

STATEMENT UNDER OATH

OF

SAMUEL KITTS

Taken pursuant to Notice by Miranda
D. Elkins, a Court Reporter and
Notary Public in and for the State of
West Virginia, at the U.S. Bankruptcy
Court, 324 West Main Street,
Clarksburg, West Virginia, on
Thursday, March 23, 2006, at 8:46
a.m.

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1 A P P E A R A N C E S

2

3 JOSEPH R. O'DONNELL, JR.
4 Supervisory Coal Mine S&H Inspector
5 U.S. Department of Labor
6 Mine Safety & Health Administration
7 District 11
8 3867 Pine Lane, Suite 205
9 Bessemer, AL 35022

10

11 MICHAEL RUTLEDGE
12 Safety Director
13 State Of West Virginia
14 Office of Miners' Health, Safety
15 & Training
16 142 Industrial Drive
17 Oak Hill, WV 25901

18

19 MARCO M. RAJKOVICH, JR., ESQUIRE
20 Rajkovich, Williams, Kilpatrick
21 & True, PLLC
22 2333 Alumni Park Plaza
23 Suite 310
24 Lexington, KY 40517

25

1 A P P E A R A N C E S (continued)

2

3 JAMES BROOKS CRAWFORD, ESQUIRE

4 Senior Trial Attorney

5 Mine Safety and Health Division

6 U.S. Department of Labor

7 Office of the Solicitor

8 1100 Wilson Boulevard

9 Suite 2231

10 Arlington, VA 22209-2296

11

12 DAVE STUART

13 1507 Stonehenge Road

14 Charleston, WV 25214

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P R O C E E D I N G S

MR. O'DONNELL:

My name is Joe O'Donnell. I'm an accident investigator with the Mine Safety and Health Administration, an agency of the United States Department of Labor.

With me is James Crawford from the Solicitor's office, Mike Rutledge and Dave Stuart, with the West Virginia Office of Miners' Health, Safety & Training. I've been assigned to conduct an investigation into the accident that occurred at the Sago Mine on January the 2nd, 2006, in which 12 miners died and one was injured.

The investigation is being conducted by MSHA and the West Virginia Office of

1 Miners' Health, Safety &
2 Training, to gather
3 information to determine the
4 cause of the accident. And
5 these interviews are an
6 important part of the
7 investigation.

8 At this time the
9 accident investigation team
10 intends to interview a number
11 of people to discuss anything
12 that may be relevant to the
13 cause of the accident. After
14 the investigation is
15 completed, MSHA will issue a
16 written report detailing the
17 nature and causes of the
18 accident.

19 MSHA accident reports
20 are made available to the
21 public in the hope that
22 greater awareness about the
23 causes of accidents can reduce
24 their occurrence in the
25 future. Information obtained

1 through witness interviews is
2 frequently included in these
3 reports. Your statement may
4 also be used in other
5 enforcement proceedings.

6 I'd like to thank you
7 in advance for your appearance
8 here today. We appreciate
9 your assistance in this
10 investigation. The
11 willingness of miners and mine
12 operators to work with us is
13 critical for our goal of
14 making the nation's mines
15 safer. We understand the
16 difficulty for you in
17 discussing the events that
18 took place, and we greatly
19 appreciate your efforts to
20 help us understand what
21 happened.

22 This interview with Mr.
23 Sam Kitts is being conducted
24 under Section 103(a) of the
25 Federal Mine Safety and Health

1 Act of 1977, as part of an
2 investigation by the Mine
3 Safety and Health
4 Administration and the West
5 Virginia Office of Miners'
6 Health, Safety & Training into
7 the conditions, events and
8 circumstances surrounding the
9 fatalities that occurred at
10 the Sago Mine owned by
11 International Coal Group in
12 Buckhannon, West Virginia on
13 January the 2nd, 2006.

14 This interview is being
15 conducted at the U.S.
16 Bankruptcy Courthouse in
17 Clarksburg, West Virginia on
18 March 23rd, 2006. Questioning
19 will be conducted by
20 representatives of MSHA and
21 the Office of Miners' Health,
22 Safety & Training.

23 Mr. Kitts, - - -

24 MR. KITTS:

25 Yes.

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MR. O'DONNELL:

--- the interview will begin by my asking you a series of questions. If you do not understand a question, please ask me to rephrase it. Please feel free at any time to clarify any statements that you make in response to the questions.

After we've finished asking questions, you will have an opportunity to make a statement and provide us with any other information that you believe may be important. If at any time after the interview you recall any additional information that you believe may be useful in the investigation, please contact Mr. Richard Gates at the phone number or e-mail address that we will provide to you.

1 Your statement is
2 completely voluntary. You may
3 refuse to answer any question
4 and you may terminate your
5 interview at any time. If you
6 need to take a break for any
7 reason, please let me know.

8 A court reporter will
9 record your interview and will
10 later produce a written
11 transcript of the interview.
12 Please try and respond to all
13 the questions verbally since
14 the court reporter cannot
15 record nonverbal responses.
16 Also, please try to keep your
17 voice up. Copies of the
18 written transcripts will be
19 available at a later time.

20 If any part of your
21 statement is based not on your
22 own firsthand knowledge but on
23 information that you learned
24 from someone else, please let
25 us know. Please answer each

1 question as fully as you can,
2 including any information you
3 have learned from someone
4 else.

5 We may not ask the
6 right question to learn the
7 information that you have, so
8 do not feel limited by the
9 precise question asked. If
10 you have information about the
11 subject area of a question,
12 please provide us with that
13 information.

