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OMB No. 1024-0018 NPS Form 10-900 RECEIVED (Rev. 8-86) United States Department of the Interior OCT 25 1993 National Park Service NATIONAL REGISTER OF HISTORIC PLACES NATIONAL REGISTRATION FORM REGISTER ______ 1. Name of Property ______ historic name: Old Redwater Bridge other name/site number: South Dakota Dept. of Trans. Br. No. 41-096-011 2. Location street & number: Local road over Redwater River not for publication: city/town: Spearfish vicinity: X state: SD county: Lawrence code: <u>081</u> zip code: 57783 3. Classification Ownership of Property: public-state ? private Category of Property: structure Number of Resources within Property: Contributing Noncontributing _ buildings sites structures _ objects Total Number of contributing resources previously listed in the National

Name of related multiple property listing: <u>Historic Bridges in South</u>

Register: _0_

Dakota

4. State/Federal Agency Certification		
As the designated authority under the Na of 1986, as amended, I hereby certify the request for determination of eligibility standards for registering properties in Historic Places and meets the procedural set forth in 36 CFR Part 60. In my opin does not meet the National Register sheet.	ational Historic Preser nat this nomination meets the documentation the National Register and professional requirements	on on of irements meets
M tiple		
Signature of certifying official	Date	
Satt out SHPO		
State or Federal agency and bureau		
In my opinion, the property meets _ Register criteria See continuation	does not meet the	National
Signature of commenting or other officia	Date	
State or Federal agency and bureau		
5. National Park Service Certification		========
I, hereby certify that this property is:		
entered in the National RegisterSee continuation sheetdetermined eligible for the National RegisterSee continuation sheet. determined not eligible for the	SM COlland	<u> 12/9/93</u> ——
National Register		
removed from the National Register		
other (explain):		
	Signature of Keeper	Date of Action

USDI/NPS NRHP Registration Form	Old Redwater Bridge	Page 3
6. Function or Use		
Historic: Transportation	Sub: <u>road-related (vehi</u>	cular)
Current : Transportation	Sub: road-related (vehi	cular)
7. Description		
Architectural Classification:		
Other		
Other Description: Pratt, half-hip	pony truss	
Other Description: Pratt, half-hip Materials: foundation concrete ralls		

*z*₁,

8. Statement of Significance
Certifying official has considered the significance of this property in relation to other properties:
Applicable National Register Criteria: A & C
Criteria Considerations (Exceptions) :
Areas of Significance: Commerce Engineering
Period(s) of Significance: 1910 - 1943
Significant Dates : 1910
Significant Person(s): N/A
Cultural Affiliation: N/A
Architect/Builder: _ <u>Standard Bridge Company</u>
State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above. _X_ See continuation sheet.
9. Major Bibliographical References
X See continuation sheet.
Previous documentation on file (NPS):
<pre>preliminary determination of individual listing (36 CFR 67) has been requested. previously listed in the National Register previously determined eligible by the National Register designated a National Historic Landmark recorded by Historic American Buildings Survey # recorded by Historic American Engineering Record #</pre>

City or Town: Butte

obbijarb akar kegistiation roim	ord Redwater Bridge rage 5
Primary Location of Additional Data:	
State historic preservation office X Other state agency Federal agency Local government University Other Specify Repository: South D	akota Department of Transportation
10 Cooggaphical Data	
10. Geographical Data	
Acreage of Property: <u>less than 1 acre</u>	
UTM References: Zone Easting Northing	Zone Easting Northing
A <u>13</u> <u>590810</u> <u>4937830</u> C	B
See continuation she	et.
Verbal Boundary Description: See	continuation sheet.
The nominated property consists feet long, whose vertices coincide wit abutments at each end of the bridge, a superstructure and substructure.	of a rectangle, 21 feet wide by 75 h the outside corners of the bridge nd includes only the bridge
Boundary Justification: See conti	nuation sheet.
Because the bridge is located on boundary lines for the ends of the bri are drawn to encompass only the supers bridge itself.	
11. Form Prepared By	
Name/Title: <u>Jennifer Traeger/Historian</u>	and Wayne Rosby/Engineer
Organization: Renewable Technologies,	Inc. Date: <u>August 1990/9-93</u>

