

Union Mine: Montgomery Shaft Site 5ST1141

The Union Mine was a large operation that featured two shafts on the rim of French Gulch, a tunnel on the gulch floor, and a mill adjacent to the tunnel. The tunnel and mill have been completely destroyed, leaving the shafts as the principal representations of the mine. The shafts were adjacent to each other but sunk at different times, which is why they were recorded separately. The Montgomery Shaft (Site 5ST1141) was the original shaft sunk in 1879, and Shaft No.1 (5ST1155) was sunk to the east in 1904. The Montgomery Shaft, currently an archaeological resource, lies on the top of a southwest spur of Prospect Hill at around 10,250 feet elevation. French Gulch is to the south, and a combination second- and old-growth lodgepole pine forest grows throughout the site. A road passes through the site's south portion and extends to other mines. The site retains integrity and is a contributing element of a localized historic landscape.

Union Mine History

During the mid-1870s, prospectors perused the north side of French Gulch and discovered a collection of mineralized veins near the rim. At that time, the prospectors were unaware that the veins, which carried gold, silver, and industrial metals, were components of a system that extended northeast from Prospect Gulch for a length of around one mile.

In 1879, several individuals, possibly George Puterbaugh and A.D. Bullis, staked a series of claims on the south side of Prospect Hill over the vein system's southwest end. Their claims included the Union, Old Union, Smuggler, and Silent Friend, most of which featured profitable ore. Within a short time, three investors purchased majority shares in the properties and financed formal development. Alfred J. Ware was among the investors, and he arrived in the Breckenridge area during the late 1870s with extensive mining experience. Mason B. Carpenter, a lawyer and Ware's business partner, was the second investor (their biographies are detailed in the report's Wapiti Group). The third capitalist was Assyria Hall, who prospected Park County during the 1860s and discovered the Dolly Varden among other mines during the early 1870s. Hall made a small fortune and invested heavily in Park and Summit counties.¹

Around 1881, the trio of investors used their capital to bring the Union Mine into production. Because the Union Vein cropped out on flat ground, miners developed the formation through a shaft. Workers erected a shaft house, a horse whim hoisting system, a boardinghouse, and several cabins at the shaft, and a mill on the floor of French Gulch. Even though the workings were only 80 feet deep, miners generated enough ore to keep the mill busy through 1884, when archival sources make no further mention of the operation.²

The lack of coverage suggests that production ended, and local geology was probably to blame. Above 100 feet in depth, natural oxidation freed the metal constituents of most types of ore, which was easy to treat in basic mills. Below 100 feet, however, the ore remained complex and resisted treatment, which rendered the pay rock uneconomical until effective processes could be devised. It seems likely that these conditions forced the closure of the Union operation.

When the Union was idle, Ware et al. sold their interests in the property to an investor named Colenal Montgomery who was confident that he could solve the mine's problems. In 1887, Montgomery contracted with William Hallowell to rehabilitate the workings and deepen

¹ *Colorado Mining Directory*, 1883:876.

² *Colorado Mining Directory*, 1883:876; *Rocky Mountain News* 6/16/83 p6 c3; *Rocky Mountain News* 9/27/83, p2 c3.

the shaft. Hallowell pumped the flooded shaft dry, sank it deeper, and then drove development passages along the vein. By 1888, Montgomery had the Union back in production but quickly suspended work because he could not effectively treat the ore.³

By the early 1900s, advances in milling technology finally rendered the Union Mine's ore profitable to treat. Aware that the Union was virtually untapped, A.E. Keables and G.C. Smith organized the Old Union Mining & Milling Company and purchased the claims in 1904. Keables was a local capitalist who began investing in Park County mines during the early 1880s and moved to Breckenridge in response to the area's late 1890s boom. Smith was also a local investor who had extensive knowledge of the Breckenridge area's mines. Keables acted as manager and Smith superintendent of the new company.⁴

Keables and Smith planned an operation that was similar to the original. Workers reopened the flooded Montgomery Shaft, installed a steam hoisting system, and built a new mill on the site of the old. For unknown reasons, Keables and Smith intended to abandon the Montgomery Shaft in favor of a new one known as No.1, which miners began sinking a short distance to the east. At the same time, miners drove the Union Tunnel from the mill site with the intent of connecting it to Shaft No.1. While the work was in progress, miners produced ore from the Montgomery Shaft to provide the company with immediate income.⁵

In 1905, workers finished the mill, and Keables and Smith were rewarded for their efforts. Through the year, the mill operated at capacity on ore raised out of the two shafts, which were 250 and 315 feet deep. By 1906, activity only increased when miners struck the vein after driving the Union Tunnel 1,700 feet. In addition, the Colorado & Wyoming Development Company contracted with the Union company to treat ore from the Wellington Mine in the mill.⁶

Operations continued successfully through 1909. By that time, miners exhausted the richest portions of the Union vein and ore stopped arriving from Wellington because that mine now had its own mill. According to archival sources, the Union closed until 1915, when the Union Mill again accepted custom orders. During the following year, the company reopened the tunnel and resumed production, although the end was in sight. In hopes of finding an extension of the vein, miners sank a winze below the tunnel level to no avail. In July of 1916, one of the gold dredges scraping bedrock in French Gulch revealed a new vein, which the Union company projected over to its property. Miners then drove several new exploratory passages to find the vein, which apparently ultimately yielded ore. After several more years of limited production, the Union Mine closed near the end of 1918.⁷

³ "Mining News" *Mining Industry* 9/30/87 p12; "Mining News" *Mining Industry* 2/24/88 p11; "Mining News" *Mining Industry* 8/18/88 p76.

