

West Virginia Office of Miners' Health, Safety and Training

February 28, 2022

**Report of Fatality
Underground Accident
Pinned By Machinery**

G.M.S. Mine Repair & Maintenance

Permit Number C00001932

Contractor for

Ramaco Resources, LLC

Berwind Deep Mine

Permit No. U00300816

Near Berwind in McDowell County, WV

Region Two

830 Virginia Ave

Welch, WV 24801

Benjamin Hamilton, Inspector-at-Large

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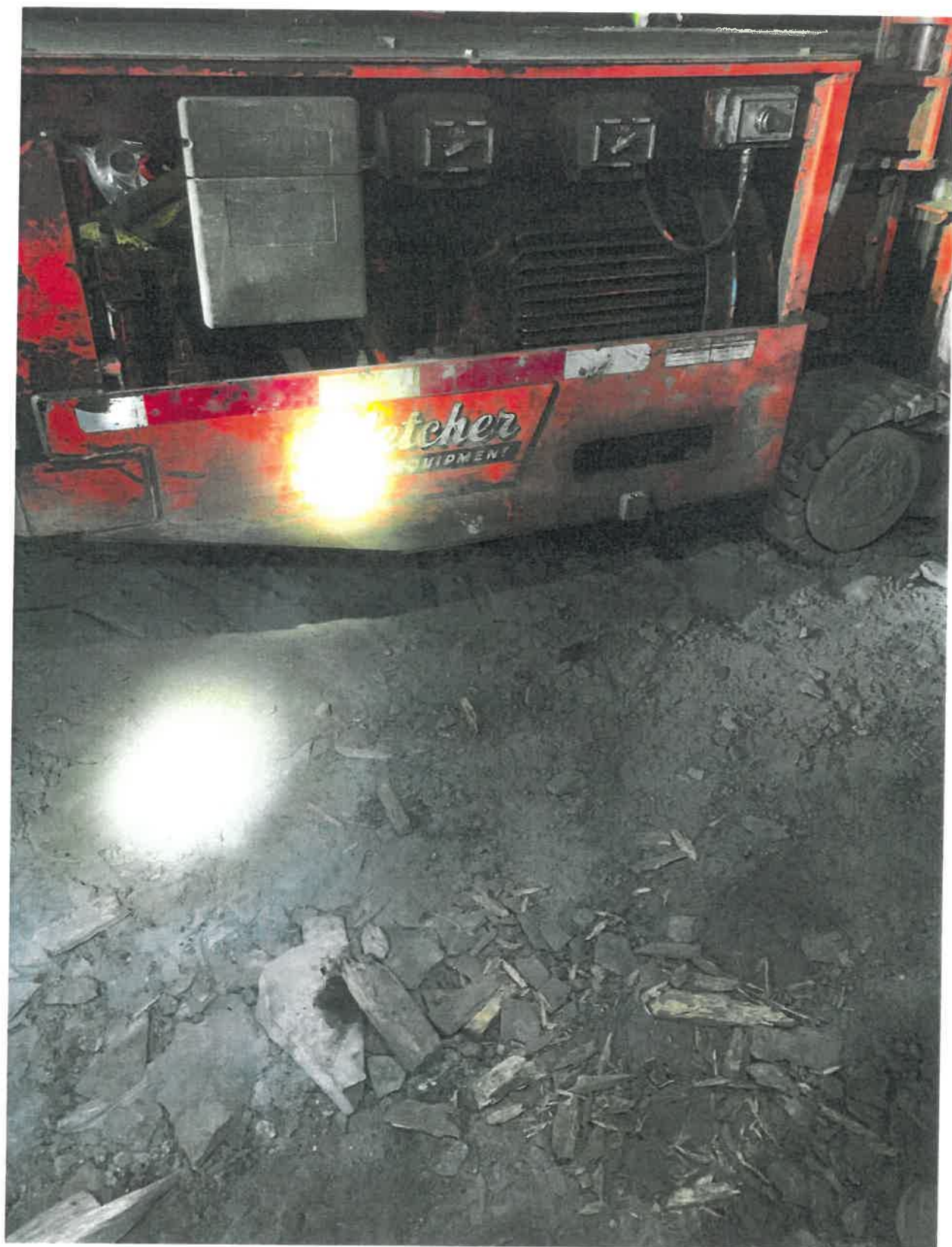
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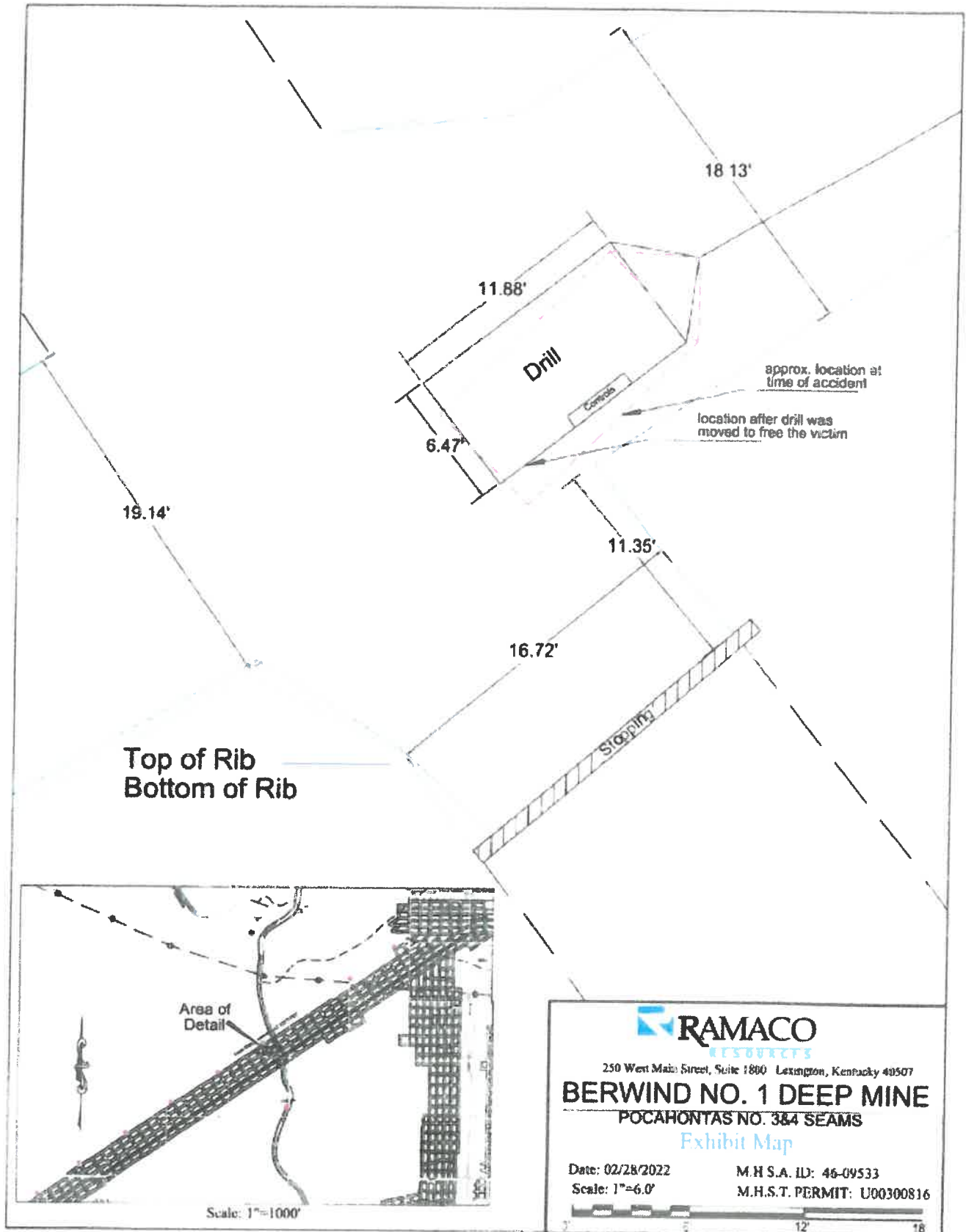
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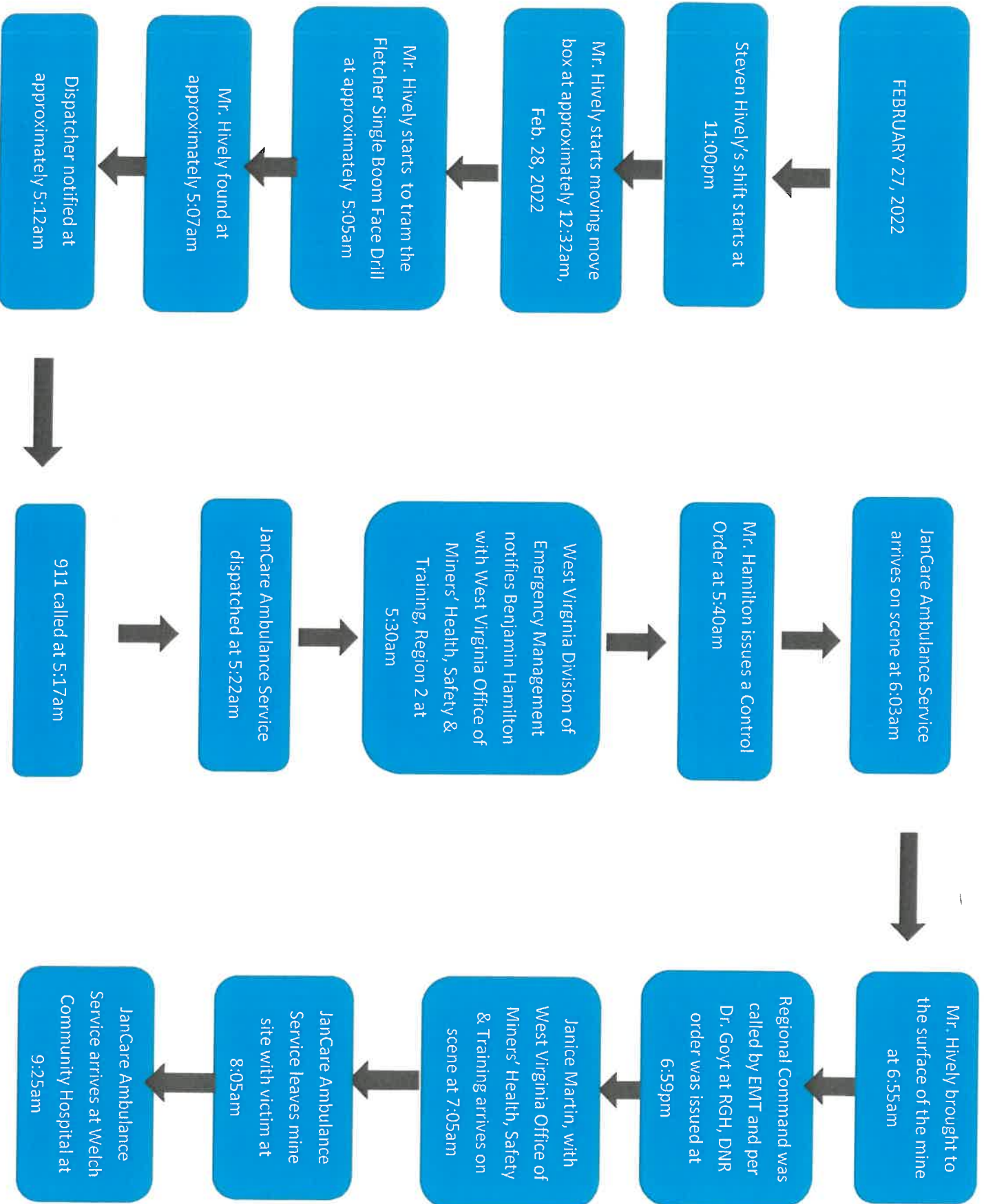


