

Chronology of Events Concerning Eccles Mineas noted by J. W. Paul.

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Book IApril 28, 1914.

At 4:00 P.M. information received by telephone from E. A. Henry, Chief, Department of Mines, Charleston, W. Va., who communicated by 'phone to Mr. Rice that the Eccles Mines Nos. 5 and 6 had exploded at about 2:30 P.M. A telegram from Henson stated that Car 7 was enroute from Matoaka to Eccles by special engine. W. J. German was telegraphed at Jenkins, Ky., to proceed to Eccles. After conference with Mr. Rice, Car ⁶ was dispatched from Pittsburgh, leaving Pittsburgh on the 5:30 B. & O. train, which train was held 35 minutes in order to receive Car ⁶. The following party accompanied Car ⁶: Messrs. Deike, Ryan, H. D. Jones, Feldeworth, Raudenbush, and Paul. Mr. Rice and Mr. Taffanel concluded to follow to Eccles on the following day. Arrived at Charleston 7:45 A.M., April 29. Captain Bond got aboard the train and reported that eight dead men had been recovered from Mine No. 6 and that No. 5 Mine was bratticed off and that there

was supposed to be 176 men in No. 5 Mine. Car 7 was reported as having arrived at Eccles 6:00 P.M. of April 28.

Car 6 arrived at Eccles Station on the Virginian Railway at 12:35 P.M. and was moved by a special engine to No. 5 shaft at 1:00 P.M. Conferred with men on Car who accompanied Henson. Tentative organization of crews was made, consisting of Crew A; Ryan as Captain; Crew B, Deike as Captain. Edward Lucas and T. J. Morris were selected temporarily to look after repairing and charging of apparatus until the arrival of German. The crews were made up as follows:

Crew A: J. T. Ryan, Captain,
Jesse Henson,
J. A. Kennedy, ✓
N. C. Hawkes, ✓
T. L. Williams, ✓
T. J. Morris. ✓

Crew B: G. H. Deike, Captain,
H. D. Evans, ✓
W. A. Raudenbush,
Henry Feldeworth,
M. W. Wright. ✓

In an effort to confer with Henson he was found engaged with a party of eight in an effort to descend No. 5 shaft, Henson being equipped with a Westfalia telephone helmet, the reel end being in the hoisting engine house. Conferred with E. A. Henry, in charge of the recovery work. The party descended the shaft at 1:10 P.M. to a point 360 feet below the surface and returned to

surface at 1:42 P.M., reporting that the air was clear in the shaft and was going down to the Beckley seam. Henry reported the cage was binding on the guides and was apprehensive of the cage wicking and had decided to come up and grease the guides so as to overcome the binding effect.

At 1:55 P.M. Dr. J. A. Holmes arrived on the scene, accompanied by J. P. Leake of the Marine Hospital Service, with a supply of first-aid material for treatment of burns.

Upon a second descent into the No. 5 Mine it was found that the guides for every 50 to 100 feet were torn out. Men were placed at work on the surface to prepare new guides, in sections of eight feet for easy handling. At 4:00 P.M. Mr. Henry left for a rest and sleep, leaving Wm. Gillie in charge.

At 6:00 P.M. the water gauge reading at the fan was .8".
Psychrometer 7:20 P.M.: wet 61, dry 65; barometer, 27.56.

At 10:00 P.M. the cage was reported within 35 feet of the bottom of the shaft with much wreckage in sight. It was estimated by the workmen that it would take them until nearly daylight before they could get down sufficient to get on the bottom.

April 30.

4.30. A.M. in conference with Dr. Holmes, Henry, and Blankinsopp, the latter reported having been on the bottom of No. 5 shaft and found 2-1/2 feet of water and five dead bodies, cars wrecked, and much debris in the sump. Pipe was then taken down to extend a signal line. The water line at the bottom was reported broken. W. J. German arrived on the scene at 4:00 A.M. At 6:00 A.M. a party consisting of Henry, Paul, Blankinsopp, Mandt, Muir, Bayless and the electrician and four others descended the ^{No 5} shaft to the Sewell seam and examined the pump room. The pump was out of commission and the sump was running over, the water falling down the shaft into the Beckley seam. The telephone in the pump room was found in working order and communication was had with the hoisting engineer on the surface. The pump was in good condition although covered with much dust and moisture. The electrician cut the electric cable which led to the Beckley seam and telephoned for the electric power to be placed on the wires. The power came on and the pump was started. In 20 seconds the field in the pump burned out causing a large arc. At this instance the electrician rapidly withdrew and Paul pulled out the main switch shutting off the current. The party then descended to the Beckley seam and found the

cage within 10 feet of the bottom resting on timbers, leaving only 20 inches space between cage and side of shaft, which was not sufficient for men with apparatus to pass through. Mr. Henry decided that it would be a loss of time to attempt exploration work until the cage could be again sent to the bottom and party came out of the shaft at 7:30 A.M. and crews were ordered to remove the debris from under the cage.

At 8:25 A.M. the psychrometer readings were: wet, 49; dry, 53.

At 11:30 A.M. 7 additional bodies were found in the shaft bottom, making a total of 12 located. At 11:30 the cage was within six feet of the bottom and water was about waist deep. At 12:30 noon, Messrs. Rice, Burrell, Taiffanel, and W. E. Fohl arrived. At 1:25 P.M. water gauge at the fan was .5" water column.

The following code of signals was adopted for hoisting in No. 5 shaft: 4-2 lower, 4-1 raise, 1-3 stop at Sewell seam.

At 2.32 P.M. Crew A descended shaft and at 2.45 P.M. Crew B descended shaft, Paul and German descending 2:55 P.M. An effort was made to explore in the direction of No. 6 shaft, but large falls were encountered. The crews remained near the large fall on the North entry, and Paul, with a canary bird,

accompanied by Superintendent Kent, and Murray, State Mine Inspector, proceeded toward No. 6 shaft until deep water was encountered, at which point the air was measured, having a velocity of 900 feet cross-section 7 x 12, giving a volume of 75,600 cubic feet; returned to the main West entry and advanced along the main West to the first left, entered foul air, found three bodies on main West and marked location on roof. It was determined to make exploration of the main South entry, selecting the base near the entrance of the main South entry, Crew A acting as advance and Crew B as reserve. Crew A, consisting of Ryan, Captain, Henson, Kennedy, Hawkes, and Williams. Crew B, Dieke, Captain, Raudenbush, Morris, Feldeworth, and Jones. Crew A left the base at 5:22 to go to face of entry and return, time allowed 30 minutes. Crew returned to base at 5:54, having been gone 32 minutes. Reported that the canary bird carried by the crew collapsed at Room 20 and was dead when brought out. Found the following: 3 dead mules at inbye end of parting near room 20, 1 driver on the parting, loaded and empty cars wrecked. Took two samples of air at face of South entry, Nos. 67 and 89. The air at this point caused the eyes of the men to smart, they not wearing goggles. All stoppings from Room 14 to the face of entry blown out. All others are in place out to the slant haulage near Room No. 1.

Crew B acting as advance and Crew A acting as reserve, started to explore first left off Main West. Entered at 6:30 and returned at 6:40 P.M. Reported walls of the overcast intact; top blown down, 2 end rails in place, very heavy fall just inbye overcast extending for 100 feet and as high as the coal. The outer end of the fall was jagged and practically impossible to surmount with breathing apparatus. At 7:00 P.M. crews A. and B, Paul, German, and Kent came out for supper; conferred with Dr. Holmes, Rice, Taffanel, Henry, and Kent. Determined to re-enter mine at 10:00 P.M. Henry's men will arrange to enter at 12:00 midnight, being in charge of Inspector Muir. Planned to explore main West beyond first left. Crews A and B arranged to descend; at 11:15 Crew B descended shaft, at 11:28 Crew A descended, 11:30 Paul, German, Burrell, and Robert Wallace descended. Crew B acting as advance, Crew A as reserve. Crew A consisted of Deike, Raudenbush, Jones, Morris, and Feldeworth. Base established at first right off main west. Planned to explore as far as third left; took sample and observed physical conditions and returned in 40 minutes.

At 12:05 May 1 entered left base with life line, returned at 12:30 A.M., having taken air samples 55 and 56 opposite crosscut on side track near Demming pump. Reported pump O.K.; one body at pump. One motor with six or

eight loads on parting on No. 22 left; motorman found 15 feet outbye the motor.