⁴ "Mining News" *EMJ* 2/18/04 p296; "Mining News" *MSP* 2/6/04 p102.

⁵ "Mining News" *EMJ* 2/18/04 p296; "Mining News" *EMJ* 3/24/04, p496; "Mining News" *MSP* 2/6/04 p102; "Mining News" *MSP* 10/29/04 p298; "Mining News" *MSP* 11/26/04 p365.

⁶ "Mining News" *EMJ* 4/14/06 p726; *Mineral Resources*, 1906:236.

⁷ "Mining News" *EMJ* 4/8/16 p666; "Mining News" *EMJ* 7/15/16 p159.

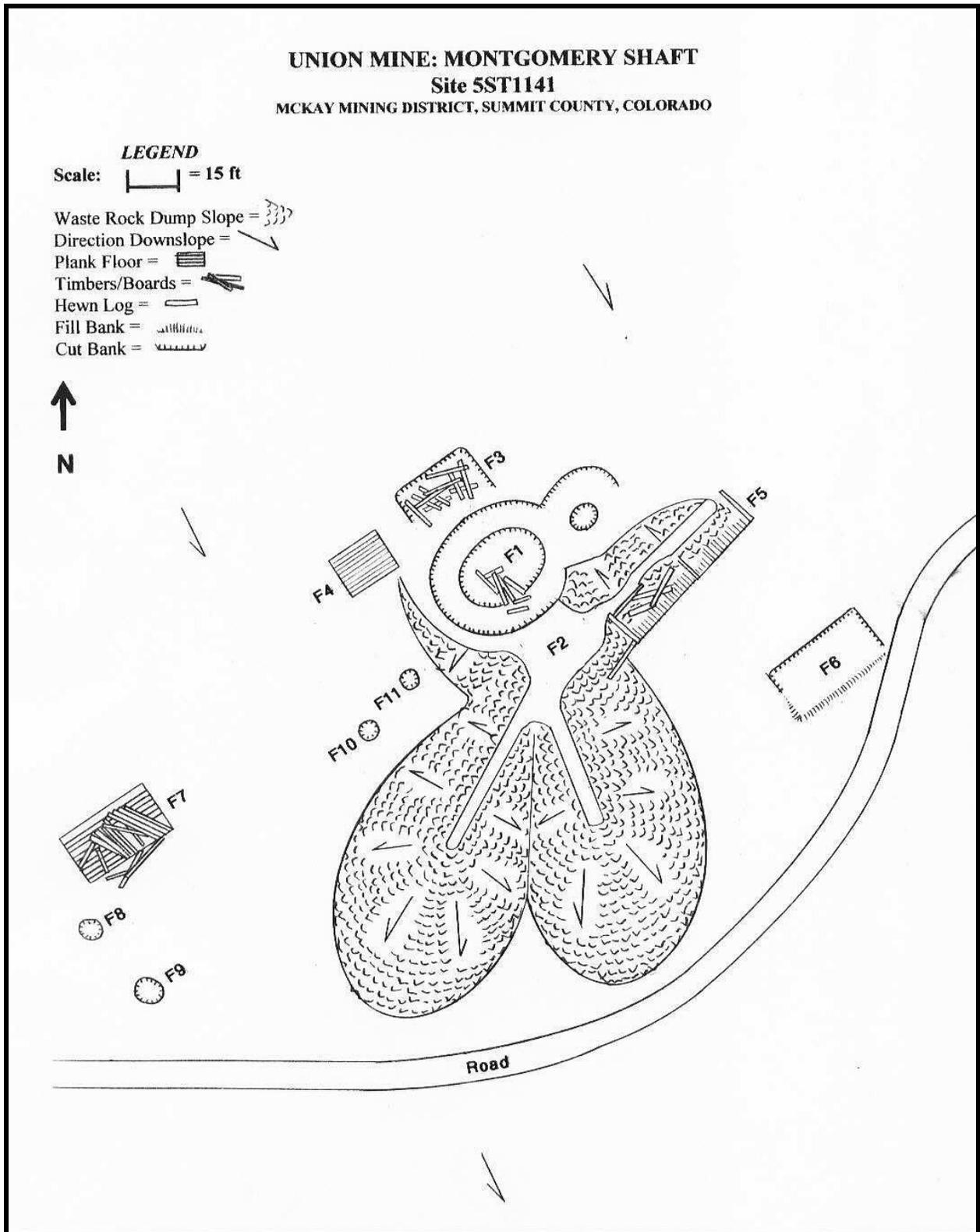


Figure 2.9: Plan view of Union Mine: Montgomery Shaft site.

