FINAL REPORT OF EXPLOSION
PRINCESS POCAHONTAS COAL CORPORATION
MINE NO. 1
RODERFIELD, WEST VIRGINIA
NOVEMBER 30, 1928

By W. J. Fene and Jesse Redyard

DEPARTMENT OF COMMERCE
Bureau of Mines.

I N D E X

Index (Cont'd.)

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Introduction:

A local gas explosion occurred in the Princess Pocahontas Coal Corporation mine No. 1, near Roderfield, McDowell County, West Virginia, at about 8:00 p. m. November 30, 1928. Seven men were in the mine at the time, six of whom were killed and one, who was not in the immediate vicinity of the explosion, escaped uninjured.

Evidence found following the explosion points to an open-type mining machine as being the most probable cause of the explosion. The mining machine was found with the controller on the "on" position, and apparently it was traveling toward the face of the second right entry, which is going to the rise, and had reached a point about 20 feet from the face when it ignited an accumulation of gas.

The violence of the explosion was confined to a small section of the mine, the extent of the explosion probably being limited by standing water and the fact that there was a large area of open workings in which the gases were allowed to expand. While there was a plentiful supply of fine coal dust present in the explosion zone, it probably did not form a dense cloud, and for the most part it

was not ignited. There was a small amount of coking found and the flame probably did not extend over 1000 feet from the point of origin. No damage was done to the mine other than the destruction of 38 stoppings and 4 doors.

No means of rendering the coal dust inert by application of rock-dust or water is employed.

Bureau of Mines Activities:

Bureau of Mines Car No. 7 was at Coalwood, West Virginia when notified of the disaster at 10:30 p.m. A special engine was secured for the transportation of the car, which reached the mine at 1:05 a. m. Saturday, December 1. Mr. Griffith, first aid miner who was the only man on the car at the time, assisted in the recovery of the bodies, making two trips into the mine. Car 7 served as a base for outside operations and also furnished meals and sleeping quarters for rescue crews.

Recovery Operations:

There was no indication on the surface that an explosion had occurred and the first news of it was when Dewey English, the seventh man in the mine at the time, came to the outside and spread the alarm. The State mine inspectors were notified and they and the State rescue truck located at Welch proceeded to the mine.

Rescue teams were summoned from Welch, Williamson and Coalwood, and the first crew entered the mine at about 12 o'clock Friday night.

The first four bodies were brought to the surface at 4:30 p. m.,and the remaining two at 9:00 p. m. Saturday.

Difficulty was experienced in entering the mine due to the main entrance being on the return air, making it necessary to erect line brattice for some distance. The bodies were recovered without the use of oxygen breathing apparatus; however, use was made of gas masks in exploration trips in advance of the fresh air.

Location:

The Princess Pocahontas Coal Corporation Mine No. 1 is located about one mile southwest of Roderfield, McDowell County, West Virginia on a branch of the Norfolk &Western Railroad, connecting with the main line at Roderfield, and in the Tug River Mining District.

Ownership:

The general offices of the Princess Pocahontas Coal Corporation are at Roderfield, West Virginia, and the officers of the company are:

S.H. Meem, president, Bluefield, W. Va.

J. C. Saunders, general superintendent, Premier, W. Va.

S. E.Ward, superintendent, Roderfield, W. Va.

H. O. Allen, mine foreman, Roderfield, W. Va.

Employees and Output:

Fifty-five men are employed underground and 13 on the surface, who produce an average of 200 tons of coal per day.

Previous Explosions:

On April 17, 1915, three men were killed in the mine by a local gas explosion, caused by an ignition of gas by open lamps.

Coal Bed:

The Princess Pocahontas mine is opened by a drift into the Beckley coal bed of the Pottsville series, which is about 60 inches thick at the outcrop but soon thins out to an average thickness of 36 inches. The coal of the Beckley bed, which is known as the War Creek bed in this district, is a low volatile, semibituminous and friable coal. The coal bed is practically level except for local rises and dips and at this mine the bed is cut by many faults.