The snapper of the main line motor was found opposite pump blown against the loaded cars. The gathering motor was found on empty track at parting opposite the loaded trip with the motorman on the inbye end, his body hanging out, legs inside the motor. Another body was found on the entry opposite the first cross-cut on the right outbye the second left. A heavy fall covering both tracks at the end of the 8th loaded car covering the rest of the trip and extending six feet high as far as the Captain could see. Advanced about 30 feet on fall and found space restricted and not considered safe for men to advance farther with breathing apparatus. The safety lamp carried was extinguished about 400 feet from the first right. The gas cap flamed in the gauze and extinguished the light. Twenty feet beyond this point the bird showed signs of distress. It was carried outbye until it showed signs of recovery, where it was left on the floor about 100 feet back from where it was first distressed. The party then advanced to about 150 feet beyond second left as noted above. Two or three of the bodies found were without clothes. The bird fully recovered at 12:40 A.M. The men in the crew were all in good condition and travelled at the rate of about 2-1/2 miles per hour. At 1:05 A.M. the parties ascended shaft and reported findings to

Dr. Holmes. The party slept from 2:30 A.M. to 8:00 A.M.

At 8:00 A.M. the cage was gotten within easy reach of the bottom of the shaft. At 9:15 A.M. crews were sent down to bring out the first bodies located. Fan water gauge .3^m at 9:00 A.M.; 10:00 A.M. body No. 1 was brought to the surface. On account of the accumulation of water in the north entries threatening the closing off of the return air it was decided by Chief Henry to discontinue further restoring of ventilation on the south entries and ^{concentrate} ~~make~~ efforts to connecting a pump at the No. 5 shaft to pump the water out of the north entries. This involved disconnecting the pipes on the electric pump on the north entries and making its discharge pipe, a suction pipe, a suction line for a pump to be installed at the bottom of No. 5 shaft. During the previous night a pump was installed near the bottom of No. 5 shaft to pump water into the abandoned rooms on main south, but it was found the water had been short circuiting, ~~and~~ no water having been delivered at the discharge end of the line.

Psychrometer 12:50 noon: wet ⁴⁸28, dry ⁶⁰76; barometer, ^{27.66}27.66.

Inspector Holiday during the forenoon of today had brattised off the ^{and} main west to the pump room at the bottom of the shaft, making the north east section inaccessible for exploration, the air now being conducted down the main south airway and up Room No. 10.

At 2:50 P.M. party descended consisting of Governor H. D. Hatfield, Dr. Holmes, G. S. Rice, J. Taffanel, and Mr. Fohl. The above party came out at 3:30 excepting Messrs. Rice and Taffanel.

At 4:00 P.M. the following arrived from Col. L. E. Tierney's mines Lynchburg and Powhatan: J. F. Bowles, Thomas Gilmer, George Homzy, Leonard Boley, James Armstrong, having with them two Draeger helmet apparatus and one pulmotor.

At 4:30 P.M. Dr. Holmes left Eccles, stating that he still thought some men might be found alive in some of the remote parts. At 6:00 P.M. a total of 14 bodies had been taken out of the mine. Five bodies had been found in the motor pit near the bottom of No. 5 shaft. Crews A. B. & C were organized, and inspection and repair crews were organized as follows:

Crew A: J. T. Ryan, Captain,
Jesse Henson,
Thomas Gilmer,
George Homzy,
J. A. Kennedy,

Crew B: G. H. Deike, Captain,
J. T. Morris,
H. Feldewerth,
W. N. Wright,
James Armstrong,

Crew C: H. D. Jones, Captain,
W. A. Raudenbush,
L. T. Williams,
C. N. Munley,
Cal. Sowders,

Inspection and Repair Crew: W. J. German, Captain,
J. F. Bowles,
M. C. Hawkes,
Leonard Boley.

^{6.00}
~~6:25~~ P.M. Crew ^{in charge of Burke} B entered shaft. For the ~~8~~ to 12 shift they worked
^{Collins and Wallace}
on the south side; Inspector ^{in charge of brattice crew} Muir, accompanied by
^{They located 17 bodies on First Right East and assisted in carrying the}
German and Burrell. [^] The following men arrived from the Sagamore mine of the

Pocahontas Consolidated Collieries Co., who had been trained by Henson on

rescue apparatus:

J. H. Evans, Mora, W. Va.
W. J. Evans, " W. Va.
C. M. Corder, McComas, W. Va.
Ed. Kelly, " " "

~~May 2~~

May 2, 1914.

12:10 A.M. Crew ^{in charge of Ryan} B came out of shaft. 1:00 A.M. Crew ^{in charge of Jones} A descended,
German accompanying. At 6:30 A.M. Crew B came out of shaft. Reported 17
bodies recovered from the first right off the main east, making a total of 31
available, including 14 already out. 8:30 A.M. Crew ^{in charge of Jones} C entered shaft, German
accompanying. Blankinsopp, Inspector, in charge of brattice shift. 10:40
A.M. the upper part of a body was found near the engine house near the paling
fence immediately along the hoisting rope leading to the cage, - shoulders, arms,
and part of head, - probably the bottom cager.

John Cochrane left 10:45 A.M. for Washington; 11:45 A.M. Crew C out of shaft.

Explored on main south air course as far as Room 16. The brattice men were reported engaged in closing off the east side of mains so as to concentrate the air on the south entries. Crew A repaired to enter at 1:00 P.M. to join brattice crew on the south entries in charge of Inspectors Holiday and Muir. 12:30 noon Messrs. Rice and Taffanel descended shaft to make observations in the vicinity of shaft bottom. Chief Henry requested the writer to ask Mr. Rice to not go any place where men were not working, since most of the brattice crew and others not knowing of Mr. Rice's mining experience felt some uneasiness.

1:50 P.M. party descended consisting of Henry, Paul, Gilley, Bayles, *Guiterman* and ~~Guterman~~ and proceeded along south entry air course to Room 18. The air current was measured by Paul at Room 18: 7'7" high by 11' wide, area 83 sq.ft., velocity $\frac{1}{4} 40 = 75$, volume 6,000 cubic ft. $\frac{1}{4}$. The air course between rooms 18 and 19 was being closed to direct the air up 18. Paul and Burrell advanced to Room 20 with canary, where bird was visibly affected and lamps showed trace of methane; sample No. 77 taken. 3:50 P.M. German and Paul came out of shaft. A map of No. 5 mine was sent to the Director. Upon the trip out the body of a man was found partially exposed immediately ^{under} ~~near~~ the cage. At 6:25 P.M. Crew A

out of the shaft.

6 30
~~4:00~~ P.M. Crew B and German entered shaft to accompany brattice men

in charge of Inspector Cobb and Robert Wallace to continue on the south entry's

exploration. 7:00 P.M. Paul had a violent headache as result of exposure to

gas in vicinity of Room No. 20, where canary bird had been visibly affected.

Sample 77, analyzed by Burrell, gave the following:

CO	- - - - -	.2
CH ₄	- - - - -	-1.0
Oxygen	- - - - -	20.2

at 8:00 P.M. headache thumping. Dr. D. R. Roller, Jr., advised rest and quiet.

8:30 P.M. pain in upper part of temple constant. Paul 8:45 P.M. went to bed.

May 3, 6:00 A.M. awakened. Paul had requested to be called at midnight, but

the cook was taken violently sick and was put to bed, possibly neglecting to

make the call. Crew B came out at 2:30 A.M. Crew C entered at 1:30 A.M.

and came out at 5:45 A.M. Inspectors Murray and Blankinsopp were with Crew C,

total bodies out of shaft 64. 8:00 A.M. took blood sample of body No. 64,

unknown white man. Very slight burns on hands. Flesh slipping off chest,

left leg and thigh scarlet in color.

8:00 A.M. psychrometer: wet $48\frac{1}{2}$, dry $57\frac{1}{2}$; barometer 27.67.

8:45 A.M. water gauge reading at fan .8". Some time during last night the fan was increased in speed and at 8:45 A.M. was running 74 r.p.m. 10:00 A.M. top of air shaft in shade: wet $54\frac{1}{2}$, dry 55; relative humidity 97 per cent. Under tipple in shade: wet $50\frac{1}{2}$, dry 66. Return air taken at No. 6 shaft 8:00 A.M. analyzed as follows:

CO ₂	- - - -	.2
Oxygen	- -	20.5
CH ₄	- - - -	.3
CO	- - - -	.0

On 11:19 A.M. train today left Robert Wallace, T. J. Morris, T. L. Williams, and W. M. Wright.

Crew A with the following members:

Ryan, Captain,
Corder (in place of Henson, who is not well)
Kennedy
Gilmer,
Homzy.

