



**KANSAS**

**STATE**

**HISTORICAL**

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**Cultural Resources**

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Shawnee Indian Mission  
William Allen White House

**CERTIFICATION OF STATE REGISTER LISTING**

The Register of Historic Kansas Places includes all Kansas properties nominated to the National Register as well as lower threshold properties which are listed on the state register only.

Property Name: Hand-Dug Well

Address: 10 Miles West of Leoti

Legal:

County: Wichita

Owner: Wichita County Historical Society

Address: P.O. Box 1561, Leoti, KS 67861

National Register eligible \_\_\_\_\_

State Register eligible  X

This property was approved by the Kansas Historic Sites Board of Review for the Register of Historic Kansas Places on November 2, 2002.

I hereby certify that this property is listed on the Register of Historic Kansas Places.

*Richard D. Pinkney*

State Historic Preservation Officer

*11/4/02*

Date

9/95

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The Santa Fe Railway Hand-dug Well is located at Selkirk, 10 miles west of Leoti on Highway #96. The well is north of the highway and north of the railroad tracks, which run parallel to the highway at Selkirk. Large grain elevators, situated between the railroad tracks and Highway #96 obstruct much of the view of the well from the highway. The Shallow Water Depot, spur tracks and a cabooses have been moved onto the site, just east of the well, also north of the tracks.

The hand-dug well is twenty-four feet (24') in diameter, with a depth of one hundred-two feet (102'). It is lined with rock to the bottom, with rails going across from one side to the other at different intervals for bracing and reinforcement ..... these remain intact. Originally the pump engine sat on a cement shelf within a few feet of the water. It is possible the pump is still in the bottom, considering the Santa Fe Railway did not remove it when abandoning the line in 1898. There was a wooden stairway with several landings, which went down to the shelf, making it easy to access. The wooden stairway has deteriorated and fallen into the excavation.

In earlier years, the stonewall protruded between thirty (30) to thirty-six (36) inches above ground. Dirt has blown from the fields through the years, especially the 1930s, and has filled in around the base of the wall, so that it now protrudes between ten (10) and fifteen (15) inches above the ground. The well has been absent of water since the mid to late 1970s caused by the irrigation of crops, which caused the water table to drop.

The original well-cover was made of wood resembling a shallow teepee. The edges of the roof rested on the rock wall and hung slightly over the edge of the wall. The wood pieces were wider at the bottom edge and tapered at the top of the cover. There was a large brass plaque, which said, "C.K. & W. Railway". This may be down in the bottom of the well. There was a hinged door for entry into the well, along with holes for large pipes, which came up out of the well and over to the pump house. The stationary steam boilers in the pump house pumped the water up into the huge elevated water tank. The water tank was located near the tracks and by gravity, through a gooseneck delivery spout attached to the tank and projecting over the track, filled the tender of the train.

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The Santa Fe Railroad (C.K. & W. Railway) Hand-dug Well at Selkirk is being nominated to the Register of Historic Places for its historical association with the settling and growth of Wichita County, Kansas. The well is an example of a utilitarian structure essential in the running of the steam locomotives. The large hand-dug well was dug in 1887, is 24 feet in diameter and 102 feet in depth, rock lined to the bottom. This type of well is rare, many of them have been filled in and capped.

The well was built to provide water for the "Great Bend Extension", on the Atchison, Topeka, and Santa Fe Railroad. The line was planned to run through the counties of Barton, Rush, Ness, Lane, Scott, Wichita, and Greeley into Colorado and Denver, making a much shorter route to Colorado and Denver than the present. However, the Santa Fe line did not go to Denver as was originally planned, it only went as far as Selkirk. The Missouri Pacific line ran parallel with the Santa Fe track from Scott City to Selkirk, forcing the abandonment of the Santa Fe line in 1896. In July of 1898, the thirty-five miles of track were taken up.

"Water stations are required to supply water for the locomotives, and are usually located from five to twenty miles apart, according to importance and nature of the traffic on the road, ten miles being a fair average spacing. The water-supply for feeding stationary boilers, washing cars and floors, cleaning out boilers, cooling ashes, fire protection and similar purposes at shops, engine houses, station buildings, etc. is very frequently connected with the water service for road engines at the same point." (Berg, 113)

There were 15 men employed to work on the well, with wages paid per diem of \$2.00. It took 90 days to complete, with the cost of the labor at \$2,700. Nine (9) railcar-loads of curbing were used, along with five (5) cars of cement, and forty-six (46) cars of stone. There was 48,000 cubic feet of dirt taken from the mammoth hole, which was loaded on railcars and hauled to Ness City to be stockpiled there, as dirt was a precious commodity. The water tank's capacity was 22,295 gallons and the estimated supply of water for 24 hours was 89,189 gallons. The total cost of the water-supply system, which included the well, water tank, pump house, and etc. was \$15,000.