Street & Number: 510 Metals Bank Bldg. Telephone: (406)782-0494

State: MT ZIP: <u>59701</u>

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NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 7 Old Redwater Bridge Page 6

Old Redwater Bridge is located 5 miles north and 0.5 mile east of Spearfish and carries a local road over the Redwater River. The pinconnected Pratt half-hip pony truss span sits on two concrete filled steel tubular piles with steel plate back walls between the piles. The 70 foot truss is comprised as follows: the upper chords consist of two steel channel sections riveted with a continuous steel cover plate along their upper flanges and with batten plates riveted along their lower flanges; the lower chords are paired, forged steel eye-bars on the end panels and paired punched steel eye-bars on the center two panels; the verticals consist of two pairs of angle sections riveted with batten plates; the diagonals are paired forged steel eye-bars; the counters for the center two panels are round steel rods with turn-buckles. The deck is supported on wood stringers which sit on I-beam floor beams. The floor beams are bolted below the pin-connection with a U-shaped bolt which envelopes the floor beams and goes around the pin, with nuts holding a batten plate on the bottom flange of the floor beams. The bottom lateral bracing consists of round, steel rod cross-bracing. There are paired angle section knee braces between the floor beams and the inside of the vertical members. The railing consists of a 2 X 12 wood plank bolted to the verticals.

The bridge has a badly deteriorated, double plank deck that has been surfaced with perforated corrugated steel plates in 2 foot X 14 foot sections. Despite this alteration, the bridge retains good integrity.

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NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section number 8 Old Redwater Bridge Page 7

Bridge no. 41-096-011 is being nominated to the National Register of Historic Places as part of the "Historic Bridges in South Dakota" Multiple Property Nomination. It is related to the historic context of "Historic Bridges in South Dakota, 1893-1943" and is classified with the associated property type for iron and steel frame bridges. This bridge is individually eligible for the National Register under Criterion A as a representative example of important patterns of bridge construction in South Dakota during the 1890s and through the first two decades of the 20th century, in which a different out-of-state bridge builder tended to dominate bridge construction in each county. It is also eligible for the National Register under Criterion C as the longest bridge in Lawrence County by long term county bridge building firm, the Standard Bridge Company. The bridge retains good integrity.

Around the turn of the 20th century, the homesteading boom west of the Missouri River coupled with the expanded agri-business east of the river led to an increased demand for reliable bridges in South Dakota. Accompanying the increase in bridge construction was the emergence of a pattern of business wherein almost every county in the state seemed to be dominated by a different bridge builder. This pattern began to be evident in the late-19th century. It grew even stronger after the turn of the century when the counties began turning to the system of awarding annual contracts for bridge work. Most typically, the counties awarded annual contracts to the same firm year after year. This relationship between the counties and the bridge firms was probably due to "pooling," an illegal but common practice across the country at this time. Under pooling arrangements, various bridge-building firms agreed to divide states among themselves, assigning particular counties to specific firms. Most such firms operating in South Dakota at this time were based out-of-state. This pattern of business remained strong in South Dakota until about 1920 when the State Highway Commission strengthened its control over bridge construction practices in the counties.

The activities of the Standard Bridge Company are typical of bridge-building business in South Dakota during this era. The Standard Bridge Company was organized in Omaha by Robert Z. Drake in 1900. Drake was born and educated in Kansas and began building bridges in the early 1890s when he was in his early twenties. Besides working as a contractor, he was an innovator in developing a configuration of steel pilings for bridge substructures and the transverse joist bridge. He also developed (continued)

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Section number 8 & 9 Old Redwater Bridge Page 8

8. Significance (continued)

standardized plans for truss bridges that were widely used in Nebraska and elsewhere.

The Standard Bridge Company built bridges in Lawrence County from at least 1908 through at least 1910. The Company was awarded the annual bridge building contract in Lawrence County in 1910, the year that Bridge No. 41-096-011 was built. With a single span of 70 feet, this is the longest bridge to survive in Lawrence County.