14 At this time, Mr.
15 Rutledge, do you have anything
16 you'd like to add on behalf of
17 the State of West Virginia?

18 MR. RUTLEDGE:

19 Yeah. I just would
20 like to thank you for being
21 here again. I'm Mike Rutledge
22 with the Office of Miners'
23 Health, Safety & Training.
24 The Office of Miners' Health
25 Safety & Training is

1 conducting this interview
2 session jointly with MSHA as
3 in agreement with the
4 procedures as outlined by Mr.
5 O'Donnell for these
6 interviews.

7 The Director, does,
8 however, reserve the right, if
9 necessary, to call or subpoena
10 witnesses or require the
11 production of any record,
12 document, photograph or other
13 relevant materials necessary
14 to conduct this investigation.
15 Thanks.

16 MR. O'DONNELL:

17 Mr. Kitts, are you
18 aware that you may have a
19 personal representative
20 present during the taking of
21 this statement?

22 MR. KITTS:

23 Yes.

24 MR. O'DONNELL:

25 And do you have a

1 representative with you today?

2 MR. KITTS:

3 Yes.

4 MR. O'DONNELL:

5 And who might that be?

6 MR. KITTS:

7 Marco Rajkovich.

8 ATTORNEY RAJKOVICH:

9 Rajkovich (corrects
10 pronunciation.) Yes. And let
11 me say that Mr. Kitts is here
12 in his personal capacity.
13 He's not authorized by the
14 company to speak on behalf of
15 the company, but he's here to
16 testify to any facts that he
17 may recall.

18 MR. O'DONNELL:

19 Okay.

20 ATTORNEY RAJKOVICH:

21 I'm assuming everybody
22 in the room here is part of
23 the investigative team?

24 MR. O'DONNELL:

25 Yes, they are.

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ATTORNEY RAJKOVICH:

Okay. Thank you.

MR. O'DONNELL:

Now, do you have any questions regarding the manner in which we'll conduct the interview?

MR. KITTS:

No.

MR. O'DONNELL:

Okay. Would you please swear in Mr. Kitts?

SAMUEL KITTS, HAVING FIRST BEEN DULY
SWORN, TESTIFIED AS FOLLOWS:

BY MR. O'DONNELL:

Q. Please state your full name and spell your last name for us.

A. Samuel Ralph Kitts, K-I-T-T-S.

Q. And your address and telephone number?

A. 6002 Pinnacle View Road,
Hurricane, West Virginia 25526.
304-562-0409.

1 Q. Are you appearing here
2 voluntarily?

3 A. Yes.

4 Q. Okay. How many years of
5 mining experience do you have, Sam?

6 A. Twenty (20).

7 Q. And could you give us a brief
8 description of your employment
9 background?

10 A. I have experience as a staff
11 technical worker, in the form of
12 doing geologic reports and
13 evaluations. I then went into a
14 management trainee program, gained
15 operational experience. At the
16 conclusion of that trainee program,
17 I've been in various management
18 positions for approximately ten
19 years.

20 Q. And what's your present
21 position?

22 A. I am senior vice-president of
23 operations for the West Virginia and
24 Maryland region for International
25 Coal Group.

1 Q. And how long have you worked
2 in that position, Sam?

3 A. About 11 months now.

4 Q. And what do you do at that
5 position? I mean, what are your ---
6 what's your job description? What do
7 you do?

8 A. As vice-president of
9 operations, I have five general
10 managers from the business units
11 spread out in my region reporting
12 directly to me. In addition, I have
13 a financial analyst and a human
14 resources' manager that report to me.
15 My position is primarily management
16 and oversight of the production and
17 processing of coal.

18 Q. And where is your office
19 located?

20 A. Ashland, Kentucky.

21 Q. How long have you been
22 employed by ICG?

23 A. Eleven (11) months.

24 Q. Eleven (11) months. And all
25 of it is at the Sago Mine?

1 A. No, I'm not employed at the
2 Sago Mine.

3 Q. I mean, how much time do you
4 spend at the Sago Mine, roughly?

5 A. In those 11 months prior to
6 --- well, prior to January 2nd, I was
7 probably at the Sago Mine maybe three
8 times.

9 Q. Okay. Could you please
10 describe the corporate structure of
11 ICG?

12 A. The corporate structure in
13 terms of companies or people or ---?
14 I'm not sure I understand what you're
15 asking.

16 Q. Starting at the top, like your
17 parent company and your subsidiaries
18 and ---.

19 A. Okay. Relative to Sago?

20 Q. Yes.

21 A. You would have --- Sago is
22 part of Wolf Run Mining Company,
23 which is a subsidiary of Hunter Ridge
24 Mining Company. Hunter Ridge is a
25 subsidiary of ICG, Inc., ---

1 Q. Okay.

2 A. --- I believe. We are a new
3 company and our corporate structure
4 is being modified currently, so
5 that's what --- to the best of my
6 knowledge, that's the structure as it
7 stands today.

8 Q. Okay. So Wolf Run is the
9 parent company?

10 A. Sago is --- Sago Mine is part
11 of Wolf Run.

12 Q. Okay. And ICG owns Wolf Run?

13 A. No. Wolf Run is not a direct
14 subsidiary of ICG.

15 Q. It is not?

16 A. That would be Hunter Ridge.

17 Q. Hunter Ridge. Okay. So who
18 would be your supervisor?

19 A. Ben Hatfield.

20 Q. Ben Hatfield. Who is his
21 supervisor?

22 A. Ben is the president and CEO
23 of ICG, so it would be the Board of
24 ICB, I would imagine.

25 Q. Right. So what ICG entity was

1 considered by ICG as being the mine
2 operator at the time of the January 2
3 explosion?

4 A. I'm not sure I know the answer
5 to that question. On January 2 we
6 were in the process of incorporating
7 the former Anker Energy properties
8 into ICG. I'm not sure.

