CHARCOAL FUEL PRODUCTION FOR THE GLENDALE SMELTER

Fuel was an important necessity for the smelting process and in 1876 four charcoal kilns were erected in a location directly across the road from the Dahler and Armstrong Smelter. Constructed of native stone, wood was transported to the site for the manufacture of the fuel.

The first kilns built at Glendale.

Later, in 1884, these structures were dismantled and recycled as material to construct a new Hecla Consolidated Mining Company (HCMC) office. Their replacement structures were constructed of brick; a material more resilient to the constant expansion and contraction forces involved in the process. The newer kilns were located location much nearer to the timber source, in order to reduce the freight of the weight. In January, 1882, plans were made to erect 16 kilns in Canyon Creek with a seven mile long flume to convey the timber to the site to be converted to charcoal. The fuel was needed to offset the immense cost to the HCMC in purchasing and freighting coke from Pennsylvania. In the summer of 1884, McLean and Johnson were manufacturing 10,000 bricks daily for the construction of more kilns and in less than a year, eighteen were in operation on the banks of Canyon Creek. Six more were planned to be in operation by the end of 1885.

These kilns were located on the banks of Trapper Creek near Greenwood. Circa 1886.

In 1885, Sappington & Company, a partnership consisting of Henson Thomas Sappington and Henry Kappes, began to construct six kilns located on the banks of Trapper Creek near Greenwood, the site of the HCMC Concentrator. They were finished and began production by early November of that year. The following summer, the partners began construction of six more, which were located at the mouth of Sucker Gulch. On September 17, 1886, the Dillon Tribune reported that five had been completed and the final one half done.

The manufacture of charcoal was a very labor intensive process. After trees were harvested, they were cut into four foot lengths and hauled to the kilns. There the pieces were stacked with precision inside the kilns, first through the main door until the level of wood blocked that access; and then scaffolding was needed to finish loading the kiln through the top access doors. When completed, the average kiln held nearly thirty-five cord of wood, which would yield 1500 bushels of product. The bottom vents of kilns were plugged with bricks and the doors were closed and sealed with mortar.

The mass of wood was ignited and the kiln master began careful observation to ensure a quality product. For 4 days, the smoke was white, indicating that moisture was being driven from the fuel. After the smoke turned from yellow to blue in color, the top vents were plugged and the center row was opened and after 12 hours, those vents were plugged and the bottom plugs were removed to draw the heat to the bottom of the kiln. When it was assumed that the burn was complete, all of the vents were sealed. Two or three days later, the top door was

opened and approximately 500 gallons of water was dumped onto the fuel and the door was again closed. When the metal doors became cool enough to touch, the final product was removed and shipped to the fuel bins at Glendale in wagons.

Today, remains at all three locations still stand as a reminder of the 7.5 million bushels of fuel produced for consumption at the Glendale smelter. Recent restoration projects at the largest operation on Canyon Creek, has rekindled life for some of the aging structures. The late Otto Sassman, of Dillon, was instrumental in convincing the US Forest Service to promote and preserve these historic treasures of Beaverhead County's mining past. The remains of the kilns in Sucker Gulch and the kilns on Trapper Creek near Greenwood have fallen into disrepair and by virtue of their location, their existence has practically is unknown.

Sucker Gulch Kilns

Greenwood Kilns

These photos are present day images of the Sucker Gulch remains and the Greenwood kilns, respectively. A partial skeleton of the access scaffolding still is present.

Photographer Henry Brown captured the Canyon Creek kilns from above. Circa 1890.

Two of the charcoal kilns at Canyon Creek wear a fresh white coat as a result of recent rehabilitation efforts.