12:35 Noon crew ^A descended shaft with German to work on second left.

off main west. 3:19 P.M. Burrell left for Pittsburgh. 77 bodies out. 3 P.M. at No. 6 shaft in shade: wet 58, dry $77\frac{1}{2}$; return air at top of No. 6 shaft: wet 55, dry $55\frac{1}{2}$. Body 88, John Adams (white) in perfect condition, no scars, burns, or discolorations of skin. Took blood sample but lost it, the waxed stoppers having contracted and fallen out. This body 88 was found on the second left

off main west, in the vicinity of three other bodies and was partially covered with water when found, and had the appearances of having only recently died. It was impossible to bring this body directly out of the second left entry for reason of a badly wrecked trip of cars which almost completely closed the entry. It would have been an impossibility for a man with breathing apparatus to have gotten over the wreck.

5:35 P.M. Crew A out of shaft. Had reached last crosscut in the third left entry off main west. 1/8" cap of methane found 50 feet from face of third left air course. Upon further examination of the crosscut in which the Demming pump was located between second and third lefts on the main west, three bodies were found slightly burned.

At 6:45 P.M. Crew B entered with Inspectors Blankinsopp and Murray to go to third left and faces of main west, crew consisting of Dieke, Feldeworth, W. J. Evans, and Hawkes. At 10:00 P.M. German came up and told of a stretcher party having gotten lost, and Crew B explored the main west and fourth right in search of the stretcher crew, which was found on the ^{2nd} ~~third~~ left entry.

Top of No. 6 shaft 10:40 P.M. after damp odor very strong.

Psychrometer read 100 feet over No. 6 shaft on surface: wet 48, dry 51.

In the top of No. 6 air shaft: Psychrometer: wet 54; dry 54.

Took sample of air top of No. 6 shaft 11:20 P.M.; analyzed by J. T. Ryan:

CO ₂	- - - - -	.4
Oxygen	- - - - -	20.5
Methane	- - - - -	.6

May 4

12:25 A.M. Crew B out of shaft. 12:30 A.M. Crew C entered shaft, with Inspectors Holiday and Muir, Jones Captain, Raudenbush, Bayles, Evans, Sowders. Worked on the third right off main west. Inspector Holiday wanted a crew to explore and carry out all bodies found. Jones agreed to explore and locate bodies, but not to carry out dead bodies. Holiday said that he would not then need their service. Three bodies were found on third right, leaving No. 1 room to be explored. Air current sluggish. Before resuming work on the third right it was decided to repair stoppings leading up to third right and turn most of the air on the main souths.

7:00 A.M. Crew C came out of shaft. 8:45 A.M. German descended to ascertain progress being made in repair of stoppings leading up to third right off main west.

Conditions of weather 6:00 A.M. Barometer, 27.56. 10:00 A.M. at shaft No. 6 100 feet from shaft: wet 60, dry 69¹/₂; In top of shaft: wet 55, dry 5

Took sample, analyzed by Paul: Methane, .4.

10:30 A.M. German out of shaft; reported having gone to face of third right air course and into third right entry, and at last crosscut found gas cap 1/8" 50 feet from face of air course. The bird went down in the crosscut at the face, water 2 feet deep. Body No. 100 found in room No. 1 along very heavy fall of slate, which was later partially removed and a foot amputated in order to extricate the body. 10:55 A.M. Crew A entered shaft to explore second right off main west. 12:20 P.M. Crew A out; had been to face of second right off main west. 12:55 (noon) Crew B descended with Inspectors Blankinsopp and Murray to work on first right off main west: Deike, Captain, Hawkes, Boley, Feldeworth, W. J. Evans.

1:40 P.M. body 104 came out; 5:15 P.M. 116 bodies out. Mr. Munley left at noon for his home at Hairwood.

6:00 P.M. Crew B out of shaft. 6:25 P.M. Crew C descended to work on east side, Inspectors Holiday, Muir and Mason accompanying. 6:30 P.M. all bodies on the south and west sides had been taken out of mine, total 117.

At 7:35 P.M. the water guage at the fan showed .7", 74 r.p.m.

9:30 P.M. took sample at top of shaft No. 6, analyzed by Paul: Methane .22.

10:00 P.M. German came out of the shaft and reported the explorers as having gotten into the first right off main east, finding the body of Fire Boss Scott, an insurance agent, and a boy on the main east ____ feet from the shaft. During the night two bodies were taken from the sump of No. 5 shaft.

May 5:

12:40 A.M. Crew C out of shaft. 10 bodies found on first right off main east. Inspector Holiday would not let any of Crew C go in advance of himself. 12:45 A.M. Crew A with Inspectors Cobb and Lambert and William Nicholson entered.

Crew A: Ryan, Captain,
Corder,
Gilmer,
Homzy,
Kennedy.

2:00 A.M. to 7:30 A.M. Paul slept. Crew A out of Mine at ____.

Crew B entered mine at ____.

8:00 A.M. readings in shade at No. 6 mine: wet $59\frac{1}{2}$, dry 64.

Water gauge at No. 5 fan: .7", 74 r.p.m.

The following left today on the 11.19 A.M. train:

Ed. Kelly,
George Homzy,
James Armstrong.

Weather conditions intermittent; rain during the forenoon. 12:30 noon Crew B out of mine together with Inspectors Blankinsopp and Muir. Had explored to face of first left off main east with rooms therefrom. The canary collapsed at face of first left and in Room No. 15 off first left. A fresh canary was then taken to the face of Room 15, showing that the fresh canary was able to endure an atmosphere which would overcome a bird that had been in service and previously affected. A sample taken by Ryan at the top of No. 6 shaft at 6:00 A.M. analyzed: Methane, .4.

12:45 noon Crew C, with Inspectors Holiday and Muir, entered mine.

1:30 P.M. A. J. McMillan of Ohio arrived with a letter of introduction from J. M. Roan.

Blood sample taken by Paul from body No. 140, white man, unidentified. Not burned and had no injuries; flesh pink. Sample placed on ice. 3:30 P.M. top of No. 6 shaft, sample taken by Paul analyzed: Methane, 1.0.

6:10 P.M. Crew C out of mine having been to the foot of No. 6 shaft. Total bodies recovered 157, 18 unaccounted for. 9:00 P.M. all crews and laborers out of shaft. All hands and crews were instructed to rest during the night.

May 6.

May 6

Chief Henry arranged with the officials of the company to have the temporary ventilation of the mine reinforced so as not to disturb any of the physical conditions, except in looking under falls and wrecks, which had previously been noted by the Bureau employees and inspectors. Mr. Wm. Nicholson was employed to take charge of putting the mine in shape for operations, with instructions to confine his work to the bottom of the shaft until after the inspectors and bureau engineers had made further investigation of the interior of the mine. 9:00 A.M. body 158 was brought out.

Inspectors Holliday and Muir were detailed by Chief Henry to remain at the mine during the absence of chief and others. Chief Henry decided to begin his further investigation of the mine on the morning of May 11. Car 6, with Henson in charge, was detailed to remain at the Eccles mine until the return of the Engineers of the Bureau.

At 1:40 P.M. Paul and Kent descended No. 5 shaft and explored the immediate vicinity on the east side of the shaft bottom and came out of the mine at 2:00 P.M.

3:40 P.M. Car 7 left Eccles for Pittsburgh with the following on board: Messrs. Paul, Deike, Ryan, Jones, Raudenbush, Feldeworth, German, Henry Blackwell

colored cook, Alvin Day, cook, McMillan, Chief Henry, R. B. Cobb, W. L. Thomas, Munley.

May 7.

At 10:15 A.M. Car arrived B. & O. Station Pittsburgh, having come via Virginian to Deep Water, thence C. & O. to Huntington, thence B. & O.

Book No. 2

May 11, 1914.

Chief Henry and Paul arrived at Eccles No. 5 mine at 11:45 A.M. and found Inspectors Muir and Murray in charge. Inspector Holiday arrived at 1:00 P.M. Chief Henry had authorized a party of district inspectors to return to the Eccles mine for the purpose of having them to inspect and investigate the mine in order to get their judgment as to the probable cause of the explosion.

Statement of Witnesses, May 11, 1914.