9 Q. Okay. So it was in a
10 transition period?

11 A. Yes.

12 Q. And Anker Mining was the
13 previous owner?

14 A. The previous owner of Sago, I
15 think, would have been Anker Mining
16 of West Virginia.

17 Q. And do you have any knowledge
18 of that company, how it was
19 structured?

20 A. Very little.

21 Q. What little bit do you know?
22 Did you ever work for Anker?

23 A. No, sir.

24 Q. Okay. Do you know when Wolf
25 Run Mining Company, the present mine

1 operator, became the mine operator?

2 A. Not an exact date, no.

3 Q. Do you have any idea of when
4 about?

5 A. I would say it would have been
6 sometime after --- sometime in late
7 November or early December, possibly.
8 The official date, I believe that
9 Anker became part of ICG was November
10 11th, I believe.

11 Q. Do you have any idea why Anker
12 was changed to Wolf Run as the
13 operator?

14 A. No, I was not involved in that
15 decision.

16 Q. Okay. And both entities were
17 and are owned by ICG; is that right?

18 A. Yes.

19 Q. Okay. Thank you. Were you
20 there the day of the accident?

21 A. January 2nd?

22 Q. Yes.

23 A. Yes.

24 Q. Tell us how you learned of the
25 explosion at Sago Mine.

1 A. I received a telephone call
2 from Chuck Dunbar, notifying me that
3 there was a problem at the Sago Mine.

4 Q. Could you recall what time
5 that was?

6 A. Yes. It was 8:30 a.m.,
7 January 2nd.

8 Q. And what kind of information
9 did he tell you?

10 A. He told me that there had been
11 --- something happened underground
12 that could possibly have been an
13 explosion. That there were 18 people
14 unaccounted for. That one crew had
15 managed to get outside, but others
16 had gone inside to investigate. So
17 at the time I spoke with him, they
18 were not exactly sure how many people
19 were underground, but he thought the
20 number was approximately 18.

21 Q. Okay. So could you just go
22 through and try to retrace your
23 activities that you did, following
24 the time that you learned of the ---
25 when you were notified, until when

1 the rescue recovery operation was
2 completed?

3 A. Could you repeat that, please?

4 Q. Okay. From the time that you
5 were notified, that he told you that
6 they had a problem at the mine, just
7 tell me, what time did you get at the
8 mine. And just run through the
9 activities that you were involved in.

10 A. Up 'til?

11 Q. 'Til it was over.

12 A. Okay. Upon notification, I
13 attempted to contact my supervisor,
14 who is Ben Hatfield, who did not
15 answer his home phone, did not answer
16 his cell phone. I left messages at
17 both places.

18 Upon being unable to contact
19 him, I prepared to make the trip to
20 the mine. I contacted another ICG
21 vice-president, Gene Kitts, who is my
22 brother, and asked him that since I
23 was going to be traveling, knowing I
24 would have sporadic cell service, to
25 contact the other members of senior

1 management .

2 While I was getting ready to
3 leave, I did receive a call from
4 Johnny Stemple. I informed Johnny
5 that I had already been notified by
6 Chuck and I was on my way there.

7 I left my home approximately
8 9:15, traveled to the Sago Mine site.
9 Made various phone calls, when I had
10 service, on the way, trying to get
11 updates and trying to communicate the
12 situation to other members of senior
13 management. That's when I first got
14 a call from Ben Hatfield and briefed
15 him on what I knew, which was very
16 limited at that point.

17 I then arrived at the mine
18 approximately a quarter 'til noon on
19 January 2nd. I tried to assess the
20 situation. Chuck Dunbar was on site
21 and was coordinating the efforts
22 there on ICG's part. MSHA personnel
23 and State personnel were already on
24 site when I arrived.

25 The first issue that came up

1 was the elevated levels of carbon
2 monoxide at the mine site itself, at
3 the mine office. There was
4 discussions under way to evacuate the
5 office to another location. There
6 were family members present at the
7 mine office at that time as well.

8 So there around noon, the
9 focus was me trying to assess the
10 situation. At this point, I was
11 still under the understanding that
12 the mine superintendent and several
13 others were still unaccounted for.
14 So my first action was to determine
15 how many people were unaccounted for.
16 It was several minutes before I was
17 able to determine that Jeff Toler
18 had, indeed, come back outside with
19 the other men. At that time, we had
20 13 people unaccounted for.

21 So that afternoon I was
22 helping coordinate the response.
23 Some of the tasks that I was
24 performing was working with Tim
25 Martin on staging the mine rescue

1 teams. Tim pretty much stepped into
2 that position of being the
3 coordinator of staging the teams.
4 Also, very early in the process, as
5 part of relocating the families to
6 the church, I went over to the church
7 approximately one o'clock and gave
8 the first briefing to the family
9 members as to what the situation was.

10 I went back to the mine site.
11 MSHA had issued a K Order. The K
12 Order was in place when I arrived and
13 we were in the process of monitoring
14 the gases coming out the return at
15 the portal location.

16 The focus at that point was,
17 on my part, determining the critical
18 path to get mine rescue teams inside
19 the mine. There were other things
20 going on at the time that I was aware
21 of but not involved in, including
22 putting down bore holes into the
23 mine. There was a mobilization
24 effort in place to get drills on site
25 and get the pads built and so forth,

1 to facilitate that effort. I was
2 aware of those things but not really
3 involved.

4 There were issues with
5 producing maps from the engineering
6 side that I was aware of. I was
7 helping facilitate that effort. We
8 were considering options of plotting
9 maps, either in Morgantown or
10 Buckhannon, to speed the process
11 because there was a large number of
12 maps required for mine rescue teams,
13 both in the briefings and for them to
14 carry underground.

