INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2799

THE CHICAGO & NORTH WESTERN RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR LAKE BENTON, MINN., ON

MAY 18, 1944

SUMMARY

Railroad:	Chicago & Nortn Western
Date:	May 18, 1944
Location:	Lake Benton, Minn.
Kind of accident:	Derailment
Train involved:	Passenger
Train number:	503
Engine number:	1560
Consist:	6 cars
Estimated speed:	35 m. p. h.
Operation:	Timetable, train orders and manual-block system
Track:	Single; tangent; 0.27 percent descending grade westward
Weather:	Misting
Time:	5:20 a. m.
Casualties:	1 killed; 3 injured
Cause:	Washout

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2799

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

THE CHICAGO & NORTH WESTERN RAILWAY COMPANY

June 10, 1944.

Accident near Lake Benton, Minn., on May 18, 1944, caused by a washout.

REPORT OF THE COMMISSION[1]

PATTERSON, Chairman:

On May 18, 1944, there was a derailment of a passenger train on the Chicago & North Western Railway near Lake Benton, Minn., which resulted in the death of one employee, and the injury of one railway-mail clerk and two employees.

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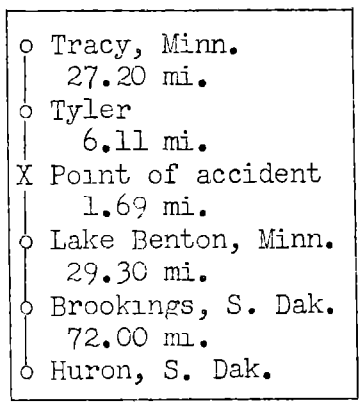
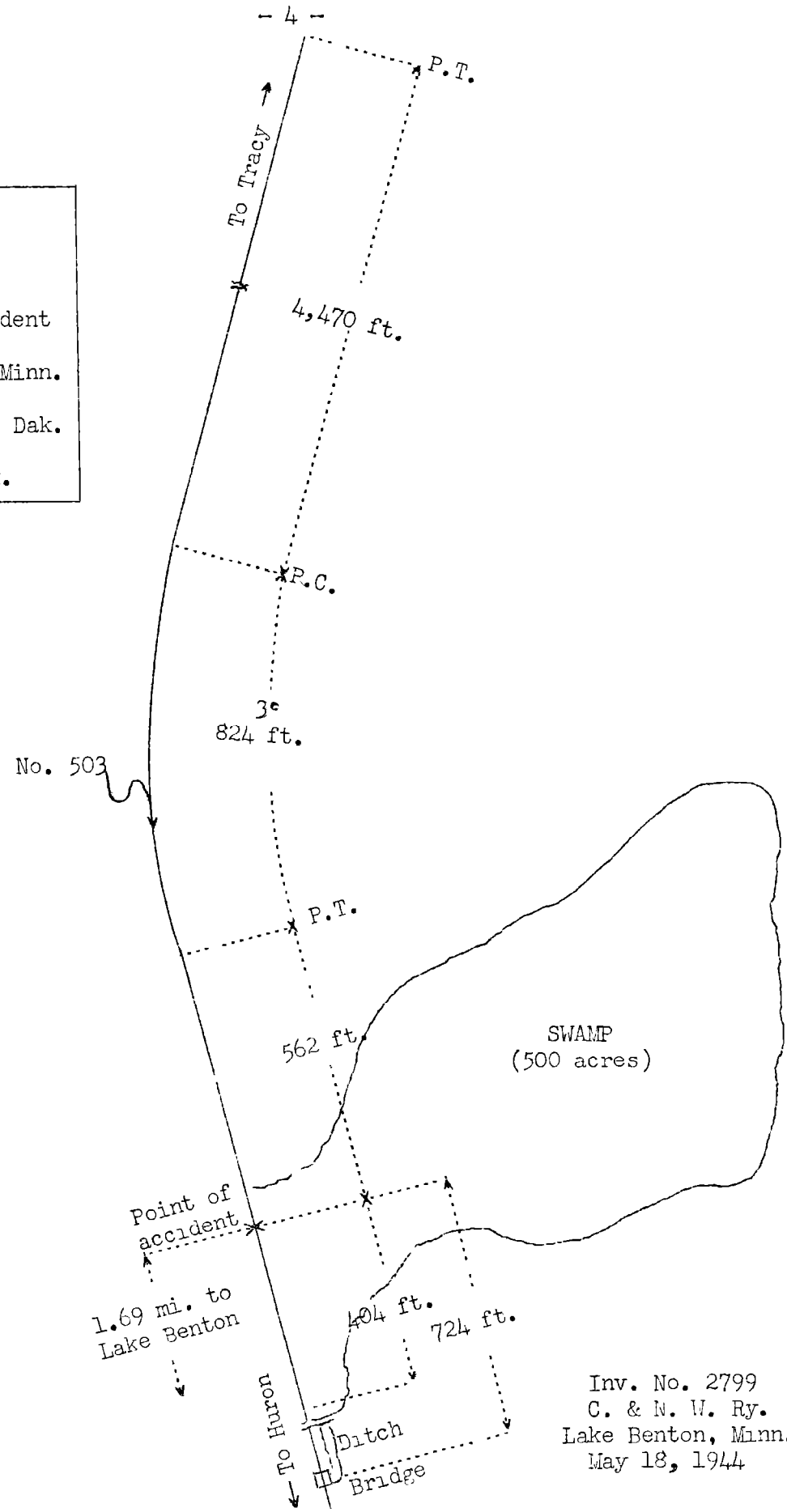
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Chairman Patterson for consideration and disposition.





