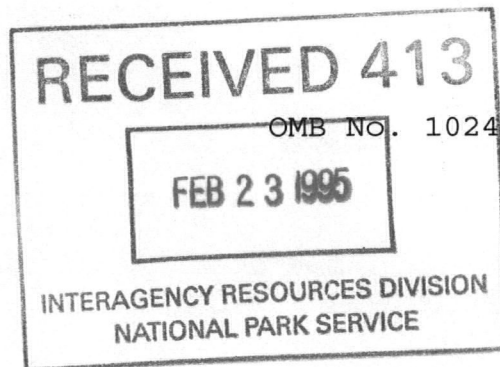


NPS Form 10-900
(Rev. 10-90)

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM**



=====

1. Name of Property

=====

historic name Pig Tail Bridge

other names/site number HS-98

=====

2. Location

=====

street & number Wind Cave National Park, SD Hwy 87, North of Norbeck Lake
not for publication _____
city or town Hot Springs vicinity X
state South Dakota code SD county Custer code 033 zip code 57747-9430

=====

3. State/Federal Agency Certification

=====

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this X nomination _____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets _____ does not meet the National Register Criteria. I recommend that this property be considered significant _____ nationally _____ statewide X locally. (_____ See continuation sheet for additional comments.)

Sally Buckner
Federal Preservation Officer (certifying official)

2/21/95
Date

National Park Service
Federal agency

In my opinion, the property ✓ meets _____ does not meet the National Register criteria. (_____ See continuation sheet for additional comments.)

[Signature]
Signature of commenting official

1-26-95
Date

South Dakota State Historic Preservation Office
State agency

Pig Tail Bridge, Wind Cave National Park, Custer County, SD

=====

4. National Park Service Certification

=====

I, hereby certify that this property is:

- ☒ entered in the National Register
 ___ See continuation sheet.
___ determined eligible for the
National Register
 ___ See continuation sheet.
___ determined not eligible for the
National Register
___ removed from the National Register
___ other (explain): _____

Linda J. McCallan 4/7/98

Signature of Keeper

Date
of Action

=====

5. Classification

=====

Ownership of Property

- ___ private
___ public-local
___ public-State
☒ public-Federal

Category of Property

- ___ building(s)
___ district
___ site
☒ structure
___ object

Number of Resources within Property

Contributing	Noncontributing
___	___ buildings
___	___ sites
1	___ structures
___	___ objects
1	___ Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing Wind Cave National Park Multiple
Property Submission

Pig Tail Bridge, Wind Cave National Park, Custer County, SD

=====

6. Function or Use

=====

Historic Functions

Cat: TRANSPORTATION/road-related Sub: Bridge

Current Functions

Cat: TRANSPORTATION/road related Sub: Bridge

=====

7. Description

=====

Architectural Classification:

Other: Rustic

Materials

foundation: CONCRETE; SANDSTONE

roof: N/A

walls: N/A

other: WOOD: log, laminated wooden deck; ASPHALT

Additional Materials

foundation: STONE: sandstone; METAL: steel

Narrative Description

(See continuation sheet)

=====

8. Statement of Significance

=====

Applicable National Register Criteria

- X A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- ___ B Property is associated with the lives of persons significant in our past.
- X C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ___ D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations

- ___ A owned by a religious institution or used for religious purposes.
- ___ B removed from its original location.
- ___ C a birthplace or a grave.
- ___ D a cemetery.
- ___ E a reconstructed building, object, or structure.
- ___ F a commemorative property.
- ___ G less than 50 years of age or achieved significance within the past 50 years.

Pig Tail Bridge, Wind Cave National Park, Custer County, SD

Areas of Significance: POLITICS/GOVERNMENT; TRANSPORTATION; ENGINEERING

Period of Significance: c. 1930-1945

Significant Dates: c. 1930-1943

Significant Person: N/A

Cultural Affiliation: N/A

Architect/Builder: South Dakota Highway Department

Narrative Statement of Significance

(See continuation sheet)

=====

9. Major Bibliographical References

National Archives

Master Plans with Narratives. Architectural and Cartographic Branch,
RG 79.

National Park Service

Original plans, specifications and correspondence maintained by the
National Park Service Technical Information Center, Denver.

Wind Cave National Park Property Files, generated in 1946 and updated
periodically, Wind Cave National Park and Denver.

Torma, Carolyn

1982 "Wind Cave National Register of Historic Places Nomination Form."
Denver: National Park Service.