15 So there were a lot of
16 different efforts under way that
17 afternoon. But mostly I was focused
18 on what needed to happen in order to
19 get people underground and start the
20 rescue effort.

21 We were monitoring the gases.
22 The trend analysis was taking place.
23 And it was late afternoon before the
24 decision was made by MSHA and --- I
25 guess primarily by MSHA that the

1 trending analysis data had indicated
2 that it was now safe to go
3 underground.

4 So there was some briefing
5 going on at that time with the mine
6 rescue team captains. Finally got
7 the mine rescue team --- first mine
8 rescue team underground a little
9 after five o'clock Monday afternoon.

10 At that point, the command
11 center had been established inside
12 the Sago Mine office. We had several
13 individuals in there representing
14 ICG, along with the State and MSHA
15 that were overseeing the direct
16 movements of the mine rescue teams.
17 That individual would have been Ty
18 Coleman at that time.

19 So at that point, I was
20 periodically going over and talking
21 with the families. So I would go in
22 the command center for that purpose,
23 to collect information for the
24 briefings. I was also available to
25 help when decisions needed to be

1 made. When our people felt like
2 there were issues, I would be
3 notified and get involved in those
4 issues.

5 So, again, there was a lot of
6 varying efforts going on, and I was
7 doing my best to coordinate those
8 efforts. So that was my role through
9 the rescue effort, up until the time
10 the --- to the conclusion of the
11 effort.

12 Q. So you weren't involved with
13 notifying the State, MSHA or anybody
14 like that? Somebody else did that?

15 A. That's correct.

16 Q. Okay. You talked about the CO
17 levels, the trending of the CO
18 levels. What were they, do you
19 recall?

20 A. Fairly low at first. And I
21 think the maximum reading that I
22 recall was 2300, at the portal.

23 Q. At the portal?

24 A. At the return itself.

25 Q. Okay.

1 A. There were times when the
2 levels were in excess of 600 in the
3 mine office.

4 Q. You said earlier about
5 evacuating the mine office. Did you,
6 in fact, evacuate or withdraw some
7 people?

8 A. Yes. Some people were
9 withdrawn. I know the family members
10 were withdrawn at that time. There
11 were some people there who I'm not
12 sure who they were who did leave at
13 that time. There was a good number
14 of people at the mine office there
15 when I first arrived. And then when
16 we were discussing the evacuation,
17 several of those people left. How
18 many of them were related to the
19 family, I don't know.

20 Q. How high did you say it got
21 there?

22 A. I was told that the mine
23 office collected readings of over
24 600.

25 Q. Did that continue for some

1 length of time or did it trend down
2 quickly?

3 A. It started trending down. I
4 don't know the rate that it was
5 trending, but it did trend down there
6 at the mine office.

7 Q. Okay. I'm just going to pop
8 down through some of these. Did you
9 notify any mine rescue team members?

10 A. No.

11 Q. That was done by someone else?
12 You said Ty was --- Ty Coleman was
13 taking care of that, or was it ---?

14 A. Tim Martin.

15 Q. Tim Martin.

16 A. It was probably both. I think
17 there were several people trying to
18 make contact with mine rescue.

19 Q. Did you take any personal
20 notes during the period?

21 A. I jotted down just a few notes
22 early on in the process.

23 Q. Were those notes asked for or
24 did ICG provide those notes to MSHA?

25 A. No.

1 Q. Would it be possible if we
2 would request them that we could have
3 them?

4 A. Yes.

5 ATTORNEY RAJKOVICH:
6 We'll take that under
7 advisement.

8 MR. O'DONNELL:
9 All right.

10 BY MR. O'DONNELL:

11 Q. Were the telephones ever
12 inoperative at the mine? Did they
13 ever go down?

14 A. Not to my knowledge.

15 Q. Let's see here. You talked
16 about bore holes. Could you tell us
17 a little bit about if you had any
18 role in the drilling of them, site
19 selection, any of that?

20 A. Very limited. I do recall a
21 conversation with Joe Myers, the
22 engineer on-site, concerning locating
23 a hole just on the map. We had a map
24 of the mine workings. And he and I
25 had a discussion about where we could

1 possibly place a drill. But it was
2 relatively brief. And I think the
3 gist of the conversation was that we
4 needed to not necessarily hit a
5 particular spot in the mine, we just
6 needed to get the hole drilled
7 quickly. So whatever place on the
8 surface would allow us to get started
9 the fastest was where we needed to
10 go. So it was a general conversation
11 along those lines and that was about
12 the extent of it.

13 Q. What about the number of
14 drilling companies? I understand
15 several drilling companies offered
16 assistance to Sago to drill holes.
17 Do you have any knowledge of the
18 process that was involved and who ---
19 what drilling company was selected
20 and why?

21 A. No.

22 Q. And why others weren't?

23 A. No. The drill had already
24 been mobilized when I arrived.

25 Q. Well, who would have had the

1 --- who would have selected that
2 drilling team, the drilling company?

3 A. I don't know the answer to
4 that.

5 Q. Okay. So you really --- as
6 far as the drill site, the drilling,
7 you weren't involved in any of that,
8 only that brief description --- brief
9 conversation that you had?

10 A. Yes.

11 Q. Do you know when they started
12 the drilling?

13 A. Precisely, no.

14 Q. Okay. Do you know if they had
15 any problems with the GPS surveying
16 grades?

17 A. At that time, I was told, and
18 passed that information along to the
19 families, that they were having a
20 difficult time getting the drill set.
21 That translated --- it turns out, in
22 hindsight, that was a generalization
23 of the GPS surveying issues and the
24 site development. But in order for
25 me to give an update to the families,

1 I asked the status of the drilling
2 and was told they were having a
3 difficult time getting the drill set.

4 Q. So about how long did it take
5 from the time that you guys decided
6 to drill that you actually started
7 drilling?

