

THE COAL BUTTE MINE – A LONG CRAWL FOR COAL

by Ed Murphy

On June 21, 1999, I interviewed Herman Horstmeyer for this article. Mr. Horstmeyer was born in Iowa in 1908 but was raised west of Hazelton in the Livona area near Coal Butte. He farmed much of his life and worked in the Coal Butte Mine from 1929 to the early 1930s. Mr. Horstmeyer lived on a farmstead southwest of the butte and passed away in 2001.

The historical record of lignite mining in North Dakota goes back to 1883. Hundreds of mines have operated at one time or another in at least 22 counties in western North Dakota. In 1939, the number of mines operating in the State reached a record high of 306. Throughout the early part of the twentieth century, coal mines ranged from very small surface mines, nicknamed wagon mines because lignite was loaded directly onto farm wagons, to very large underground mines such as those at Wilton and Beulah. The Coal Butte Mine in northwestern Emmons County (T. 135N., R. 78W., section 32) is one of hundreds of small abandoned mines that dot the prairie of central and western North Dakota. Each of these mines has a unique history, but this mine may be unequalled for two reasons, 1) the age of the lignite that was mined and 2) the diminutive height of its underground rooms.

The Fort Union Group (Paleocene) contains most of the coal-bearing strata in North Dakota. Only a few coals are present in the overlying Eocene and the underlying Cretaceous rocks. This is why almost all coal mining in North Dakota has been in Fort Union Group beds. A two-foot thick lignite was mined from the Cretaceous Hell Creek Formation (dinosaur-bearing rocks) at the Coal Butte Mine in Emmons County. This is one of only three mines known to have utilized Cretaceous coal in North Dakota. Another mine has been reported from Emmons County and a third, an abandoned surface mine, at Coal Mine Lake in Sheridan County.



Location of the Coal Butte Mine in Emmons County, south-central North Dakota.

The mining of this, the oldest near-surface coal in the State, would be worthy of mention, in and of itself; however, the means by which the coal was mined is even more interesting. The coal was discovered in this area by Frank Mick, a homesteader, as he was digging a well in 1916 or 1917. Coal was mined from 1917 through the 1930s for regional consumption and into the 1940s by Glenn Albaugh for private consumption. Herman Horstmeyer ran the Coal Butte Mine Company for a time in the 1930s. The mine had two entrances located on the northeast corner of Coal Butte. One shaft was 10 feet deep, the other 30 feet deep (the deeper shaft was dug to avoid the earlier workings).

The coal at the mine site is 1.5 to 2 feet thick and was mined in underground rooms that were 3 feet high and 20 feet wide. Typical underground workings in North Dakota had average ceiling heights in excess of 10 feet, more than three times this height. The mine workings extended for a few hundred feet to the west and south of the mine entrances. Wood was used to prop up the ceiling which was said to be fairly stable. Due to the low ceiling, the miners had to crawl through the 2.5 x 4 foot-mine tunnels on their hands and knees. Horstmeyer wore old coveralls and fashioned knee pads from old tires to protect his knees from the sharp edges of the coal. The only place in the mine where the men could stand was near the entrance. To excavate the coal with a pick, the miners lay on their side and propped up a shoulder with a couple of 2x4 inch boards. The miners worked alone in a single room lit only by the carbide light on their miners caps. The men could only stay in the mine for about three hours before their lights would run out of fuel.



A sketch of a miner crawling through the underground workings at the Coal Butte Mine circa 1930. Drawing by Steve Kranich, NDGS.



A sketch of a miner lying on his side and excavating lignite from the Coal Butte Mine, circa 1930. Drawing by Steve Kranich, NDGS.



Photographs of employees of the Coal Butte Coal Company (Upper photo left to right: Herman Horstmeyer, Charlie Cowles, and Paul Jens) (Lower photo left to right: Herman Horstmeyer, Paul Jens, and Charlie Cowles) circa 1930. The miners are posing in front of one of the mine shafts. A large chunk of coal is visible in both photographs. Photographs obtained from a 1978 article written by LaVonne Holz, in the Diamond Jubilee History of Hazelton.

Coal was transported within the mine in specially designed, low-built hand cars that contained flanges on the outside of the wheels and were attached to a 2x4 inch track. The coal was hauled up and out of the mine in a cage that was dropped down the mine shaft. The cage was extracted by a winch system powered by a horse. An old Model T engine provided the power to the equipment used to load trucks, wagons, and in the winter—sleds. The mine workforce was never very large, only seven or eight workers were employed during the 1920s. When Horstmeyer ran the mine he initially charged \$2.50 a ton but later increased the cost to \$3.00 due to an increased demand. The miners were paid \$1.00 per ton of coal and mined about a ton per day on average .

During its heyday in the 1920s and 30s, the Coal Butte Mine was one of 100 to 190 underground mines operating in the State. In 1929, Knife River’s Beulah Mine in Mercer County was the State’s largest underground coal mine. At the same time, Coal Butte Mine was likely the State’s smallest underground mine, at least in terms of height. Although production figures are not available, it is likely that not more than a few thousand tons were mined at this site. Concern for mine cave ins, always foremost on the minds of underground miners, was made even more so due to the cramped working conditions in the Coal Butte Mine. Horstmeyer noted that

miners were always weary of “black gas”. Whenever re-opening an area that had been sealed, the miners would hold their carbide lights in the entrance and would not venture further if the light went out.



Herman Horstmeyer kneeling on rubble from the collapsed ceiling of the old Coal Butte Mine. The undated photo was likely taken in the 1960s. The arrow points to the approximate position of the ceiling before it collapsed. Mr. Horstmeyer eventually filled in the mine entrances because he was concerned that a child would be killed or injured in the old, unstable workings.



Photo taken looking south-southwest to Coal Butte in Emmons County. The mine entrances were located on the northeast corner of the butte (arrows). The mined seam outcrops along the hillside about 20 feet below the windmill in this photo.

As with all abandoned underground mines, the Coal Butte mine was an interesting and inviting place for local children to explore. Generally, the children did not venture far beyond the dark, cool entrance. Eventually, both entrances were filled in and the mine is no longer accessible. Other than the entrances, there are no other signs of collapse at the surface. This is no doubt a factor of the low ceiling heights.

Underground mining spanned a period of more than 90 years in North Dakota (1873-1967). The first underground



Photo of an entrance to the Coal Butte Mine (arrow). The shaft no longer provides entry to the mine. Ophiomorpha (finger-shaped trace fossils) litter the spoils in the foreground. These iron cemented trace fossils would have been painful to crawl over which may be why Herman Horstmeyer designed special knee pads.

mine was a short-lived venture at Sims that received military escort from the U.S. 7th Cavalry. The last underground mine was a small operation east of Williston. The Coal Butte Mine is only a footnote in the history of lignite mining in North Dakota, but it provided much needed employment to a handful of workers for three decades. Perhaps most importantly, this mine is a testament to the ability of that generation of North Dakotans to persevere under extremely difficult working conditions for very little pay.

Acknowledgments

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