Standard Mine, Timber Trestle
Gilson Gulch
Standardville Gulch
Carbon County
Utah

HAER No. UT-55

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UTAH,
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U. S. Department of the Interior
P. O. Box 25287
Denver, Colorado 80225

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HISTORIC AMERICAN ENGINEERING RECORD

Standard Mine, Timber Trestle

HAER No. UT-55

Location: SE/SE/SW/NE Section 8, T13S-R9E
In Gilson Gulch, approximately 3/4 miles north of Standardville, Carbon County, Utah

UTM: 12.505520E.4395330N
Quad: Standardville, 7.5'

Date of Construction: ca. 1913

Original Owner: Standard Coal Company of Salt Lake City, Utah

Present Owner: Blackhawk Coal Company
P. O. Box 629
Helper, Utah 84526

Original Use: To discard waste materiale from the coal mine

Present Use: Abandoned

Significance: The timber trestle is aesociated with evente that have made significant contributions to the broad patterns of our history, i.e., early 20th century coal mining in Utah and the western United States. The trestle is an integral part of the overall Standard coal mining operation in Gilson Gulch, one of the most euccessful and prolonged mining ventures in the Spring Canyon District. It is one of the oldest surviving mining structures in the district and is representative of early 20th century coal mining engineering technology. The site retains integrity of setting and physical integrity and therefore is able to convey feeling and aasociation with its period of historical significance.

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Western Wyoming College

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I. HISTORY

The Standard Coal Company of Salt Lake City, Utah, began construction work on the Standard Mine on July 10, 1913.[1] The driving forces behind the creation of the mine and company were F. A. Sweet, president, and L. F. Rains, vice president and general manager. Both men were familiar with Utah coal mining, and Sweet had previously organized and operated the Independent Coal and Coke Company at Kenilworth and the Hiawatha Coal Company at Hiawatha.[2]

Numerous coal deposits had previously been identified in the Spring Canyon District, and several sites were informally mined for local use prior to commercial development.[3] In 1912, the first commercial mines in Spring Canyon were opened in Sowbelly Canyon Coal Company. The associated town of Storrs was established and the name was changed to Spring Canyon in 1924.[4]

The Standard Mine was the second commercial operation in Spring Canyon. The company actually developed four mines in Gilson Gulch, called the Standard Mines Nos. 1, 2, 2-1/2, and 3. The mines were named for the respective coal beds or seams that they developed. From a geologic perspective, all commercial coal deposits are located in the Blackhawk Formation of the Upper Cretaceous Age. The Spring Canyon coal group within this formation contains three beds, the upper, lower, and middle. The lower is known as the Sub 3 bed, the middle is the Sub 2 bed, and the upper is the Sub 1 bed. The Castlegate "A" coal seam was also changed. The coal beds ranged from eight to sixteen feet and consisted of a high quality bituminous coal rated at 13,500 to 14,000 British Thermal Units per pound of coal.[5]

The first coal from the Standard Mines was loaded onto railroad cars at the mouth of Gilson Gulch on February 10, 1914. During the first fourteen years of operation, the coal was removed through a portal at No. 3 Mine. This portal is located adjacent to and across the canyon from the Standard Mine timber trestle. The mine was developed by means of the three-entry system, meaning that two haulage adits were located on either side of the return air course that provided ventilation for the mine. The mine was worked under the room and pillar system, where the coal was mined in rooms separated by narrow ribs or pillars that held up the roof. Coal was undercut by electrical coal cutting machines, and compressed air was used for drilling holes to shoot the coal. Coal was loaded into cars in the working rooms and hauled to the main haulage by horses and electric locomotives. Coal was delivered to the tipple located along the railroad branch at the mouth of Gilson Gulch. This was done with a 4,300-foot double tracked tram line. A company pamphlet succinctly described this operation:

> When the trains of loaded mine cars reAched the outside, or portal, the locomotive is cut off and a cable attached to the train, which is then started on its way down the double track incline, or tramway, to the tipple, or screening plant. They are controlled by a winding engine located just above the entrance. The arrangement is such that the power for operating the tramway is the loaded trip going down. As the loaded train descends, an empty train is pulled up the incline.[6]