8 A. Well, the decision to drill
9 and mobilize the drill had already
10 been made when I arrived on the site.

11 Q. Okay. So that would have been
12 before lunchtime?

13 A. I would think, yes.

14 Q. And when did they actually
15 begin drilling?

16 A. I'm not exactly sure of the
17 precise time, but I do recall that
18 the first hole went into the mine
19 early morning of Tuesday the 3rd.

20 Q. And the site selection was at
21 Second Left; isn't that right?

22 A. Yes.

23 Q. And why did you decide to
24 drill into Second Left?

25 A. Based on what we knew at the

1 time, we knew that the Second Left
2 crew was likely to have been in by the
3 switch at the mouth of Two Left. So
4 not knowing the situation inside the
5 mine, whether we had a fire or not,
6 we felt like it was the best location
7 to drill toward the face of Two Left.

8 Q. So were you part of the
9 decision-making process of when to
10 send the mine rescue teams in? You
11 said you were in the command center.
12 And you said that they finalized some
13 of the decisions with you. So as the
14 command center was established, were
15 you an active participant in the
16 command center?

17 A. Yes.

18 Q. So whenever a decision was
19 made to explore, when not to explore,
20 when to advance, when to withdraw,
21 those were decisions that were made
22 by the group; is that right?

23 A. Yes.

24 Q. So it would be representatives
25 of ICG, the State of West Virginia,

1 Federal. And was there miners'
2 representatives at that time?

3 A. No.

4 Q. Okay. So those three entities
5 ultimately decided all of --- the
6 procedure that would be followed
7 during the exploration and recovery?

8 A. Well, at certain milestones in
9 the process, written modifications to
10 the K Order would be submitted to
11 MSHA and the State for approval. So
12 those requests were being generated
13 by ICG. And then there was an
14 approval process, with the regulatory
15 agencies on site. Now, that was for
16 the more significant items in the
17 plan, you might say.

18 The other decisions, the more
19 minor decisions involving the
20 movements of the mine rescue teams
21 and so forth was done in conjunction
22 with all three agencies by the three
23 individuals in the command center.

24 Q. Okay. This process that you
25 said about submitting changes to the

1 K Order, now, you know, it was your
2 mine and you were directing what you
3 wanted to do, but it was done as an
4 approval process?

5 A. Yes.

6 Q. And some things that you
7 discussed --- I mean, it was in the
8 form of a meeting, a discussion,
9 until you met a consensus?

10 A. It varied. If issues came up,
11 in terms of what was required, then
12 there were times when that would
13 result in a conference, if you will,
14 a meeting of the parties, to resolve
15 the issue and put the modification
16 request changes in place. So the
17 issues were resolved and a new
18 modification was submitted for
19 approval.

20 Q. So everything that happened
21 was agreed upon by all the parties in
22 the command center; is that right?

23 A. Yes.

24 Q. Okay. What would be the
25 difference between like a major

1 request and one that didn't require
2 one that was written?

3 OFF RECORD DISCUSSION

4 BY MR. O'DONNELL:

5 Q. Okay. What were some of the
6 major modification requests that were
7 made?

8 A. The first example that comes
9 to mind is entering the mine itself.

10 Q. Okay.

11 A. The K was in place. In order
12 to modify the K to allow men to enter
13 into the mine required a written plan
14 with approvals by MSHA and the State.
15 There were requirements. As I
16 recall, the plan was submitted and it
17 didn't have the gas readings
18 attached. MSHA requested that the
19 gas readings be attached to the plan,
20 so those readings were obtained,
21 copied, attached to the plan and
22 resubmitted for approval.

23 This all happened just over
24 the course of minutes. But that's an
25 example of a written modification to

1 the K. An example of decisions that
2 were made that were not written were
3 decisions such as how far to advance
4 the fresh air base. Those sorts of
5 decisions were agreed upon verbally
6 by those in the command center.

7 Q. So were you actually involved
8 in the decision in the command center
9 to systematically explore the mine
10 from the portal? And who else might
11 have been involved in that decision?

12 A. I'm not sure I understand your
13 question.

14 Q. Okay. The exploration began
15 at the portal. Now, all the parties
16 agreed to begin the exploration at
17 the mind portal and then advancing?

18 A. Yes.

19 Q. So who would be the company
20 person who would make that call, in
21 the command center?

22 A. I would imagine that would
23 have been Ty Coleman.

24 Q. Okay. So all of the
25 decisions, then, as far as

1 exploration and rescue recovery were
2 done by Ty?

3 A. Not all the decisions, no.

4 Q. Okay. Who else would have
5 been involved in that?

6 A. A variety of people on ICG's
7 part, including Chuck Dunbar. He was
8 the GM. Johnny Stemple, one of our
9 safety managers. There were others.
10 Mostly people with mine rescue
11 experience and with --- acting in
12 some capacity in the safety effort
13 for ICG.

14 Q. And did you have any --- at
15 any time make any of those decisions?

16 A. Me personally?

17 Q. Yes.

18 A. Not that I recall, no.

19 Q. Okay.

20 A. I think we had an ICG
21 representative in the command center
22 at all times.

23 Q. Do you know whether One Right
24 or Second Right were explored by the
25 teams as they progressed into the

1 mine?

2 A. Are you talking about One
3 Right or One Left?

4 Q. One Right and Second Right.

5 A. One Right and Second Right.
6 If they were explored, it was done on
7 a minimal basis. They were not
8 thoroughly explored, no.

9 Q. Could you tell me why? What
10 was the reason why they weren't?

11 A. Because at that time we were
12 confident that the men who were
13 unaccounted for were further into the
14 mine. We believed that they were
15 in by the First Left switch somewhere,
16 so we attempted to expedite the
17 search effort to that area as quickly
18 as possible.

