

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2588
THE CHESAPEAKE AND OHIO RAILWAY COMPANY
REPORT IN RE ACCIDENT
NEAR BEARD, W. VA., ON
MAY 22, 1942

- 2 -

SUMMARY

Railroad: Chesapeake and Ohio
Date: May 22, 1942
Location: Beard, W. Va.
Kind of accident: Derailment
Train involved: Freight
Train number: Extra 1486 West
Engine number: 1486
Consist: Caboose
Speed: 12-15 m. p. h.
Operation: Timetable, train orders and
manual block system
Track: Single; 0°30' curve to left;
0.14 percent descending grade
westward
Weather: Raining .
Time: About 3:30 a. m.
Casualties: 1 killed; 4 injured
Cause: Accident caused by a landslide

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2588

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS
UNDER THE ACCIDENT REPORTS ACT OF MAY 8, 1910.

THE CHESAPEAKE AND OHIO RAILWAY COMPANY

July 22, 1942.

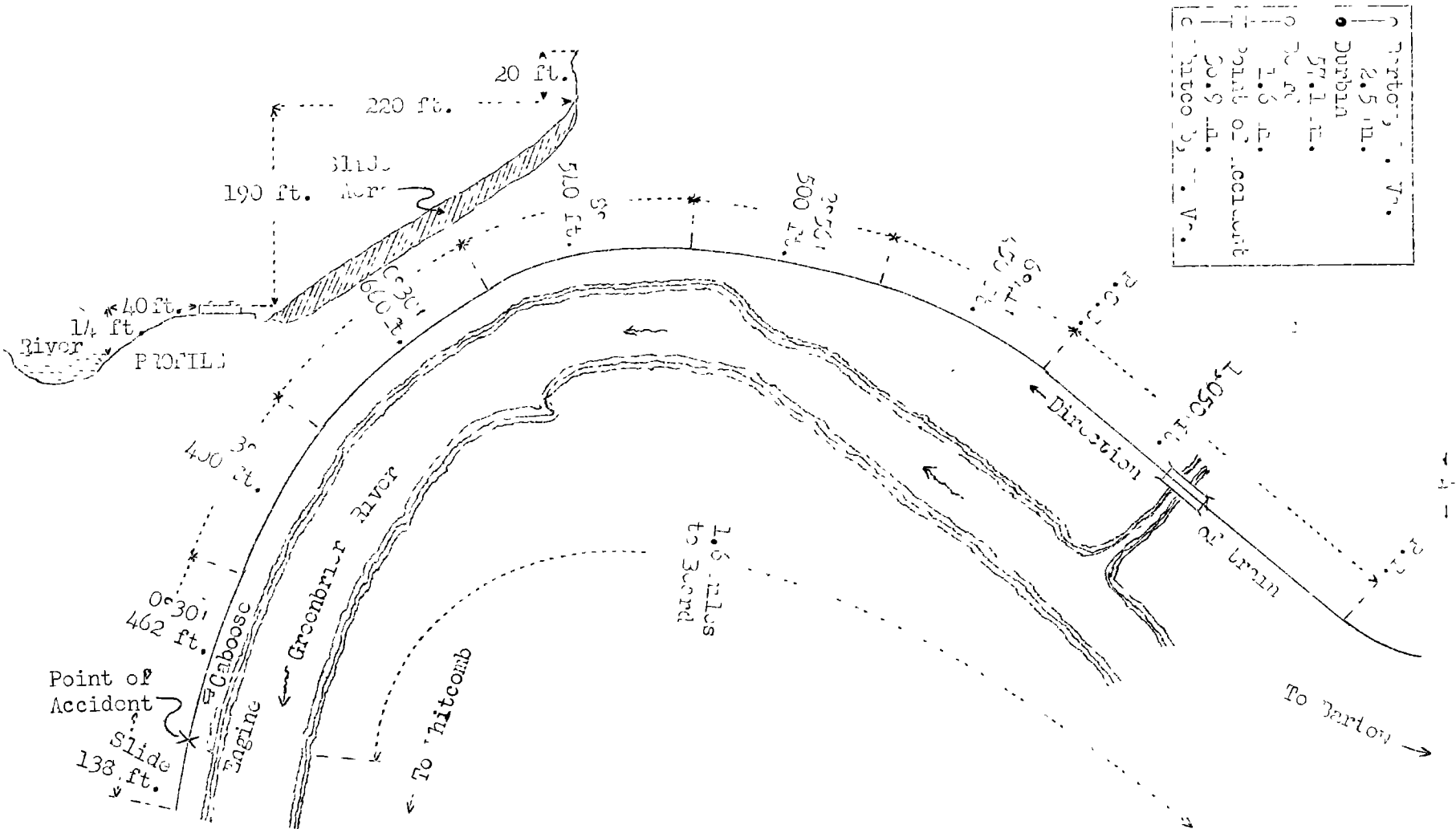
Accident near Beard, W. Va., on May 22, 1942, caused by
a landslide.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On May 22, 1942, there was a derailment of a freight train on the Chesapeake and Ohio Railway near Beard, W. Va., which resulted in the death of one employee and the injury of four employees.

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



Inv-2588
 Chesapeake and Ohio Railway
 Beard, W. Va.
 May 22, 1942

Location of Accident and Method of Operation

This accident occurred on that part of the Clifton Forge Division designated as the Greenbrier Sub-Division, which extends between Bartow and Whitcomb, W. Va., a distance of 98.1 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable, train orders and a manual block system. The accident occurred at a point 1.6 miles west of Beard. As the point of accident is approached from the east there is a tangent 1,050 feet in length, which is followed by a compound curve to the left, the curvature of which is $6^{\circ}41'$ a distance of 450 feet, $2^{\circ}56'$ 500 feet, 8° 540 feet, $0^{\circ}30'$ 660 feet, 3° 400 feet and $0^{\circ}30'$ 462 feet to the point of accident and 138 feet beyond. At the point of accident the grade is 0.14 percent descending westward.