In the fall of 1925, a 9,000-foot rock tunnel was begun above the tipple to provide a nearly-level haulageway for the coal. Prior to its completion in 1927, coal had to be raised vertically, about 300 feet from the numerous underground workings, to reach the old portal and tramline.[7] This new opening was located about 2,200 feet south of the old portal in Gilson Gulch and became known as the No. 2-1/2 Mine. Underground mining maps show that the main workings were actually located to the northwest of the No. 3 mine portal in the area of the No. 1 Mine at the head of Gilson gulch. The rock tunnel tapped all of this underground development, so that the portals at Mine Nos. 1, 2, and 3 were no longer needed for hauling.[8]

Mine No. 2, the site of the timber trestle, was never extensively developed. Maps of underground workings show only several hundred feet of development in a westerly direction. It is likely that faulting, common to all the Spring Canyon Mines, caused development to shift northward. The trestle appears to have been used to dump materials associated with development of the underground workings. It is possible that some coal was hauled to the surface and out the portal during the early operations, but most of the coal from this area was probably hauled to the surface through the Mine No. 3 portal across Gilson Gulch to the east. Early mining records and reports seldom refer to the existence of more than one operating mine at Standard, so that it is now impossible to accurately describe the operations that once occurred there or the exact period of usage.

By 1915, the Standard Mines employed a 143-man work force and, in that year, produced 149,453 tons of coal. Information on early markets for the coal is sketchy. Some was shipped to Salt Lake City, various other Utah towns, and the railroads, but the majority was exported to other States. From 1919 to 1921, several of the major markets included the Fort Hall and Fort Lapwai Indian schools in Idaho, and the Quartermaster at Alcatraz and Fort McDowell in California.[9]

The town of Standardville was a model company town that was built at the mouth of Gilson Gulch in Spring Canyon. According to General Land Office plats, S. H. Gilson had a log house at this location as early as 1890.

The Standard Coal Company apparently had extensive financial resources, because most of the construction at both the town and the mine occurred within the first year. Improvements and additional facilities were added throughout the 1910s and 1920s. These improvements included an impressive circular-shaped concrete tipple for screening and loading the coal onto waiting railroad cars. In 1912, the Denver and Rio Grande Railroad built a 4-1/2-mile spur line up Spring Canyon to the town of Storrs, from its mainline at Helper. In 1913, this branch was extended westward to Standardville. As other coal mines were developed to the west of Standardville, the branch line was extended to serve them. However, these extensions were paid for by the respective coal companies.[10] Historic photographs depict a substantial town, the tipple, and mine facilities completed by 1914. In 1923-1924, the State Coal Mine Inspector described the town in some detail:

> The town of Standardville is a model mining town. A modern sewer system has been installed throughout the town. Lawns and trees have been planted where the physical conditions would permit. All houses are well built and many of them are modern in every respect. An apartment house, equipped with electric ranges, was built last year; also a hotel, which affords comfortable quarters for men, has been built. A small but very well equipped, modern hospital, and an amusement hall of steel and hollow tile construction, where the best motion pictures are shown regularly, contribute to the advantages of the community.[11]

By 1927, the Standard Coal Company boasted that Standardville had a complete waterworks system, electric lights, steam heat, mercantile stores, a meat market, an ice factory and refrigerating plant, a confectionary store, soda fountain, moving picture theatre, playgrounds, and a school. The elementary school had four teachers at its peak, and junior high students went to the nearby Latuda school. The company pamphlet shows photographs of the main street lined with one-, one and one-half-, and two-story frame homes set on concrete foundations with gable and hipped roofs and clapboard siding. Many of the commercial and public buildings were constructed with tile and covered with stucco.

It is obvious from the photographs that professional architects were employed to design Standardville. It appears that two or three standardized plans were used for the residences, and the public buildings were probably designed on an individual basis. Unfortunately, no records have been located concerning the construction history of Standardville. The town layout was restricted by the narrow canyon walls, and therefore it grew along a northwest-southeast axis. Although supervisory personnel tended to live in larger, more substantial residences, there was very little hierarchy in housing along either ethnic or economic lines. Management and labor lived side by side in this community.

