

**West Virginia Office of Miners' Health, Safety & Training**

**July 29, 2016**

**Report of Investigation  
Coal Mine Fatality  
(Explosion)**

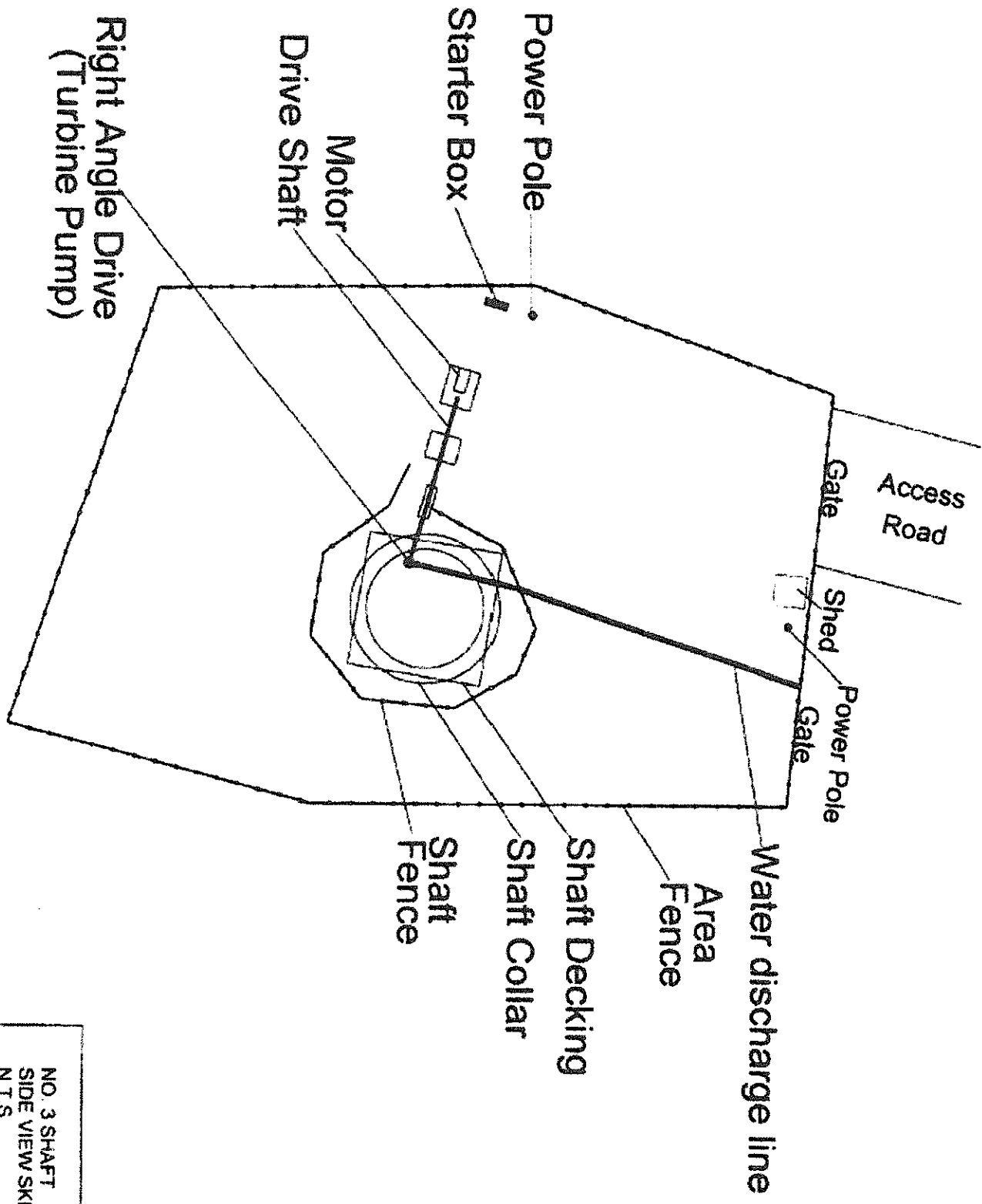
**Spartan Mining Company, LLC  
Road Fork #51 Mine  
Permit Number U-4001-05A**