E. W. West, tipple boss, at No. 6 shaft, stated he was standing with his hands on the crank of a crab nearby the top of the collar of No. 6 shaft when the explosion occurred. He said he heard it coming and ran down the track and looked back but saw no flame, but volumes of water and mud. The water was

all around the top of the shaft and considerable large pools were made before the water ran away. West had worked at the Rush Run mine at the time of its explosion. The timbers on the headframe of No. 6 shaft have mud on them and the handrailing on the approach to the top landing has mud on the top edge and streaks of mud on the side of the railing, showing that it had been fluid and had run down on the siderailing. Both cages in No. 6 shaft were in good condition immediately following the explosion, but immediately following the explosion the engineer hoisted the south cage and in coming up came in contact with a timber and was thrown out of its guides, and when it reached the top landing it was immediately anchored there by workmen and the rope unrelled from the drum which permitted the cage in the north compartment to be available for hoisting and lowering men. It is claimed by Chief Mechanic Williams that the rope was unreeled from the drum before the second explosion occurred, and a number of men on the ground claimed that between the two explosions several cage loads of men had been hoisted out of the No. 6 mine. Two men were injured in their effort to ascend No. 6 shaft: one man having his leg broken by reason of his having fallen onto the cage when he attempted to get on at the bottom landing, allowing his two legs to project over the edge of the cage, one of which was broken

A second man was injured and later died from the effects of his injury by apparently being struck on the head by the descending cage at the bottom landing, causing a scalp wound and fracture of the skull. In the No. 5 shaft the cage in the south hoisting compartment after the explosion was 40 to 50 feet below the surface landing and had on it a loaded car of coal. The cage in the north hoisting compartment was resting midair between the surface and top of landing, being held in position by the safety catches. Considerable of the cable attached to this cage was hanging in a loop down the shaft and immediately following the explosion the cage was chained to its position and the cable unreeled from the hoisting drum. The unreeled cable was coiled on the ground, there being 10 circular coils 7 feet in diameter, making a total of 220 feet in length. There is some difference of opinion as to how the cage in the north compartment arrived at the point at which it was held by the safety catches, some claiming that it was blown from some point near the bottom of the shaft. The Chief Mechanical Engineer, Williams, claimed that he was under the impression that the cage was near the top at the time of the explosion and that the force of the explosion held it in position and prevented it from descending, and that the momentum of the rope over the shieve caused the rope to continue down the shaft.

See page 3 for sketch of shaft compartments and relative position of fan.

The two steel explosion doors immediately on top of the air compartment were blown from their fastenings, one of which fell into the discharge funnel of the fan, the other alighting on the ground 80 feet south of the fan house. It was claimed by Chief Mechanical Engineer Williams that both of these doors were blown from their fastenings by the force of the first explosion, although it was stated by Mr. _____, who was in charge of No. 5 fan that one of the explosion doors was blown from its fastenings by the second explosion and landed on the ground nearby the point where he was running immediately following the second explosion.

May 12

8:25 a. m. the following party descended Number 5 shaft:

E. A. Henry, Chief Department of Mines, W.Va.,
 J. W. Paul, U. S. Bureau of Mines,
 M. E. Kemp,
 F. P. Bayles,
 R. Y. Muir,)
 L. B. Holliday,) District mine inspectors
 Isaac Murray,)
 William Nicholson.

The purpose of this visit to the mine was to conduct an official investigation by the Mine Inspection Department of West Virginia, and since the inspectors make their examination more rapidly than the engineers of the Bureau of Mines some of the data following may be slightly in error, but it will be found corrected in subsequent independent investigations by the Bureau's engineers.

The party proceeded to the bottom of Number 6 shaft and measured its eastern connection, finding it to be 9' 6" wide and 7' 3" high. Much wreckage was in evidence looking up the shaft, consisting of broken stairways and pipe. In the swag near Number 6 shaft the ribs of the entry showed marks indicating the stage of the water at some previous time. In the west north entry at the sump the water line was 2 feet from the roof, and in the east north entry the water line at the swag was 3 ft. 7 in. from the

roof. A prop standing at the lowest part of the swag, measuring 82 inches in height, had mud plastered from top to bottom. At 42 inches from the roof the water wash line showed on the mud, and a second water line on the east north entry was found 12 inches from the roof at the swag, but between it and the lower water line there was mud found on the ribs. All timber which was displaced on the north entries had been blown towards the north.

Passing up number 5 room of main north a trip of 10 empty cars was found on a parting; 4 of the cars were off the track, one of which was resting on its side against the north rib just opposite the first X-cut in the room. Coke found on ribs in first X-cut in room No. 5, on north exposures. The second X-cut in No. 5 room had coke on east rib, north exposures.

Proceeding up No. 6 entry off No. 5 room to face, a loaded car was found at face of entry. Body No. 152 indicated at the car. 8 inches of water on the floor at the car. Coal shot down at the face -- 3 carloads. Coke on collars and timbers near face of entry and back for 40 feet on inby exposures. A fall of roof at 50 feet back from face. A prop blown outby at this point. A coil of fuse, $1\frac{3}{4}$ sticks of Monobel, miner's oil lamp and

Pages 27 to 65 ⁻²⁶⁻ used for Final Report.

cob pipe found; the Monobel had coke on the wrappers.

No. 5 room off No. 6 entry. Loaded car at face. One-half car of coal at left rib; coal shot in the face 12 inches on the solid. Found an Elgin watch in a miner's jumber at the car; nobody indicated as having been found in this room. Miner's check #560 found on post. Coke blisters on roof and ribs at entrance to room. 5 feet of brattice cloth still hanging 20 feet from face. One stick of Monobel found on right rib of room.

No. 4 room off No. 6 entry. Empty car upside down at mouth; had apparently been standing inby the mouth along the track and blown outby. An axle and pair of wheels were found detached from car. A heavy fall at first X-out. Loaded car of coal at face of room. 2 cars of loose coal at the face. Prop blown toward face and against car.

No. 3 room. Not working; fallen almost to face. Clear of standing gas. No indications of coke or heat.

No. 2 room. Fallen to face; not working. Clear of standing gas.

No. 1 room. Goes through to the first left air course,
east side. No track in this room; floor dusty.

First Left Entry off East Side

Between rooms 13 and 14 heavy fall on entry. At mouth of room
15 water covers the track. In front of room 16 heavy fall for distance
of 50 feet.

Room No. 17. Driven in 25 feet. Car 3/4 loaded; about 2
cars of loose coal down at face.

On the entry in front of room neck No. 18 a Jeffrey mining
machine found on track.

Coal undercut at face of entry; no coal down, no holes drilled.
Gas bubbles escaping; 1/2 inch gas cap indicated at face near roof. Coke
on inby props from face back for 50 feet. Coke blisters found on roof
of entry at room No. 18. A body found at the mouth of room No. 17.

Room No. 16. Not working, but clear of gas. No coal.
Fire-boss' marks at face -- "4/27, 4/28 A. B."

Room No. 15. Not working; water at the mouth. Fall at the
mouth of room and for distance of 50 feet. Props standing in room; no
signs of heat.

Room No. 14. Clear of gas; not working.

On the first left entry opposite X-cut near No. 10 room a trip of 3 cars were blown against the east rib with great violence, carrying the rock stopping against the cars and rib. (See page 17 for sketch of wrecked cars between rooms 8 and 10.) (See pages 19 and 21 for wreckage on first left east and room No. 8 of first left east.)

Going north on No. 2 left east. At room 12 an empty car wrecked, 2 bodies found 20 feet outby car.

Room No. 13 off No. 2 left east is in 30 feet, going to the rise. Coke blisters on the room. 3 bodies found in this room; one had check No. 431. A track man was laying track here. Face or place recently cut. No loose coal down. Water seeping through roof, this point being near a bore-hole from the surface.

Face of entry is 80 feet beyond room 13. Water standing from room 13 to face of entry. Coke blisters found on roof of entry at room 13. Coke on ribs of entry and on both exposures at room 13.

Room 12 off 2nd left east. 2 miles in mouth of room, 20

sides of props near the face and back for a distance of 75 feet.

At 12 noon the party left for outside of mine for lunch.

At 2 p.m. the party again descended the shaft, excepting William Nicholson.

Turning into 2nd left east, going to face toward fault, loaded car found 12 feet from face. One carload of loose coal at face. Brattice cloth and piece of bag at face. Coked dust on brattice, coke on roof 10 feet back of face. 2 bodies had been found at face and reported by Kent as not having been burned. The X-cut ~~near~~ the face had a small hole through to air course. Coke on inby exposure in this X-cut. 2 empty cars wrecked about 60 feet back from face. Endgates of cars blown inby. The outer car had endgate detached and bent double in car. Both cars off track.

