



# Reports

**Yolande Mine**

S T A T E O F A L A B A M A

REPORT OF MINE INSPECTOR.

Date of Inspection Oct. 3, 1910.

Name of Mine No. 1 Yolande

Township where located

County where located Tuscaloosa

Postoffice address of Owner or Operator Birmingham

Name of Owner or Operator Yolande Coal & Coke Co.

Name of Superintendent J. E. Dillworth Postoffice address Abertant

Name of Bank Boss T. W. Akers Postoffice address Yolande

Kind of Opening Slope

How ventilated Fan

Total number miners employed slope 40

Number of day hands employed inside

Total number day hands employed outside 12

Number of mules 21

Cubic feet of air at inlet

Cubic feet of air at outlet.

R E M A R K S

I find the following:

Ventilation fairly good in the headings on the right side of slope, but on the left side it is weak and sluggish. The company are installing a new fan and the Supt. told me that they would have it in operation inside of two weeks, when I expect that will improve the ventilation, not only on the left headings but all over the mines. I wish to call the attention of the management to the steam pipes on the side slope for just as long as they remain there they will always be a source of danger to both life and property. I would advise the company to remove them at once into the air course where by doing so it would lessen the danger but you could greatly improve on that by taking them out of the mine altogether and replace the steam by compressed air or electricity as I have already advised in my previous report on this mine. Dust fairly well under control. You cannot pay too much attention to the dust matter. Keep all

the haulage roads good and clean and then sprinkle top, sides and bottom.

General conditions are favorable.

F. W. Dickinson, Associate Mine Inspector.

D-48  
2043

Birmingham, Ala., Nov. 18, 1910.

Hon. B. B. Comer, Gov.,  
Montgomery, Ala.

Dear Sir:

In compliance with section 29 of the Mining Law, Associate Mine Inspector T. W. Dickinson and myself made a thorough investigation of the cause of the explosion in Yolande Mine No. 1 at 11:30 p. m. Nov. 3, 1910, resulting in the loss of five lives:

All white men:

Fred Steele	age 25	single	
James Walker	" 35	married	3 orphans
Henry Landgraf	" 62	married	4 orphans
Dan Thomas	" 44	married	7 orphans
Mark Creek	" 30	married	

This mine is operated by the Yolande Coal and Coke Co., and is on The Birmingham Mineral Railroad thirty-one miles southwest of Birmingham. It has been in operation for the past five years.

The slope is sunk on what is known as the Big seam and is down about 2,000 feet. They have an average output of about 400 tons daily and employ 100 men. The seam pitches from 15 to 75 degrees; part of the coal is undercut and part is blasted off the solid.

The place where the explosion occurred was in Slope No. 1 and the 6th right heading. Immediately after it was discovered that the explosion had occurred the officials of the company were notified and at once came into the mines and found the first three bodies - Henry Landgraf, Fred Steele and James Walker. These men were timbering this heading (6th right) and were about 500

feet from face of heading when the explosion occurred. Dan Thomas and Mark Creek were miners who were driving the heading, upset and air course. They started in to their work at 7 p. m. o'clock with the regular shift of miners, which were twelve in all. This upset was driven up 15 feet from the heading on a pitch of about 72 degrees. Thomas and Creek who were working in this place waited until the Fire Boss came, according to the instructions. The Fire Boss came at 8 o'clock accompanied by the shot firer. After reaching the upset they found the upset full of gas down to the heading. After removing the gas then Thomas and Creek started at once to their work. This was the last that the shot firer saw of them until they were found dead. It was the custom of Bowman and Campbell to go together in to Number 5 and 6 headings, as these two headings generated considerable explosive gas. They went on about their business and started to do their shooting as follows: In the same heading ("6") they shot two rooms. They prepared three shots for each room. They went on to the 5th right heading and did the shooting there. The shot firer said that probably twenty shots were shot in the rooms in that heading. Campbell, the fire boss, was in the 4th left heading when the explosion occurred.

The first three men rescued were the three timber men who were 500 feet from the face of the heading. They were dead. Their bodies were slightly burned but badly mutilated.

The heading had caved in for nearly 300 feet and after working for 24 hours with very little success and considerable danger a conference was held of the mine officials and the inspectors and an effort was made to get to the above heading through the 5th heading, but on account of the intense heat and the accumulation of gas, it was some time before we got sufficient air into the place where the other two bodies were. They were found inside of the falls on

the heading 200 feet from the heading face. They were burned but not sufficiently to have caused their death and we believe that the after damp from the gases caused their suffocation for the air was completely cut off from them by the falls on the heading caused by the explosion.