The strata overlying the coal bed are sandstone and slate. It was observed at a great number of places along the haulageways that the roof rock was hanging loose. Such condition is dangerous to those traveling the haulageways, and all such rock should be taken down or securely timbered.

The floor is a soft, smooth shale.

Besides the main drift, there are two other openings to the surface which serve as airways.

Analyses of Coal:

An analysis of the Beckley coal bed in an adjoining mine is as follows:

Moisture	1.9	per cent
Volatile Matter	16.8	" "
Fixed Carbon	69.5	" "
Ash	11.8	" "
Sulphur	1.2	" "

Method of Mining:

Due to the numerous faults encountered, no projected plan of mining could be followed, and development is made as the faults will permit. The double entry, room and pillar system of mining is used, with rooms driven from both entries. Entries are driven 20 feet wide with pillars from 30 to 40 feet thick. Rooms are driven 25 feet wide, 200 to 250 feet deep, with pillars from 30 to 50 feet thick. The coal is undercut by open-type machines and loaded by hand.

About 40 per cent of the coal is recovered in the advance workings and but very little, if any, coal is recovered from the pillars. No systematic method of timbering is used at this mine, and not a great amount of timber is used along the entries. At a great many places dangerous loose rock was observed, which should be taken down or securely timbered.

Ventilation:

Ventilation is produced by a Jeffrey, 6-foot, reversible fan, having a capacity of 150,000 cubic feet of air per minute.

The fan is driven by a chain belt by a 50 horse power, 250 volt, direct current motor, and is operating blowing at about 1½ inch water gage. The fan is housed in a steel casing, with a concrete duct leading from the fan to the intake opening and it was noted that there were several cracks in this concrete duct, which afforded the loss of considerable air. These cracks should be tightened by filling in with cement. No overcasts are used and this ventilation is a continuous circuit and is controlled by a system of doors, using the haulageways as return airways.

Experience has shown that the exclusive use of doors in controlling ventilation is not satisfactory, due to leakage of air through the doors and the possibility of their being left open and short-circuiting the air. Overcasts should be constructed to properly conduct the air throughout the workings and the ventilating system should be changed so that the haulageways are on the intake air. Gob and stone stoppings are used throughout the most of the mine, which are not tight and through which considerable air is lost. Stoppings should be built of an incombustible material and should be faced with cement or plaster or constructed so as to prevent leaks.

During the investigation the ventilating system was somewhat disarranged due to not having been re-established since the explosion, and the amount of air near the faces was not adequate. Measurements of the air taken during the investigation showed 30,970 cubic feet per minute entering the mine and 34,600 cubic feet per minute as the total return.

With the ventilating condition existing at this mine, the writers are of the opinion that a dangerous condition might easily be brought about through insufficient ventilation at the working faces and it is recommended that the ventilating system be given immediate attention with a view of increasing the amount of air passing the working faces, by providing two or more splits of air.

Gas:

The mine was rated as gassy by the State Department of Mines about a year ago and since that time has been operated with closed lights. The gas is liberated from the coal and roof, and during the investigation considerable standing gas was found in the "Monkey Heading" and in the second right entry. No regular fireboss is employed, but the mine foreman is supposed to examine the mine before the men enter. The mine foreman is assisted in the examination by two company men, one of whom is not a certified fireboss. The mine foreman should not be required to make examinations of the mine, but a competent fireboss should be employed to examine the mine before each shift enters. Machine men are supposed to examine each working face for gas before entering with the mining machine. It was brought out at the Coroner's inquest, however, that this was not being done and it was probably due to the failure of the machine man to make an examination, that this explosion occurred. Strict discipline should be demanded of the machine men and the mine foreman should see that they are provided with approved flame safety

lamps and supplies.