Face of air course off 2nd left east. Water extends from face back 30 feet. Coke and dust floating on water. Coke on ribs at the face.

A switch lever out of X-cut into air course blown inby.

Face of main east left air course. Loaded car at face off track. No gas cap. Coke on all ribs near face and top of car.

Body had been found near car; Kent says it was not burned. Force apparently inby on the air course.

On main east entry just outby last X-cut a loaded car was found, wrecked; outer end and sides broken, debris on inby end, 50 feet from face. Face of entry liberating gas; 3 feet of gas near face. Chief Henry lost the light of his safety lamp in the gas. Face of place undetermined in center bench. No loose coal down. Face is 30 feet ahead of last X-cut on the right side. Outby the loaded car the ties were bunched by an ingoing force. (See sketch, page 33.)

At the 1st and 2nd right entries off the main east all of the stoppings are blown toward the north. (This to be verified by subsequent inspection.)

First right off main east. Just inside the first right the stopping on the main east air course is blown east. At the first X-cut to right the stopping was blown east.

Room No. 1 off 1st right east. Fallen in to the second X-cut to right. No evidence of heat up to this fall.

Room No. 2. Dry and dusty; gas at face. 2 cars loaded coal at face; ribs coked from face back for 75 feet. Posts between cars

charred. Props blown towards face. A gas cap was found 20 feet back from the face. Coke on floor and on top of coal in cars. Face almost cleaned up, there being one-half car of loose coal on right rib. One body found near car. Last X-cut on right shows coke on ribs. The face of room 2 is about 100 feet ahead of last X-cut.

Room No. 3. Gas cap shown 3 feet from floor, 50 feet from face. 2 loaded cars at face. No coke in evidence at face, but coke about 50 feet back from the face.

Room No. 4. Gas cap found 30 feet from the face 3 feet from roof. Empty car at face. No coal down. Place cut in center bench. Coke on all exposures and face of room. 2 half sticks Monobel, coil of fuse and roll of shot paper at face.

Room No. 5. Loaded car at face. 5 carloads of loose coal at face. Roof blistered and coke on inby exposures of props near the face. Place going to the dip.

Room No. 6. Loaded car in X-cut at face on right. $\frac{1}{4}$ car loose coal in X-cut. X-cut has mining $\frac{1}{3}$ completed in center. Face of room cleaned up. Coke on ribs and props; brattice cloth blown down.

Room No. 7. No track in room. Was not working. Dry and dusty.

On the 1st right entry in front of room No. 7 the trolley wire was blown inby and attached to hanger.

In air course off 1st right east opposite rooms 6 and 7, a pool of water is standing.

Body of Seth Combs (No. 124) found on air course between rooms 7 and 8.

Room No. 8. Loaded car at face. Car of loose coal at face. Room driven in 25 feet.

Room No. 9. Driven in 20 feet, Car three-fourths loaded at face. No loose coal down. Place squared up.

Trolley is attached to hanger on entry from No. 7 room to 20 feet past room No. 9.

Stepping between entry and air course between rooms 9 and 10 blown east and north.

No track in entry inby room No. 9. Room No. 10 not working.

The air course approaching the barrier is swept clean from the coal barrier to the second X-out outby the air course. The air course

approaching the barrier from the east is on the top bench of coal, the bottom bench having been left down. The air course approaching from the south is the full height of the coal. An opening in the barrier in the air course was measured by one of the inspectors and reported to be 7 ft. wide and 30 inches high. The coal bed was measured by Mr. Kent and gave the following:

Roof coal	5'	3"
Bone	1'	
Coal	2'	8"
Total	8'	11"

} Sketch ✓
E

(See page 43 for sketch of the above opening, with location of shot holes.) A temporary brattice was removed for 3 minutes and a measurement of the air taken passing through the opening in the barrier. The velocity of the air was 700 feet per minute, traveling north, giving a volume of 12,200 cubic feet per minute. No track was found approaching the opening in the barrier and no miners' tools were found in the immediate vicinity of the barrier.

Proceeding south on the 1st, right east:

Room No. 12. Driven in 20 feet. Cleaned up at face, Body of man reported to have been found in this room. At mouth of room a dead mule was found on the entry.

Room No. 13. Loaded car at face. 2 dead miles in room just outby the car. Body reported found in room. Room driven in ~~25~~ feet.

Room No. 14. Water at the face; no loose coal down.

Room No. 15. Car at face $\frac{1}{2}$ loaded. Props blown inby. Coke on face. Props charred and cokes on inby exposure. 3 cars loose coal.

Room No. 16. At 30 feet from face 3 feet of gas found. Place clear of coal. Props ~~blown~~ to the face. Cokes on props and rails. Canvas had been blown down but replaced temporarily by a brattice crew.

Room No. 17. Canvas, which was down, had been replaced at the face. Heavy cokes on the face. Props blown toward the face. Heavy cokes on rails out to the last X-out.

Room No. 18. Canvas, which was blown down, had been replaced to the face. Last X-out to left driven in 20 feet. A loaded car in X-out, having cokes on top of the coal. Carry off the track. One-half carload of coal at face of X-out. Face of room 18 cleaned up. Gas cap at face. Cokes on floor, ribs and timbers. Soot on cokes.

Room No. 19. Car $\frac{3}{4}$ loaded 20 feet from face. One carload

of loose coal down at face. At the end of the car a Wolf safety lamp #1099474 was found and taken possession of by Paul. Ribs of room coked. Heavy fall for 150 feet in room, extending back to X-cut into No. 20 room, the fall being 4 feet thick.

No. 20 room. Not working. Fall at the face. No gas indicated.

Room No. 21. Driven in 50 feet. Undercut by machine at face. Coke on props and ribs. Water at the face 10 inches deep. Machine truck 20 feet back from face. A fall in this room is partially resting on the machine truck.

Room. No 22. Driven in 40 feet; fallen almost to the face. Water standing at the face. Bad roof. Face cleaned up, coke on ribs. At the mouth of this room a body was found on the entry.

Face of 1st right entry. Loaded car at face and $\frac{1}{2}$ car loose coal. Props blown towards face. Ribs dirty.

Face of 1st right air course. Props and water at face. Empty car 25 feet back from face. Endgate of car bent in almost double. Coke on roof over car, soot on ribs.

On the 1st right east between rooms 17 and 18 2 mules and loaded car were found, and on entry between rooms 16 and 17 stopping was blown against east rib with much force, being at point opposite room 10 of main south entry. (See subsequent notes for location of the bodies of 2 boys.)

At the mouth of No. 16 room an empty car was blown against the south rib.

Remains of the door at No. 10 room off south entry were blown squarely against the east rib, covering up the bodies of 2 boys, the door being demolished to mere kindling wood.

Proceeding west in No. 10 room off south entry, 13 empty cars were found off the track, blown north. A loaded car off track at outer end of empty trip of cars. Roof fallen and debris blown down. The force appears to have come into No. 10 room from the south.

At 5:10 p. m. the party left the mine.

May 13.

At 8:30 a.m. the following party entered No. 5 mine:

Chief Henry,	
Mr. Paul,	
Mr. Bayles,	
Mr. Kent,	
Mr. Holliday,	} District mine inspectors.
Mr. Muir,	
Mr. Murray	

Proceeding along the main south air course:

(Note: Rooms are turned from the main south and its air course. In these notes the main south refers to the right hand and its air course to the left hand when proceeding or facing south.)

On main south air course between rooms 10 and 11 a wooden door was blown south.

Stone stopping between the entries near Room No. 11 blown east.

Stopping at room 12, made of brick, O. K. Stopping at room 14 blown east. The door in the slant at room 16 blown east. Stopping in front of room 17 blown west.

Props blown out of room No. 17 against the west rib of air course. Stopping between rooms 18 and 19 blown west.

Room No. 19. Coke on rib. Room not working. Water at the face. Stopping on the south side was blown to the north side. Coke on props facing east and north.

Room No. 20. Loaded car at face. Props blown toward face.

Coke on all exposures and roof. A X-cut started on left 30 feet from face has water at the face and coke blisters on roof. At the face of the room 2 shot holes have explosive charges and wires protruding, but no stamping.

Room No. 21. Loaded car at face and 5 cars of loose coal.

Large prop blown against face. Roof blistered. Coke on top of car.

One body found here.

Room No. 22. Face cleaned up; coke on face, roof, ribs

and bottom. Body found here. In a X-cut 20 feet back of face on right a loaded car was found. Coke blisters on roof, ribs, car and bottom. Coal measures 8' 5" thick here. 3 carloads loose coal at face of X-cut.

