INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 3160

WINSTON-SALEM SOUTHBOUND RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR HIGH ROCK, N. C., ON

JANUARY 27, 1948

SUMMARY

Railroad:	Winston-Salem Southbound
Date:	January 27, 1948
Location:	High Rock, N. C.
Kind of accident:	Derailment
Train involved:	Freight
Train number:	211
Engine number:	300
Consist:	29 cars, caboose
Estimated speed:	10 m. p. h.
Operation:	Timetable and train orders
Track:	Single; 6° curve; 0.80 percent descending grade southward
Weather:	Misting
Time:	5:15 p. m.
Casualties:	1 killed; 1 injured
Cause:	Rock slide

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3160

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

WINSTON-SALEM SOUTHBOUND RAILWAY COMPANY

March 15, 1948

Accident near High Rock, N. C., on January 27, 1948, caused by a rock slide.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On January 27, 1948, there was a derailment of a freight train on the Winston-Salem Southbound Railway near High Rock, N. C., which resulted in the death of one train-service employee and the injury of one train-service employee.

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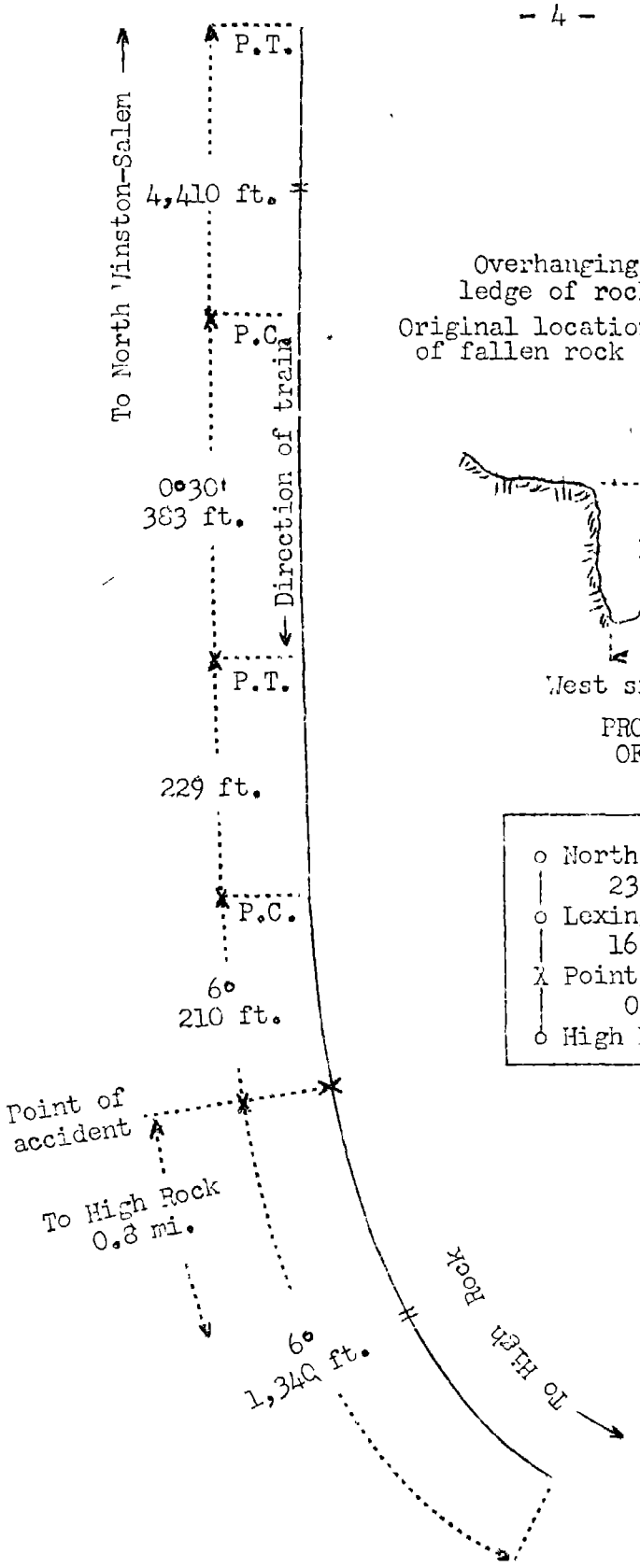
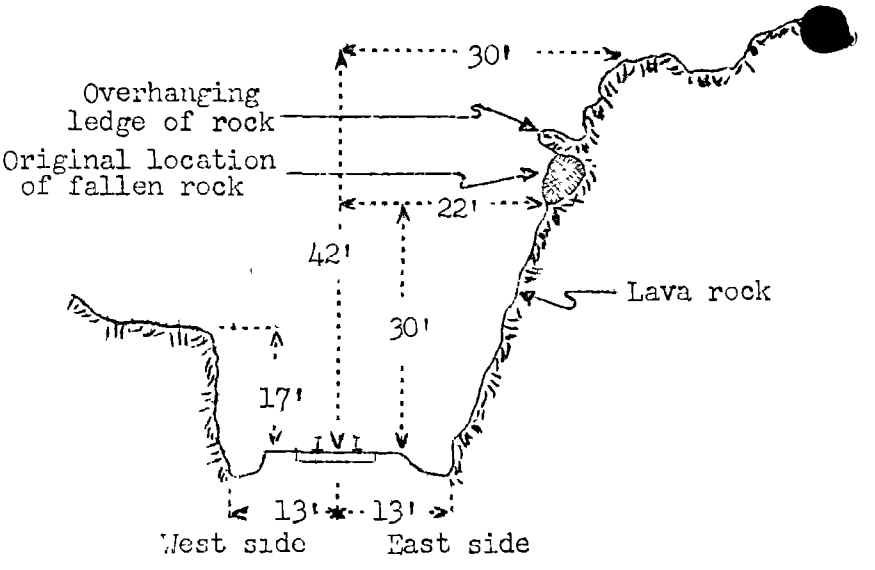
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.