Union Mine: Montgomery Shaft Site Description

The site encompasses the archaeological remnants of the Montgomery Shaft, which was the Union Mine's first principal underground development. The mine's surface plant is clearly represented, although the shaft collar collapsed into a funnel that drew in portions of adjacent features.

As miners worked the shaft during the early 1880s, they dumped waste rock around the collar, creating a pad around 40 by 50 feet in area. When the Old Union company resumed work in 1904, miners extended the dump (F2) around 105 feet south in the form of two lobes. Over time, the waste rock dump attained the size of 108 by 125 feet in area and 18 feet thick.

When the Old Union company constructed a new surface plant in 1904, workers cut a platform (F3) at least 18 by 25 feet in area out of the mountainside for a frame hoist house, which is gone. The platform may have been larger, but the south portion was drawn into the shaft when it collapsed. The remnants of a plank wall and a water pipe for the mine's boiler extend out of the platform's cut-bank.

A frame blacksmith shop, now collapsed, stood adjacent to and west of the hoist house. Cut nails indicate that the shop was one of the original buildings erected at the mine. The building (F4) was front-gabled, 10 by 16 feet in area, and featured a 2x4 post-and-girt frame sided with planks. The shop stood on a foundation of log joists laid on a cut-and-fill platform large enough for the building. A light scatter of shop refuse extends downslope.

An ore bin stood at the southeast base of the waste rock dump, and it, too, was one of the mine's original structures. The bin (F5), partially collapsed, was an open flat-bottom type divided into two cells, each being 8 by 20 feet in area. The bin consisted of a log cribbing foundation, a 2x8 plank floor, and plank walls supported by log cribbing. A trestle crossed over the bin to allow miners to input pay rock from ore cars. Currently, the bin walls collapsed, allowing waste rock to erode over the floor.

A frame boardinghouse, now collapsed, stood west of the mine. The building (F7) was 14 by 25 feet in area and stood on 2x8 floor joists laid on a cut-and-fill platform slightly larger than the structure. The walls consisted of a 2x4 post-and-girt frame sided with planks, and the floor consisted of more planks. Few artifacts are present, duff probably conceals additional items, and meaningful buried deposits are unlikely. A combination of wire nails, hand-finished bottle fragments, and a hole-in-cap can assembled with an inner-rolled and soldered side seam indicate that Old Union company erected the building around 1904.

Union Mine: Montgomery Shaft Site Interpretation

When perceived in the context of both its early 1880s and 1900s timeframes, the Montgomery Shaft was a relatively simple operation. The surface plant was basic and included facilities that were typical of small, shaft operations. During the early 1880s, the shaft was equipped with a horse whim, which was a type of hoist intended for deep prospecting instead of ore production. In 1904, Keables and Smith replaced the whim with a steam hoist to facilitate ore production. The hoist and its boiler were, however, small and portable appliances, which engineers deemed suitable for deep prospecting and not ore production. The surface plant also had several frame buildings that were apparently small. In general, the mine's facilities were capable of limited ore production and reflect minimal capital investment. The waste rock dump contains a substantial volume of material, indicating that the underground workings were somewhat extensive.

Dateable materials clearly reflect the early 1880s and 1900s timeframes. When the Old Union company rehabilitated then worked the shaft in 1904, its workers left the greatest impact.

It appears that the workers constructed a new hoist house and boardinghouse, and repaired the original shop and ore bins. Yet, the volume of industrial and domestic refuse is limited, which suggests that the Old Union company used the Montgomery Shaft for a relatively brief time then abandoned it in favor of Shaft No.1.

Union Mine: Montgomery Shaft Site Significance

The Montgomery Shaft was the Union Mine's first component and was one of the Breckenridge area's important producers. The shaft was sunk in 1881 and yielded handsomely for three years, and was worked again in 1904. Even though the shaft collar collapsed and drew in portions of adjacent features, the site retains enough archaeological integrity relative to 1904 to recommend eligibility. The site also lies in an undisturbed setting with prospects and other aspects that convey a sense of mining. Because of the site's historical importance, it is recommended eligible for the NRHP and the SRHP under Criterion A.

In terms of Criterion A, the Montgomery Shaft was a component of the Old Union Mining & Milling Company's operation, which began significant production in 1904. At this time, the area's mining industry experienced a significant boom, and as a component of the Old Union operation, the Montgomery Shaft was a direct participant. The Old Union company provided employment and contributed to Breckenridge's economy through its production. In addition, the Old Union company and similar outfits contributed to the region's boom in several ways. First, the company proved that deep ore formations could yield profits through substantial investment and formal engineering. Second, through its success, the company provided custom milling to mines that lacked their own treatment facilities. Without custom milling, these companies would not have been able to produce ore rich enough to justify shipment to distant smelters. Third, the success of the Old Union company and similar outfits helped to inspire confidence in the region's mining industry among investors.

Union Mine: Montgomery Shaft Site Management Recommendations

Because the site is relatively stable and faces no direct threats, management recommendations are few. The site lies on a historic road currently used for non-motorized recreation. In such a location, the site provides an excellent opportunity to educate the public regarding the history of the Union Mine. Management recommendations suggest installing interpretive signs.