Right, rear of the Fletcher Single Boom Face Drill. Location of the victim's body.



Fletcher Single Boom Face Drill repositioned to the accident scene.





GENERAL INFORMATION

This report is based on an investigation conducted in accordance with Chapter 22A, Article 1, Section 14 of the West Virginia Code.

Steven Howard Hively, an employee of G.M.S. Mine Repair & Maintenance working at the Berwind Deep Mine, was fatally injured following an accident due to being pinned between a Fletcher Single Boom Face Drill and a pillar block corner at approximately 5:06am on February 28, 2022. Mr. Hively was trammng the Fletcher Single Boom Face Drill from crosscut 70, where it had been parked. While trammng, Mr. Hively became pinned between the Fletcher Single Boom Face Drill and a pillar block corner at the left outby corner of this intersection at spad 519.

The Berwind Deep Mine is operated/owned by Ramaco Resources, LLC and located near Berwind in McDowell County, West Virginia. The mine normally produces coal on 2 shifts and does maintenance on a 3rd shift. The Berwind Deep Mine has 49 employees. G.M.S. Mine Repair & Maintenance is a contractor who provides contract labor and services to the Berwind Deep Mine. G.M.S. Mine Repair & Maintenance has 7 employees at this location, working all shifts. G.M.S Mine Repair& Maintenance has approximately 1,100 employees in 11 states working in the coal industry, with approximately 1.6-million-man hours for the 2021 calendar year. Mr. Hively was employed by G.M.S. Mine Repair & Maintenance as a foreman. On February 28, 2022, Mr. Hively was working at the Berwind Deep Mine and his duties were to tram the Fletcher Single Boom Face Drill from crosscut 123 to the surface.

The West Virginia Office of Miners' Health, Safety & Training, Region 2 office was notified at 5:30am on February 28, 2022, by the Mine and Industrial Accident Emergency Operations. A Verbal Control Order was issued by Benjamin Hamilton, Region 2 Inspector At Large, at 5:40am. The West Virginia Office of Miners' Health, Safety & Training immediately started a joint investigation with management from Ramaco Resources LLC Berwind Deep Mine, G.M.S Mine Repair & Maintenance and the Mine Safety and Health Administration.

DESCRIPTION

Mr. Hively started his shift, along with co-worker Bradley Johnson, at 11:00pm on February 27, 2022. Mr. Hively and Mr. Johnson started their shift by taking a scoop and a rubber-tired ride to an area near crosscut 90 and moving the Fletcher Single Boom Face Drill cable, the move box

and the move box cable to connect to the 4 head KVA in order to tram the Fletcher Single Boom Face Drill further outby. Then they took the rubber-tired ride to the crosscut 70. At this point, Mr. Hively got off of the ride to get started tramping the Fletcher Single Boom Face drill. Mr. Johnson drove to the crosscut 71 to turn the ride around and drove the ride back approximately 3 to 4 crosscuts outby. As Mr. Johnson walked back to the Fletcher Single Boom Face Drill, he saw Mr. Hively's light shining on the mine roof and noticed Mr. Hively's body position. The Fletcher Single Boom Face Drill was still running and making a clicking or popping sound. Mr. Johnson shut off the Fletcher Single Boom Face Drill using the panic bar located below the tram levers. Mr. Johnson checked for a pulse in Mr. Hively's left wrist and found no pulse. Mr. Johnson ran to the ride, drove it to the airlock doors near 4 head and ran to the phone at 4 head to call for help. Mr. Johnson informed the dispatcher at approximately 5:12am that Mr. Hively was pinned between the Fletcher Single Boom Face Drill and the pillar block corner at the left outby corner of this intersection at spad 519, and that help was needed. The dispatcher, Brian Hawks, began contacting other people at the mine for help by mine phone and texting. Mr. Hawks called 911 at approximately 5:17am. Mr. Hawks then contacted Timothy Gibson and Joey Davis, from the Berwind Deep Mine and Roger Price and Jason Green, from the Triad Poca 4 Seam Mine, all of whom assisted in the recovery of Mr. Hively. The Triad Poca 4 Seam Mine is adjacent to the Berwind Deep mine. Mr. Hively was brought to the surface at approximately 6:55am, where he was placed in an ambulance. At 6:59am., Region Command was called by EMT. Per Dr. Goyt at Raleigh General Hospital, DNR order was given. The ambulance left the Berwind Deep Mine at 8:05am and arrived at the Welch Community Hospital at approximately 9:25am.