=====

Previous documentation on file (NPS)

- ☐ 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 # _____

Primary Location of Additional Data

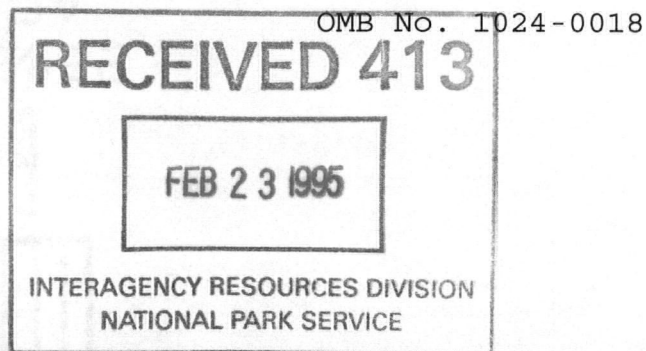
- ☐ State Historic Preservation Office
- ☐ Other State agency
- ☒ Federal agency
- ☐ Local government
- ☐ University
- ☐ Other

Name of repository: National Park Service, Rocky Mountain Region, CO

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Section number 7 Page 1



Pig Tail Bridge, Wind Cave National Park, Custer County, SD

Narrative Description

Summary:

Probably constructed ca. 1930 and reconstructed or modified in 1940, the Pig Tail Bridge was built as part of the development of SD Highway 87, which included the construction of the Beaver Creek Bridge. The bridge spans Highway 87 which, after crossing the bridge, makes a 360 degree loop and comes back under the bridge on the approach to Reaves Gulch.

Setting:

This bridge is a linear feature with a 160 foot deck which runs approximately north-south. The structure spans a ravine through which the road is built. After the road crosses the bridge it makes a 360 degree loop and passes back under the bridge and down the ravine. The ravine is a densely wooded area which includes both ponderosa pine and a variety of deciduous trees. After passing under the bridge the road descends to Reaves Gulch. The road is a sinuous two lane asphalt highway in both directions from the bridge.

Description of Structure:

The bridge is a post and lintel design consisting of a single span of 160 feet long. It has an asphalt covered laminated wooden deck which rests on steel I-beams. The I-beams sit on concrete and stone masonry abutments. There is one abutment at each end of the bridge and two additional abutments, 40 feet apart, on each side of the roadbed which passes beneath the bridge. The end abutments have short wing walls on each side. The abutments have concrete bases which are poured on outcrops of native rock. Battered abutments use native sandstone in a coursed ashlar pattern with rock facing. Each abutment has a concrete cap. The date "1940" is cast in the center inside of the northern and southern abutments. Log uprights are regularly spaced along the outside edge of the deck and two logs, one above the other, are bolted to the uprights forming a guardrail. The guardrail extends beyond each end of the bridge serving as a guardrail for the approach. This extended guardrail is on the east side at the south end of the bridge and on the west side at the north end of the bridge.

Historical Information:

In an article on "Highways in Custer State Park" it was noted that the "Beaver Canyon Bridge . . . is conceded to be the most beautiful structure in the State, and the pig-tail bridge and the scenic windings of Reaves Gulch add to the interest of the route" (Robertson 1930:136). This suggests the pig tail bridge may have been originally constructed by 1930 (possibly by the South Dakota Highway Department), and was either modified or reconstructed in 1940 by the Civilian Conservation Corps.

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Section number 7 Page 2

Pig Tail Bridge, Wind Cave National Park, Custer County, SD

Narrative Description (continued)

The "Pig Tail Bridge" on SD Highway 87 was determined to not be a true pig tail bridge when considered by a 1990 South Dakota Historic Bridge Inventory. The rationale was that the bridge was a single span and the road beyond the bridge makes a 360 degree turn coming back under the bridge. In other examples the bridge itself curves. As a part of this 1990 South Dakota Inventory, it was noted that there were at least five similar pig tail bridges built in the Black Hills. According to the report, these bridges were built in 1930 and were rebuilt in the 1930s, using steel I-beams and laminated timber decks. In some cases they were rebuilt again in the 1970s (Rosby 1990).

MODIFICATIONS:

It is believed that "I" beams and a laminated timber deck replaced the original structural elements in 1940 when the concrete caps were added to the stone abutments. Some of the log guardrails were replaced in 1990 after being damaged by a truck accident. These changes did not result in a major change in the appearance of the bridge.