As soon as possible that sufficient air could be gotten into that part of the heading, which was November 14, the examination was made by T. W. Dickinson and myself and we were accompanied by the company's officials also H. H. Hamilton, a representative of the Du Pont Powder Co. Campbell, the fire boss, and Bowman, the shot firer, (who were the last men to see Thomas and Creek) <sup>they</sup> told us that they knew these men were going to drill a shot from the air course down to the upset with the intention of blowing it through, and upon making our examination we were convinced that such was the case. After an elapse of three hours and thirty minutes from the fire boss and shot firer removed the gas the explosion occurred. We are of the opinion that the upset was full of gas when they fired the shot, but we are not positive that the gas was set off by that shot, as they were using permissible explosives and if there were not more than two pounds or four sticks in the hole then, that is within the safety limit and we do not think it would have ignited the gas. It would show to us when the bodies were found down on the heading that they must have been there when the explosion happened by the position of the bodies. It is possible that this could have happened by the force of the shot blowing through and displacing the gas by driving it down on the open lights of Thomas and Creek (as they were working with open lights) which could have caused the explosion. The force of the explosion was not felt much in any other heading and all the damage done was right in that heading where the explosion occurred. Considerable coke was found in the upsets, also on the 6th heading opposite those upsets. It is our opinion

that the gas that was removed at 8 o'clock that night out of the upset had lodged or accumulated up above the timbers that were set in this heading as this heading acted as a return, increasing the great violence of the explosion and tearing out so many of the timbers from the heading which caused such large falls of slate and rock.

The mines were in good, safe condition and well watered by hoses and sprays and if it had not been so the explosion might have gone all over the entire mine killing every man in the mines.

The management had changed hands just about one month before the accident occurred and we consider that J. E. Dillworth, Gen. Supt., as a thoroughly competent mining man and also the mine foreman, T. W. Akers, and Frank Fletcher, Assistant Supt., and Mining Engineer, men of a great deal of experience. The mining foreman, superintendent and assistant were thoroughly aware that these men were working in the mines at night when the shot firer was doing the shooting. This was not known to this office however for when we established the "Shot Firing System" right after the sad disaster which occurred Dec. 16, 1907, it was clearly understood that no one was to be in the mines during the time the shot firer was doing the shooting. The officials admitted this fact but this was the practice when the new management took charge.

The following is a copy of the report of Mr. T. W. Dickinson, Associate Mine Inspector, made at Yolande No. 1 just one month prior to this explosion which was October 3, 1910.

Respectfully submitted,

James Hillhouse, Chief Mine Inspector

T. W. Dickinson, Associate Mine Inspector.

INVENTORY OF THE GOVERNMENT BCX SHIPPED HERE TO THE STATE MINE

INSPECTOR'S OFFICE.

Two (2) Helmets marked:

M-822

U.S.T.B. 3823

and

3467.

-----ooo-----

Two complete napsacks with cylinders (11540-- 11411)

other one numbered (10531--10514)

Eight Potash Cans: 4 combined with drager napsacks

-----ooooo----- 4 separate.

Two Hubble Electric Lamps.

-----ooooo-----  
One straight wrench.

2 Cylinders one (11617--14776)

one (13923--14039)

Inspected by I.W. Newey of the Jefferson Powder Co.,





# Correspondence



STATE OF ALABAMA

OFFICE OF

# STATE MINE INSPECTORS

424-5 CHAMBER OF COMMERCE BUILDING

BELL TELEPHONE 455

JAMES HILLHOUSE  
CHIEF MINE INSPECTOR

ROBT. NEILL AND J. W. D.  
ASSOCIATE MINE INSPECTOR

*aa-ry*

BIRMINGHAM, ALA., Nov. 22, 1910. 1

Mr. J. J. Rutledge,

United States Geological Survey,

Knowville, Tenn.

Dear Sir:

I am enclosing with this letter a copy of our report on the Explosion which occurred at Yolande # 1 mine Nov. 3, 1910.

We have just had the box opened and found all the articles that you mentioned in the box and everything O.K.

If there is any information you may need, that I can furnish I will be glad to assist you.