In the vicinity of the point of accident the track parallels the north bank of the Greenbrier River. The track is laid on a hillside cut and is about 14 feet above the level of the shore-line of the river and 40 feet horizontally distant. The shoulder of the roadbed is 12 feet from the center-line of the track. A drainage ditch is provided on the north side of the track with outlets on each side of the point where the accident occurred. The toe of the hillside cut is approximately 8 feet north of the center-line of the track. The hillside slopes at a ratio of about 1 to 1 to a height of 190 feet above the level of the rail. From the top of this slope an outcropping of rock extends vertically a distance of 20 feet. The formation of the slope consists of a stratum of limestone covered by 8 to 12 feet of loam and shale.

The track structure consists of 100-pound relay rail, 33 feet in length, laid on an average of 18 treated hardwood ties to the rail length; it is fully tieplated, single-spiked, ballasted with 12 to 18 inches of crushed limestone chips, and is well maintained.

The maximum authorized speed for freight trains in the vicinity of the point of accident is 30 miles per hour.

Description of Accident

Extra 1486 West, a west-bound freight train, consisted of engine 1486, of the 2-6-6-2 type, and a caboose. After an air-brake test was made, this train departed from Durbin, 57.1 miles east of Beard, at 12:55 a. m., according to the dispatcher's record of movement of trains. The crew had received copies of train order No. G1, Form 19, which read as follows:

Run carefully at all points
where rocks or slides are
liable to fall on track

This train passed Beard and, at a point 1.6 miles west of Beard, it struck a landslide and was derailed while moving at an estimated speed of 12 to 15 miles per hour.

From a west-bound engine, the view of the point where the accident occurred is restricted because of track curvature to a distance of about 200 feet.

The engine was derailed to the left, rolled down the embankment and stopped on its right side parallel to the track and 48 feet horizontally distant from it, partly submerged in the river, with its front end 80 feet west of the east end of the slide. The right side of the pilot was bent, the right front and rear journal pedestals were broken off, the left rear pedestal was broken, the right engine-truck wheel was against the right cylinder, and the cab was crushed. The tender, which remained coupled to the engine, was somewhat damaged. The caboose stopped on its left side on the roadbed, with its front end about 20 feet east of the slide and 10 feet south of the track. Both trucks of the caboose became detached.

It was raining at the time of the accident, which occurred about 3:30 a. m.

The employee killed was the engineer, and the employees injured were the conductor, the fireman, the front brakeman and the flagman.

Data

According to U. S. Weather Bureau records, the precipitation at Beard for the month of April was 3.32 inches, and for May, 3.36 inches. A tabulation of the rainfall on the Greenbrier Sub-Division furnished by the railroad company was as follows:

7:30 a. m., May 20,	0.46 inch
7:30 a. m., May 21,	0.65 inch
4:40 p. m., May 21,	1.38 inches
7:30 a. m., May 22,	<u>0.65 inch</u>
Total....	3.14 inches

Discussion

Extra 1486 West was moving on a compound curve to the left at an estimated speed of 18 to 20 miles per hour, in territory where the maximum authorized speed was 30 miles per hour, when the members of the crew on the engine observed an obstruction on the north rail about 200 feet ahead of the engine. The engineer immediately moved the brake valve to emergency position and the speed was reduced to about 12 or 15 miles per hour but

the distance was not sufficient for stopping short of the obstruction, and the engine became derailed. Because of track curvature and of restricted visibility as a result of excessive rain, the members of the crew on the engine could not see the point where the accident occurred a distance greater than about 200 feet.

Immediately after the accident, examination disclosed that a slide consisting of approximately 4,956 cubic yards of rock and dirt had fallen from the hillside north of the track and had covered the track a distance of about 101 feet. The greatest depth over the north rail was 5-1/2 feet.

The crew held a train order which required their train to be operated carefully at all points where rocks or slides might obstruct the track; however, the order contained no specific speed restriction. The surviving members of the crew had no knowledge of any previous slide in the territory involved, and they thought their train was being operated at a safe speed. This crew had been in charge of an east-bound freight train which passed the point involved about 7 hours 30 minutes prior to the time the accident occurred and which was the last train to pass over this track prior to the accident. No unusual condition was observed.

Carrying a lighted white lantern, the track patrolman who was on duty at the time the accident occurred passed the point involved a short time prior to the accident and no unusual condition was observed. He was walking westward and had reached a point about 240 feet west of the point of accident when he heard an engine whistle sounded. He turned and looked eastward to observe the approaching train. The headlight was burning brightly, and he did not observe any obstruction on the track. The fireman and the front brakeman stated that when they first observed the obstruction on the track they observed also a white light some distance beyond the obstruction. Since the track patrolman made an inspection at the point where the slide occurred just prior to the approach of Extra 1486 and found nothing wrong, it follows that the first portion of the slide fouled the north rail after he passed that point and immediately in advance of the approaching train.

The section foreman in charge of the track where the accident occurred stated that when his force was working in the vicinity involved on the previous day a small slide obstructed the track at a point about 400 feet west of the point of accident; however, no other slide had occurred in this vicinity. He had informed the track patrolman of the occurrence of the small slide and instructed him to patrol the track in that vicinity in advance of all trains. During the 44-hour period prior to the time the accident occurred there was approximately

2.5 inches of rainfall, but there was no indication of seepage from the area from which the slide fell. The track involved was constructed in 1900, at which time the hillside cut was made. The carrier had no record of a slide having previously occurred at the point of accident.

Cruse

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

Dated at Washington, D. C., this twenty-second day of July, 1942.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.