

The New Era Mine, Township 155, Range 84, Section 15.— This company is putting down a shaft three miles east of Des Lacs, on the Great Northern railroad. The bottom of the shaft in September, 1902, had reached a depth of 232 feet.

The following is a record of the shaft to date, as obtained from the superintendent, Mr. Mills :

	FEET	INCHES	TOTAL
12 Sand, gravel and clay	40		
11 Blue clay	125		160
10 Fire clay	19		179
9 Lignite	5		184
8 Fire clay changing to sandy soil	10		191
7 Lignite	1		193
6 Sandy clay	6		199
5 Lignite		6	199 1/2
4 Sandy clay	15		214 1/2
3 Lignite		18	216
2 Gray sand	9		224
1 Fire clay	8		232
Bottom of shaft at			232

Prospecting shows a seam of eleven feet and nine inches at the depth of 254 feet.

After deducting the difference in level between Des Lacs and the top of the shaft at this mine, the two numbers of this section, 9 and 7, correspond with two seams in the mine at the former place, having a depth of 217 and 222 feet respectively. The difference in elevation between these upper seams is eighty-nine feet at the Des Lacs and seventy feet at the New Era mine. Further, the depth of the eleven foot seam at these points is 254 and 336 feet respectively, or 1,590 feet above sea level. In the Mouse River Lignite Coal Company's mine, *here the elevation of the seam at the entry is 1,630 feet, there is a dip of twenty-five feet to the mile southwest, which perhaps accounts for the difference in level between it and the lower seam of the New Era mine at 1,590. The following is an analysis of a sample of lignite from the New Era mine, upper five-foot layer :

Volatile matter	38.22	
F i x e d c a r b o n	5 7 . 9 6	Ash 4.12
Total	100.00	
M o i s t u r e	3 3 . 0 6	

At present, from twenty to twenty-five men are employed at \$2.75 a day. There is some water in the mine, but it is easily disposed of by continuous pumping of a stream two and a half inches in diameter. The mine is the only one in the county located on the Great Northern railroad.

The area covered by this seam so frequently mentioned in connection with these mines in the Burlington area, if assumed to be no greater than has been determined by the known outcrops, is almost the size of a township. The amount of lignite contained within the area, reckoning a ton to a cubic yard, is 313,344,000 tons. If 30 per cent of this coal is won from the mines, there is enough to supply the state for years to come. The amount of lignite which it is possible to remove from a mine in this section depends upon the nature of the roof and floor, 40 per cent being a high average.

The New Era mine, near Minot, will have a vertical shaft more than 300 feet deep when it reaches the lower or ten-foot seam.