(See page 57 for sketch of rooms, 22, 23 and 24.)

Room No. 23. Loaded car 15 feet from face. 3 carloads loose

coal down at face. 15 to 20 props blown near face. 2 miners' caps found at face. Coke blisters on roof, coke on face, ribs, bottom and car.

Room No. 24. Loaded car standing against face. Some of the large coal had fallen from the face on top of the loaded car. A carload of loose coal down at the face. The right center hole had been drilled but not charged. Coke on roof. A plunge battery found about 20 feet from the face. Coke on all exposures. Granular coke, covered with soot, on floor. Miner's cap found at face. Brattice cloth attached to prop near car was charred. 3 sticks of Monobel were found on left rib about 20 feet from face. 4 sticks of the explosive had burned, leaving parts of the charred wrappers on the floor.

Room No. 25. Car at face 1/4 loaded. Body found on right rib opposite car. 3 carloads loose coal at the face. Many large props standing. A number of props blown towards face. Coke on all exposures and roof. Bodies of 5 men were found in this room, some of whom were supposed to have been engaged in reinforcing the timbering. 1 Baldwin and 1 Justrige carbide lamp found on floor near car. Flask of carbide found near car. Check No. 499 on shot paper wrapper, wrapped with wire. 30 feet outby loaded car is an empty car under a heavy fall. The track in this room opposite the last X-cut was blown south and broken up.

20 feet from entry. The lead mule was facing inby and the following mule was facing outby, with the connecting traces around a standing prop.

In a X-cut at the face of No. 12 room at right empty car was found. Loose coal down at face on right side. In the left rib a shot hole was partially tamped with two wires hanging out of same. 2 bodies found at the face of this place, which was wet from seeping from roof. No evidence of heat observed. Coke found on roof 20 feet from face of room No. 12.

Between rooms 11 and 12 three bodies were found, Numbers 136, 137 and 138. An empty car was found between these rooms, off the track. The stepping in front of room 11 had been blown east.

Going from room No. 10 off 2nd ~~off~~ east ~~mining~~ machine was found on truck in room No. 11. Reel off machine about 80 feet from face. Face of room No. 11 clear, not undercut. No coal down. Cable attached to wires.

Timber and props blown against the face of room No. 10. X-cut at face on right driven in 20 feet; loaded car at face; no loose coal down. Check No. 426 found. Place cleaned up; gas cap $\frac{1}{8}$ inch at face of room, 18 inches from roof. ~~at~~ Coke on roof at face and on inby

In the mouth of room No. 24 is a mining machine on a truck which is off the track, apparently blown south. A pulley from the driving end of the machine had been blown ~~xx~~ to room 25 and up the room 25 feet.

The track between rooms 24 and 25 was torn up.

(See page 61 for sketch.)

Proceeding to the west side off the south entry:

Room No. 25. Water standing at the face. Place not under-
out; no coal down. Props blown out. Soot on ribs and face. At last
X-out to right coke on ribs.

Room No. 24. Loaded car at face. 5 carloads loose coal
down. Soot on all exposures near face. X-out at face to right.

Room No. 23. Not working. Coke on face. X-out at face
to right. A number of falls in this room.

Room No. 22. Not working. X-out at face to right. Soot
on all exposures near face.

Room No. 21. Not working. Driven up to line; cut off at
face. Soot on exposures at face. Heavy fall for 100 feet back from

face.

Retreated to room 19, Main south entry, and proceeded to stopping between rooms 18 and 19. Stopping at this point, blown to west against rib. Body of mule found at mouth of room No. 18.

At mouth of room No. 16, 2 dead mules were found, and a trip of 19 loaded cars extending to within 20 feet of room No. 13. Cars 6 and 7 upset to east; one loaded car in front of room No. 14 turned over to west, and one loaded car across the track, blown towards the west. (See page 65.) At outby end of loaded trip endgate was bent inby and debris on bumpers of car. A switch stand resting against the car had been blown inby 50 feet.

At mouth of room No. 13 a pile of mine props had not been disturbed.

Proceeding up room 17 of south entry:

2 mules in mouth of room No. 17, 10 and 20 feet respectively from the mouth of the room. Two bodies found here.

The face of room No. 17 connects with the first left air course west. Large pile of debris blown against west rib of the air course.

No signs of heat. Crew C had been at this point.

Track leading from first left to face of room No. 17 blown inby on the air course; that is, the track was blown towards the face of first left air course.

Second X-cut beyond room No. 17 had stone stopping blown west.

Face of 1st left west air course; 20 feet from face empty car found off the track. Car reported to have been off the track prior to the explosion. A number of ties were bunched against the outby side of the car, they having been blown inby. It appears that the track had been torn up in this entry, leaving the ties in their normal position prior to the explosion. At the face of the entry was standing water.

15 feet back from the face of the 1st left air course is a slant X-cut into the entry. In this X-cut were 2 cars, one empty and the other being loaded with sand and several bags of cement.

Face of 1st left entry west. No loose coal down, loaded car at face with 5-ton electric motor attached. Trolley pole of motor hooked down; power cable attached to motor and leading to the entry.

No evidence of heat or disturbance here. 3 bodies reported as having

been found at this point.

Opposite the break-through above mentioned was found a box containing 15 detonators and a coil of fuse which had the powder burned out of it. One stick of Monobel was found near the detonators and scorched pieces of shot paper. The canvas brattice in this place had been blown down.

75 feet outby the last X-cut coke was found on props and roof for a distance covering 4 X-cuts from the face.

Stopping in the X-cut just inby No. 19 room was blown west against the rib.

Room No. 19 off 1st left west. Car at face one-fourth loaded. Coke granules on roof and props, blisters of coke on roof 20 feet from face. A barrel one-half full of water near face. 3 sticks of Monobel and a coil of fuse found. 25 feet back from face is a X-cut on right having coke granules on each rib.

Room No. 18. (See page 71 for sketch.) 2 cars near the face, the one nearest being empty and off the track, the other having been turned over on its side, apparently one-half loaded, and having check No. 473. Body No. 62 was found near these cars. Face was

undercut by machine. No loose coal down. One right center hole drilled but not charged. Coke on face and on roof.

Room No. 17. 3 cars loose coal down; empty car off the track 40 feet back from face. Standing water at the face. No signs of heat near face. Coke granules on props 25 feet back from face. Canvas all down except 10 feet at the face. Backs of 4 detonators found near empty car.

Room No. 16. Loaded car at face. Chalk marks on car -- "G - 5/13/14, 4:05 a. m. H. D. J.", indicating that crew G had been at this point. While party was making investigations an undiscovered body was found on the right rib 20 feet from the face of room, lying on face, head towards the face of the room. Check No. 470. No evidence of heat at face. Heavy fall of roof from 20 feet back of face for 60 feet. 75 feet from face granular coke on north rib. Ties at this point had been blown towards the face.

Room No. 15. Face cleaned up. Hole in left center and right of center, 4' 6" and 5' respectively. Trackman's rail bar on rail. X-cut started on left. Soot on props.

Room No. 14. Loaded car at face. 2 cars loose coal at face. No evidence of heat at face. 30 feet back from face coals (splashes?) splashes on roof and on props. Water in room 50 feet back from face.

Room No. 13. Face cleaned up. No evidence of heat. Heavy fall full width of room within 10 feet of face and 60 feet back. Odor of decaying flesh apparent in this room; probably a body under the fall.

Room No. 12. Loaded car 15 feet from face. Bad roof and falls in room, some 15 feet high.

Room No. 11. Loaded car at face. One-half carload loose coal down at face. Water at face. No evidence of heat. Canvas all down, some of which is burned to a crisp. Gas bubbling out of floor at last X-cut to right.

Room No. 10. Machine at face; had undercut the left face. Machine had been withdrawn, resting in a pool of water. truck Machine/back about 25 feet with its reel detached. 2 split props near machine truck had splinters decidedly charred. The track opposite the last break-through on right had been blown towards the left rib and the

floor in the X-cut had been swept clean in one section. (See page 77 for sketch.)

On the 1st left west entry between rooms 10 and 11 stopping was blown to west rib of entry.

Encountered water from rooms 8 to 5, necessitating detour through rooms 8 to 5.

Room No. 5. 10 empty cars standing in the mouth of room.

(See subsequent notes for full details.)

On 1st left entry west just beyond room 5 an empty car was found turned upside down in the X-cut near the rib of the entry.

Party came out of mine at 12 noon for lunch.