Analysis of samples of mine air collected during the investigation are given in the following table:

Discussion and Table:

ANALYSIS OF MINE AIR
COLLECTED DECEMBER 5,1928

No.	Location in Mine	Methane	Oxygen	Nitrogen	Carbon Dioxide	Cu.Ft. Air per Minute	Cu.Ft. Methane per 24 hours
A363	Main return-opening No.1	0.25	20.82	78.86	0.07	11,970	45,432
A367	Main return-opening No.2	0.33	20.80	78.79	0.08	1,950	6,718
A359	Main return-opening No. 3	0.28	20.81	78.84	0.07	3,880	15,838
A364	Main return-opening No. 4	0.36	20.78	78.80	0.06	16,800	87,091
A358	Near Face of 2nd right aircourse	19.70	16.30	63.80	0.20	--	--
A360	Near Face of 3rd Main	1.50	20.33	78.05	0.12	--	--

From the above table it is seen that methane was found in all of the samples collected. The main returns show a methane content of from 0.25 to 0.36 per cent, and with a total of 34,600 cubic feet of air per minute returning from the mine, there would be liberated each 24 hours a total of 155,079 cubic feet of methane. The samples collected near the face of second right aircourse showed 19.70 per cent methane and 16.30 per cent oxygen. This condition was due to the ventilation having not been conducted to the face since the explosion. It was near this point that the explosion is supposed to have originated, and from the results of the analysis of this sample it is readily seen that a dangerous condition may easily exist should the ventilation be

interrupted in any way.

Lighting:

Approved Edison storage battery electric cap lamps are used by all underground workers, and approved flame safety lamps are supposed to be used by firebosses and machine men. Fixed electric incandescent electric lamps are located at pumps and doors.

Haulage:

All haulage is done by electric trolley and cable reel locomotives using 250 volts direct current. One, ten ton, Jeffrey trolley locomotive is used for the main haulage and three, six ton cable-reel locomotives are used for gathering. End-gate, wooden cars of 1 to 1½ tons capacity are used. The track is in fair condition, except that at many places the roadway is in need of cleaning. The track gage is 42 inches, and 30 and 40 pound rails are used in the main haulageways, 20 and 30 pound rails on entries and 16 and 20 pound rails are used in rooms. The rail bonding and cross-rail bonding is not in good condition and at several places it was observed that the cross-rail bonding was attached to one rail only. Trolley wires and power feed wires are supported in the same hanger; in general, these are well supported. However, at one place it was noted that the end of a trolley wire had been wrapped around a post and the end hanging loose. The trolley wire is not guarded at any place where men are required to pass under them. The entire electrical wiring

installation at this mine should be gone over with a view of making it safe, and guards should be placed around trolley wires at points where men are required to pass under them, including both underground and on the surface.

Due to gob material being stored along the haulageways, there is not sufficient clearance for a man to pass a moving trip in safety; also there are no shelter holes for men to retreat to while trips are passing. A clearance of four feet should be provided along the track on all haulageways and shelter holes should be provided at least every 100 feet.

Machinery Underground:

All machinery in and around the mine is operated by electricity which is purchased at 23000 volts alternating current and is transformed and converted at the mine to 250 volts direct current. All underground electrical machinery, including locomotives, coal cutting machines, and pump motors are of the non-permissible, open type. To eliminate the hazard of explosions from electrical sources, the management should consider replacing such open type equipment with that of the permissible type

Explosives:

Permissible explosives, Monobel 9 L.F., and No. 6 electric detonators are used for blasting down the coal. The coal is undercut to a depth of 6 feet and the holes are drilled 5½ feet deep. Three holes are used in the face to bring down the coal, which are loaded with 1½ to 3 sticks of explosives, are tamped with clay and fired by the miner

at any time during the shift, using a non-permissible battery.

The explosives are taken into the mine in a box placed in a car, on a trip following the man trip, [illegible] distributed to the miners at the partings, and [illegible] carried to the working places in sacks. For the sake of safety, a more rigid system of handling explosives should be instituted at this mine; (1) the management should consider the firing of all shots by regular shotfirers after all men are out of the mine; (2) the explosives should be carried into the mine, either by the miners in fiber boxes, with a special container for the detonators, or hauled in an insulated car to the inside for distribution to the miners.