Hoping to hear from you real soon,

Respectfully,

*James Hillhouse*  
Chief Mine Inspector.

*Mr. Talbot  
I think this belongs  
to your files YOR*

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

Beckley, W. Va.

Jan. 6th. 1911.

Mr. Geo. S. Rice,  
Bureau of Mines,  
Pittsburg, Pa.

My dear Mr. Rice:-

Herewith I enclose Mr. James Hillhouse's report on the Yolande explosion, in November last. At the time of the explosion Mr. Hillhouse kindly volunteered to send me, in confidence, ~~a report~~ a copy of his report on the explosion and causes, since I was unable to get into the mine when I visited the place after the explosion.

One fact brought out by the explosion, and to which I desire to draw your attention, is that there is a possibility that the explosive used, probably Carbonite, exploded in the gas-filled upset and set off the gas. This is, in my judgement, a PROBABLE parallel case to the one at Monongah, the data concerning which you returned to me to day. At Monongah the fire was found on the gob-side of a pillar, and the shot had been fired electrically and permissible explosives used; presumably the miner drilled his hole into the coal adjacent to the gob, and only an inch or two of coal separated the explosive from the gob before the shot was fired. At the instant of explosion the explosive was thrown out, while exploding, into the gob and the gas and goal fired. If the miner had used considerable paper in making his dummies for the stemming, this would have been a factor contributing to the ignition.

Now at Yolande the upset was nearly through and both the men and Company desired that it be put through as soon as possible in order to establish ventilation and remove the gas. This is proved by the fact that the men were working at night and doubtless putting in extra time on this upset so as to get it through as soon as possible. Suppose that there only remained about five feet of coal before the upset would be holed, it is quite natural that the men should use an extra large charge of explosive in order to bring the five foot of coal at one shot. That is what any other men of experience would probably have done under like circumstances and if they misjudged the length of the shot and drilled the hole a little bit too far the explosive would probably be exploded in the presence of the gas, on the other side of the shot. *and have fired it.* It seems to me that this is perfectly possible.

Please return the report to me as soon as you have done all that you wish with it, as it was sent in confidence. Presumably you will desire a copy for your files. The Inspectors are usually quite sensitive about these minor accidents, and

*sometimes it seems to me that it would be wise to ignore them in our investigations confining our work to the larger ones.*

*Very Respectfully J. J. Rutledge*

January 12, 1911.

The Director:

Thru Engineer in Charge

I enclose herewith copy of report of Mr. Hillhouse, Inspector of the State of Alabama, on the explosion in the Yolande Mine No. 1, November 3, 1910, in which 5 men lost their lives.

This report was obtained confidentially from Mr. Rutledge. I enclose herewith copy of my letter to Mr. Rutledge. It is evidently a matter which needs following up since the use of permissibles is involved.

I have shown the report to Messrs. Hall and Paul.

Yours very truly,

*Geo. Rice*  
Mining Engineer.

c.c. to Mr. G. Hall  
Mr. J. W. Paul ✓  
Mr. J. J. Rutledge  
Engineer in Charge

*Tru*

*1/12/11 Hillhouse report and letter first time JMS*

48  
January 12, 1911.

Mr. J. J. Rutledge,                      Thru Engineer in Charge  
Glen Jean, W. Va.

My dear Mr. Rutledge:

I return herewith Mr. Hillhouse's report on the explosion at the Yolande Mine, November 3d.

I was very much interested in same and was very glad that you were able to obtain the report. I have taken copies of it and will submit one to the Director confidentially.

There are several points which are not made very clear in this report. If it is wise to do so, you might ask further information from Mr. Hillhouse. They are as follows:

1. Did the fire boss and shot firer clean out the "upset" by brushing out the gas with a coat or canvas? ✓
2. Is it supposed that the miners Thomas and Creek fired the shot which was drilled to break through from the aircourse into the upset? ✓
3. While the report speaks that they were convinced that such shots had been drilled and fired, I do not see why there should be any hesitation about it? Also, what were the conditions found where the shot was supposed to have been fired? Had the shot broken through into the upset? Is there any information which could be obtained as to the distance between the point of this shot and the upset; that is, how much coal had to be blown through? ✓
4. Are the miners authorized to fire shots when there is a shot-firer

Mr. Rutledge #2

in the mine?