**Region 2  
891 Stewart Street  
Welch, West Virginia 24801**

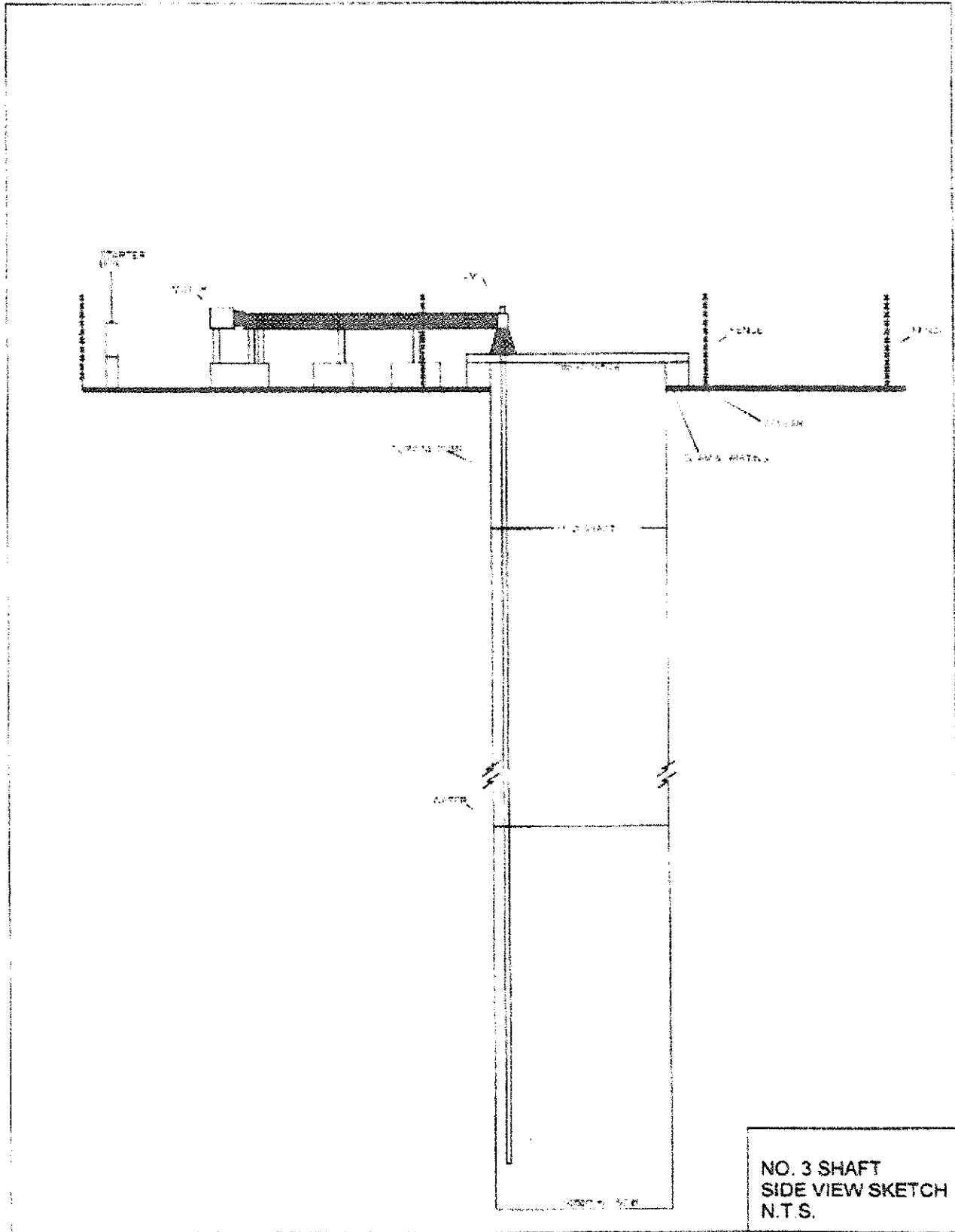
**John T. O'Brien, Inspector-at-Large**