Drainage:

The mine in general is naturally dry; however, at several places, standing water was found. Several small, electrically driven pumps are used for pumping the water that collects in local "swags."

Coal Dust:

Considerable fine dust is made during the operation of mining, loading and transportation, which has settled along the gobs on the roadways and rooms and on the ribs and roof. The roadways in most part are very dusty and in a number of places the track was nearly covered with dust.

Considerable inert matter, such as sand from the locomotives, and shale from the roof is mixed with the dust along the haulageways.

Of the five samples of road dust collected, the analysis shows from 15.8 to 60.2 per cent incombustible matter.

Experiments conducted by the Bureau of Mines on the explosibility of coal dust from the Beckley or War Creek seam, show that it requires from 47 to 50 per cent of incombustibles to render the dust inert and prevent the propagation of an explosion. The writers recommend that the rock-dust be applied in such amounts that the coal dust will contain at least 50 per cent incombustibles. Rock-dusting to be effective must be done thoroughly, and all accessible surfaces of the mine, including entries, aircourses, working or abandoned rooms (unless sealed), pillars, etc., should be covered with rock-dust and there should be a systematic sampling and analysis of the dust, with redusting when the incombustible content falls below 50 per cent. Before applying rock-dust in a mine, the roadways should be cleaned of all coal and dust to reduce the amount of rock-dust necessary.

ANALYSIS OF COAL DUST SAMPLES COLLECTED DEC. 5, 1928

No.	Location in Mine	Moisture	Combustibles	Ash	Total Incombustibles
D135	2nd Rt.Entry-Mouth No.1 Room	2.2	84.5	13.3	15.5
D14	3rd Main-near 2nd Right	3.7	72.3	24.0	27.7
D112	1st Main-between Automatic doors	5.1	59.0	35.9	41.0
D296	2nd Main-Mouth monkey Heading	2.0	46.8	51.2	53.2
D13	3rd Main-junction 2nd Main	2.8	38.8	58.4	61.2

Mine Conditions Immediately Prior To Explosion:

The mine was in operation the day of the explosion, and the night shift men entered the mine shortly after the day shift had come out. The fan had operated normally and there were no known interruptions in the ventilating current. No examination was made of the mine before the night shift entered, and the last examination made in the section of the mine in which the explosion occurred was at 3:00 p. m.,at which time a trace of gas was found in the second right entry. Testimony at the Coroner's inquest showed that the machine man did not carry a flame safety lamp when he entered the mine the day of the explosion.

Property Damage:

The property damage caused by the explosion was very small, the only damage being a number of stoppings and doors blown out.

Evidence of Heat or Flame:

The flame of the explosion did not extend over 1000 feet from the point of origin, and it apparently died out on the third main, a short distance from the mouth of the second right. Some evidence of flame was found but not as much as might be expected, after seeing the condition of the bodies. All of the bodies were burned more or less and the clothing was all burned off of that of Bill Foutz, who was found in a room off the third main. The other body found in this room was not burned so badly and but very little evidence of heat could be found in this place during the investigation.

8. Consider the firing of all shots by shotfirers after all men are out of the mine.

9. Strict discipline should be demanded of all underground employees and a system of searching men for smoking material, matches, and lighting devices should be instituted.

10. All loose rock along haulageways should be removed or securely timbered.

11. Sufficient clearance should be maintained along haulageways to permit the safe passage of men traveling these haulageways, and shelter holes should be provided along haulageways where men are required to travel.

Acknowledgments:

In conclusion the writers wish to express their appreciation for the hearty cooperation received from the officials of the company, and to thank them for the courtesies extended during the investigation.

Respectfully submitted.