Inv. No. 2799
C. & N. W. Ry.
Lake Benton, Minn.
May 18, 1944

Location of Accident and Method of Operation

This accident occurred on that part of the Dakota Division designated as Subdivision 2 and extending westward from Tracy, Minn., to Huron, S. Dak., 136.3 miles. This was a single-track line over which trains were operated by timetable, train orders and a manual-block system. The accident occurred 33.31 miles west of Tracy, at a point 1.69 miles east of Lake Benton. From the east there were, in succession, a tangent 4,470 feet long, a 3° curve to the left 824 feet and a tangent 562 feet to the point of accident and 404 feet beyond. The grade for west-bound trains varied between 0.12 percent and 0.56 percent descending about 1.1 miles to the point of accident, and was 0.27 percent descending at that point.

The track structure consisted of 100-pound rail laid in 1936, on 17 treated ties to the rail length. It was single-spiked, fully tieplated, provided with 4 rail anchors per rail length, and was ballasted with gravel to a depth of 12 inches. In the immediate vicinity of the point of accident the track was laid on a fill about 8 feet high, 40 feet wide at the bottom and 20 feet wide at the top. A swamp covering an area of about 500 acres was south of the track, and water from adjacent higher ground drained into the swamp. Normally, accumulated water drained westward from the swamp through an open ditch on the south side of the track and then to the north side of the track through a bridge 52 feet long, located 724 feet west of the point of accident.

Rules of the maintenance-of-way department read in part as follows:

> 563. During heavy storms, high water or other unusual weather conditions, whether by day or night, whereby tracks or structures are liable to be damaged, section foremen and such of their forces as they deem necessary must go over their sections to make sure that the track and bridges are safe, taking flagging equipment with them.
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> * * *

Operating rules read in part as follows:

> 706. Train dispatchers, agents and operators, in cases of severe storm or high water likely to endanger the track or safety of trains will notify such trains to be under full control within the limits of the storm; keep the roadmaster and supervisor of bridges and buildings advised and will require the section foreman to inspect and report the condition of track at once.

In case of threatened storm the train dispatcher will obtain frequent weather reports.

