

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

INTERNATIONAL-GREAT NORTHERN RAILROAD

MISSOURI PACIFIC LINES

KYLE, TEX.

JUNE 30, 1936

INVESTIGATION NO. 2075

SUMMARY

Railroad: International-Great Northern
Date: June 30, 1936
Location: Kyle, Tex.
Kind of accident: Derailment
Train involved: Freight
Train number: Extra 1111
Engine number: 1111
Consist: 36 cars and caboose
Speed: 25-30 m.p.h.
Track: Tangent, with descending grade
ending just beyond point of
accident, which occurred at
leaving end of bridge
Weather: Very heavy rain
Time: 8:30 p.m.
Casualties: 1 killed and 2 injured
Cause: Washout

July 27, 1936

To the Commission:

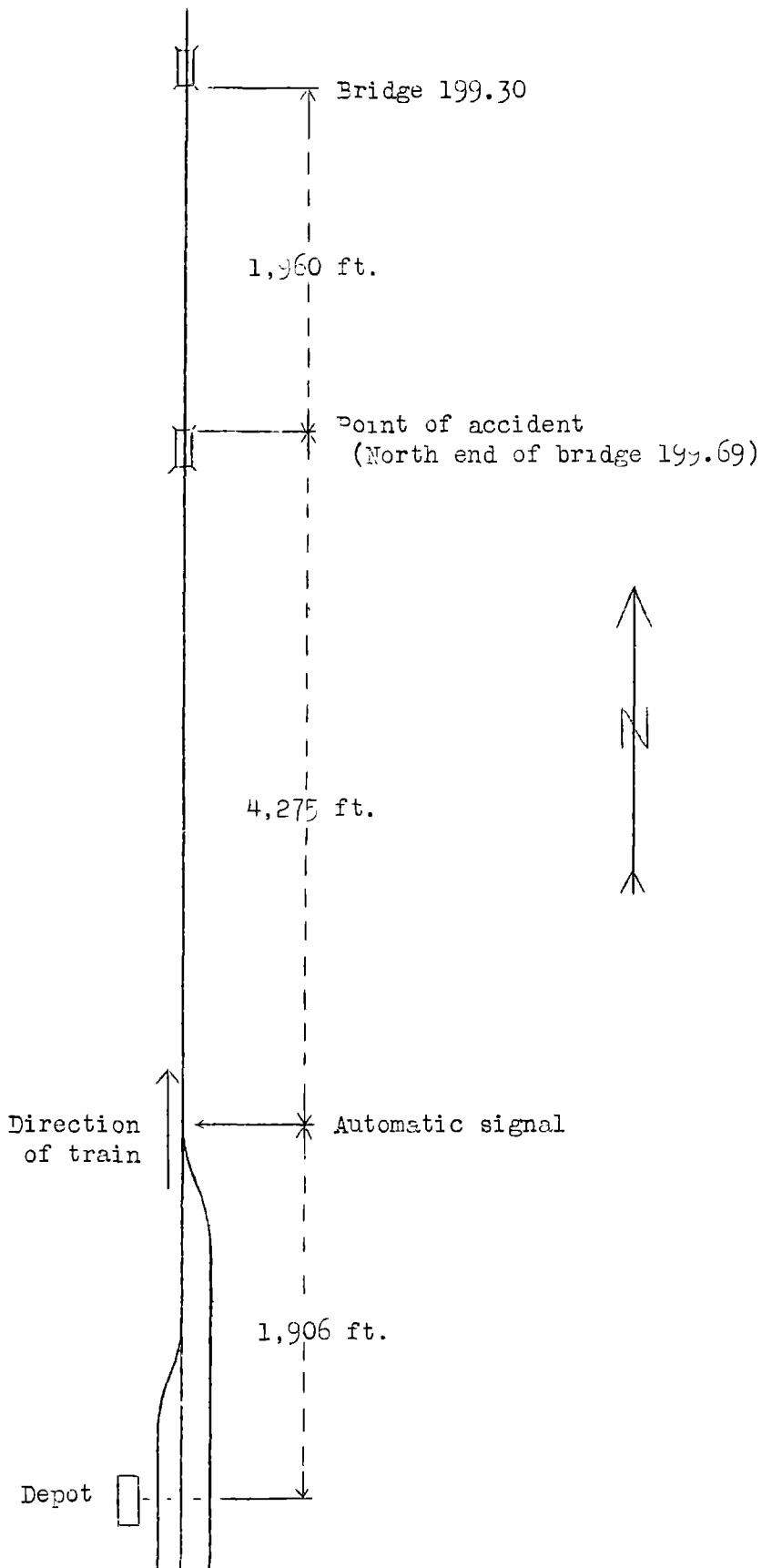
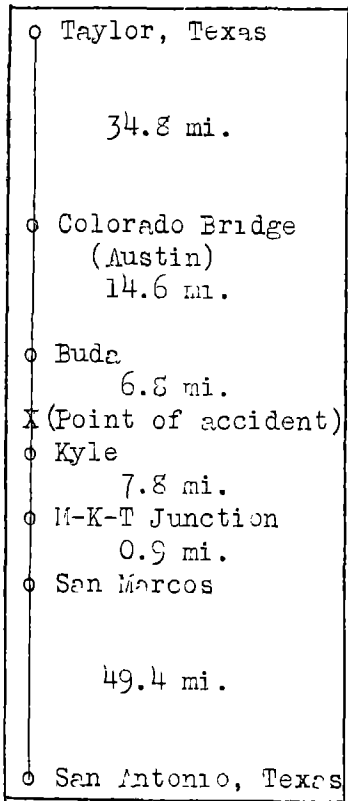
On June 30, 1936, there was a derailment of a freight train on the International-Great Northern Railroad, Missouri Pacific Lines, near Kyle, Tex., which resulted in the death of 1 trespasser and the injury of 2 employees.

