2 Section crew traveled in smoke

delay in notification of 2 Section miners due to lack of AMS alarm unit

longwall belt operating

firefighting activity by Cabell, Callaway, and Rose

2:00 p.m.

3:00 p.m.

4:00 p.m.

5:00 p.m.

6:00 p.m.

7:00 p.m.

8:00 p.m.

9:00 p.m.

2:20 p.m.
White completed pre-shift of belt entries, then went to the phone to call examination report to Cabell on the surface

2:30 p.m.
Hagy reported 0.0% methane concentration at longwall belt drive; on the surface, Cabell recorded White's pre-shift examination, then entered the mine and walked the belt entries toward 9 Headgate

3:35 p.m.
Miners who worked day shift in 9 Tailgate passed the longwall belt drive area leaving the mine - no unusual conditions noticed; White then walked to 9 Headgate longwall section to ride out with the longwall crew; White passed by the longwall belt takeup storage unit (the longwall belt was not operating at the time); White observed no hazardous conditions

3:41 p.m.
ALPHA Page sent out - "Aracoma lw down on bits & structure, EST 10m."

4:20 p.m.
Longwall belt started

4:50 p.m.
Day shift longwall crew reached surface

4:55 p.m.
Callaway and Rose entered mine from Box Cut

5:01 p.m.
Callaway and Rose called dispatcher from 3-Way Intersection

5:14 p.m.
CO Warning and Alarm at Sensor 82 (21 second separation)

5:16 p.m.
CO Warning and Alarm at Sensor 81 (21 second separation)

5:33 p.m.
ALPHA Page sent out - "Aracoma lw down on storage unit at mother drive."

5:45 p.m.
Miners on 2 Section boarded mantrip and evacuated from 2 Section

5:50 p.m.
Phone communication lost at longwall headgate

5:59 p.m.
AMS communication failures with Sensors 82 and 83

6:00 p.m.
J. Adkins and Runyan left longwall section to investigate what was going on in the longwall belt drive area; longwall crew assembled at the longwall headgate

6:04 p.m.
Noe entered mine from Box Cut with fire extinguishers

6:05 p.m.
Longwall section lost electrical power; longwall crew left longwall section

6:08 p.m.
Longwall crew met Horton at No. 2 Cut-Thru.

6:10 p.m.
CO Warning at Sensor 71

6:13 p.m.
2 Section miners arrived entered intake outby longwall belt drive

6:15 p.m.
AMS communication failure with Sensor 82 ;
2 Section crew met 9 Headgate longwall crew

6:19 p.m.
AMS communication failure with Sensor 80

6:20 p.m.
E. Ellis, Morrison, Shadd, Dotson, R. Massey entered mine from Box Cut

7:00 p.m.
E. Ellis and Morrison made air change in 9 Tailgate-4 Right area; observed smoke in the area; waited and watched for missing miners

7:16 p.m.
E. Ellis and Morrison returned to phone near 4 Right

7:18 p.m.
Horton told 2 Section and longwall crews to leave mine

7:33 p.m.
Mine operator reports fire to WVMHS&T(Boggess)

7:55 p.m.
Mine operator reported fire to MSHA (Kline)

Between 8:00 - 8:30 p.m.
Asbury (Elk Run Mine Rescue Captain) called by company representative

Between 8:30 - 9:30 p.m.
East Kentucky mine rescue team members began to arrive at mine

8:15 p.m.
Mullins arrived at mine

8:40 p.m.
Mullins issued 103(k) Order (MSHA)

8:01 p.m.
Logan 911 EMS Service called from mine and radios requested

8:00 p.m.
Kline called other MSHA officials

7:50 p.m.
First Logan County EOC contact - Inspector Mullins learned of fire by Phone

7:45 p.m.
Production crews out of mine - Conn arrived at mine (East Kentucky mine rescue team captain)

7:40 p.m.
Crews left No. 1 4-Way Intersection ; underground freshwater pumps de-energized by Hall on the way out of mine

7:30 p.m.
On way toward 9 Headgate, E. Ellis and Morrison met crews exiting mine

7:21 p.m.
2 Section and longwall crews leave mine

7:17 p.m.
AMS communication failures with multiple sensors

7:15 p.m.
Check curtains installed in longwall headgate entries

7:13 p.m.
CO Warning at Sensor 79

6:31 p.m.
Miners got spare SCSRs and curtain from longwall section

6:23 p.m.
Miners traveled to longwall section to gather supplies

6:21 p.m.
ALPHA Page sent to L. Lester – "Peppy call Aracoma VERY IMPORTANT."