INTEGRITY STATEMENT:

The Pig Tail Bridge was previously determined ineligible for listing on the National Register by the South Dakota State Historic Preservation Officer (April 10 1984). The decision was based on the belief that the bridge had been substantially altered; it is now thought that a photograph of a different bridge was used for comparison, and that the bridge retains its historic design.

The original structure may have had log stringers and a wooden deck. Within ten years of the original construction, the stone abutments were finished with concrete caps, steel "I" beams replaced the original members, and a laminated wooden deck was added. These alterations were completed in 1940. The bridge retains integrity from the 1940 reconstruction period and is an excellent example of a bridge executed according to NPS rustic design principles.

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Section number 8 Page 3

Pig Tail Bridge, Wind Cave National Park, Custer County, SD

STATEMENT OF SIGNIFICANCE:

The Pig Tail Bridge is locally significant under Criterion A due to its association with the development of Wind Cave National Park. Wind Cave National Park was created in 1903 in an effort to protect it as an important natural feature, to make this resource more accessible, and to interpret the resource to a visiting public. At the time the bridge was built it was seen as providing an important transportation link between Wind Cave National Park to the south and the newly developing Custer State Park to the North. The Beaver Creek Bridge was built in 1929 and the Pig Tail Bridge served to extend the road into the Reaves Gulch area. These bridges and the connecting road between the two parks were made possible as a result of the efforts of South Dakota's Senator Peter Norbeck. Senator Norbeck was the guiding force behind the creation and development of Custer State Park and the scenic highways within the park and the general vicinity.

The bridge is also locally significant under Criterion C as a good example of rustic design principles applied by NPS engineers. Structures designed using National Park Service Rustic Architecture principals "besides being attractive to look upon, . . . appear to belong to and be a part of their settings" (Cammerer 1935). The precepts of the rustic style of architecture dominated park planning for nearly 30 years, 1918 to the late 1930s. The style and philosophy emphasized the connection between landscape and architecture by incorporating "natural" materials such as native stone, log, and timber in the design. Use of natural materials helped to assure that the buildings and structures were harmonious with the surrounding landscape and terrain. A fundamental idea was the subordination of the structure to the environment and landscaping played a key role in carrying out this principal. Careful placement of structures and planned landscaping became an integral part of the architectural design and structures were screened by natural and man-made landscaping materials. Consideration for scale and perspective was also part of the park design. Structures were designed for each individual park that would conform to the wilderness character of the area. As a result there are stylistically adapted designs for specific environments with a focus on materials, scale, and placement appropriate for each location (Simmons and Simmons 1992).

The Pig Tail Bridge was evaluated under three historic contexts contained in the Wind Cave National Park Multiple Property Submission (MPS): Recreation and Tourism in the Black Hills and at Wind Cave, 1890-1945; Development and Administration of Wind Cave National Park, 1903-1945; and National Park Service Rustic Architecture and Public Works Construction, 1933-1942. (For additional contextual information, refer to the MPS.) The period of significance dates from ca. 1930, the bridge's estimated date of construction, to 1945, the end of the historic period as defined by the National Register.

Pig Tail Bridge, Wind Cave National Park, Custer County, SD

=====

10. Geographical Data

=====

Acreage of Property less than 1 acre

UTM References (Place additional UTM references on a continuation sheet)

Zone	Easting	Northing
13	621560	4828470

Township, Range, Section: T5S R5E, Sec 23

Verbal Boundary Description: The nominated property consists of a rectangle, 28 feet wide by 160 feet long, whose vertices coincide with the outside corners of the bridge abutments at each end of the bridge, and includes only the bridge superstructure and substructure.

Boundary Justification: Because the bridge is located on a public road, there are no legal boundary lines for the ends of the bridge. Therefore, these boundaries are drawn to encompass only the superstructure and substructure of the bridge itself.