9. Bibliography

South Dakota Structure Inventory and Appraisal Sheet, 8/2/88, page 442.

Lawrence County Proceedings of the Board of Roads and Bridges, Book 2, pages 89 - 91.

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National Register of Historic Places Continuation Sheet

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SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: see below Date Listed: 12/09/93

Property Name: see below

County: see below State: South Dakota

<u>Historic Bridges in South Dakota MPS</u>

Multiple Name

The following properties are listed in the National Pogister of

The following properties are listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Signature of the Keeper

December 9, 1993 Date of Action

Amended Items in Nomination:

Section 3/8. State Certification/Statement of Significance. Certifying official has considered the significance of the following properties to be of <u>state</u> significance.

Reference No. Property County

93001295	Capa Bridge	Jones County
93001287	Chilson Bridge	Fall River County
93001308	Eighth Street Bridge	Minnehaha County
93001298	Esmond Bridge	Kingsbury County
93001317	Hall Bridge	Spink County
93001274	Hay Creek Bridge	Butte County
93001264	Kemp Avenue Bridge	Codington County
93001266	Larson Bridge	Codington County
93001277	Minnesela Bridge	Butte County
93001268	Old Cochrane Bridge	Deuel County
93001281	Red Shirt Bridge	Custer County
93001300	Redwater Bridge, Old	Lawrence County

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Section number3	Pa	age2
93001269	South 100	Dakota Dept. of Transportation Bridge No. 03-338- Beadle County
93001260		Dakota Dept. of Transportation Bridge No. 03-020- Beadle County
93001261		Dakota Dept. of Transportation Bridge No. 03-327- Beadle County
93001270		Dakota Dept. of Transportation Bridge No. 05-028- Bon Homme county
93001271	South	Dakota Dept. of Transportation Bridge No. 05-032- Bon Homme County
93001272		Dakota Dept. of Transportation Bridge No. 05-138- Bon Homme County
93001273	South	Dakota Dept. of Transportation Bridge No. 05-255- Bon Homme County
93001276	South	Dakota Dept. of Transportation Bridge No. 10-112- Butte County
93001275	South	Dakota Dept. of Transportation Bridge No. 10-109- Butte County
93001278		Dakota Dept. of Transportation Bridge No. 12-503- Charles Mix County
93001265		Dakota Dept. of Transportation Bridge No. 15-210- Codington County
93001279		Dakota Dept. of Transportation Bridge No. 16-570- Carson County
93001280		Dakota Dept. of Transportation Bridge No. 17-289- Custer County
93001282	South	Dakota Dept. of Transportation Bridge No. 18-040-
93001283		Davison County Dakota Dept. of Transportation Bridge No. 18-060-
93001284		Davison County Dakota Dept. of Transportation Bridge No. 18-100- Davison County
93001285		Dakota Dept. of Transportation Bridge No. 18-142-
93001286	150 South 210	Davison County Dakota Dept. of Transportation Bridge No. 20-153- Deuel County
93001288	South	Dakota Dept. of Transportation Bridge No. 25-218-
93001262		Faulk County Dakota Dept. of Transportation Bridge No. 25-380-
93001289	South	Faulk County Dakota Dept. of Transportation Bridge No. 27-000-
93001290	201 South 298	Gregory County Dakota Dept. of Transportation Bridge No. 27-060- Gregory County