W. J. Fene
Associate Mining Engineer.

Jesse Redyard
Foreman Miner

APPENDIX

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State of West Virginia

To-wit

County of McDowell

An Inquisition taken at Welch in the County of McDowell, State of West Virginia, on the tenth day of December in the year of 1928, before H. G. Camper, Coroner of the said County of McDowell, upon the view of the bodies of Kyle Walters, Sam Guy, Clarence Walters, Henry Daniels, William Foutz and Henry Lester, there lying dead:

The Jurors sworn to inquire when, how and by what means the said six men came to their deaths, upon their oath do say:

> That the aforesaid men came to their death as a result of explosion of gas in the mine of the Princess Pocahontas Coal Corporation, at Roderfield, McDowell County, West Virginia; that the proximate cause of said explosion was the negligence and carelessness of the operating officials of said Princess Pocahontas Coal Corporation, and possibly one of the men who were killed.
>
> From the evidence tending to show flagrant violations of the mine laws of the State of West Virginia, we recommend an investigation of said violations at the next regular session of Grand Jury of the Criminal Court of McDowell County.

In Testimony whereof, the said Coroner and Jurors have hereto set their hands:

S. M. BURGESS
J. H. LOCKWOOD
T. A. LAMBERT
LEO J. SIGNAIGO
J. W. WEDGEWOOD
C. D. BREWSTER
H. G. CAMPER.

S. E. Ward, a lawful witness having been duly sworn testifies as follows:

Direct questions by Dr. H. C. Camper.

Your name is S. E. Ward?

Yes sir.

Where do you live, Mr. Ward?

At Roderfield.

You mean at Roderfield, McDowell County, West Virginia?

Yes sir.

What is your occupation?

I am mine superintendent.

For what company do you work?

Princess Pocahontas Coal Corporation.

Where is that mine located?

One mile east of Roderfield Station.

How long have you been superintendent of that mine?

I went there on the 18th day of June, three years ago.

Direct questions by R. M. Lambie.

What is your position?

Mine superintendent.

Do you have a certificate issued by the Mine Department?

Yes sir.

What Grade?

Second grade.

Does that entitle you to act as fire boss or mine foreman?

No sir.

Did it give you the right to countersign the fire boss' report?

Well, I countersigned it in his place only.

Does the law permit you to do that?

No sir.

But you did it anway didn't you?

I signed it for him.

You signed this book on the 28th day of November?

I signed it for Mr. Worrell.

Why should you sign it for him?

Well, he would sometimes overlook it.

Did he ask you to countersign his report?

Yes, when Mr. Allen went in and did not sign it?

Who is your mine boss?

H. O. Allen.

What is Mr. Worrell?

Well, he is general inside man and assists with all the work.

Hasn't Allen been fire boss there for the last three years?

Yes sir.

Has Mr. Allen a first class certificate?

Yes sir.

Has Mr. Worrel?

Yes sir.

Why do you have to countersign these reports if Mr. Allen is mine foreman?

Well, I just look them over every day and Mr. Allen did not always sign it. So I countersigned them myself.

You know no other man has any right to sign these reports except those duly authorized by the laws of West Virginia. Did you read the report on day of November 30, 1928?

Yes sir.

Was that the day the explosion took place?

Yes sir.

What time in the day did the explosion occur?

At eight o'clock in the evening.

Had the place been examined before the night shift went on?

Yes sir.

By whom?

Joe Worrell.

Is Joe Worrell the same man who was prosecuted and fined fifty dollars sometime ago for violation of the mine laws?

Yes sir.

Who is your General Manager?

Morris Watts.

Where is he from?

Bluefield, West Virginia.

Is he the man you work under?

No, J. C. Saunders of Premier, is the official I work directly under.

What is his title?

General Superintendent.

Mr. Allen had charge of the mine, I left the work with him but it was my orders to always have mine examined before any men worked in there.

Were you in the mine on Friday or on Thursday?

Friday and I was in there on Wednesday. The day before and day after Thanksgiving.

How long did you stay in the mine?

I stayed in about two and one-half hours on Wednesday and four hours Friday morning.