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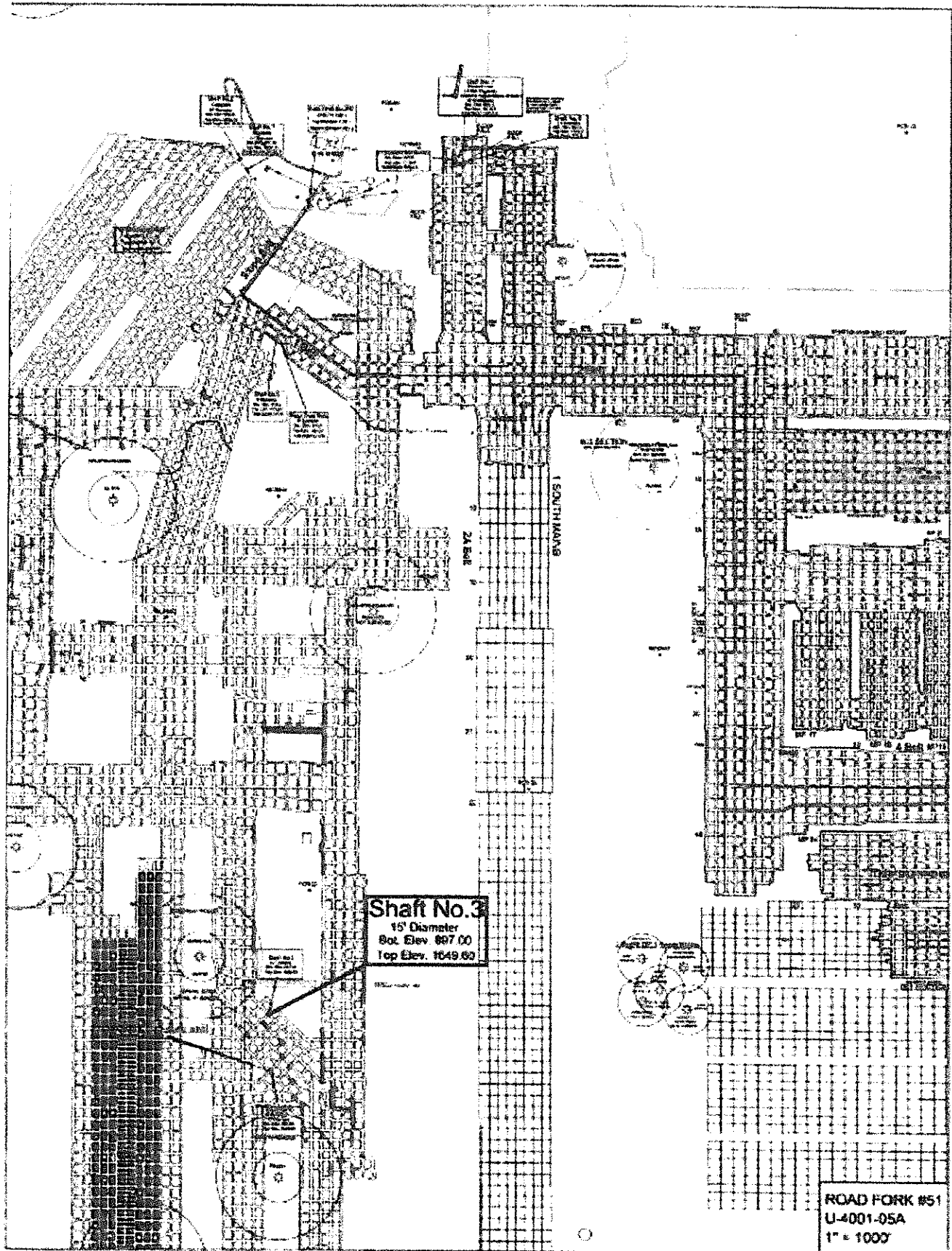
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NO. 3 SHAFT  
SIDE VIEW SKETCH  
N.T.S.



