condition due to slipping along the coulee slope. The seam is overlain with boulder clay, and a very sharp line of demarcation separates the lignite and the clay. The contour of the drift slopes bordering this coal outcrop on the north suggested the theory that the natural clay covering-the lignite was largely carried away by erosion previous to the advance of the ice, which• in turn pushed off the remaining Laramie clay, substituting glacial till in its place. Possibly some of the coal was cut away from the surface of the seam at the same time. A shaft sunk a few rods further up the hill penetrates forty feet of drift and then discovers the seam of lignite which appears in the coulee, it having at•this point a thickness of eight feet.

Mr Witz, the manager of the mine, will run his threshing engine to operate the mine during the winter and spring, using the shaft rather . than the outcrops in the coulee, where the. coal is more or less weathered. The following.is an analysis of the dried lignites from this opening:

	PER CENT
Volatile matter	38.81
Fixed carbon	8.01
Ash	