And you didn't know that no one had examined the mine on Thursday?

No, I didn't know it.

You didn't cut the men off to save the expense.

No, we were cleaning up the haulways.

Don't you know it is a violation of the state law to have men go in a mine that has not been examined?

Yes, but I didn't know that had been done.

Who made the inspection on the morning of the 30th?

Mr. Allen.

Are you sure he made the inspection?

Well I was there when he came out.

Are you sure Mr. Landreth didn't make the inspection?

Mr. Allen's name is there.

Mr. Lambie (looking at the book) This is not signed by Mr. Allen. The initials of F. J. W. are on it the 30th.

Well I have his word for it.

Do you supply your machine men with safety lamps?

Yes sir, they always had them. They came up early in the evening and put the gas in them.

Did he have safety lamp when his body was found?

I don't know, I didn't go in there. I was sick when this happened, but he had been instructed not to go in without his lamp and to use it and if it showed any trace of gas to cut off and report it.

Had you given orders to conduct this mine as a gaseous mine?

Yes sir.

Yet, you took it on yourself to countersign the fire boss' report.

Mr. Ward, wasn't you really acting as mine foreman?

No sir.

Then you din't tell the electrician when he objected to his salary being cut and you had not cut your own salary, the reason was, that you were taking two jobs and were going to be the bank boss yourself.

No, I might have told him I was going to assist the bank boss in his work.

At time of last inspection of the mine, August 27, by Mr. Lee and Mr. Prentice, these were the recommendations given you, were they not?

(handed him the report)

Yes, that is the report.

And this letter you sent in reply to that report?

Yes sir.

Mr. Lambie to stenographer. Read these recommendations.

"To remedy the condition of the mine I recommend that Clay be supplied the men for tamping. Explosives be taken in the mine only in containers that comply with the law. First Left Monkey Reading be stopped until B. T. is driven. That ventilation on Three Main be increased immediately, stoppings built and plastered to comply with the law. The use of unnecessary doors be discontinued as soon as possible by the use of overcasts. Roof on Main Haulway be sealed and made safe. Wires be put in good condition. A Fire Boss be employed and places be examined before each shift as required by law. A report of condition of old workings be mailed to District Mine Inspector each week."

W. D. Lee - W. H. Prentice

Read this letter.

Sept. 14, 1928.

"Mr. R. M. Lambie, Chief of
Department of Mine for West Va.,
Charleston, West Virginia.

Dear Sir:

Replying to your valued favor of the 5th inst., with reference to recommendation of Inspector Prentice and Lee.

Clay has been supplied to all working places as recommended. Break through is being driven to monkey entry. Brattices have been built on three main. The air is splendid in this section. As to doors and sealing of roof we expect to do this as soon as it is possible. We have a fire boss and the run is made regularly before working hours.

And it is our intention to do everything in our power to comply with the mining laws.

Yours very truly

S E. Ward

SEW:B. Superintendent."

In what section of the mine did this explosion occur?

Two Right on Three Main.

And this is the section on which you were advised to increase ventilation on immediately .

It recommends ventilation be increased on Three Main.

(Pointing to blueprint) This is Two Right off of Three Main doesn't that come under the same section?

No sir.

Had you built the stoppings and plastered them as the inspectors had recommended?

We had built them, but had not plastered them yet, they had been built and filled in with slack to make them air tight. We were fixing to do that.

Had overcasts been built?

We had not built the overcasts but we expected to do that as soon as possible.

You have had three months.

Well, I had complied with the recommendations in every other way, I was getting to that.

We had put in safety lights before this.

I was cleaning the haulways and scaling the top as fast as I could get to it.

I considered that the mine was in a splendid condition and safe. The ventilation was good in all sections. I thought the mine was in fine shape.

What do you think caused the explosion?

Well, I don't know. The only way I can account for it is that machine had cut into something or that a door had been left open or partly open by day crew going out.

