

An inquisition taken at Lorentz, in the County of Upshur, on the 27th day of January, 1907, before James Dailey, a Justice of the Peace, of said county, upon the view of the bodies of Glen Miles, Charles Bauserman, Bruce Johnson, Asberry Bailey, H. H. Fox, Antonio Rich, Joe Alluni, Joe Capriette, Dominik Pochich, Louis Mosper, Nedz Lester and Nedz Capriette, there lying dead, the jurors sworn to inquire when, how and by what means each of the said parties, Glen Miles, Charles Bauserman, Bruce Johnson, Asberry Bailey, H. H. Fox, Antonio Rich, Joe Alluni, Joe Capriette, Dominik Pochich, Louis Mosper, Nedz Lester and Nedz Capriette came to their death; upon their oath do say, that the said (naming them) came to their death at Lorentz, Upshur County, West Virginia, on the 26th day of January, 1907, by the careless handling of powder on their own part and in violation of the rules of the Pennsylvania Consolidated Coal Company.

JAMES DAILEY, *Justice.*
 W. P. FOWKES,
 CHAS. WEST,
 M. L. WEST,
 G. W. SWISHER,
 ARTHUR REESE,
 A. BARGERHOFF.

The two succeeding grand juries of Upshur County found misdemeanor indictments against Floyd Gandy, the Superintendent of the mine, but the court each time nollied the indictment.

Respectfully,
 JAMES W. PAUL,
Chief of Department of Mines.

Charleston, W. Va.

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THE STUART MINE EXPLOSION.

January 29th, 1907.

See Plate II.

The Stuart mine is located at the terminus of the White Oak Railway in Fayette County about three miles south of Fayetteville, the County Seat, and is operated by the Stuart Colliery Company.

The opening to the mine consists of a four compartment shaft 585 feet deep; one compartment being used for piping and wires; two for hoisting ways and air ways and one for an air way leading direct to the fan.

For the purpose of securing a second opening to the mine to meet the requirements of the State law, the original intention was to connect the underground workings of the Parral mine, distant about 6000 feet between the shafts. Work to that end was in progress in both mines at the time of the explosion and was being pushed with much vigor, but the connection was needing between 800 and 1000 feet of entry.

The coal within the mine is known as the Sewell bed or New River

coal of the New River-Pocahontas coal series and has a thickness averaging 4 feet 4 inches.

A few months prior to the date of the explosion there had been installed for the purpose of ventilating the mine a modern 18 ft. Capell fan which was capable of properly ventilating a mine many times the size of the mine at the time of the explosion.

The development of the mine, as may be observed by consulting the map, had been confined principally to the driving of entries, but at the time of the explosion work had been suspended in some of the entries and some rooms were being driven, while there was ample room for the driving of many additional rooms.

The condition of this mine previous to the explosion, as reported by the District Inspector for the State, may best be known by quoting from the reports made by the inspectors.

In his annual report for 1906 the inspector says, "There is a slight generation of gas in the advanced operations of this mine but is carefully bratticed and cared for under the usual practical conditions. The roof in this mine is of a very free and weak character making it extremely difficult to keep the air courses clear. Extra precautions are being put into effect to maintain the airways which under the conditions are necessary. This mine is damp throughout. The powder and oil laws are well enforced. The temporary equipment such as head house, triples, cages, etc., are all being replaced by substantial and permanent equipment. This mine with its present equipment, development, and with a full force *can* produce 500 tons per day.

There is no second opening to this mine."

It will be observed from the above that the mine gave off gas in the advance headings but which was properly taken care of by the ventilation.

As to the daily capacity of the mine being 500 tons, this is problematical, being based upon the extent of the development and the opportunity to obtain available working places and a full coterie of men, other conditions being favorable for the maximum possibilities as a producing mine.

The Inspector in two subsequent reports, the later one being under date of December 21st, 1906, reported the mine in a safe condition. The certificate of inspection for the last gave:

Ventilation, good.

Drainage, O. K.

Timbering, O. K.

Machinery, O. K.

Gases, a slight generation in Parral heading.

Oil used, O. K.

General safety, O. K. except as to guards at shaft landing."

"Recommendations: Guards to be placed at landing; Parral entry to be sprinkled; an extra door placed on 2nd left to be used in case of emergency."

"Remarks: Very substantial improvements have been made at this mine, such as new head house, cages, etc., and cleaning out air courses.

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The connection to Parral is pushed night and day."