NO. 3 SHAFT  
SIDE VIEW SKETCH  
N.T.S.



# July 29, 2016 Accident to Transport Timeline

Accident  
Occurred  
• Before 12:11  
p.m.

Mine  
Dispatcher  
Calls 911  
• 12:11 p.m.

Ambulance  
Enroute  
• 12:16 p.m.

Ambulance  
to LZ  
• 12:38 p.m.

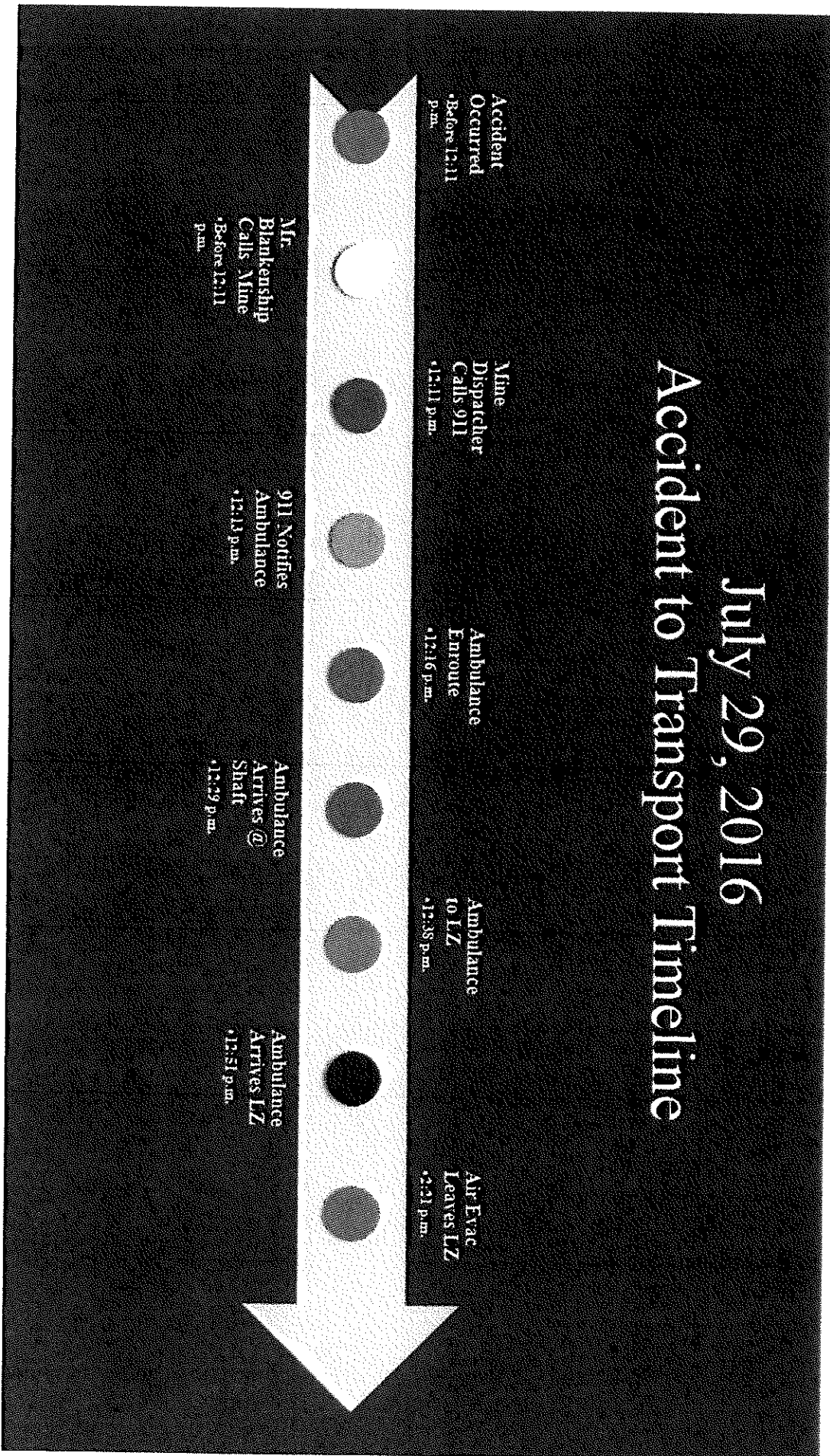
Air Evac  
Leaves LZ  
• 1:01 p.m.