The Standardville mines were considered eafe, but on February 8, 1930, twenty-three men were killed when a spark from a cutting machine caused an explosion. Carbon monoxide gas spread through the mine, but rock dusting safety practices probably kept the death toll much lower. Of the casualties, three men were killed by the initial exploeion, seventeen by the spreading of carbon monoxide gas, and three rescue workers by falling rock. Five other minere survived by barricading themeelves from the gas with canvae and were later rescued.[12]

Despite a fluctuating coal market, the Standard Mining Company maintained a steadily increasing coal production throughout World War I and the 1920s. The company maintained a work force of 350 men through the mid-1920s. Production fell dramatically with the onset of the Great Depression, but nevertheless remained substantial. World War II provided new markets for coal, and production once again soared, only to decline sharply after the war. The nation's railroads began converting to diesel engines, and home heating shifted to natural gas and oil.[13]

Old timers who lived and worked at Standardville feel differently about the demise of the minee in Spring Canyon. Robert "Bud" Wileon was born in Standardville and worked in the mines until they closed in 1962. He contends that the minee had reached a point where it cost too much to produce the coal. After forty years of development, miles of underground workings made the mine increasingly less efficient. Also, worker'e wages had continued to rise. During the coal market peak in the 1920s and World War II, the company could make a profit if each man produced ten tons of coal on a ehift. This figure gradually increased after World War II, until it became necessary for each man to produce fifty tons of coal to turn a profit. According to Wilson, the Standardville mines closed with no warning to the workers, and the last shift was merely told: "This is it. Close her up!" A short-term operation at the nearby Spring Canyon mines in Sowbelly Gulch produced and hauled coal to the Standardville tipple for screening and loading for at least two years after the cloeing of the Standardville mines.[14]

Two families continued to live at Standardville until 1974. The mine office stayed open every day until early 1974. Until that time, most of the buildings at Standardville remained etanding and in good condition.[15] Finally, the buildings were sold to the public at a nominal fee. Many wood frame buildings were moved to the communities of Helper and Price. The stone and tile buildings were torn down. Today, the site of Standardville is marked by the circular concrete coal tipple at the mouth of Gilson Gulch and the roofless tile bath house farther up the gulch. The mine support facilities in Gilson Gulch met with the same fate. Many of the structures were built with locally-quarried sandstone and could not be moved. However, the roofs and interiors were gutted for lumber and many others were knocked down. The mine portale were dynamited or caved in.

II. HISTORICAL SIGNIFICANCE OF STANDARDVILLE AND ASSOCIATED MINES

In 1985, Desert West Research conducted a Class III cultural resource survey of the Spring Canyon area, including Standardville and its associated mines. Standardville and its mines (42Cb457) were considered eligible for the National Register of Historic Places.[16]

The Standard Mines and Standardville are an integral part of the history of the Spring Canyon District, the Book Cliffs Coal Field, and the overall history of coal mining in the State of Utah and the western United States. In terms of economic impact, the Standard Mines produced tremendous quantities of coal despite fluctuations in the market from 1914, when the first load of coal left the tipple, until 1962 when the mines were closed. Secondly, several hundred men earned their living in and around the mines during that time period. The Book Cliffs Coal Field, of which the Standard Mines were a part, produced approximately 75% of Utah's overall coal production into the 1970s.[17] And, third, Standardville was a model coal town, the "standard" for all other coal camps. It provided conveniences and facilities unknown in most coal mining camps of the West at that time. Finally, Standardville boasted a rich ethnic diversity. Miners from all points of the globe, including Italians (who were responsible for the fine stone masonry), Austrians, Greeks, Germans, Slavs, Scandinavians, and Japanese, were able to live and work together despite language barriers.