The Inspector in his report upon the Parral mine under date of December 22nd states "that a part of their men work by night, also the same applies to Stuart." A total of 30 men were reported as being employed on the two shifts in the Stuart mine, and in his sworn statement related that on his inspection of the mine he found only 18 persons within the mine.

On the day of the explosion, from testimony given, it is apparent that there were about 100 persons employed within the mine, but just prior to the explosion two cage loads of men were taken out of the mine, leaving about 85 or more persons within the mine at the instant of the explosion, all of whom were killed.

The mere fact that at the time of the explosion there were 85, or more, men within the mine does not account for the occurrence of the disaster, but such a number being within the mine was in violation of law. For a similar violation the officers of the operating company were at the time under indictment in the criminal court of Fayette county.

Had the Inspector been aware of this violation of the law, under the ruling of the Attorney General, he could have appeared before a Grand Jury and asked for an indictment, in the event of the mine being in a safe condition, and in the event of finding it in an unsafe condition he could have asked for an injunction to restrain its operation until the dangers were abated.

It developed in the investigation made after the explosion that on December 20th and 21st a sufficient number of employes were forbidden to enter the mine so as to reduce the number to 20 persons, for the reason that the Inspector, having visited nearby mines a day or two previously, was expected to visit and inspect the Stuart mine.

No denial has been made by the officials of the operating company that there was a greater number of persons being employed within the mine than is permitted by law, in the absence of a separate second outlet from the workings of the mine.

On February 8, 1906, within less than a year an explosion occurred within the adjoining Parral mine resulting in the loss of 23 lives. In this explosion 12 persons were rescued.

This Parral explosion appears to have resulted from the sudden liberation of marsh gas occasioned by a fall of the roof in an entry, which gas was ignited by open lights onto which the gas was conducted by the ventilating current.

As to the probable cause of the Stuart explosion, it may not be amiss to relate some of the conditions existing just prior to the explosion.

Two or three hours prior to the explosion, while in the act of hoisting a loaded car up the shaft, the car moved from its position on the cage and caused a wreck in the shaft, tearing out several timbers and breaking the guides.

The work necessary for the repair of the shaft timbers required about two or three hours, during which time no coal was raised and the miners succeeded in filling most of the available cars within the mine. The major part of the mining was let to contractors who had employed assist-

ants, known as back hands or loaders, who were paid daily wages, while the contractors were paid by the car.

The enforced idleness of the loaders occasioned by the wreck in the shaft becoming a burden of expense upon the contractors, the loaders were dismissed for the day.

These loaders had evidently quit work and repaired to the bottom of the shaft with the purpose of ascending the shaft, and were followed by the contractors, drivers and trapper boys. The greater majority of the bodies were found near the bottom of the shaft.

Few, if any, of the loaders were found at or near their regular working places.

In only one instance did the circumstances indicate that three men engaged in operating a mining machine were at the face of a working place at the time of the explosion, and they had traveled several hundred feet before being killed by the after gases.

In one instance the body of a man, Dick Lee, was found, badly burned, within the entrance to his room, which was only twenty-four feet long.

All the after effects observed would lead to the belief that Dick Lee upon entering his room with an open lamp had ignited a body of gas which resulted in the explosion.

Some speculation has been had upon the probability of Dick Lee's having fired a shot at the face of his room which may have blown out and caused the explosion, but there was not the slightest evidence that such shot had been fired.

In the Dick Lee room, No. 4, there had been drilled three holes in the face of the coal, in each of which was found considerable quantity of the auger drillings. Immediately under the outer end of each hole, and on a plumb line, were found conical piles of the drillings. Had any part of the face of the coal been blown away by a blownout shot, the conical piles of drillings would have indicated the portion of the hole that may have been destroyed by the shot.

Had Dick Lee, who had 24 years' experience within coal mines, been in the act of firing a shot in this room his judgment would have told him that it would be next to suicidal to remain within the room and within range of the shot while it was being discharged.

The explosion evidently was caused by the ignition of gas and its propagation throughout the various parts of the mine was to some extent aided by the presence of coal dust. The mine in a number of places was damp and wet and in a number of places was quite wet, but the force, and in most cases the heat of the explosive wave, passed over these wet zones.

The evidence of greatest force was manifested at the bottom of the shaft where many of the bodies of men were mutilated, dismembered and burned, and it is within reason to conclude that some of the men congregated here had in their possession some explosives which were the cause of the frightful dismemberment of some of the bodies.