5. What permissible was being used? ✓
6. What was the method of firing same; fuse or electric detonator? ✓
7. What was the natural direction of the air current after the breakthrough had been made? Was it toward the men Thomas and Creek?

It seems to me that it was an excessively dangerous thing for these men to have been allowed to fire a breakthrough shot before examination on the other side for gas; that is, an interval of 3-1/2 hours would allow the accumulation of a great deal of gas in an upraise from which there was no outlet. ✓

While not pertinent to the explosion, you might ask Mr. Hillhouse what the special dangers were which Mr. Dickinson, Associate Mine Inspector, feared from the presence of the steam pipe in the side slope.

Very truly yours,

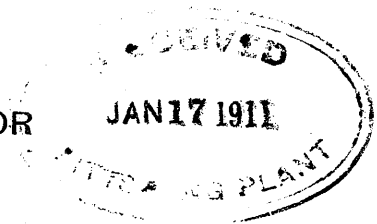
*Geo. Hillhouse*  
Mining Engineer.

Encl.

c.c. to Director  
Mr. G. Hall ✓  
Mr. J. W. Paul ✓  
Engineer in Charge

REFER TO 2043

DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
WASHINGTON



OFFICE OF THE DIRECTOR

January 14, 1911.

Mr. George S. Rice,  
Mining Engineer,  
Bureau of Mines,  
Pittsburg, Pa.

My dear Mr. Rice:

I note what you say about the need of following up the inquiry in connection with the use of permissible explosives at the Yolande mine; and I will be glad if you will arrange to have this done as soon as practicable.

Yours sincerely,

A handwritten signature in cursive script, appearing to read 'J. A. Johnson', written in dark ink.

Director.

MR. RICE

January 19, 1911.

Mr. J. J. Rutledge,

Thru Engineer in Charge

Glen Jean, W. Va.

My dear Mr. Rutledge:

I am in receipt of a letter from Doctor Holmes dated January 14 stating "I note what you say about the need of following up inquiry in connection with the use of permissible explosives at the Yolande Mine, and I will be glad if you will arrange to have this done as soon as practicable."

I think it will be very desirable if you can arrange to make this investigation at an early date to supplement the report of Mr. Hillhouse.

Very truly yours,

Mining Engineer

c.c. to Director

MR. RICE





# Yolande Explosion

## DEPARTMENT OF THE INTERIOR

### BUREAU OF MINES

Glen Carbon, Ala.

Mar. 8th. 1911.

IN ANSWERING REFER TO

No.

Mr. Geo. S. Rice,  
Bureau of Mines,  
Pittsburg, Pa.

My dear Mr. Rice:-

In further reference to your favor of Jan. 12th. last and questions asked concerning the disaster at Yolande, Ala. last November, I beg to submit the following answers:

1. Answer. Yes! The Fire boss, Mr. Campbell, brushed out the up-set with a piece of canvas on the evening preceding the explosion, about 9:00 P.M. ✓
2. Answer. Thomas and Creek fired the shot from the Air course side down into the Up-set. ✓
3. Answer. The failure to make a decisive statement about this fact is evidently one of policy, since permissible were used and the Inspectors may have tried to prevent an odium being cast on the new explosives. The <sup>is</sup> is also the question of a hasty examination as there was much gas in the place. The shot had gone down along side of the up-set for a distance of three feet and there was only about four inches of coal between the drill hole and the up-set; if the men had drilled their hole four inches farther out-by they would have holed. The shot had not broken through wholly, that is there was not sufficient space to permit of a drill being passed thro., but the hole had blown thro., that is the force of the powder had been expended on the air in the up-set. On this statement all parties agree. The distance to be blown thro. was only about four inches. The rescue party put in a shot and blew a hole about a foot in diameter thro. into the upset and one of them informed me that he measured the hole and found that it was three feet in length beyond the top of the upset and that several of the dummies were yet in the hole.
4. Answer. The miners are only permitted to fire shots when on night shift. There was no regular night shift and these men, Creek and Thomas, had been at work on the day shift, trying the hole the air-course and up-set in order to get air into the place, for it was ahead of the air, and they came down on night shift in order to be sure to hole it and establish the ventilation at that point. They doubtless gave the shot a heavy ~~charge~~ charge in order to be assured that the two places would hole. Any experienced miner would doubtless have done likewise. They MAY have used dynamite.
5. Answer. Monobel No. 1, one and one half by eight. ✓