Following party reentered the shaft at 2:30 p. m.:

Henry,
Paul,
Bayles,
Kent,
J. M. Clark (agent of the landlord),
Cobb,)
Lambert,)
Holliday,) District mine inspectors.
Muir,)
Murray)
J. K. Anderson, mining engineer, temporarily
employed by the State Mining Department.

Proceeding along main west entry between 1st and 2nd right:

The overcast was partially wrecked by ~~explosive~~ going inby.

2nd left off main west: On parting in 2nd left west a wreck of 22 cars almost clogs the entry, leaving only space enough to crawl over. The parting extends up to No. 2 room.

Stoppings on entry between rooms 2 and 3 are O. K. Stopping in front of No. 4 room O. K. Stopping in front of No. 8 room also O. K. Water found on entry from room 8 to points inby, being 2 feet deep at room 8 and increasing in depth going inby.

Room No. 8 Inby of room neck we found 5 sticks of Monobel, a box of 16 detonators, 2 oil lamps, check No. 607, one coil of fuse. Loaded car at face. Some loose coal down. Water in face. No evidence of heat. Things in apparent normal condition. Canvas up. Miner's coat hanging on prop. No loose coal. Gas cap indicated at face. Fuse and caps in hole in right rib. One stick Monobel in separate hole along right rib.

Room No. 7. Loaded car at face. Some loose coal down. No gas cap indicated near face. Brattice cloth within 8 feet of face. No disturbance; apparently normal conditions.

Room No. 6. Not working. Full of water.

Room No. 5. 5 miners' caps found 25 feet inside of room.

Canvas curtain within 15 feet of face. Water at face. A water pipe leading from this pool of water evidently to pump or syphon. No gas indicated. 4 sticks of Monobel and 15 caps found along right rib. 40 feet back from face is X-out into No. 6 room.

Room No. 4. Completed. Track out of last 75 feet. Curtain still up.

Room No. 3. Finished; track out.

Room No. 2. Finished; no disturbance.

Room No. 1. Loaded car at face. Undiscovered body of man found by our party lying on face by a shovel, between a partially loaded car and face of room. Check No. 548 on car. From the position of the body it would appear that the man was engaged in shoveling coal when the explosion occurred and that he threw himself on his face and never arose. Canvas in the room in condition up to the middle of the car; no disturbance. 3 sticks of Monobel, roll of fuse and roll of shot paper on right rib 60 feet back from face.

Upon retreating from room No. 1 the party passed through a short X-cut to the main west air course and proceeded westward on the air course. At the 3d left west the regulator on the air course of the main west left was found O. K.

Third left west: Proceeding up 3d west left entry, the stopping in 1st left was blown west. Stopping in second X-cut had hole blown in it east; third X-cut left blown west; fourth X-cut left blown west. Water from No. 5 room to No. 8 room, where it is up to top of boots.

Room No. 5. Full of water. Coke blisters on roof at mouth of room.

Book 2, page 87.

Room 4 - coke on roof from mouth to within 6 ft. of face.

Room driven 30 ft. Canvas blown down.

Room 3 - No coal down. Coke from first cross cut to 20 ft. of face on roof. Canvas all down.

Room 2 finished - Gas cap indicated 10 ft. from face. Cut through at face to right started. No loose coal. Canvas all down. Water standing along most of room except at face. Coke on right rib at last open break through to right.

Room 1 - Face 8 ft. wide undercut on bench. 10 bushels of loose coal cuttings at face. Empty car 15 ft. back of face. Soot on ribs. Coke blisters on rib 40 ft. back from face. Tops of posts at cross cut have coked. Props in front of last cross cut have coked on south exposure.

Blind driven off No. 1 room going north has all but 6 ft. of canvas down. 20 ft. back from the face of the blind room is blistered to its mouth. Face driven in 60 ft.

Proceeding up main west air course to 4 ft. west all stoppings between 3rd and 4th left on main west appear to be blown south. (see subsequent notes for confirmation).

Fourth left entry not working. Heavy falls near mouth. Did not go into fourth left.

Stopping in first cross cut inby 4th left blown south. Second stopping inby 4th left blown south (?)

Water at face of main west left air course.

Face of main west entry, water extending from face 40 ft. back. No coal down.

Fourth right off main west roof blistered. No gas cap indicated. Coke on the ribs. No canvas in evidence.

Main west entry between old 4th right and new 4th right is covered with small shale hiding the track between these points. Men have been engaged in brushing the roof.

Main west right air course - pool of water from face to last cross cut.

On main west entry inby old fourth left, a machine and car of ties and a water box on track, the machine being furtherest inby.

Old fourth right abandoned, water at face. No heat or disturbance in evidence.

Old fourth right air course, water at the face. The water apparently had been blown out by the force and had run back towards the face leaving gullies on the pavement.

All stoppings on main west right air course blown south on to the main west entry between 3rd and 4th rights.

Third right stopping between 3rd right and 3rd right air course, at main west air course, blown east (?) (See sketch)

Face of 3rd right, water at face. Gas feeders at face making a noise. Ties blown toward face. No heat in evidence at face.

Room 12, 10 ft. deep. Coke granules on face.

Between rooms 11 and 12 ties on the track.

Room 11 is driven in 10 ft. Water at face. Slight coke on ribs with some soot.

Man No. 100 found in entry at cross cut to air course.

Face of 3rd right air course, water for 75 ft. Gas feeders making noise in water.

Haulage slant near face, the track lifted by a tie driven under the track; ties from south-west direction.

Room 10 full of water, extending on entry 40 ft. Room driven in 12 ft.

Between rooms 9 and 10, stopping blown south and to 3 right.

Room 9 driven 15 ft. full of water. End of trolley intact; soot here.

Room 8, slight coke on ribs and soot at face. Place 8 ft. deep full of water.

Between rooms 7 and 8, stopping blown south-west against room of 3rd right entry.

Room 7 in 20 ft. coke blisters from mouth to 5 ft. of face and on ribs near roof. Room full of water, canvas all up.

Room 6 driven in 70 ft. Coke and carbon on left rib at last

cross cut to left. / One-quarter car loose coal at face; explosives box at left rib charred.

Room 5, last cross cut to right, coked, props coked, ribs coked from floor up to 3 ft. of face. Face clean up.

Room 4 clean up at face; coke and soot on face.

Room 3 clean up at face. Loaded car 25 ft. from face under a heavy fall; coke on roof 10 ft. from face and on ribs. Last cross cut from room 3 to room 2 coked on ribs.

Room 2, coal down at face and partly loaded out. Coke blisters on roof 10 ft. from face. Left rib at cross cut coked. Heavy fall of roof 50 ft. from face.

Room 1, bad fall and dangerous roof for 60 ft. at last cross cut.

On parting on main west entry just in by second left on the double parting, is located a 10 ton motor and 32 cars part loaded and part empty, being jammed in such a manner as to close the entry, making it difficult to climb through the wreckage. A small motor on empty track, cars jammed near upper end against left or south rib. Force apparently coming out of the entry.

Second right off main west just inside second right, 4 empty cars wrecked, three of which turned over.

First stopping on right built of stone. A part of the stopping, or the coal on the rib near the stopping had been blown south, otherwise the stopping was not broken.

Between rooms 1 and 2, 4 loaded cars on track.

Between rooms 3 and 4 stopping blown to the west.

Between rooms 6 and 7, stoppings blown to the west.

In mouth of room 7 are 6 empty cars off the track, two being on their side, blown inby.

Stopping at room 8 blown/west.

Stopping of rooms 9 and 10 blown west.

Loaded car on entry atmouth of #10 room under a fall of roof.

Three loaded cars on entry at mouth of No. 13 room.

Face of second right has water for 25 ft. from face. Can~~vas~~ is up for 40 ft. Coke on ribs at last cross cut.

Air course at second right full of water at face, extending back for 100 ft.

Room 13 off second ~~right~~ air course water in room, motor and two loaded cars in mouth of room; normal conditions; room is in 25 ft.

Room 12 off second right air course. A cross cut started on the right has a sack off right rib containing 26 sticks of Monobel and coil of fuse. Nearby the sack was a box containing 6 detonator caps. Room is driven in 50 ft.; mining machine at entrance of room off the track full of water.

On air course in front of room 13, coked on west rib and on outby side of prop.

On air course just outby room 12, coked on rib exposure to north.

Room 14 off second right entry driven in 40 ft. Canvas all up. Face clean up; no heat in evidence.