FINDING OF FACTS

1. Mr. Hively was a certified underground Mine Foreman. Issued January 26, 2007, Certificate No. 38544-07.
2. Mr. Hively was a certified underground coal miner. Issued October 1, 2001, Certificate No. 7-72.
3. Mr. Hively attended an annual refresher course on January 6, 2021.
4. Mr. Hively attended a Foreman Continuing Education class on January 2, 2020.
5. Mr. Hively had Experienced Miner Training at Berwind Deep Mine on February 21, 2022.
6. Mr. Hively was tramping the Fletcher Single Boom Face Drill when he became pinned between the Fletcher Single Boom Face Drill and the left outby corner of the intersection at spad 519, sustaining fatal injuries.

7. Mr. Johnson was not trained on the use of the Strata wireless communication device (texter).

CONCLUSION

The victim, Mr. Hively, was tramming the Fletcher Single Boom Face Drill outby to move it outside of the Berwind Deep Mine as directed. Mr. Hively became pinned between the Fletcher Single Boom Face Drill and the corner of a pillar block, sustaining fatal injuries.

ENFORCEMENT ACTION

There was a non-assessed control order issued in accordance with Chapter 22A, Article 2, Section 68 of the West Virginia Code. There was a total of seventeen (17) violations written. Sixteen (16) of the violations were regularly assessed and one (1) violation was recommended for special assessment.

Special Assessment:

Title 36 Series 18 Section 4.1

During the investigation of a fatal accident involving the Fletcher Single Boom Face Drill, this machine was found to have not been maintained in a safe operating condition, in that the tram lever for the right-side track was not properly adjusted, causing the right-side track of the machine to move forward when in the center locked position. The above violation is a health and safety rule of a serious nature and involved a fatality.

RECOMMENDATIONS

In accordance with Title 56, Series 8, Section 8.4 of the West Virginia Code of State Rules, Berwind Deep Mine and G.M.S. Mine Repair & Maintenance shall make modifications to their

Comprehensive Mine Safety Program. G.M.S Mine Repair & Maintenance has submitted a plan for approval as seen page 11 of this report. Ramaco Berwind Deep Mine has submitted a plan of prevention as an addendum to their Comprehensive Mine Safety Program under component 10, Accident Prevention, on page 13 of this report.



March 19, 2022

Dear Mr. Lester,

This letter serves as the GMS Action Plan in reference to the fatal accident of Steven Hively on February 28, 2022 at the RAMACO Berwind Mine. The GMS Action Plan is a two-part education and prevention strategy – more immediate vs. long term. The initial corrective action plan (Part 1) started almost immediately after GMS obtained sufficient investigative details include the following:

Part 1 (initial - examples are listed below):

- Safety Stand-downs with GMS crews in WV working in the southern WV District 7 region and other GMS work locations across WV and the nation were conducted to educate them on the known details of the accident and emphasize prevention methods. Topics included, but not limited to, were proper pre-oops, identifying pinch points, alert to red zones, good communication, handling cables, and proper training (especially at a new location or piece of equipment). The three most important messages to employees were *Never Trust a Piece of Machinery – It May Malfunction*, *Never Place Yourself in a Red Zone or Pinch Point*, and *Never Operate a Piece of Machinery if it Malfunctions and Report it to Management Immediately.*
- All-Hands Emails have been sent emphasizing the the hazards of operating Machinery.
- Phone Calls were made to GMS coordinators instructing them to go over this accident and similar accidents with their crews and make sure any new hires.
- GMS managers met with WV NEW MINER and annual refresher classes across the state to emphasize the importance of machinery safety, pinch points, red zones, etc.

Part 2 (long-term):

- Newly-employed GMS underground employees working in WV will receive additional training related to this fatal accident. Topics will include, but not limited to, were proper pre-oops, identifying pinch points, alert to red zones, good communication, handling cables, and proper training (especially at a new location or piece of equipment). It will also contain three important messages: *Never Trust a Piece of Machinery – It May Malfunction*, *Never Place Yourself in a Red Zone or Pinch Point*, and *Never Operate a Piece of Machinery if it Malfunctions and Report it to Management Immediately.*
- Every GMS annual refresher in WV will include the same material listed above.

Please let me know if you need any further information.