In terms of engineering technology, the Standard Mines utilized the latest mining technology as it became available and, especially in the early years, spared no expense incorporating these advances in their operation. The coal tipple was an engineering masterpiece of efficiency for its time. A revolving tipple turned each car completely over to dump it, returned it to an upright position, and the oncoming car forced the empty car out of the tipple. The coal was automatically screened into various sizes, sorted, and dumped into rail cars waiting on five different tracks beneath the tipple. The facilities there also included an Ottumwa Box Car Loader that stood a box car almost vertical, in order to fill it evenly with minimum breakage. This was the only box car loader in the Utah coal fields at the time. The 4,300-foot inclined tramway to the tipple was an advanced method for delivering the coal to the tipple. The 9,000-foot rock tunnel was an improvement on this system and obviated the need for raising the coal to various levels nearly 300 feet to the surface before hauling to the tipple could begin. In the mid-1920s, the entire ventilating system of the Standard Mine was revamped by means of a powerful centrally-located fan and outlet, and a system of metal overcast was specifically designed by the company to replace the traditional brattice cloth used for ventilation in the mines.[18]

The timber trestle represents a key component in this evolving mining technology. It is perhaps one of the earliest examples of a structure built from materials at hand to serve a specific purpose in the first stages of mining development in Gilson Gulch. It retains a high degree of physical integrity and a nearly pristine setting in Gilson Gulch, where the only intrusions have been coal mining-related activity. It is surrounded by early stone building remnants and powder houses built in the 1910s and 1920s. Historic photographs confirm that the overall setting of the timber trestle has changed little since 1913 or 1914, when the Standard Mines were first developed.

III. SITE DESCRIPTION

Standard Mine, Timber Trestle: Site 42Cb457, Feature 8, Structure S-9, (SE/SE/SW/NE Section 8, T13S-R9E, template anchored in NW corner).

The Standard Mine timber trestle is located on the west slope of Gilson Gulch at the site of the old Standard No. 2 Mine. The trestle was constructed on a north-northwest by south-southeast orientation on the crest of an elongated dump composed of rock, dirt, and coal slack. This dump creates a level area on the west slope of Gilson Gulch, leading in a southeasterly direction for several hundred feet from the old mine portal to the apex of the mine dump and trestle. Remnants of the flat-roofed rectangular stone building and a stone wall mark the old mine portal. A small bunker-like concrete powder house, bearing the inscription "Powder House 1918) over the main entrance, is located midway along this tramway on the west side. A rail tramway apparently carried coal cars in and out of the mine to the mine dump. The log trestle was built as the dump expanded to the south-southeast. To maintain an even grade as the canyon dropped off in this direction, the building of a log trestle became necessary.

The exact date of construction is not known but can be inferred from several sources. First, mine development in Gilson Gulch began in the summer of 1913. Secondly, a photograph included in the State Coal Mine Inspector's Report for 1913-1914, taken from the No. 3 Mine, looking northwest, depicts the mine dump of the No. 2 Mine in the background. The rail tramway and the beginnings of the timber trestle can be discerned in this photograph. Finally, the nearby powder house with its inscription of 1918 confirms a general date range. It appears then that the timber trestle was constructed around 1913 and 1914 and certainly before 1918.

The trestle is constructed of sawed and peeled logs, averaging 6 to 8 inches in diameter. An elongated elevated platform was created by means of log support trestles evenly spaced at 9-foot intervals. The trestles were constructed with two vertical log supports slanting inward at the

top, and secured with a horizontal log cross member. The joints are notched and fastened with large round spikes. Additional stability and support was achieved with slanting log cross member. The deck of the trestle was constructed with overlapping logs laid in a herringbone pattern. That is, two logs bridge the gap of each trestle support, and the next two overlapped and butted the logs on the inside. These logs were also fastened with round spikes. The overall approximate dimensions of the trestle are 94-feet long 6-1/2 feet high, and 8 feet wide. Rails were then laid on wooden crossties on the deck of the trestle. As the mine was developed, materials could be hauled along the tracks in cars and dumped. If development had continued, it appears that the trestle would have been systematically buried by materials and would have been continuously expanded in length. The trestle was periodically repaired and strengthened, using wire, bolts, and additional planks, boards, logs, or whatever material was at hand. There are several odd lengths of 5/8-inch woven steel cable dangling from the trestle. They may have been a portion of the hoisting apparatus for pulling the cars to and from the mine and along the trestle.