PROFILE AT POINT OF DERAILMENT

o North Winston-Salem, N. C.
| 23.1 mi.
o Lexington
| 16.1 mi.
X Point of accident
| 0.8 mi.
o High Rock, N. C.

Inv. No. 3160
Winston-Salem Southbound Railway
High Rock, N. C.
January 27, 1948

Location of Accident and Method of Operation

This accident occurred on that part of the railroad extending between North Winston-Salem and High Rock, N. C., 40 miles, a single-track line, over which trains are operated by timetable and train orders. There is no block system in use. The accident occurred on the main track 39.2 miles south of North Winston-Salem and 0.8 mile north of the station at High Rock. From the north there are, in succession, a tangent 4,410 feet in length, a 0°30' curve to the left 383 feet, a tangent 229 feet and a 6° curve to the left 210 feet to the point of accident and 1,340 feet southward. The grade is 0.80 percent descending southward.

In the immediate vicinity of the point of accident the track is laid in a rock cut about 1,800 feet in length. At the point of derailment the toe of the east wall of the cut is approximately 13 feet from the centerline of the track. This wall rises to a height of 42 feet above the level of the rails and slopes eastward at a ratio of about 0.7 to 1. Above the wall the hill slopes eastward at a ratio of about 5 to 100. The toe of the west wall is about 13 feet from the centerline of the track, and this wall rises perpendicularly to a height of about 17 feet above the level of the rails.

The track structure consists of 85-pound rail, 33 feet in length, laid on an average of 19 hardwood ties to the rail length. It is fully tieplated, single spiked, provided with 4-hole joint bars, and is ballasted with stone to a depth of 6 inches.

Timetable special instructions read in part as follows:

> 19. * * *. All trains pass through rock cut North of M. P. 37 expecting to find track obstructed.

The maximum authorized speed for freight trains is 50 miles per hour.

Description of Accident

At North Winston-Salem the crew of No. 211, a southbound second-class freight train, received copies of train order No. 184 reading as follows:

> RAIN OVER ENTIRE LINE RUN CAREFULLY AT ALL POINTS WHERE ROCKS AND SLIDES ARE LIABLE TO COME IN OR WHERE TRACK MAY BE COVERED BY WATER

This train, consisting of engine 300, a 2-8-2 type, 29 cars and a caboose, departed from North Winston-Salem at 3:40 p. m., 40 minutes late, passed Lexington, the last open office, 16.9 miles north of High Rock, at 4:47 p. m., 54 minutes late, and while it was moving at an estimated speed of 10 miles per hour the engine struck a rock lying between the rails, at a point 0.8 mile north of the station at High Rock, and the engine and the first three cars were derailed.

The engine and tender were derailed to the right and stopped, badly damaged, against the west wall of the cut, with the front of the engine 176 feet south of the point of derailment. The first car stopped with the front end on the rear of the tender, and the second and third cars stopped practically upright and in line with the track. The first and second cars were destroyed, and the third car was badly damaged.

The engineer was killed, and the fireman was injured.

It was misting at the time of the accident, which occurred at 5:15 p. m.

Discussion

As No. 211 was approaching the point where the accident occurred the speed was about 30 miles per hour. The enginemen were maintaining a lookout ahead from their respective positions in the engine cab. The conductor, the front brakeman and the flagman were in the caboose. A heavy mist prevailed in this vicinity and visibility was materially restricted. When the engine was about 3,000 feet north of the point where the accident occurred the engineer made a service brake-pipe reduction to reduce the speed of the train through the cut involved. The speed had been reduced to about 12 miles per hour when the fireman observed an obstruction on the track about 300 feet distant. He called a warning to the engineer, who immediately moved the brake valve to emergency position, but the engine struck the obstruction before the train could be stopped. The engineer was killed. The brakes of this train had been tested and had functioned properly en route.

After the accident, examination disclosed that a rock about 3-1/2 feet in length, 3 feet in width and 2-1/2 feet thick had fallen from the east wall of the cut from a point 30 feet above the level of the track, and it obstructed the track between the rails. The alinement of the track was not

disturbed, and there was no abrasion on either rail. Prior to its displacement, the rock was in an almost vertical position in the face of the wall and immediately below an overhanging ledge. The base of the rock was rounded in shape, and there was very little bearing surface supporting it. There was evidence of seepage of water between the rock and the face of the wall, which condition indicated that practically no bond existed. During a period of several days prior to the day of the accident a considerable amount of snow, sleet and rain had fallen in this territory, and intermittent freezing and thawing had occurred.

The last train prior to No. 211 passed this point north-bound about 4 hours before the time the accident occurred. The members of the crew of that train did not observe any unusual condition. The section foreman passed through the cut on a track motor-car en route to High Rock about 1 hour 45 minutes before the accident occurred, and there was no indication at that time that a slide might occur. However, because it was thawing at that time, the section foreman instructed a track laborer to return from High Rock to patrol the track in the cut, but the accident occurred before the laborer reached the point where the slide occurred. The cut was last inspected by the track supervisor on January 21, 1948, and he did not observe any unusual condition. The walls of the cut were scaled by track maintenance forces during October, 1947, and at that time all rocks which appeared loose were removed.

Cause

It is found that this accident was caused by a rock slide.

Dated at Washington, D. C., this fifteenth day of March, 1948.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.