 Susan B. Bealko, MS MPH
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PO Box 219
Verner, WV 25650

Ben Hamilton
Inspector-at-Large
WV MHS&T
830 Virginia Avenue
Welch, WV 24801

Subject: Ramaco Resources, LLC
Berwind Deep Mine
MHST Permit No. U00300816

Ref: CMSP Addendum - 040822

Mr. Hamilton,

Enclosed is an addendum to our CMSP Program for the above captioned mine. The reason for this addendum is to include precautions to prevent a reoccurrence of a similar type of accident when tramming mobile coal drills in the mine.

This addendum is listed as Component 10 on pg. 19 of the plan.

If you have any questions regarding this plan, please feel free to contact me at 304-583-0362 (office) or 304-784-8079 (cell).

Sincerely,

Brad Justice
Brad Justice
VP of Safety

C-8: Annual Review & Evaluation of Program

The same type of inspection that formulated the initial program shall be followed when evaluating the programs' effectiveness. Results of the annual review shall be compared to the existing data collected prior to implementation of the program. This comparison of data shall help the operator in the up-dating of the program if deemed necessary.

COMPONENT 9: HAZARDOUS MATERIAL HANDLING

The Operator shall establish and maintain a MSDS "Right-to-Know" center that shall be located where the miners may review the data themselves. Training in the proper use, storage, and handling of hazardous materials shall be incorporated into the overall training plans and schemes of the operator with special emphasis on the chemicals that are utilized on a regular basis.

COMPONENT 10: ACCIDENT PREVENTION

In response to a coal drill accident at Berwind Deep Mine, the below listed precautions will be followed when tramming mobile coal drills:

- a. Mobile drills (with outside tram controls) which are provided with an operator's compartment or remote controller, will not be operated by manual "side controls" or "inch tram controls" when tramming from one working place to another working place or along roadways.
These controls are only for repositioning the machine for drilling purposes. The exception would be if a machine need moved for repairs when blocking an entry or travelway, the inch tram controls may be used; provided that, the operator maintains the controls a minimum distance of 6' from the operator's side rib or corner of a pillar block. This travel will be limited to four breaks or less as needed to position the machine in a safe area for repairs.

ACKNOWLEDGEMENT

The West Virginia Office of Miners' Health, Safety and Training acknowledges the cooperation of employees and management of the Berwind Deep Mine, G.M.S. Mine Repair & Maintenance and the Mine Safety and Health Administration during this investigation.

MINE INFORMATIONCOMPANY Ramaco ResourcesMINE NAME Berwind Deep MineWV PERMIT No. U00300816 MSHA PERMIT No. 46-09533ADDRESS PO Box 219 Verner, WV 25650COUNTY McDowell PHONE No. 681-225-0006 DATE PERMIT ISSUED August 20, 2015WORKING STATUS Active LOCATION BERWIND, WV NON-UNION XDAILY PRODUCTION 800 Tons ANNUAL PROD. TO DATE 16,868 Tons in 2021TOTAL EMPLOYEES 49 NUMBER OF PRODUCTION SHIFTS 3 SHIFTSCOAL SEAM NAME & THICKNESS Pocahontas No.3 (36") & No. 4 Seam (6') LOST TIME ACCIDENTS 0ACCIDENT INCIDENT RATE 0.0280 TYPE OF HAULAGE Continuous MiningWVOMHST INSPECTOR Mark Lester, Randy Carter & Corey FieldsDATE OF LAST INSPECTION FEBRUARY 15, 2022WVOMHST NOTIFIED BY WVEMD NOTIFICATION TIME 5:30amCMSP ANNIVERSARY DATE 2023 CMSP CONTACT PERSON Brad Justice

CONTRACTOR INFORMATION

CONTRACTOR NAME G.M.S. MINE REPAIR & MAINTENANCE

STATE PERMIT No. C00001932 MSHA PERMIT No. MVK

ADDRESS PO Box 2446 Mt. Lake Park, MD 21550 COUNTY Garrett

PHONE 301-334-8186 LOCATION Ramaco Berwind NON-UNION X

TYPE OF WORK PERFORMED Contract Labor TOTAL EMPLOYEES 7 At this location

No. OF SHIFTS 3 ACCIDENT FREQUENCY RATE 2.55 LOST TIME ACCIDENTS 4

WVOMHST INSPECTOR MARK LESTER, RANDY CARTER & COREY FIELDS

NOTIFIED BY Chris Blanchard NOTIFICATION DATE 28 Feb 2022 TIME 6:00am