=====

11. Form Prepared By

=====

name/title Ken Karsmizki
organization Western History Research date 2/1994
street & number 409 West Harrison telephone 406-587-2478
city Bozeman state MT zip code 59715

=====

Property Owner

=====

name Wind Cave National Park
street & number RR1, Box 190-WCNP telephone 605-745-4600
city or town Hot Springs state SD zip code 57747-9430

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Photo List Page 4

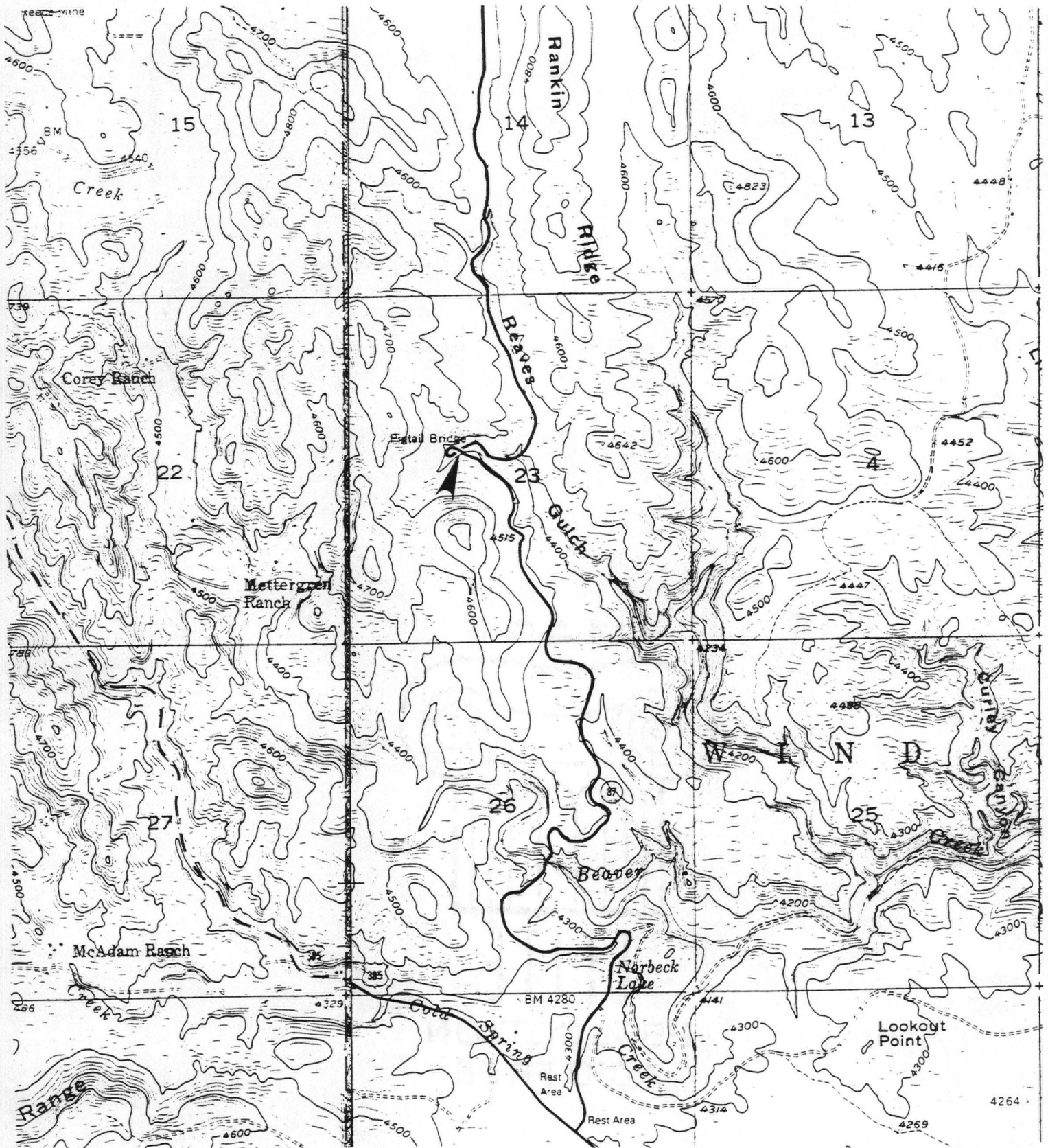
Pig Tail Bridge, Wind Cave National Park, Custer County, SD

Photo List:

<u>Photo #</u>	<u>View</u>	<u>Comments</u>	<u>Roll</u>	<u>Frame</u>
01	E	bridge from road	15	14
03	S	bridge abutment	15	16
04	NW	bridge abutment	15	17
05	NW	detail of abutment showing date	15	18
07	E	bridge abutment and railing	15	20
09	NW	road bed above bridge	15	22

Wind Cave National Park
Historic Buildings and Structures Survey 1992

Property: Pig Tail Bridge, Wind Cave, S. Dak. 1957 (photorevised 1979) and Pringle, S. Dak. 1956
(photorevised 1979) 7.5 minute USGS Quads.