Location and method of operation

This accident occurred on the Austin District of the San Antonio Division, which extends between San Antonio and Taylor, Tex., a distance of 114.3 miles, and in the vicinity of the point of accident is a single-track line over which trains are operated by time table, train orders and an automatic block-signal system. The point of accident was at the north end of bridge 199.69, located slightly more than 1 mile north of the station at Kyle; approaching this point from the south, the track is tangent for more than 2 miles, while the grade is 0.895 percent descending for about one-third mile, this descending grade ending just north of bridge 199.69. The track is laid with 90-pound rails, 33 feet in length, with an average of 20 ties to the rail length, and is tieplated and ballasted with crushed stone to a depth of about 10 inches below the ties. The general maintenance of the track is good.

In the vicinity of the point of accident the land is rolling and the track traverses a low-lying portion known as "Plum Creek Valley", being on a 5½-foot fill at the point of accident; this fill is composed of native soil. On the west side of the track there are two forks of Plum Creek which drain toward the east and pass under the track at bridges 199.69 and 199.30, the latter bridge being located nearly 2,000 feet north of bridge 199.69. Bridge 199.69 is a 5-panel, open-deck structure, with frame bents supported by concrete footings, and is 68 feet 4 inches in length and has a maximum height of 9 feet. The clear opening below the stringers amounts to 294 square feet, draining an area of 2,496 acres, while bridge 199.30, which is 84 feet in length, has a clear opening of 342 square feet and drains an area of 2,624 acres.

It had been raining at intervals for several days, with an unusually heavy rain beginning about 1½ hours prior to the accident, which occurred about 8:30 p.m.



Inv. No. 2075
 International-Great Northern
 Kyle, Texas
 June 30, 1936

Description

Extra 1111, a north-bound freight train, consisted of 36 cars and a caboose, hauled by engine 1111, and was in charge of Conductor Cavanaugh and Engineman White. After meeting Train No. 903, a south-bound passenger train, at M.-K.-T. Junction, 7.8 miles south of Kyle and the last open office, Extra 1111 departed at 8:11 p.m., according to the train sheet, passed Kyle, and was traveling at a speed estimated to have been about 25 or 30 miles per hour when it was derailed at bridge 199.69.

Flood water had washed out the fill at the north end of the bridge for a distance of about 30 feet and to a depth of about $3\frac{1}{2}$ feet, and the engine dropped into this washout and stopped on its left side on the east side of the track, with its head end 166 feet north of the bridge. The tender and 11 cars were derailed, the cars being bunched within a distance of about 150 feet, and 6 of them being demolished. The employees injured were the engineman and the fireman.

Summary of evidence

Engineman White said his train did not encounter any rain of consequence until it arrived at San Marcos, 0.9 mile south of M.-K.-T. Junction. It was raining hard before he reached Kyle and he said he reduced speed when passing that point; the rain slacked a little and then started again, and he applied the brakes when approaching bridge 199.69; the rain prevented him from seeing more than 30 yards. He did not notice any water over the track on the bridge and his first knowledge of anything wrong was when the engine went into the washout. The last automatic signal, located near the north end of the passing track at Kyle, was in the proceed position when he passed it. Engineman White also said that he had no instructions of any kind about looking out for washouts and that he had not given any thought to the possibility of high water in view of the fact that Train No. 903 had just passed over the track. The statements of Fireman Craig practically corroborated those of Engineman White, while Head Brakeman Old, who was riding in the brakeman's cabin on the tender, said that water was running over the track at the station at Kyle.

Conductor Cavanaugh and Flagman Chatham, who were in the caboose, knew of nothing wrong until the accident occurred. There was no water running over the bridge when the conductor reached the head end of the train, although he saw some drift wood and brush on it which he thought might have been thrown there when the engine went into the water.