6:48 p.m.
L. Lester entered mine from Box Cut; Noe at 4-Way Intersection

7:00 p.m.
Began calling mine rescue teams from mine

6:01 p.m.
Search conducted for missing miners in heavy smoke

6:00 p.m.
Ten 2 Section crew members entered the North East Mains belt entry; two miners were determined missing

5:55 p.m.
SCSR's donned, the 2 Section crew made their way toward the personnel door through the smoke filled intake entry

5:53 p.m.
2 Section crew donned SCSRs in heavy smoke

5:52 p.m.
After encountering smoke too dense to continue driving mantrip, 2 Section crew exited mantrip and continued evacuation in heavy smoke on foot

5:47 p.m.
B. Mayhorn and Baisden were picked up just outby 2 Section

5:42 p.m.
2 Section foreman Plumley called Brown – Plumley told to evacuate 2 Section crew by Brown and Horton

5:39 p.m.
North East Mains and 2 Section belts stopped by Brown to gain attention of 2 Section miners

5:38 p.m.
Horton and Hall arrived in the fire area

5:34 p.m.
Brown called 2 Section – no response; Brown then set off signal light on the 2 Section pager phone - no response

5:33 p.m.
Callaway returned from opening the No. 7 Belt waterline shut-off valve; management officials on surface learned of fire; call for evacuation already made to dispatcher by Cabell

5:18 p.m.
Grimmett entered mine from the Box Cut with chain rachet for longwall belt takeup storage unit; Callaway and Rose arrived at longwall belt drive and saw smoke; Rose saw flames after exiting the mantrip; Cabell discharged first fire extinguisher while Callaway parked the mantrip

5:16 p.m.
While Cabell talked with Horton, smoke in longwall belt drive area increased; Cabell saw glowing embers and told Horton there was a fire

5:12 p.m.
Cabell called for Horton to find out when help would arrive; Brown first answered the phone; Horton joined the conversation

5:06 p.m.
Cabell interupted Richardson's call with dispatcher and told Richardson he had shut off the belt, there was smoke at the longwall belt drive, he would find the cause, and would get the belt operating shortly

5:05 p.m.
Cabell stopped the longwall belt

Rose went to retrieve additional fire extinguishers; two additional fire extinguishers were discharged; Cabell attempted to connect a firehose; Cabell found no water in waterline; Callaway traveled to No. 7 Belt Discharge pulley area and fully opened the No. 7 Belt waterline shut-off valve

Prior to 5:00 p.m.
Cabell observed longwall belt misaligned, rubbing a bearing in takeup storage unit, and a small amount of smoke; Cabell attempted to align a skewed drop-off carriage assembly in the longwall belt takeup storage unit; unsuccessful. Cabell then called Horton for chain ratchets to correct the condition

4:45 p.m.
Day shift 2 Section crew reached surface

4:31 p.m.
ALPHA Page sent out - "Aracoma lw has been running for about 10m."

4:25 p.m.
Day shift 2 Section crew passed the longwall belt drive; no unusual conditions noticed

4:00 p.m.
Day shift 9 Headgate longwall crew departed longwall section for mantrip

3:55 p.m.
Afternoon shift 9 Headgate longwall crew arrived; longwall belt was not operating

3:50 p.m.
Cabell arrived at the longwall belt drive area (longwall belt was not operating)

3:48 p.m.
Afternoon shift 2 Section crew arrived on 2 Section; day shift 2 Section crew left shortly thereafter

3:30 p.m.
While called Cabell on the phone; White opened equipment doors for 2 Section crew passing through area; no unusual conditions noticed by 2 Section crew

3:25 p.m.
White received call from longwall section; longwall production was to be ceased for routine maintenance – replace bits on shearer, remove longwall belt structure near tail

3:08 p.m.
Longwall crew finished fourth pass
delays on fourth pass: 57 minute delay - belt down; 15 minute delay - cutting rock

Notes:
Events shown in red text are based on information in the AMS Event Log, dispatcher log, mine operator's longwall time study report, Alpha Paging Log, and Logan County Office of Emergency Services records.

Times for other events were estimated based on information provided during interview statements, other mine records, MSHA investigation findings, and MSHA enforcement records.

APPENDIX G
TIMELINE
ARACOMA ALMA MINE #1, MSHA ID No. 46-08801
ARACOMA COAL COMPANY, INC.

Events that Occurred at
Aracoma Alma Mine #1 on January 19, 2006