In conclusion, this log trestle appears to have been used to discard waste material from the mine as it was being developed. It does not appear to have been used for loading coal. All coal was hauled to the surface and conveyed to the tipple at Standardville from the adjacent No. 3 Mine, from the inception of commercial mining operations. Secondly, underground mining maps show that only limited development ever occurred at No. 2 Mine. The fact that a powder house was constructed at the No. 2 Mine in 1918 indicates development into the late 1910s and probably into the early 1920s. However, there is not sufficient documentation to accurately explain the role played by Mine No. 2 and its dates of usage. The deterioration of the logs indicates that the timber trestle has been abandoned for an extended period of time. All trackage has been removed, but spikes and at least one crosstie were found under the trestle. The fact that the trestle was constructed with logs, rather than milled timbers, planks, bolts, and concrete piers, points to a pioneering operation, especially considering the degree of craftsmanship, good materials, and permanence built into the adjacent No. 3 Mine and all other structures at nearby Standardville. The trestle is now in an advanced state of decay, and the most southerly segment has already collapsed.

IV. FOOTNOTES

[1] State of Utah, Report of the State Coal Mine Inspector, 1914, p. 137.

[2] Arthur E. Gibson, "In the Coal Fields of Eastern Utah, Carbon and Emery Counties spring Canyon District Carbon County," in Centennial Echos from Carbon County, ed. Thursey Jessen Reynolds (Salt Lake City: Daughters of Utah Pioneers of Carbon County, 1948), p. 266.

[3] G. B. Richardson, "The Book Cliffs Coal Field, between Grand River, Colorado, and Sunnyside, Utah," Contributions to Economic Geology, 1906, U. S. Geological Survey Bulletin No. 316 (Washington: Government Printing Office, 1907), p. 352.

[4] Gibson, p. 223.

[5] H. H. Doelling, Central Utah Coal Fields: Sevier, Sanpete, Wasatch Plateau, Book Cliffs and Emery, Monograph Series No. 3 (Salt Lake City: Utah Geological and Mineralogical Survey, 1972), pp. xvii, 343-347; State of Utah, Industrial Commission of Utah, Report of the Mine Inspection Department, 1924, p. 31; Standard Coal Company, Standard Coal, The Story of the Mining of Standard Coal (Salt Lake City: Standard Coal Company, 1927), p. 3.

[6] Standard Coal Company, Standard Coal, p. 2.

[7] Ibid., p. 5.

[8] Utah Geoogical and Mineral Survey, Standardville Underground Workings Map (Salt Lake City: Utah Geological and Mineral Survey, ca. 2950s-1960s).

[9] C. A. Allen and E. M. Spieker, "Analyses of Utah Coals," U. S. Bureau of Mines Technical Paper No. 345 (Washington: Government Printing Office, 1925), pp. 76-77; State of Utah, Report of the State Coal Mine Inspector, 1916, p. 10.

[10] Gibson, p. 226; State of Utah, Report of the State Coal Mine Inspector, 1914, pp. 137-138.

[11] State of Utah, Report of the Mine Inspection Department, 1924, p. 32.

[12] Allan Kent Powell, The Next Time We Strike: Labor in Utah's Coal Fields, 1900-1933 (Logan, Utah: Utah State University Press, 1985), p. 150.

[13] Gary B. Glass, "Wyoming Coal Fields, 1978," Geological Survey of Wyoming Circular No. 9 (Laramie: Geological Survey of Wyoming, 1978), p. 16; State Coal Mine Inspector Reports, 1912-1954.