19 Q. So that, again, was also a
20 group decision by the command center?

21 A. Yes.

22 Q. Okay. And also with the One
23 Left section, it was --- do you know
24 if One Left was explored before they
25 traveled into the Second Left area?

1 A. One Left was explored to a
2 limited extent. I recall the mine
3 rescue teams traveled a short
4 distance up into One Left to evaluate
5 the situation before we advanced
6 further.

7 Q. And was that decision made
8 based on the last bit of information
9 you gave me about passing One Right?

10 A. Yes.

11 Q. Okay. Do you know if they
12 explored into the old Second Left
13 seal area?

14 A. Yes. The decision was made to
15 inspect the seals prior to advancing
16 into Two Left.

17 Q. And what was the reason? Why
18 did they do that? Was it suspected?

19 A. There was a concern that the
20 air that was being directed toward
21 the faces of Two Left would have to
22 squeeze by those seals. So prior to
23 advancing into Two Left, it was
24 agreed to inspect those seals and
25 confirm that the ventilation would,

1 indeed, be passing through or by
2 them.

3 Q. Would you like to take a short
4 break?

5 A. Sure.

6 SHORT BREAK TAKEN

7 MR. O'DONNELL:

8 Okay. Let's go back on
9 the record. Mr. Rutledge, do
10 you have anything you'd like
11 to follow up on?

12 MR. RUTLEDGE:

13 Yes. If either of you
14 all have any questions
15 regarding these proceedings.
16 This is contact information
17 from the State there. That
18 card is for Brian Mills, who's
19 the inspector at large of that
20 region.

21 BY MR. RUTLEDGE:

22 Q. I'd like to ask you ---. You
23 mentioned earlier about the mine
24 being changed from Anker to Sago or
25 to Wolf Creek, as a subsidiary. Do

1 you have any knowledge of any state
2 permits that were transferred, any
3 permit information that was done with
4 the State of West Virginia?

5 A. It's my understanding that
6 there were several State permits
7 being transferred at the time.

8 Q. Okay. That were being
9 transferred. You're not aware of
10 specifically whether it was still
11 listed as Anker or still listed as
12 --- or had been changed to Sago with
13 the State?

14 A. No, I'm not aware.

15 Q. Okay. Who would have had the
16 direct responsibility to make the
17 permit changes with the State?

18 A. It would have originated in
19 ICG's legal department. Who exactly
20 was pursuing that effort, I'm not
21 sure.

22 Q. Okay. You mentioned early on
23 a decision made to send teams
24 underground, and of Ty Coleman being
25 in the command center as a

1 representative of ICG. Can you
2 recall who may have been there for
3 either the State or MSHA?

4 A. No, I don't recall. There
5 were several people for both parties.
6 I do remember John Collins was there
7 a good bit. Pat Vanover, I think is
8 his last name, for MSHA, was there.
9 Mr. Alossa (phonetic) for MSHA. I
10 don't recall his first name. I'm
11 sure if I thought about it longer, I
12 could probably come up with more
13 names, but that's all that comes to
14 mind right now.

15 Q. All right. Thanks. And you
16 also mentioned having to make a plan
17 and have that plan approved by MSHA.
18 How detailed were these plans? Are
19 they one sentence, one paragraph, one
20 page? You know, how ---?

21 A. Approximately one page. They
22 were not greatly-detailed plans, no.

23 Q. Okay. So essentially they
24 were pretty brief and concise?

25 A. Yes, they were brief. It was

1 a modification to the K. So it was a
2 statement that covered what our next
3 step was going to be. So in that
4 sense, it was brief.

5 MR. RUTLEDGE:

6 Okay. That's all the
7 questions I have right now.
8 Thanks.

9 MR. O'DONNELL:

10 I have a couple
11 follow-up questions on ---.

12 BY MR. O'DONNELL:

13 Q. You said that there was a
14 mapping issue, a need for maps. How
15 was it resolved?

16 A. The majority of the maps were
17 plotted on-site, so honestly I don't
18 recall if additional maps were
19 brought in from other locations or
20 not. I just know that the teams that
21 needed maps received the maps and the
22 issue was resolved.

23 Q. Do you have an outside firm
24 that does the mapping?

25 A. Yes.

1 Q. And who would that be?

2 A. Alpha Engineering.

3 Q. So they're responsible for the
4 surveying, engineering - - -

5 A. Yes.

6 Q. - - - and development of the
7 maps?

8 A. Primarily, yes.

9 Q. Okay.

10 A. They're digital maps, so we
11 have our staff that make
12 modifications to them. But they are
13 primarily contracted to keep the maps
14 up to date.

15 Q. Okay. You said that now you
16 were involved with getting the mine
17 rescue teams underground. What sort
18 of issues did you encounter and how
19 were those resolved?

20 A. Well, there was the issue of
21 briefing the teams, which goes back
22 to the mapping issue, providing the
23 teams with the number of maps they
24 need, getting the teams organized.
25 In my mind there was the briefing

1 process that was under way and the
2 decisions about who would be the
3 first team inside. There was
4 discussions about the level of
5 experience that the teams had. And
6 that it was --- an effort was made to
7 put the more experienced teams inside
8 first. So there was a prioritization
9 under way. Of the teams that were
10 felt to be the most capable were the
11 teams that were moved to the head of
12 the list.

13 So, again, it was trying to be
14 the most effective that we possibly
15 could during that time. So those
16 issues were the issues I was
17 referring to.