Mine  
Blankenship  
Calls Mine  
• Before 12:11  
p.m.

911 Notifies  
Ambulance  
• 12:13 p.m.

Ambulance  
Arrives @  
Shaft  
• 12:29 p.m.

Ambulance  
Arrives LZ  
• 12:51 p.m.



## GENERAL INFORMATION

The Spartan Mining Company, Road Fork #51 Mine, Permit No. U00400105A is located in Wyoming County near Pineville, West Virginia. The mine currently employs 145 miners divvied up over three shifts over a twenty-four hour day. The coal is being extracted from the Pocahontas No. 3 seam and averages 48 inches in height. Coal is transported from the working sections via conveyor belts to a preparation plant located adjacent to the mine slope. Air enters and exits the workings of the mine through two intake shafts, two return shafts and the slope. Also, there are four shafts within the sealed areas of the mine. Three of the four are capped at the top of the shafts and the other, the No. 3 shaft, is sealed with water at the bottom of the shaft.

The No. 3 shaft is sited off Rt. 16 South approximately four miles from Pineville, West Virginia. This 15' diameter ventilation shaft was excavated in the mid 1970's by using raise bore drilling. The No. 3 shaft intersects the mine in an area that is sealed. The shaft opening was covered with grating positioned on top of I-beams. Water accumulates at the bottom of the No. 3 shaft and forms a seal. Keeping the water at proper level is critical to prevent excessive amounts of water from accumulating against seals and contain mine gases at the seals within safe concentrations. The water level in the No. 3 shaft is maintained by use of an eight-inch diameter turbine pump located in the shaft. A piezometer is used to help calculate the water level.

## DESCRIPTION

On July 26, 2016, Brent Pritchard went to the No. 3 shaft about 6:00 p.m. or 7:00 p.m. to check the water level per a request from mine foreman Ronald Miller. Mr. Pritchard observed sections of the guarding covering the drive shaft and the angle drive were loose and rattling. The guarding is fabricated from angle iron and expanded metal. The guarding is held in place by bolts inserted into threaded anchor blocks and then tightened. Mr. Pritchard surmised this loose guarding was probably caused by vibrations. Mr. Prichard called Mr. Miller to inform him of his findings. Mr. Miller said he would get someone to check it. Afterwards, Mr. Pritchard continued his other duties.

On the morning of July 27, 2016, Mr. Miller informed the maintenance superintendent, Charles "Chuck" Blankenship, Jr., of the loose guarding at the No. 3 shaft pump installation. Mr. Blankenship traveled to the No. 3 shaft on his way home from work that same day to evaluate the damage to the guarding. Mr. Blankenship determined several threaded anchor blocks had broken off and needed re-welding. The extent of the damage was more than he could repair alone.

On July 28, 2016, Mr. Blankenship's workload did not provide an opportunity to repair the loose guarding at the No. 3 shaft pump installation.