The general plan of the workings of this mine is shown on Plate II.

As to the physical condition of the mine after the explosion, the timbers and guides in the shaft were badly disarranged as well as the air brattice leading down the shaft.

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From the 29th of January at 1:25 P. M. until 8:30 P. M. on February 1st the time was consumed in getting the cage to within 18 feet of the bottom of the shaft.

Prior to this time, by means of a bucket, nine bodies had been removed from the bottom of the shaft.

By 10 A. M. on February 2nd the temporary brattice had been completed to the bottom of the shaft, and during the day sufficient bodies were recovered to make the total reach 56.

Upon leaving the bottom of the shaft and going to the West on the Parral entry the roadway for 400 or 500 feet is wet and muddy. The posts standing along this distance have a deposit of thick mud blown against the sides opposite the shaft, and a trip of cars near the shaft has mud, sticks and fine coal accumulated on the end opposite the shaft.

At the face of the Parral entry the workings were in a roll or fault. In this fault was a hole $1\frac{1}{2}$ in. by 3 ft. which had not been charged. A showing of gas was had at the face.

On the left rib some charred dust was present on the slate. Some canvas brattice remained hanging near the face of the entry. Props had charred dust on side facing shaft.

On the air course to the Parral entry the canvas was blown down and the props had on them some charred dust. Gas was found 15 feet from the face.

On the Parral entry at the last breakthrough were found three dinner pails and a coil of fuse which had been burned.

On the parting on Parral entry between second and third left were standing six loaded cars, the inby end of car being stoved by a force coming from the face of the entry. Under the second car from the face a mule had its head imprisoned. The harness from this mule was distant from it 10 feet toward the face of the entry.

A second mule was found about 100 feet outby the first with its harness off and 10 or 20 feet outby the mule.

The force appears to have traveled up toward the face of the Parral air course and returned out the Parral entry.

On the third left off Parral entry there was much evidence of a force having come out of the entry.

The coal in room No. 2 had been undercut across the face but had not been shot down. The cuttings were heavily charred as well as a post at the face.

In room No. 3 the coal had been undercut but not shot down. The cuttings were covered with charred dust.

In room No. 4 there were four standing props and one prop which had been knocked from its position. Near the face were two additional props lying on the pavement. This room was 24 feet deep and is known as the Dick Lee room. The ribs and face of the room were covered with charred dust, and the standing posts had charred dust on the inby sides.

A steel mine car was sitting diagonally across the track at the mouth of the room and on the side facing the breast of the room was a heavy deposit of charred dust.

Alongside of this car was found the body of Dick Lee badly burned. On

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three different examinations gas was found in this No. 4 room, prior to the establishing of the ventilating system of the mine.

At the breakthrough just outby No. 4 room a steel mine car was standing parallel with the entry having the outby end bulged toward the Parral entry.

It is quite probable that Dick Lee upon returning to his room, after an absence for sometime, ignited the gas upon entering his room, causing the explosion.

On the second left off Parral entry, in rooms 6 and 8 there was found charred dust on the ribs, props and pavement.

Passing over to the east side of the mine, the second right was examined. About 100 feet beyond room No. 12 heavy falls of roof were encountered and gas was indicated in the safety lamp.

A great quantity of slate had fallen along this entry. Little evidence of heat or char was found in this entry beyond room 4, except at the face of the entry where the props and ribs had charred dust on inby exposures.

In room No. 11 some charred dust was observed on props and ties on inby exposures.

In room No. 10 gas was found 60 feet back from the face.

In room No. 6 some canvas was found in place, and unburned matches were found along the track, but no evidence of heat.

First Right on East Side.—This entry had not been working and had many falls of the roof.

Could not advance beyond room No. 4 on account of the presence of gas.

Third Right on East Side.—No evidence of gas or heat in this entry. There were many falls of roof encountered.

The Main East.—Such props as were blown down had been carried by a force to the east, or away from the shaft. On the Main East, near the 3rd Right, some standing props had charred dust on exposures toward the shaft. Into one of these standing props had been driven the blade of a miners' shovel, the force having been exerted towards the East.

On the Main East, about 75 feet beyond the 3rd Right, a door was hung and the explosive force broke a piece out of the top of the door which measured 3 feet by 2 feet. The jamb of the door was moved eastward by three inches, and the recoil forced the remaining part of the door through its frame in a direction opposite to the direction in which the door was intended to open, and the door was held so tightly that it could not be opened by the ordinary means.