Room 13, face clean up; water at face. Canvas down for 30 ft. at entrance. Canvas up most of way to within 10 ft. of face. No heat in evidence in room. Box 20 ft. inside of room had 5 sticks of Monobel burned leaving parts of wrappers. Roll of shot paper partly burned in same box. Coke on ribs 20 ft. up room.

Room 12, face undercut by machine. Car at face loaded with
bug dust; debrey against face; no neat in evidence at face; canvas within
15 ft. of face. Canvas at mouth of room down for 30 ft. Water at left
face; side coked. Blisters at mouth for 20 ft.

Room 11, face clean up; loaded car at face; water at face;
coke on roof for 20 ft. back from face. 30 ft. from face cross cut started
to right has car three-quarters loaded. Coke on ribs in cross cut which
is driven in 10 ft. (94)

Book 2, page 94.

Coke on top of props at mouth of X-cut facing outby.

Room No. 10. Face cleaned up; a little water at face. No heat in evidence at face. Fall of roof 30 feet from face. Canvas all down. 40 feet from face coke granules on outby sides of props.

Room No. 9. Heavy fall at last X-cut to right. Face had been shot; large lumps of coal down to right of center. Coke on inby props 10 feet from face. Heavy falls in this room, some of which occurred prior to explosion, there being dust on top of falls. Props blown to the east about 30 feet inside of room, and 4 props blown out of room to east side of 2nd right. X-cut started 30 feet from face on right rib and driven in 20 feet. Coke on ribs at mouth of X-cut and on roof of room in front of X-cut.

In the X-cut between rooms 10 and 11 4 sticks of Monobel and 3 detonators were found.

Room No. 8. Car at face half loaded. Coke on ribs near face. Heavy fall for 150 feet back from face.

Room No. 7. Worked out; heavy falls ~~at~~ face.

Room No. 6. Worked out; heavy falls ~~at~~ face. Going out
room 7, ~~made~~ on ~~18~~by rib exposures.

Party came out of mine at 6:15 p. m., May 13.

At 8:05 p. m. descended No. 5 shaft at Sewell seam to go to
No. 6 shaft but encountered water on the north entry and returned to
surface at 8:30 p. m.

At the Sewell landing in No. 5 shaft the timbers are covered
with mud on the west exposures.

May 14, 1914.

At 8:40 a. m. the following party descended No. 6 shaft:

Chief Henry	
Holliday)
Lambert)
Cobb) Inspectors
Carver)
Elenkinsopp)
Muir)
Mining Engineer Anderson,	
E. M. Kent	
Thomas Denalson	
William Gillie	
J. W. Paul	

Visited the motor pit near shaft bottom where the bodies of
three men had been found, suffocated, they being the superintendent,

the electrician, and

Visited a point on the manway east of the shaft where the bodies of two men were found, a father and son. One partially-consumed miners cap and two carbide lamps were found at the point where the bodies had been found. The burned cap explains the burning on the face of the elder of the two men, the cap evidently having taken fire from the flame of the carbide lamp. The man's face was burned and part of his left ear consumed.

The party ascended to surface ^{and} at 9:45 a. m. Inspectors Blankinsopp, Lambert, Superintendent Kent and J. W. Paul descended No. 5 shaft.

Second Right off Main West. Door timbers at mouth blown 30 feet inby to first X-cut to right. Empty car standing crosswise of track in front of first X-cut to right. Pieces of door and hinge at this point. (See sketch No. page 88.)

On the main west the first X-cut inby first right is blown to the north. The second and third X-cuts are intact. The 4th X-cut has stopping blown north and to the west. (See pages 84 and 82 for sketch first right off main west.)

The first ~~east~~ haulage near No. 5 shaft had motor, 11 loaded cars and a water car; about 15 feet out by the motor was found the motor-man lying on the track. The east end of the water car was caved in by a force acting from the east.

Stable on the ~~main~~ north contained 18 stalls, made of corrugated iron supported on wooden timbers. A number of portions of the stalls were detached by a force acting northward and at the north entrance three of the portions had been blown southward. A steel wheelbarrow had been blown against offset at the north end by a force acting northward. (See sketch page 80.)

Main North Entry.

No. 1 room is driven through to the first right air course, and has a number of heavy falls.

Room No. 2 is fallen its entire length with the exception of near its entrance. Props in these rooms were blown towards the mouths. (See sketch No. , page 78.)

May 15, 1914.

Bottom of No. 5 shaft, going west. The first seven collars

were blown down and props canted towards the shaft. The next 7 collars

O. K. Collar No. 8 at first south; prop was canted towards shaft, the collar remaining in its original position.

At second X-cut to left, prop blown north on to loaded car.

Collar down and resting on loaded cars moved outby.

Between second and third X-cuts 2 sets of timbers blown down, apparently moved eastwardly.

At 3d X-cut (slant) the trolley is O. K. in a trough; timber in this slant not disturbed.

The loaded track on the south is full of loaded cars; the loaded track on the north one-half full of loaded cars.

Welf safety lamp No. 70 was reported to have been found in the first X-cut west of shaft on left.

(Pages 72 and 74, sketch of main west haulage and air course in vicinity of No. 5 shaft.)

(Main east entries -- See pages 68-70 for sketch.)

Completion of notes in Book 2.

Book No. 3.

The notes in this book are largely sketches and wherein these conflict with previous notes they should be given precedence.

Page 73, May 21.

The mules, of which there were 17 killed, shortly after being located were treated with chloride of lime and a large canvas placed over each on which was poured a solution of chloride of lime dissolved in water. To remove the carcasses of mules it was necessary that they be transported over falls and much wreckage, and to expedite getting them out prior to cleaning up the mine Dan Chane, a colored man, was employed at \$25 per head to remove them. Large boxes were made, sufficient to hold two mules each, and taken into the mine. Chane with his crew of men dismembered the mules with clevers and knives, cutting them into fragments, which permitted their transportation on stretchers to the mule boxes. The first mules were brought out the afternoon of May 21.

May 22, 1914.

Early in the morning workmen reached the bottom of No. 6 shaft

between the Sewell and Beckley seams. The work of cleaning up this shaft had occupied 3 days and 2 nights of almost continuous labor. The workmen descended in a bucket from the surface to No. 6 shaft, using an auxiliary hoist engine, and by means of a separate rope controlled by a separate pony hoist the wreckage was dislodged. It was reported on this day by Dr. Roller that on May 18 a man died at the McKendree hospital, who had his skull injured in No. 6 shaft, making the total loss 161.

On May 23 there were 2 bodies still remaining in No. 5 shaft which had not been found.

Three cars of coal from No. 5 shaft, which were in the mine at the time of the explosion, had been raised to the surface and placed in sacks preparatory to shipping to the experimental mine at Bruceton.

June 23.

The following statement was obtained from Mr. Hanson:

Car 7 was at Matoaka, W. Va., on the track of the Norfolk & Western Railway on April 28, when at 3 p. m. he received word from the Virginian agent that an explosion had occurred at Eccles, and was advised

by the agent that in thirty-five minutes he would have an engine to take Car 7 to Eccles. Henson arranged with the Norfolk & Western to transfer the car to the Virginian Railway, and shortly afterward a worktrain picked up the car and hauled it to Eccles, arriving at 6 p. m. All men in No. 6 shaft had been accounted for and all live men and three dead men removed. Smoke was coming out of No. 5 shaft, but none out of No. 6 shaft. Men were engaged in an effort to remove an explosion door from the funnel of No. 5 fan, and then later covered the top of No. 5 shaft with T-rails, plank, canvas and sand.

At 9:15 p. m. the fan had started as an exhaust and the men descended No. 6 shaft and removed the remaining 5 dead bodies.

Work of establishing the ventilation appears to have proceeded slowly without definite plans for several hours following the explosion. Sometime on the forenoon of April 29 an air lock was started under construction at the top of No. 5 shaft and completed about noon. An effort was made by the engineer to hoist the loaded cage in No. 5 shaft but he was unable to dislodge it until he had available 140 lbs. steam pressure. After being dislodged the cage was raised and then lowered to a point

below the Sewell seam to ascertain if it had clear passage. The loaded car was taken off and the first inspection crew started down the shaft at 1.10 p. m.

Dr. R. D. Roller, Jr., stated that by 5 p. m. April 28 before Car 7 arrived all the live and injured men were taken out of No. 6 shaft, and that he did not find any men who needed artificial respiration. Those who were affected by the after-damp in No. 6 shaft revived by breathing normal air.

At 3:20 p. m. Paul left Eccles for Pittsburgh via Charleston. Car 7 planned to leave on May 25 for Bluefield.