18 Q. Could you discuss the
19 cooperative effort with the Consol
20 teams and their representatives?

21 A. In what way?

22 Q. How were they contacted? Who
23 contacted them? How many teams
24 agreed to come and assist?

25 A. Well, just in general, let me

1 say that the Consol teams performed
2 outstandingly. We were very
3 fortunate to have them at the
4 location. They performed well. As
5 far as notifications go, that was all
6 done prior to my arriving. I was not
7 involved in the notification process
8 at all.

9 But in terms of cooperation
10 with Consol, there was a process of
11 briefing that went on that was very
12 detailed as it should have been.
13 There were a lot of people there,
14 myself included, who had never been
15 exposed to a disaster of this
16 magnitude. The professionalism and
17 the attention to detail that they
18 demonstrated was admirable. So we
19 took whatever time it took to get
20 them briefed to the point where they
21 were comfortable going inside the
22 mine. So I don't have any issues
23 with cooperation.

24 Q. Okay. Let me just clarify the
25 plans. You said there were one-page

1 handwritten plans. Now, those were
2 plans that were developed by you, the
3 company, and submitted to the State
4 and Federal for approval?

5 A. I don't recall that all the
6 plans were handwritten. Some of the
7 plans were typed.

8 Q. Well, I didn't mean
9 handwritten, but I mean ---.

10 A. Repeat the question please.

11 Q. They were presented ---

12 A. Yes.

13 Q. --- in writing, either typed
14 form or written?

15 A. Yes.

16 Q. And those plans --- your
17 company would evaluate situations and
18 decide to proceed in a manner and
19 say, let's try this. And you would
20 give it to them, and they would look
21 at it and say yes or no, or we need
22 to have a little bit more or ---?

23 A. It was an approval process.

24 Q. Okay.

25 A. Are you asking about the

1 process?

2 Q. I'm asking about how did that
3 plan --- ultimately, how was it
4 developed?

5 A. Well, I think the example I
6 gave you before, about entering the
7 mine, is representative of that
8 process. There was a request to
9 submit a plan as to what the initial
10 steps would be. That plan was
11 generated, submitted for review.
12 There were concerns. For instance in
13 this case the attachment of the gas
14 readings.

15 The plan was given back to us
16 for correction. We attached the gas
17 readings. The plan was resubmitted
18 and approved.

19 Q. Okay.

20 A. So there was a process there
21 that worked in that way.

22 Q. Do you have any other examples
23 of that process?

24 A. No.

25 Q. Okay. There was a decision

1 that was made for the teams to
2 advance and extend the distance past
3 the fresh air base, even though the
4 communications would be extended
5 beyond normal mine rescue practices.
6 Who ultimately made that decision and
7 why was the decision made?

8 A. I don't know. I was not in
9 the command center when that decision
10 was made.

11 Q. Okay. Were you in the command
12 center when the misinformation came
13 out that all the miners were alive?

14 A. No.

15 Q. Okay. Do you have an opinion
16 what caused the explosion?

17 ATTORNEY RAJKOVICH:

18 Let me object here and
19 just say that he can tell what
20 he knows, factually.

21 MR. O'DONNELL:

22 Okay.

23 ATTORNEY RAJKOVICH:

24 But he's not speaking
25 as to any kind of

1 investigative action that he's
2 taken. And he's certainly not
3 authorized by the company to
4 express any kind of opinion.

5 ATTORNEY CRAWFORD:

6 And just for
7 clarification, you say he's
8 not speaking as to any
9 investigation that he has
10 taken?

11 ATTORNEY RAJKOVICH:

12 He is taking or has
13 taken.

14 A. Repeat the question, please.

15 BY MR. O'DONNELL:

16 Q. Do you have an opinion what
17 caused the explosion?

18 A. I think that the explosion
19 occurred as a result of a lightning
20 strike igniting methane inby the
21 sealed area.

22 Q. What's the basis of that
23 opinion?

24 ATTORNEY RAJKOVICH:

25 Again, he's not

1 authorized to give any kind of
2 basis, - - -

3 MR. O'DONNELL:

4 Okay.

5 ATTORNEY RAJKOVICH:

6 - - - other than the
7 facts that he knows.

8 OFF RECORD DISCUSSION

9 BY MR. O'DONNELL:

10 Q. Do you know how the lightning
11 traveled into the sealed area? Any
12 hypothesis that - - -?

13 ATTORNEY RAJKOVICH:

14 Again, I'd ask him not
15 to speculate, unless he knows.

16 A. I'd rather not speculate.

17 MR. O'DONNELL:

18 Okay.

19 OFF RECORD DISCUSSION

20 BY MR. O'DONNELL:

21 Q. Are there any facts that you
22 know that allows you to come to that
23 conclusion?

24 A. On a personal basis, no.

25 Q. On a professional basis?

1 A. Come to exactly what
2 conclusion?

3 Q. That lightning caused the
4 explosion.

5 ATTORNEY RAJKOVICH:

6 What's the difference
7 between a professional and a
8 personal basis? I mean, he's
9 told you no.

10 MR. STUART:

11 Now, can we get an
12 answer from the witness?

13 ATTORNEY RAJKOVICH:

14 Go ahead and answer.

15 A. No.

16 BY MR. O'DONNELL:

17 Q. Why do you think the seals
18 failed?

19 ATTORNEY RAJKOVICH:

20 Again, let me caution
21 against any kind of opinion.

22 A. I'd rather not speculate.

23 BY MR. O'DONNELL:

24 Q. Has ICG conducted an
25 independent investigation into the

1 accident?

2 A. ICG is in the process of
3 conducting an investigation.

4 Q. Do you know who is involved in
5 the investigation?

6 ATTORNEY RAJKOVICH:

7 Let me instruct him not
8 to answer that.

9 ATTORNEY CRAWFORD:

10 On what basis?

11 ATTORNEY RAJKOVICH:

12 He's not authorized to
13 speak on behalf of the
14 company. That's a question to
15 the company, not to him about
16 what facts that he knows
17 personally about this
18 incident.