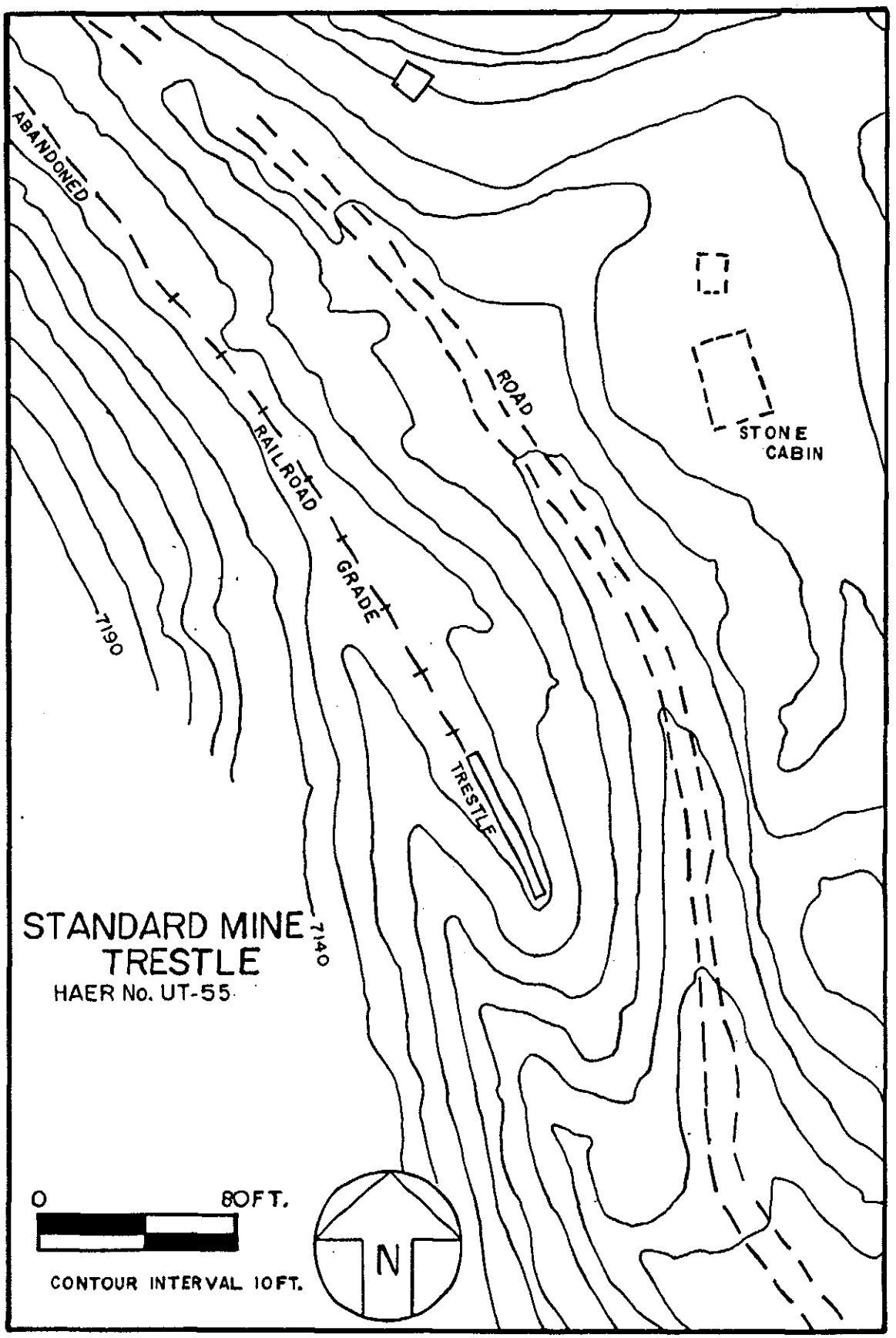
[14] Robert "Bud" Wilson, personal communication, Helper, Utah, August 26, 1987.

