

Types of Coal Mines on the Montour

By Bryan Seip - Montour Railroad Historical Society

There were over 40 coal mines serviced by the Montour Railroad in its 100-plus years of operation. Although the goal was the same, to extract coal for shipment to final customers, the methods used were different in some mines.

There were three main types of mines on the Montour, depending on the topography and depth of the coal seam it was working. Shaft and drift mines worked in the coal seam underneath the ground. Strip mines accessed the coal seam directly from the terrain's surface.

The most common along the Montour were shaft mines. With a coal seam over a hundred feet underground, vertical shafts were dug to access the coal. Then horizontal tunnels were dug into the seam and the coal was brought to the surface by hoist or conveyor to be loaded into railroad cars. Some of the coal would be left to support the tunnels being dug and prevent collapse. By leaving these pillars for support, underground mining could only recover about 70 percent of the coal in the seam. These tunnels could reach several miles with underground mine trains moving the coal to the access shaft. At most of the mines, two shafts would be dug. Usually one shaft would be used to bring men and supplies into and out of the mine. Waste material such as shale and rock might also be taken out of the mine through this shaft and piled on



Montour #2 was a shaft mine, with support buildings next to the shaft in the foreground and the tibble building with its hoist shaft in the background. Photo courtesy Gene P. Schaeffer collection.

the surface nearby. Another shaft was used to bring coal out of the mine into the tipple building, where coal was loaded into railroad hopper cars for shipment. Some of the mines had cleaning and sorting tables and sizing screens in the tipple to process the coal before loading.

Examples of shaft mines on the Montour were Montour #1 and #2 in Cecil Township – Montour #4 in Peters Township – the Henderson Mine at Hendersonville – and National #3 at Muse.

Another type was called drift mines. When a coal seam came completely to the surface, as on a hillside, mining equipment could access directly into the seam through a portal at ground level and thus no vertical shaft was needed. Drift mines also worked underground, similar to a shaft mine, by cutting tunnels into the coal seam and might have multiple entrances into the seam. Mine cars could be brought out directly to the loading tipple building. If the coal seam went underground at an angle, it might also be referred to as a slope mine.



A shift change at Westland shows miners ready to ride an empty mine train directly into a drift mine. John Collier, Jr. photo/Library of Congress.

Examples of drift mines were Dickson or Cliff Mine, the Westland mines, Scott Mine in Robinson Township, and Montour #10 in Library.

Strip mines accessed the coal seam directly from the surface when the seam was shallow enough to allow removal of all dirt and rock, called overburden, to expose the

coal. This could result in a pit over 100 feet deep. Large machines called draglines were used to strip off the overburden. Some draglines had a digging bucket the size of a truck to move the dirt and rock. A dragline uses a cable to drag its bucket along the ground, scooping up the overburden, then pivots and dumps the bucket away from the coal seam, creating a large pile of rock and dirt. Smaller loading shovels would work directly in the coal seam to load the coal into dump trucks, which would take the coal to a tippie or processing plant. Strip mining was also used to reclaim unmined coal left in some of the underground mines after they closed. Stripping did not use tunnels and could thus remove all the coal in the seam.



A dragline is moving dirt and rock overburden at a strip mine.

Examples of strip mines along the Montour were in the Boggs area near Imperial, like the Aloe, Sunnyhill, Maraca and Rider mines. Other areas at McDonald and Quicksilver were stripped after previous underground mines had closed.

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