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Section number	3 P	age3						
93001291	South 060	Dakota Hamlin		of	Transportation	Bridge	No.	29-221-
93001292		Dakota	Dept. o	of	Transportation	Bridge	No.	29-279-
93001293		Dakota	Dept. o	of	Transportation	Bridge	No.	30-257-
93001294			Dept. o	of	Transportation	Bridge	No.	31-115-
93001297		Dakota			Transportation	Bridge	No.	39-006-
93001299		Dakota		of	Transportation	Bridge	No.	39-176-
93001301			Dept. o		Transportation	Bridge	No.	44-028-
93001302	South 090	Dakota McCook		of	Transportation	Bridge	No.	44-212-
93001303	South 363	Dakota Meade C		of	Transportation	Bridge	No.	47-215-
93001263	South 389	Dakota Meade C		f	Transportation	Bridge	No.	47-151-
93001305	South 204	Dakota Melette			Transportation	Bridge	No.	48-244-
93001306	South 190	Dakota Miner C		of	Transportation	Bridge	No.	49-095-
93001267	South 035	Dakota Minneha			Transportation	Bridge	No.	50-200-
93001310	South 096		Dept. o		Transportation	Bridge	No.	56-090-
93001312	South 090		Dept. o		Transportation	Bridge	No.	56-174-
93001311	123	Sanborn	County	7	Transportation	_		
93001313	South 376	Dakota Spink C		f	Transportation	Bridge	No.	58-010-
93001314	400	Spink C	ounty		Transportation	•		
93001315	370	Spink C	ounty		Transportation	•		
93001316	South 270	Dakota Spink C		of	Transportation	Bridge	No.	58-062-
93001318	South 231		Dept. o	of	Transportation	Bridge	No.	58-120-
63001319			Dept. o	of	Transportation	Bridge	No.	58-140-

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National Register of Historic Places Continuation Sheet

3 Page ___4 Section number ____ South Dakota Dept. of Transportation Bridge No. 58-218-63001320 Spink County 360 South Dakota Dept. of Transportation Bridge No. 62-220-63001321 512 Tripp County 63001322 South Dakota Dept. of Transportation Bridge No. 64-061-Union County 93001309 Split Rock Park Bridge Minnehaha County 93001304 Stamford Bridge Miner County
93001307 Summit Avenue Viaduct Minnehaha County
Tonce County Jones County 93001296 Van Metre Bridge

Section 8: Applicable Criteria

93001266 Larson Bridge Codington County

Criterion C should be checked and not A to be consistent with bridge's significance in engineering for its method of construction.

Section 8: Period of Significance

93001266 Larson Bridge Codington County

Period of significance is amended to read "1917" to indicate date of construction and to be consistent with significance in engineering.

93001281 Red Shirt Bridge Custer County

Period of significance is amended to read "1943-1944" to cover the period of construction.

93001278 South Dakota Dept. of Transportation Bridge No. 12-503-230 Faulk County

Due to typographical error, period of significance is corrected to read " 1920-1943."

93001265 South Dakota Dept. of Transportation Bridge No. 15-210-136 Codington County

Period of significance is amended to read "1917" since significance is under criterion C in engineering and the date of construction should be entered.

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93001262 South Dakota Dept. of Transportation Bridge No. 25-380-142 Faulk County

Period of significance is amended to read "1902" because the area of significance is engineering and the period of significance should be based on the date of construction. The bridge was moved from its original site in 1955.

Section 8: Date of Significance

93001308 Eighth Street Bridge Minnehaha County

"1977" is deleted because the date lies outside the period of significance.

93001317 Hall Bridge Spink County

"1904" is deleted because bridge is significant under criterion C for engineering and the move in 1904 falls outside the period of significance which is based on the date of construction and does not appear to have particular importance.

93001286 South Dakota Dept. of Transportation Bridge No. 20-153-210 Deuel County

"1960" is deleted because the date lies outside the period of significance.

93001262 South Dakota Dept. of Transportation Bridge No. 25-380-142 Faulk County

"1955" is deleted because the date lies outside the period of significance.

93001302 South Dakota Dept. of Transportation Bridge No. 44-212-090 McCook County

"1960" is deleted because the date lies outside the period of significance.

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93001267 South Dakota Dept. of Transportation Bridge No. 50-200-035 Minnehaha County

"1935" is deleted because the date lies outside the period of significance which is based on the date of construction.

93001311 South Dakota Dept. of Transportation Bridge No. 56-117-123 Sanborn County

"1905" is deleted because the date lies outside the period of significance and does not appear to have particular importance.

Melissa Dirr, architectural historian, of the South Dakota State Historic Preservation Office was notified of the above-mentioned amendments by telephone on December 09, 1993.

DISTRIBUTION:

National Register property file Nominating Authority (without nomination attachment)