707. * * * during heavy rainstorms or unusual track conditions, trainmen and enginemen must use great care and speed of trains must be restricted so as to insure safety.

* * *

The maximum authorized speed for passenger trains was 60 miles per hour.

Description of Accident

No. 503, a west-bound first-class passenger train, consisted of engine 1560, of the 4-6-2 type, one mail-baggage car, three baggage cars and two coaches, in the order named. The cars were of steel construction. At Tracy, the last open office, the crew received copies of train order No. 8 reading as follows:

> Heavy rains have occurred between Tracy and Brookings be governed accordingly.

No. 503 departed from Tracy at 4:08 a. m., 1 hour 13 minutes late, and while moving at an estimated speed of 35 miles per hour the engine and the first four cars were derailed.

The engine and the first two cars stopped on their right sides, north of the track and parallel to it, with the front end of the engine 350 feet west of the point of derailment. The third car leaned to the right at an angle of about 45 degrees, and the fourth car remained upright. The engine and the first two cars were considerably damaged. The third and fourth cars were slightly damaged.

It was misting at the time of the accident, which occurred about 5:20 a. m.

The engineer was killed. The fireman and the baggageman were injured.

Discussion

No. 503 was moving at a speed of about 35 miles per hour on tangent track in territory where the maximum authorized speed was 60 miles per hour when the engine and the first four cars were derailed. There was no defective condition of the engine prior to the accident, and there was no indication of dragging equipment. The fireman said that he observed water in ditches adjacent to the track at several points between Tracy and the point where the accident occurred, but there was no indication of defective track. As the train was approaching the point where the accident occurred the engine was riding smoothly. The headlight was lighted and the enginemen were maintaining a lookout ahead, but visibility was materially restricted by mist and pockets of fog. When the engine reached a point a short distance east of the point of accident, the fireman observed water about as high as the top of the rail on the south side of the track, and he immediately informed the engineer. The first indication of defective track was when the engine started to overturn.

After the accident, examination disclosed that about 350 feet of the fill in the vicinity of the point of derailment had been washed out to a depth of 3 to 5 feet. The investigation disclosed that about 7 hours prior to the accident the agent at Lake Benton informed the train dispatcher that a heavy rain had fallen. The conductor of No. 503, who had been conductor of an east-bound passenger train which arrived at Tracy about 2 hours 35 minutes prior to the departure of No. 503, observed a heavy rainfall throughout a distance of about 24 miles west of Lake Benton and 10 miles eastward, but there was no indication of defective track. He informed the engineer of No. 503 and the dispatcher about the rainfall. The dispatcher issued train order No. 8 containing this information, and copies of the order were delivered to the crew of No. 503. The section foreman who had charge of the track where the accident occurred was located at Tyler, 7.8 miles east of Lake Benton. He said that prior to the time he retired for the night, about 10 p. m., a moderate rainfall occurred in that locality, but he did not consider it was of sufficient volume to require an inspection of the track. According to data furnished by the railroad, between 12:01 a. m. and 7 a. m. on the day of the accident there was a rainfall of 2.46 inches at Tyler and 2.59 inches at Brookings, 30.99 miles west of the point of accident. Officers of the railroad said that the drainage facilities in the vicinity of the point of accident had been adequate previously, and that no track damage by water had occurred at this point during the past 22 years. However, in this instance, water in the swamp south of the track rose

to an abnormal height. Instead of flowing westwardly along the course of the ditch and thence northwardly under the bridge, its current was directed at right angles to the fill, and the resulting scouring action caused the ballast section and the upper part of the fill to be washed out to a depth of several feet. The division engineer said that had an adequate opening been provided at the point where the current was directed against the fill, the washout would not have occurred.

Cause

It is found that this accident was caused by a washout.

Dated at Washington, D. C., this tenth day of June, 1944.

By the Commission, Chairman Patterson.

W. P. BARTEL,
Secretary.

(SEAL)