Engineman Roberts, of Train No. 903, said his train left Colorado Bridge (Austin), 21.4 miles from Kyle, at 7:27 p.m.; it was raining slightly at that time, but the volume became heavier in the vicinity of Buda, 6.8 miles north of Kyle, and then the rain began to stop in the vicinity of Kyle. His train passed over the territory in the vicinity of the point of accident about 7:50 or 7:55 p.m., and he said he did not see any water along the side of the track at any point en route. Engineman Roberts said he had been running in this territory for 15 years, had never seen a washout in Plum Creek Valley, and would not have looked for one with no more rain than was falling when he passed that point; the engineman and fireman of Extra 1111 also said that they had never known of a washout in that vicinity in more than 30 years of service, while Conductor Cavanaugh said he had heard of one about 8 or 10 years previously.

Section Foreman Torres said that about 3:45 p.m. he passed the point where the accident afterwards occurred, and at that time there was no evidence of high water. He quit work for the day at 4:30 p.m., at which time a drizzling rain was falling. Later in the day he took his wife from Kyle, where he lives, to San Antonio for medical treatment. On his return trip he encountered heavy rain at San Marcos, which became heavier as he approached Kyle, and when about half a mile from Kyle, about 9:30 p.m., his automobile was stopped on account of high water. Leaving his car at that point, he proceeded to the right-of-way of the railroad and began walking northward toward Kyle, finding a washout at milepost 201.15. On reaching Kyle he sent one of his men back to protect the washout by flag, and was trying to get in communication with the dispatcher when he met the conductor and flagman of Extra 1111 and was informed of the accident. Section Foreman Torres also said that he had not notified either the roadmaster or the dispatcher that he was going to San Antonio after working hours.

Section Foreman Hancock, located on the section north of that on which the accident occurred, said there was a little rain on his section and because of the fact that he has a few places on his section that need watching, he went out about 7:30 p.m. and returned about 11 p.m., after finding everything all right. He reached the scene of the accident about midnight and found that approximately 600 feet of track had been washed off the fill. It also appeared from his statements that Section Foreman Hancock had been on his section 33 years and had never known of a washout in the vicinity of the point of accident.

Roadmaster Love passed over this portion of the railroad at 4 p.m., at which time there was a drizzling rain, but no sign of any high water. It had been raining intermittently for several days, but not enough to justify any special precautions or to call for a track patrol. The roadmaster also stated that he had been in this territory since 1922 and that he did not know of any previous washout in the vicinity of the point of accident.

Division Engineer Cook said that beginning at the north end of the bridge the fill had been washed out for a distance of 30 or 40 feet and to a depth of 3 or $3\frac{1}{2}$ feet, while the track had been washed off the fill for a distance of about 500 feet, but carried 50 or 60 feet to the east of the track and remaining right side up. Water had been washing over the track for a total distance of 2,612 feet, or to a point about 500 feet north of bridge 199.30, while the embankment had been scoured in many places. There also was a deposit of silt on the west side of the track which was about $4\frac{1}{2}$ feet in depth, this deposit beginning at bridge 199.69 and extending northward for a distance of several hundred feet. Marks left by the water indicated that it had been nearly 1 foot deep over bridge 199.69 and slightly less than half a foot in depth over bridge 199.30, but there was no evidence of scouring under either of these bridges. Division Engineer Cook further stated that he was a passenger on Train No. 903, passing the point of accident about 7:55 p.m.; it was raining hard at the time and he opened a window on the east side of the train and watched conditions as best he could by means of the light reflected from the car, but he did not see any high water or indications of high water.

J. A. Neal, a resident of Kyle, said it rained very hard on the night of the accident, beginning about 7 p.m. and that Mr. Hay, operating a filling station, told him he measured the rainfall and that the large 9-inch test tube he used for the purpose, in which there was only 1 inch of water on the night of the accident, was full on the following morning; Mr. Neal also discussed the rain with other local residents who had measured the amount of rainfall, and from their figures it appeared that the total amount of rain during the night measured between 12 and $13\frac{1}{4}$ inches.

Careful examination of both track and equipment failed to disclose evidence of any defective condition which could in any way have contributed to the occurrence of this accident.

Discussion

The evidence in this case clearly shows that the accident was caused by a washout following an unusually heavy rainfall, this washout resulting in a portion of the fill being carried away and in several hundred feet of track being washed off the road bed. Measurements made by residents of the vicinity indicated that during the night the rainfall had exceeded 8 inches and possibly was as much as $13\frac{1}{4}$ inches. Apparently the heaviest rain started not more than $1\frac{1}{2}$ hours prior to the accident, and when a passenger train passed the point of accident slightly more than half an hour prior to its occurrence, neither the engineman nor the division engineer who was a passenger on the train saw any evidence of high water. It further appeared that the section foreman was not on his section at the time of the accident; in view of the fact that no high water was in evidence at the time of the passage of the passenger train, it cannot be said positively that the accident would have been prevented even had the section foreman either remained at Kyle or arranged for a substitute to act in his stead during his temporary absence.

Conclusion

This accident was caused by a washout.

Respectfully submitted,

W. J. PATTERSON,
Director.