On the morning of July 29, 2016, a chance to perform the repairs afforded itself. Mr. Blankenship enlisted the aid of Donald "Duck" Workman, chief electrician, to take care of the loose guarding. They commandeered a welding truck parked at the preparation plant adjacent to the mine. They gathered tools and materials necessary to make the repairs and proceeded to the No. 3 shaft to make the repairs to the guarding.

Mr. Workman began preparing to cut and weld while Mr. Blankenship made methane examinations at the top of the shaft. No methane was detected. Mr. Blankenship testified that he did not check the methane levels within the No. 3 shaft. The job of reattaching the threaded anchor blocks required welding through openings in the expanded metal. This was achieved by Mr. Workman holding the blocks in place with a slate bar while Mr. Blankenship welded them into place. They repaired the damaged guarding covering the drive shaft first and then proceeded to repair the damaged guarding over the right angle drive. The right angle drive and its guarding is located over the No. 3 shaft. They opted to begin the repairs on the side facing the access road gate and stepped upon the grating over the shaft at the right angle drive. Two threaded anchor blocks were welded into place. Mr. Blankenship then stepped off the grating and moved to the opposite side of the guarding. He laid the electrode holder and welding hood on a nearby concrete pier and Mr. Workman remained in position on the grating on the side facing the access road gate.

While Mr. Blankenship was preparing to remove the guard in order to complete the welding he heard a noise in the shaft that he described as sounding like a jet engine taking off. Mr. Blankenship screamed at Mr. Workman to run then he turned and ran through the gate adjacent to the work area. Mr. Blankenship heard a loud noise at this time and when he looked back toward the shaft he saw a blue flame exiting the shaft and metal being blown into the air with Mr. Workman airborne in a prone



position about five to six feet off the ground. Mr. Blankenship then lost sight of Mr. Workman and feared he had fallen into the shaft. Mr. Blankenship screamed for Mr. Workman who then sat up from his position on top of the expanded metal at the right angle drive. Mr. Workman then got up and walked to the pump starter box and sat down on a pallet. It was apparent that Mr. Workman was injured as a result of the explosion and Mr. Blankenship used his cell phone to call the mine and he spoke with Alfred "Butch" Cobb, Jr., the mine clerk/purchaser. Mr. Blankenship stressed to Mr. Cobb that he needed an ambulance and needed help at once. Mr. Cobb then notified Reed Donahoe, the mine superintendent of the call. Mr. Donahoe notified the safety manager, Theodore "Perry" Ryan, of the situation. Mr. Cobb and Mr. Ryan promptly left the mine and traveled to the accident site. Concurrently, George Craft, the dispatcher, called 911 at 12:11 p.m. to inform them of the situation. Mr. Craft then made the other required calls concerning the accident. The mine and industrial accident emergency hotline was not notified of this accident until 12:47 p.m.

Meanwhile, at the accident site, Mr. Blankenship looked in the truck for first aid materials. Not finding any, he grabbed a shirt out of the truck and placed it over Mr. Workman's head trying to control bleeding from a significant head wound. Mr. Blankenship stayed with Mr. Workman until the EMS personnel arrived at 12:29 p.m. The EMS personnel attended to Mr. Workman who was then loaded onto a gurney, placed into an ambulance and transported to a medical helicopter at the Pinnacle Mine's parking lot on Pinnacle Creek road. Mr. Workman was then flown to St. Mary's Hospital in Huntington, WV. Mr. Workman ultimately succumbed due to his injuries on August 4, 2016.

### **FINDINGS OF FACT**

1. The No. 3 shaft intersects the Roadfork No. 51 Mine in a sealed area.
2. The bottom of the No. 3 shaft is sealed with water.
3. The amount of water in the No. 3 shaft does impact the active mine workings.
4. A turbine pump is installed in the No. 3 shaft to maintain proper water levels to keep excessive water from accumulating against the seals and to maintain safe concentrations of gases at the seals.
5. The water level in the No. 3 shaft is checked on a frequent basis.