United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Section number _____ Page _____

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 95000344

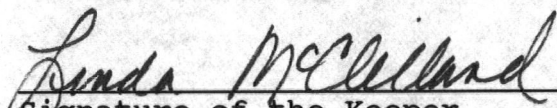
Date Listed: 4/7/95

Property Name: Pig Tail Bridge

County: Custer State: South Dakota

Wind Cave National Park MPS
Multiple Name

This property is 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

April 7, 1995
Date of Action

=====

Amended Items in Nomination:

Section 8: Significant Dates

The significant dates are hereby changed to "1930 and 1940" to reflect the dates of original construction and subsequent retrofitting.

Cathy McKoy, Historian for the Rocky Mountain Regional Office, was notified of this amendment on April 7, 1995.

DISTRIBUTION:

National Register property file
Nominating Authority (without nomination attachment)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY Pig Tail Bridge
NAME:

MULTIPLE Wind Cave National Park MPS
NAME:

STATE & COUNTY: SOUTH DAKOTA, Custer

DATE RECEIVED: 2/23/95 DATE OF PENDING LIST: 3/07/95
DATE OF 16TH DAY: 3/23/95 DATE OF 45TH DAY: 4/09/95
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 95000344

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL: N DATA PROBLEM: N LANDSCAPE: N LESS THAN 50 YEARS: N
OTHER: N PDIL: N PERIOD: N PROGRAM UNAPPROVED: N
REQUEST: N SAMPLE: N SLR DRAFT: Y NATIONAL: N

COMMENT WAIVER: N

☒ ACCEPT ☐ RETURN ☐ REJECT 4/7/95 DATE

ABSTRACT/SUMMARY COMMENTS:

*History of bridge's early construction is sketchy
but c. 1930 seems appropriate. Bridge
was retrofitted w/ concrete + steel in
1940. SLR needed to correct dates
in Sec. 8 to "1930"/"1940". Kathy McKay of
RMRO, notified by
CC mail of SLR on 4/7.*