The construction of the well is carried out by a team of men working under a "foreman" or "headman". The men digging down in the shaft were known as "sinkers." The remainder of the men worked above ground mixing concrete, or disposing of excavated material and care of animals used in the process, or on hoisting gear for raising and lowering men and materials. There would also be men required to collect, transport and stack rock, gravel and sand for the concrete. A "night watchman" was usually required to keep animals or people from falling into the excavation.

The procedure of the construction was first preparing the site, assembling and erecting the head frame, casting the mixing slab, centering the well, constructing the temporary lining at the well mouth, excavating and the lining of the "lifts" (sections), adding the reinforcing rails, laying the stone wall, then continuing with

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“excavation lifts”, adding reinforcing rails, and lining the wall of each section. An enclosing framework called “curbing” is constructed of wood and temporarily holds the rock lining in place. Later this framework would be removed. As water seeps into the well, it must be pumped out until the desired depth of the well has been reached. All equipment, ropes, pulleys, head frames, lifting devices, ladders, etc. must be examined thoroughly each day to check that they have adequate strength.

The lifting tackle consists of a pulley (more for larger excavations) attached securely to a crosspiece of the head frame. Pulleys were used for raising and lowering men into the well, or men on scaffolds, while others carry the excavated soil in buckets, concrete, rock, tools, etc. A brake post would be set into the ground in concrete, a distance away from the well and facing the crosspiece. One of these would be made for each pulley used. The lifting ropes are wrapped around the brake post when the well sinkers and heavy weights are being lowered, to control the rate of descent. Teams of horses were used to pull the heavy loads of excavated soil up out of the well, which was put on a sled and pulled away from the immediate construction area.

The safest way of ascending and descending a deep shaft is on a “bosun” chair, consisting of a strong piece of timber knotted to the rope in the center to prevent tilting sideways. It was also advisable that they wear a rope around their waists, made fast and controlled from the surface.

The stairway was constructed and attached to the rails for support. A concrete shelf was built just above water level where the pump was placed. The water was pumped from the well by stationery boilers in the pump house above ground and up into the large elevated water tank.

The well at Greensburg, Kansas was also dug in 1887 for the Santa Fe Railroad. The Greensburg well served the railroad’s needs until 1895, when the line was abandoned, and went on to serve the town’s needs until the 1930s, when a new water system was built. The Greensburg well is slightly larger than the Selkirk well, measuring 32 feet in diameter and 109 feet deep. Today the well serves as a tourism attraction. There are probably other extant railroad wells in Kansas that have not been documented to the extent of the Greensburg and Selkirk wells.

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### VERBAL BOUNDARY DESCRIPTION

The nominated property is located on a tract of land situated in the Southwest Quarter (SW/4) of Section Twenty (20) in Township Eighteen (18) South, Range Thirty-eight (38), West of the 6th P.M. in said County of Wichita and State of Kansas, to-wit: Beginning at a point Two Hundred Feet (200') West of the Northeast corner of said SW/4 Sec. 20-18S-38W. and along the North line of said Quarter, Thence on West along said North line a distance of One Hundred Fifty Feet (150') to a point; Thence South to a point Twenty-four feet (24') North of the North Line of the Missouri Pacific Railway Right-of-way, and Three Hundred Fifty Feet (350') West of the East line of said SW/4 Sec. 20-18S-38W.; Thence Easterly on a line parallel to said Right-of-way line for a distance of One Hundred Fifty Feet (150') to a Point Twenty-Four Feet (24') North of said Right-of-way; Thence North to the Point of Beginning.

### BOUNDARY JUSTIFICATION

The nominated property stands in the Southwest portion of the Ninety-Six Feet (96') by One Hundred Fifty Feet (150') Rectangle. The diameter of the well is Twenty-Four Feet (24'). All other structures associated with the well and railway station site have been removed. The Shallow Water Santa Fe Railway Depot and cabooses have been moved onto the property and sits East of the Well.