It could have been door off of Two Right or parallel door, either one would have short circuited the air at that point. Unless that was done, I don't see what else could have happened. The men working in there Friday had not seen any gas.

You feel then that th re was a possibility of a door being left open?

Yes, I do. These men had been working six months or a year and were very careful, I can't see what else could have caused it.

Are you sure, that Mr. Daniels always had a safety lamp?

Yes, to the best of my knowledge. He always came up and fixed the lamp and put gasoline in it.

Have you been in the mine since explosion?

Yes, last Saturday morning.

At place where explosion occurred?

No., I didn't get up there. I went up to Two Main.

Water was standing up in there and I have been sick and didn't want to get wet so I came out.

Are you sure Landreth had not made the examination on the 30th.

I am not sure.

Could Mr. Allen have made that examination and attended to his regular duties?

Well, that is the reason that I had Worrell helping him. I expected

to put on a fire boss regularly but work has been very slack.

And Worrel is the same man that was prosecuted not long ago?

Yes, I have always found Mr. Worrel as safe a man as I have ever worked behind. I have never known him to fall down on his work.

I was not there at the time he had the trouble.

You had not complied with the inspectors recommendations, had you?

I had not put the overcasts up yet.

Clay was in the car to be distributed when the inspectors were there. I had had the clay put in every working place. Henry Daniels had taken it around. We were sealing the top and getting it in good condition. I had made arrangements with Daniels to do some of this and thought we would do it during Christmas Holidays. (Point to blue print) we were going to move those doors down there and give the place a general going over. Out top was in pretty good shape and I was fixing to go over this place with a double crew. I wanted to keep the mine in good shape and make it safe. There is no Stoppings in good condition without being plastered and all mining men knew it.

Well, they are not as good, Mr. Lambie, but we had ours in good shape and we had splendid ventilation.

Then you had no inspection made on the 29th and you had men work in there on that day?

I didn't know it until this morning.

No report was made.

I didn't know it as I didn't look over the book.

I didn't think the men had ever worked in there without the mine being inspected. I left Wednesday and left Mr. Allen in charge to perform the usual duties.

By Dr. H. G. Camper.

What time did the day shift come out?

From three thirty to five.

What time did the night shift go in?

Well, it usually depends on the day shift coming out.

Anywhere from five to six thirty. I wasn't there that evening.

I usually go in anywhere from four to five.

By Mr. Lambie.

You stated that Mr. Worrel made examination for night shift: Yes, that was my understanding. I was informed that they put canvas up and inspected the places and they were clean.

What places?

On Number Three Main.