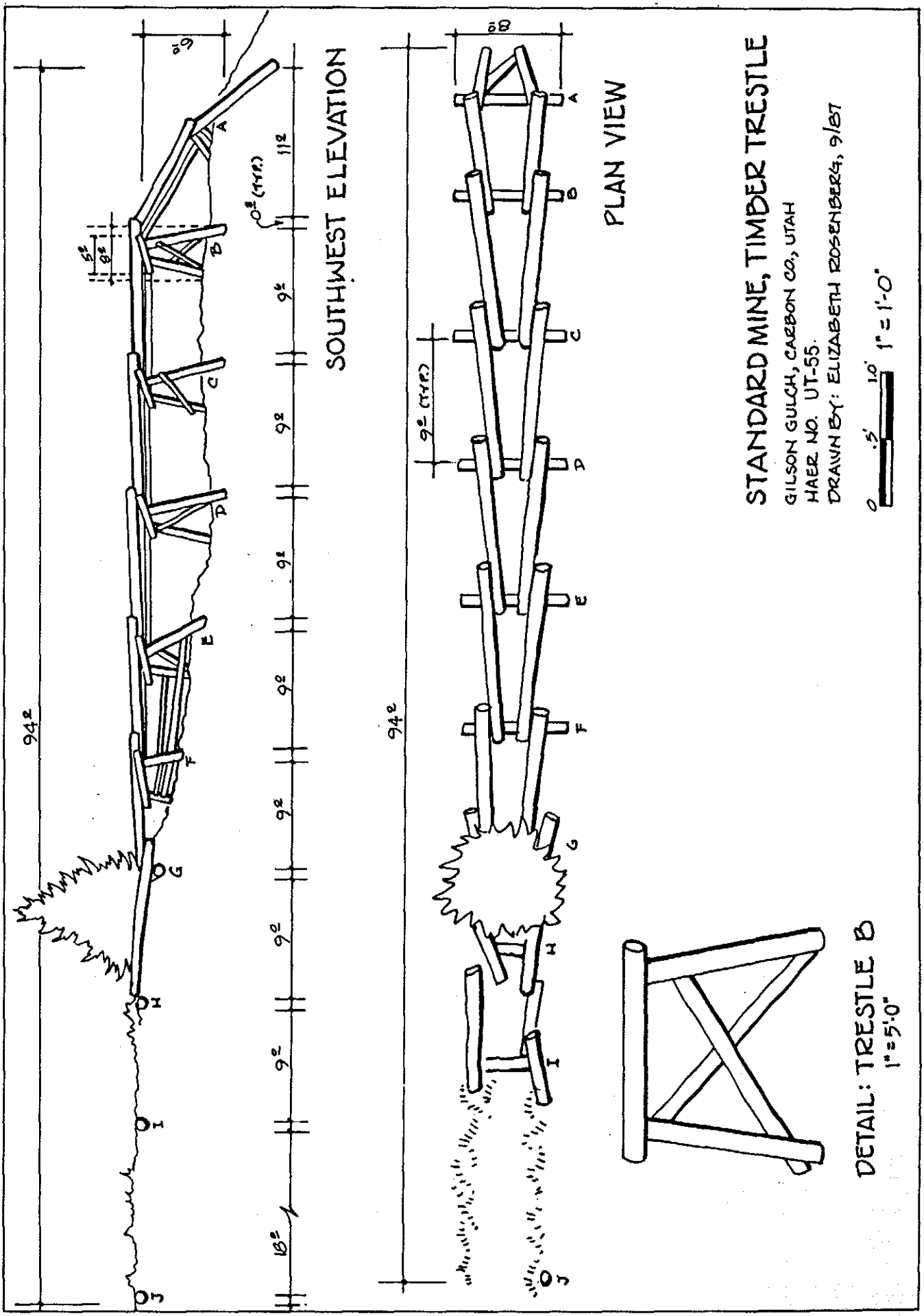
[15] Chuck Zehnder, A Guide to Carbon County Coal Camps and Ghost Towns (Helper, Utah: n.p., 1984), pp. 22-23.

16 Michael S. Berry, 'An Archeological Evaluation of Historic Coal Mining Sites in Carbon County: Spring Canyon, Bear Canyon, Scofield and Gordon Creek Areas," Desert West Research, Salt Lake City, Utah, 1985 (typewritten).

17 Doelling, p. 250.

18 State of Utah, Industrial Commission of Utah, Report of the Mine Inspection Department, 1926, pp. 31-32.


ABANDONED
RAILROAD GRADE
ROAD
STONE CABIN
TRESTLE
7190
7140
STANDARD MINE TRESTLE
HAER No. UT-55
0
80FT.
CONTOUR INTERVAL 10FT.
N


SOUTHWEST ELEVATION
PLAN VIEW
STANDARD MINE, TIMBER TRESTLE
GILSON GULCH, CARBON CO., UTAH
HAER NO. UT-55.
DRAWN BY: ELIZABETH ROSENBERG, 9/87
0 .5' 1.0' 1" = 1'-0"
DETAIL: TRESTLE B
1" = 5'-0"
94'-2"
94'-2"
9'-2" (TYP.)
A
B
C
D
E
F
G
H
I
J