6. No means or method was provided to allow employees to ventilate the area inside the No. 3 shaft from the top of the shaft collar to the surface of water.
7. Gas readings were not taken below the top of the No. 3 shaft on the day of accident.
8. Caution signs including "NO SMOKING OR OPEN FLAME WITHIN 100 FT" were attached in multiple locations around the perimeter of the No. 3 shaft fence.
9. Metal cutting and welding work was performed within 100 ft. of the No. 3 shaft.
10. Based upon eyewitness interviews, the explosion at the No. 3 shaft occurred on July 29, 2016 sometime before 12:11 p.m.
11. The call to 911 occurred at 12:11 p.m. on July 29, 2016.
12. The mine dispatcher told 911 that a small explosion had occurred.
13. The mine and industrial accident emergency hotline was notified at 12:47 p.m. on July 29, 2016.
14. OMHST issued a verbal control order over the accident site at the No. 3 shaft at 1:02 p.m. to preserve the accident scene. Thereafter, the accident scene was altered by the coal operator in the following ways:
  - A. The victim's glove was moved;
  - B. The victim's watch was moved; and
  - C. The victim's eyeglasses were moved.
  - D. Weed eating was done on the accident site while the control order was in effect.

### **ENFORCEMENT ACTION**

The following actions were taken as a result of the investigation.

A non-assessed order was issued in accordance with the West Virginia Code Chapter 22, Article 2 Section 68 to preserve evidence until an investigation by the Office of Miners' Health, Safety and Training was completed.

Two special assessed notices of violation were issued to Spartan Mining Company during this investigation.

1. 36-19-7.1 – The operator failed to preserve evidence at the accident site located at the No. 3 Shaft off Route 16, after a Control Order was issued to preserve the accident site. Investigators found that the site had been altered

before the investigation was completed and without the permission of the West Virginia Office of Miners' Health, Safety and Training.

2. 22A-2-66(b) – The operator failed to give immediate notice (within 15 minutes) of an unplanned ignition or explosion of gas or dust to the Mine & Industrial Accident Emergency Operations Center, in that an explosion of methane occurred at the No.3 shaft Rt. 16 pump installation located off Route 16 on July 29, 2016. Notification time to the WVDHSEM was 12:47 pm on July 29, 2016. Management was aware of the event at or before 12:11pm.

Four notices of violation were issued to Spartan Mining Company during this investigation.

1. 36-21-4.1 – There was no record provided by the operator or on file at this mine showing that Charles Blankenship, whose duties require him to use approved gas testing devices to test for methane and oxygen deficiency, has been examined at least annually to test his competency to take such tests.
2. 22A-2-53(c)(3) – The operator of this mine failed to restrict open flames in or about the surface structures at locations where it will not cause fire or explosion. An explosion did occur at the top of the No.3 shaft located off Route 16, while cutting and welding was being performed to the guard of the pump.
3. 22A-2-46 (c) – The operator failed to take suitable precautions to prevent the ignition of methane, coal dust, or other combustible material, in that an explosion did occur during maintenance repairs, while welding and cutting was being performed at the top of the No.3 shaft Rt. 16 pump installation.
4. 22A-2-5(a) – The operator of this mine failed to seal or ventilate the abandoned No.3 shaft, which was involved in a fatal explosion on July 29, 2016.

### **Recommendations**

A plan detailing steps to prevent a similar occurrence was submitted to and approved by OMHST. This plan addressed ventilating the shaft, monitoring methane in the shaft, and performing work in the shaft area.

### **Acknowledgements**

The West Virginia Office of Miners' Health, Safety and Training gratefully acknowledges the cooperation of the employees of the Spartan Mining Company, Road Fork #51 Mine, and the Mine Safety and Health Administration.