Third Left on East Side.—The door at the entrance to the entry had not been disturbed. On the main entry, outside of the door, was found one man and just inside of the door were found two men, all of whom had been engaged in operating a mining machine in room No. 7 on this third left entry. Their dinner pails and coats were found in No. 7 room. They had evidently been at work in the No. 7 room at the time of the explosion and had endeavored to reach the shaft. These are the only persons who appeared to have traveled any distance after the explosion.

There was no evidence of heat in this entry. A trip of 7 loaded cars just inside of the door was standing on the track. The front car had on

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its outby. bumpers some sticks of wood, coal and slate which had been blown there by the force of the explosion.

Parts of this entry were wet, and at the face there were 8 to 13 inches of water back for a distance of 100 feet.

In room No. 7 was a mining machine which had just entered the coal. In the left corner of the room was a pool of water.

There was no gas or sign of heat found in this room.

The stoppings on the third left were blown onto the third left by a force coming from the second left.

Second Left on East Side.—The door at the entrance was not blown down. Inside of the door about 60 feet was a parting on which were 7 loaded cars.

On props by the cars was some charred dust on inby exposures.

The entry for 100 back from the face had accumulations of water.

In a room turned 100 feet back from the face of the entry some slack coal had deposit of charred dust.

Near the mouth of the room was found a flask of powder unexploded.

No gas was found on this entry or in any of its rooms.

In room No. 2 and 50 feet from the entry the outby exposures of posts had on them charred dust.

First Left on East Side.—There was no disturbance in this entry, but some falls of the roof.

No gas was found on this entry. Sections of this entry and some of the rooms were wet.

In room No. 8 were found two flasks full of powder and one dinner pail. Live gnats were found within this room, also inside of the dinner pail.

Dip Entry off No. 1 Left on East Side.—This entry had a body of water collected and gave indications of gas.

For sometime after the explosion the mine gave evidence of much gas in the absence of ventilation, but after the ventilating system had been fully restored and the mine placed upon working conditions the gas failed to indicate its presence by the use of a safety lamp.

The Parral entry, being in a fault at the time, it may be that an extraordinary volume of gas may have been liberated, or that under some influence the strata may have taken a "breathing spell" and liberated a large volume of gas.

This mine is being carefully watched by the Mining Department and if gas is found safety lamps will be brought into requisition for lighting purposes.

Safety explosives will be used exclusively within this mine as a further preventive.

Up to the date of this explosion, no mine disaster within the State has claimed so many victims.

(Note:—The second right entries on the west side were not examined for the reason of water having collected and making it impossible to enter.

After the water was pumped out the body of a man was found in this entry.)

The character of coal produced by this mine is known as semi-bitumin-

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ous, coking and smokeless coal, and the chemical analysis of this coal is approximately:

Moisture69
Volatile Matter	23.95
Fixed Carbon	72.04
Ash	3.32
	100.00
Sulphur74
Phosphorus008

At Parral, on March 2nd, 1907, Mr. J. P. Staton, J. P., convened a Coroner's Jury and took the evidence of many persons touching upon the probable cause of the accident, and the Jury rendered the following verdict:

"We, the Jury, find that Frank Loving and others, a list of which is here attached, came to their death by a gas and dust explosion in Stuart Mine on 29th day of January, 1907.

This, the 2nd day of March, 1907.

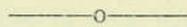
(Signed.) R. H. DICKINSON,
 THOS. WHARTON,
 S. D. TAYLOR,
 J. L. JOHNSON,
 O. B. LIVELY,
 A. C. POOLE.

A list of the persons killed in this accident will be found on pages 213, 214 and 215 of this report.

All the foregoing is respectfully submitted.

JAMES W. PAUL,
Chief of Department of Mines.

Charleston, W. Va.



THOMAS MINE EXPLOSION.
February 4th, 1907.

See Plate III.

The Thomas No. 25 mine is located at Thomas, Tucker County, on the West Virginia Division of the Western Maryland Railroad and is operated by the Davis Coal & Coke Company. The mine has a drift opening at tippie height, and the coal operated is the Upper Freeport which has the following section:

	Black draw slate roof		
Coal	18	inches	
Boney coal	5	"	} 19 " rejected.
Coal.....	5	"	
Boney coal	3	"	} 19 " rejected.
Coal.....	5	"	
Black slate	1	"	} 19 " rejected.

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