RECOM./CRITERIA Accept A+C

REVIEWER L McCalland DISCIPLINE Historian

TELEPHONE 202-343-9544 DATE 4/7/95

DOCUMENTATION see attached comments Y/N see attached SLR (Y)N



Pig Tail Bridge

Wind Cave National Park

Custer Co., South Dakota

Photo #1



Pig Tail Bridge
Wind Cave National Park
Custer Co., South Dakota
Photo #3



Pig Tail Bridge
Wind Cave National Park
Custer Co., South Dakota
Photo #4

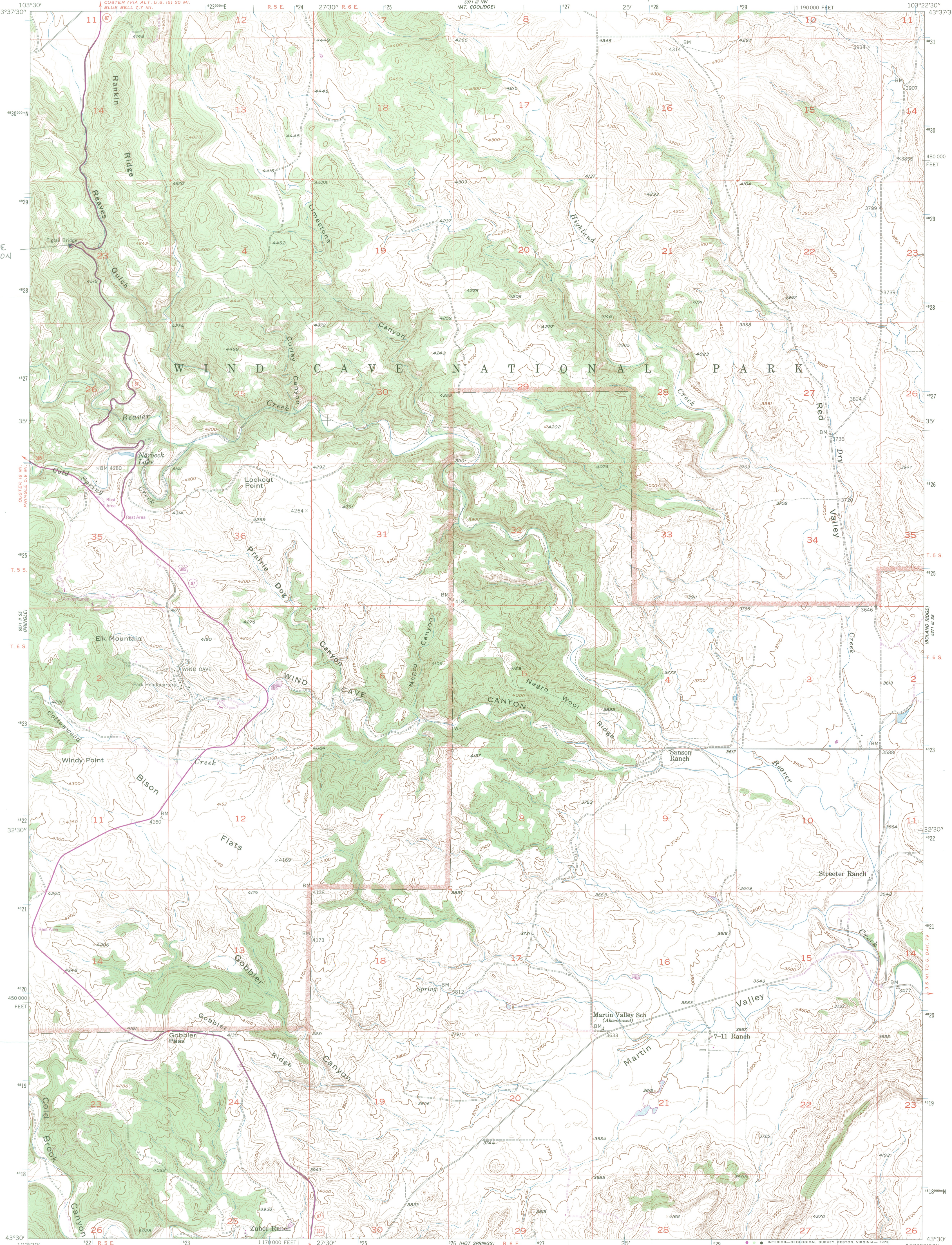




Pig Tail Bridge
Wind Cave National Park
Custer Co., South Dakota
Photo #9

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WIND CAVE QUADRANGLE
SOUTH DAKOTA—CUSTER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1954. Field check 1957

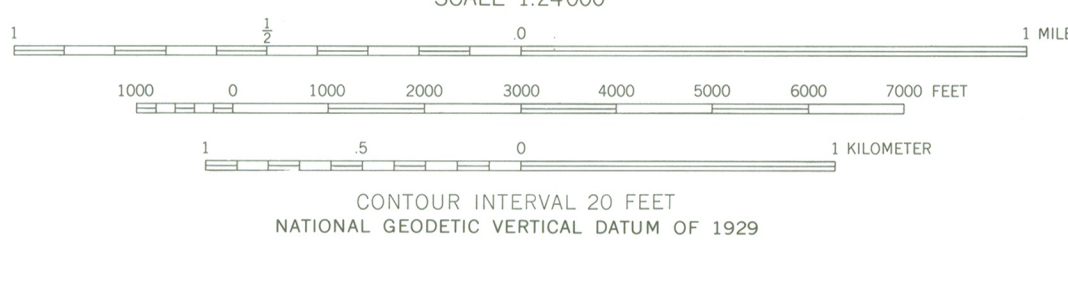
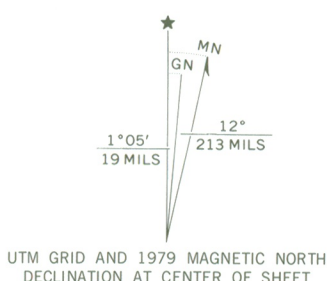
Polyconic projection. 1927 North American datum
10,000-foot grid based on South Dakota coordinate system,
south zone

1000-meter Universal Transverse Mercator grid ticks,
zone 13, shown in blue

Unchecked elevations are shown in brown

There may be private inholdings within the boundaries of
the National or State reservations shown on this map

Revisions shown in purple compiled from aerial photographs
taken 1976 and other source data. This information not
field checked. Map edited 1979



WIND CAVE, S. DAK.
N 4330—W 10322.5/7.5

1957
PHOTOREVISED 1979
AMS 5371 III SW—SERIES V873

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