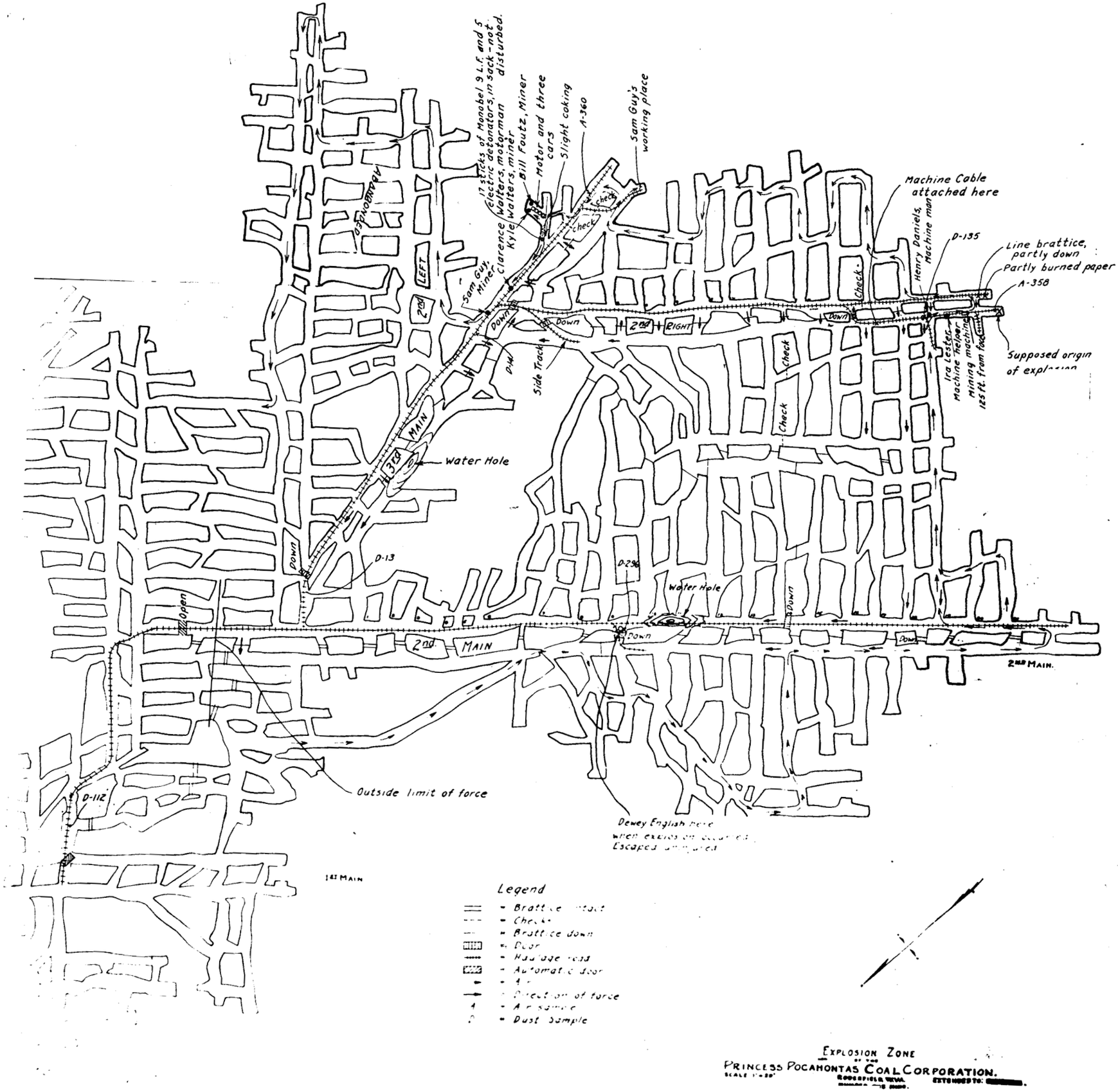
I made this inquiry and that was information I got.

Then you don't know whether it was inspected or not.

Well, I guess it was.

You can't guess when mens' lives are at stake.

I knew they were going to do this work and knew they had been in there. I knew where they worked that day. I knew they had been in there to make the place safe. My orders were not to work in a place until it was made safe, whether timbering, bad top or any


17 sticks of Monobel 9 L.F. and 5 electric detonators, in sack - not disturbed.
Clarence Walters, motorman
Kyle Walters, miner
Bill Foutz, Miner
Motor and three cars
Slight caking
A-360
Sam Guy's working place
Machine Cable attached here
Henry Daniels, Machine man
D-135
Line brattice, partly down
Partly burned paper
A-358
Ira Lester, Machine Helper mining machine 125 ft. from face
Supposed origin of explosion
Sam Guy's Mine
Broadway
LEFT
2nd
RIGHT
Down
Check
Side Track
D-14
MAIN
358
Water Hole
D-13
D-296
Water Hole
Open
2nd MAIN
2nd MAIN.
Outside limit of force
D-112
Dewey English here when explosion occurred. Escaped uninjured
141 MAIN
Legend
= Brattice
= Checks
= Brattice down
= Door
= Haulage road
= Automatic door
= Air
= Direction of force
= Air sample
= Dust Sample
EXPLOSION ZONE
PRINCESS POCAHONTAS COAL CORPORATION.
EXTENDED TO: