

CHILDRES CREEK PRATT HALF-HIP PONY TRUSS
Spanning Childres Creek
Keifer Vicinity
Creek County
Oklahoma

PHOTOGRAPHS

AND

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD

Submitted to:

Oklahoma State Historic Preservation Office
800 Nazih Zuhdi Drive
Oklahoma City, Oklahoma 73105

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Anna Eddings, Photographer, February 2009

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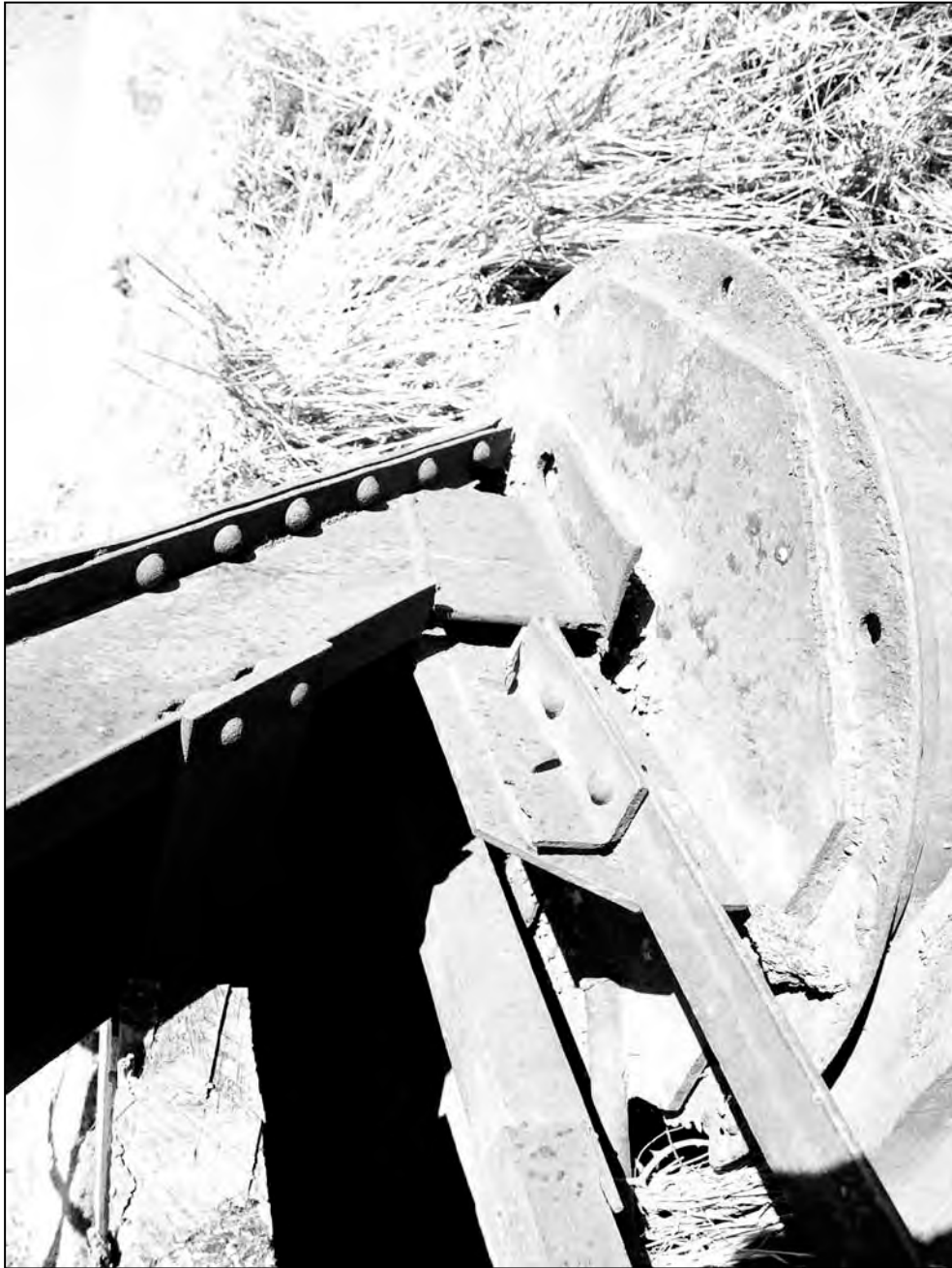
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CHILDRES CREEK PRATT HALF-HIP PONY TRUSS

Spanning Childres Creek

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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
CHILDRES CREEK PRATT HALF-HIP PONY TRUSS

Location: Spanning Childres Creek, at Road N3900, in the Keifer vicinity, Creek County, Oklahoma.
UTM: 14/E 764704/N 3982588
Quad: Sapulpa South

Legal Location: Section 18, T17N, R12E

Present Owner: Creek County, Oklahoma
ODOT Structure Number 19N3900E0730005

Present Use: Vehicular Bridge

Significance: The Childres Creek Pratt Half-Hip Pony Truss Bridge was constructed between 1909 and 1911 by the Massillon Bridge and Structural Company of Massillon, Ohio. The structure is a good example of its type and is a representative example of the work done by the bridge company, a rare builder for Oklahoma bridges. Furthermore, the structure demonstrates a pattern of development associated with the oil industry in Creek County during the early 1900s.

Project Information: Historic American Engineering Record (HAER) Level II equivalent documentation was performed in February 2009 and June 2012. Tanya McDougall, Architectural Historian, conducted an on-site visit and compiled the historical information in June 2012. Photo documentation was conducted in February 2009 by Anna Eddings, an Architectural Historian with the Oklahoma Department of Transportation. Photographs for this report have been digitally reproduced following National Park Service (NPS) standards for digital images. This HAER recordation serves as mitigation for the removal of the structure from vehicular traffic.

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PART I. HISTORICAL INFORMATION

A. Physical History:

- 1. Date of Construction:** Between 1909 and 1911
- 2. Architect/Engineer:** Not Known
- 3. Builder/Contractor/Supplier:** Massillon Bridge and Structural Company
- 4. Original Plans:** Not Available
- 5. Alterations and Additions:** The structure remains unaltered.

B. Historical Context:

1. Introduction

The Childres Creek Pratt Half-Hip Pony Truss Bridge is located in northeast Creek County, Oklahoma, north of the town of Kiefer. The area now encompassed by Creek County was part of the Creek Nation between the 1830s and 1907, when Oklahoma was admitted as a state. During the 1830s, the Creek Tribe was removed from Georgia and Alabama by the U. S. government, and relocated west of the Mississippi River to Indian Territory in what is now northeast Oklahoma. After relocation, the Creek Tribe established an agricultural economy, including ranching and farming. The primary crops grown were cotton, wheat, corn, and oats (Wilson 2012a).

In 1886, development in the area was bolstered by the construction of the Atlantic and Pacific Railroad, which ran south from Red Fork through Sapulpa. Although the arrival of the railroad instigated some growth in the Creek Nation, the area remained predominantly rural through the latter part of the 1800s. In 1901, oil was discovered north of Sapulpa in Red Fork, and oilmen were quickly attracted to the area. During that period, additional railroads were constructed, including the St. Louis and Oklahoma Southern Railway (later the St. Louis and San Francisco Railway), traversing south from

Sapulpa to Denison, Texas, passing through what is now known as the town of Kiefer¹ (*Muskogee Phoenix* 10 May 1900; Wilson 2012a).

In the end, the Red Fork discovery never produced a large amount of oil; however, the discovery is credited with encouraging additional oil-related exploratory activities, particularly in the area southeast of Sapulpa. In 1905, Robert Galbreath, an oilman involved in the Red Fork oil activities, and partner Frank Chelsey drilled an oil well on the Ida E. Glenn farm, approximately 4 miles southeast of Sapulpa. After several months of drilling and reaching a depth of over 1,400 feet (ft), the well, named the Ida E. Glenn Number 1, tapped into what would later be known as the giant Glenn Pool Oilfield,² sparking one of Oklahoma's first major oil booms (Franks 1979:41).

Within the first year of the Glenn Pool discovery, drilling activities, initially established on 18 acres, had expanded to 18,000 acres (Weaver 2012). The surge of activity led to the development of boom towns around the oilfield, including the town of Kiefer. In late 1906, the town of Kiefer was established on the west edge of the Glenn Pool field. The town, perfectly situated along the St. Louis and San Francisco Railway, was the nearest railroad depot to the oilfield (Wilson 2012a). Between 1906 and 1907, the Gulf Pipeline Company took advantage of the town's location and constructed a 1,000-ft loading rack at the Kiefer depot capable of handling 5,000 to 10,000 barrels of oil daily (Franks 1979:44). By 1907, the Glenn Pool Oilfield was producing 19,927,300 barrels annually, and the town of Kiefer had grown to a population of approximately 1,500 (Franks 1979:45; *New State Tribune* 23 May 1907).

After Oklahoma statehood in 1907 and through 1910, the Glenn Pool Oilfield was at its peak, producing 18 to 20 million barrels annually (Franks 1979:45). During those years, development in the town of Kiefer and Creek County as a whole increased, and the county population grew from 18,365 to 26,223 (Wilson 2012b). As a result, it was quickly realized that the county's roads, little more than cleared and leveled dirt paths, were in need of improvement. Although the new state had provided for the establishment of a state highway department, the responsibility of road improvements was left at the county level due to the lack of funding and personnel (Oklahoma Department of Highways 1970). Thus, in 1909, with a high level of local support, the Creek County Commissioners Board approved the construction of 15 new bridges and passed a \$200,000 bond "for the purpose of building bridges and roads" (*Checotah Times* 5 November 1909; *Fort Gibson Post* 28 January 1909). It was during this period of prosperity and enthusiastic road development that the Childres Creek Pratt Half-Hip Pony Truss Bridge was constructed in Creek County.

¹ Prior to 1905, a rural community known as Praper existed in the general location of the town now known as Kiefer (Wilson 2012a).

² The Glenn Pool Oilfield was named after the Ida E. Glenn farm on which it was discovered and referred to as a giant oilfield due to having more than a 100-million-barrel recovery (Morris et al. 1986:70).

2. Development of the Creek County, Childres Creek Pratt Half-Hip Pony Truss Bridge

The Childres Creek Pratt Half-Hip Pony Truss Bridge, located in northeast Creek County, Oklahoma, is a one-lane vehicular bridge carrying Road N3900 north of the town of Kiefer. Review of the 1896 topographic map and 1898 plat map shows the area surrounding the bridge as rural and mostly undeveloped at that time. However two roads, running northwest–southeast, were located in the area. The main road, north of the bridge location, was the Sapulpa to Okmulgee road, and the second road, a spur of the Sapulpa to Okmulgee road, led south to the W. W. Osborne property located in the southeast quarter of Section 18 (Township 17N/Range 12E). Furthermore, these maps show that Childres Creek was originally named Childers Creek (Bureau of Land Management 1998; United States Geological Society [USGS] 1896). The change in the creek name from Childers to Childres first appears on the 1914 topographic map, but it is unknown if this was done intentionally or was a mistake that was never corrected (USGS 1914).³

By 1901, the St. Louis and San Francisco Railway had been constructed south from Sapulpa through what would be the town of Kiefer. In 1905, the Glenn Pool Oilfield was discovered, and the town of Kiefer was established soon after. With a growing economy and population, road construction and improvements increased throughout Creek County, specifically in 1909. In that year, the Creek County Commissioners Board approved the construction of 15 new bridges, providing the county with a total of “35 first class bridges” (*Fort Gibson Post* 28 January 1909). In addition, the board approved a \$200,000 bond for the construction of bridges and road improvements (*Checotah Times* 5 November 1909). Although the exact date of construction for the Childres Creek Bridge is unknown,⁴ information obtained from the bridge’s two remaining plates indicates the bridge was constructed between 1909 and 1911.

The first bridge plate, located on the southeast endpost, provides the names of the county commissioners in office at the time of the bridge’s construction, including W. O. Baker, L. O. Shannon, and M. A. Childress. These three commissioners served together on the Creek County Commissioners Board from 1907 through 1911. In 1912, commissioners Shannon and Childress no longer served on the board. After 1912, none of the three men (Baker, Shannon, and Childress) served on the commissioners board, which was likely due to an investigation brought against them for suspected fraudulent actions during their service on the board (*Oklahoma Farmer and Laborer* 12 April 1912). The second bridge plate, located on the northwest endpost, shows the bridge was constructed by the Massillon Bridge and Structural Company of Ohio. This particular bridge company was established by Joseph Davenport in 1869 as the Massillon Bridge Company. However, organizational changes prompted the company to change its name to the Massillon Bridge and Structural Company in 1909 (*Evening Independent* 17 August 1925). Thus, with the commissioners serving between 1907 and 1911, and the bridge company using the name Massillon Bridge and Structural Company in 1909,

³ The surname Childers was common within the Creek Tribe during that period. Ellis B. Childers, a prominent Creek tribal member, was candidate for chief of the Creek Nation during the late 1800s (*Fort Gibson Post* 9 November 1899).

⁴ County Commissioner Minutes could not be located at the Creek County Clerk Office for the years prior to 1910.

construction of the Childres Creek Bridge appears to have occurred between 1909 and 1911.

As a bridge constructed in the early 1900s, the Pratt Half-Hip Pony Truss design of the Childres Creek Bridge is also indicative of its period of construction. This design differs from the Pratt (diagonal members angled inward) in that it does not have a hip-vertical member (vertical member between the endpost and first diagonal member). The lack of the hip-vertical member allowed the bridge to be constructed using less metal, while retaining its strength. The use of less metal made this design more cost effective, which was ideal for counties with limited funding during early statehood (King 1993).

PART II. STRUCTURAL/DESIGN INFORMATION

A. General Description:

The Childres Creek Pratt Half-Hip Pony Truss is a one-lane vehicular bridge carrying Road N3900, over Childres Creek in northeast Creek County, Oklahoma. The structure runs northeast-southwest to accommodate the northwest-southeast drainage of Childres Creek. This single span bridge has a wood plank deck and a single Pratt Half-Hip Truss measuring 49 ft. The structure as a whole measures 52 ft in length and 13.7 ft in width.

The bridge's Pratt Half-Hip Pony Truss has built-up inclined endposts and top chords consisting of channels connected with stay plates. Each of the structure's truss walls has three panels separated by two vertical members. The two vertical members consist of angles with V-lacing. Within the two outer panels of the truss wall are paired, inward-angled diagonal rods, and within the center panel are two crossed eye-bars with turnbuckles. The railing along the truss wall is rounded at each end, extends past the truss wall, and consists of lattice bars framed by angles. The structure is pin-connected with riveted members.

The structure's wood deck is constructed of wood floor planks running perpendicular to the bridge with two transverse rows of wood planks on top and is supported by a series of metal floor beams and stringers. The structure as a whole is supported by concrete abutments located at each end of the bridge deck.

1. **Character:** The Pratt Half-Hip Pony Truss design of the structure is indicative of its rural setting and period of construction. The structure demonstrates the efforts made during early statehood to improve rural roads and encourage local development.
2. **Condition of Fabric:** The Childres Creek Pratt Half-Hip Pony Truss Bridge retains its character and integrity. Although the structure shows signs of deterioration due to exposure and age, the metal elements and wood deck have remained intact.

B. Site Information:

Childres Creek Bridge is located north of the town of Kiefer and east of the old St. Louis and San Francisco rail line, along Road N3900. Heavy vegetation lines all but the northeast corner of the structure. There are no buildings or structures in the immediate area surrounding the bridge; however, approximately 830 ft northeast is the ca. 2008 Schier Company building, and approximately 530 ft southeast are ca. 1990 agricultural buildings.

PART III. SOURCES OF INFORMATION

A. Primary Sources:

Bureau of Land Management

- 1898 "Oklahoma Plat Image 23362." http://www.glorerecords.blm.gov/details/survey/default.aspx?dm_id=99688&sid=dbjzjt4.cnw#surveyDetailsTabIndex=1. (accessed October 3, 2012).

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- 1925 "Massillon Is Pioneer Iron Bridge Producer." 17 August:2. Massillon, Ohio.

Fort Gibson Post [Fort Gibson, Oklahoma]

- 1899 "Ellis B. Childers." 9 November:1. Fort Gibson, Oklahoma.

- 1909 "To Build Fifteen Bridge." 28 January:6. Fort Gibson, Oklahoma.

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- 1900 "Protest of the Creeks." 10 May:8. Muskogee, Oklahoma.

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- 1912 "Suit Against Ex-Officers." 12 April. Sapulpa, Oklahoma.

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- 1896 *Nuyaka, Oklahoma*. Nuyaka Quadrangle, 1:125,000. Map obtained from the Perry-Castañeda Library Map Collection, <http://www.lib.utexas.edu/maps/topo/oklahoma/> (accessed October 3, 2012).

- 1914 *Kiefer, Oklahoma*. Kiefer Quadrangle, 1:62,500. Map obtained from the Perry-Castañeda Library Map Collection, <http://www.lib.utexas.edu/maps/topo/oklahoma/> (accessed October 3, 2012).

B. Secondary Sources:

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- 2012a "Kiefer." <http://digital.library.okstate.edu/encyclopedia/entries/K/KI007.html>. (accessed October 3, 2012).
- 2012b "Creek County." <http://digital.library.okstate.edu/encyclopedia/entries/C/CR008.html>. (accessed October 3, 2012).

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LOCATION MAP

CHILDRES CREEK PRATT HALF-HIP PONY TRUSS
CREEK COUNTY, OKLAHOMA
LOCATION MAP