19 ATTORNEY CRAWFORD:

20 Well, I believe the
21 question was, does he ---.
22 What was the question?

23 MR. O'DONNELL:

24 Who's involved in the
25 investigation.

1 ATTORNEY RAJKOVICH:

2 Again, I don't think
3 he's authorized to say that.

4 ATTORNEY CRAWFORD:

5 Well, if factually he
6 knows that --- if he knows,
7 can he can answer it?

8 ATTORNEY RAJKOVICH:

9 Not if those facts are
10 something that's held by the
11 company. That's best directed
12 to the company.

13 ATTORNEY CRAWFORD:

14 Just for clarification,
15 he's the vice-president of
16 operations of the company.

17 ATTORNEY RAJKOVICH:

18 That's right. You
19 don't speak for MSHA either,
20 right, but you're their
21 attorney?

22 ATTORNEY CRAWFORD:

23 I'm not going there.

24 ATTORNEY RAJKOVICH:

25 Okay.

1 ATTORNEY CRAWFORD:

2 I'm not answering the
3 questions, your client is.

4 ATTORNEY RAJKOVICH:

5 I understand. I got
6 you.

7 ATTORNEY CRAWFORD:

8 Go ahead.

9 BY MR. O'DONNELL:

10 Q. Do you anticipate the issuance
11 of a report?

12 A. Yes.

13 (Kitts Exhibit One
14 marked for
15 identification.)

16 BY MR. O'DONNELL:

17 Q. We have a --- are you familiar
18 with this document? It's a press
19 release from ICG.

20 WITNESS REVIEWS DOCUMENT

21 A. Is there a question?

22 BY MR. O'DONNELL:

23 Q. Yes. Are you familiar with
24 this report?

25 A. Yes.

1 Q. And how did this report ---
2 how was it formulated?

3 A. As in ---

4 Q. How did ---?

5 A. --- who wrote it, who
6 developed it?

7 Q. Yes.

8 A. It was an effort on the part
9 of several people.

10 Q. An investigation team of some
11 sort?

12 A. There is no formal
13 investigation team, no.

14 Q. Well, who would have written
15 this document?

16 ATTORNEY RAJKOVICH:

17 Again, that's a
18 question that goes to the
19 company.

20 MR. O'DONNELL:

21 Okay.

22 ATTORNEY CRAWFORD:

23 Even if he, in fact,
24 knows the answer? As a matter
25 of fact?

1 ATTORNEY RAJKOVICH:

2 I think he can't speak
3 on behalf of the company.

4 MR. STUART:

5 He can speak on his own
6 behalf and what he knows.

7 ATTORNEY RAJKOVICH:

8 Right. But he can't
9 speak for the company. And
10 that's a company question.

11 ATTORNEY CRAWFORD:

12 No. It wasn't asked as
13 a company question.

14 ATTORNEY RAJKOVICH:

15 I know, but it is a
16 company question.

17 ATTORNEY CRAWFORD:

18 Well, that's your
19 characterization, not ours.

20 ATTORNEY RAJKOVICH:

21 Well, that's the
22 characterization that he's
23 going to go by.

24 ATTORNEY CRAWFORD:

25 So you're

1 characterizing his answer.

2 ATTORNEY RAJKOVICH:

3 No. What I'm doing is
4 taking what you've asked him.
5 I represent this man. And he
6 can't speak for the company.

7 ATTORNEY CRAWFORD:

8 We asked the question
9 to him, though, directly, to
10 see if he has functional
11 knowledge.

12 ATTORNEY RAJKOVICH:

13 I understand.

14 ATTORNEY CRAWFORD:

15 Are you directing him
16 not to answer?

17 ATTORNEY RAJKOVICH:

18 That's right.

19 ATTORNEY CRAWFORD:

20 And, again, just for
21 the record, ---

22 ATTORNEY RAJKOVICH:

23 Yes.

24 ATTORNEY CRAWFORD:

25 --- what basis is that

1 on?

2 ATTORNEY RAJKOVICH:

3 Because he can't speak
4 for the company.

5 ATTORNEY CRAWFORD:

6 Even if, in fact, he
7 knows such information?

8 ATTORNEY RAJKOVICH:

9 That's exactly right.

10 MR. O'DONNELL:

11 Mike, do you have any
12 follow-up questions?

13 MR. RUTLEDGE:

14 Yes.

15 BY MR. RUTLEDGE:

16 Q. If you wouldn't mind going
17 back to early on when you arrived at
18 the mine and you spoke about the CO
19 levels in the mine office and people
20 being evacuated and so on.

21 A. Yes, sir.

22 Q. Do you remember what time that
23 was, a best guesstimate?

24 A. I'd estimate between noon and
25 one o'clock ---

1 Q. Okay.

2 A. --- on Monday, the 2nd.

3 Q. And at sometime during this,
4 was everyone out of the office? Was
5 everyone required to leave the
6 office? You spoke about some family
7 members being relocated to the
8 church, or some other people leaving.
9 Did everybody leave the office
10 or ---?

11 A. No.

12 Q. Okay. So even throughout this
13 time there were people, whoever they
14 might be, that were in and out of the
15 office and conducting business in
16 there?

17 A. That's correct.

18 Q. Okay. Also, we asked earlier
19 about the permits and the transfer of
20 permits and State permits from Anker
21 to ICG or their subsidiaries. You
22 mentioned that would have been the
23 legal department's responsibility.
24 Do you know who, you know, would have
25 contacted the legal department to

1 request this be done or to institute
2 this change or any person in
3 particular at the mine or even within
4 the company that would have issued
5 the instruction to get this done?

6 A. I have no firsthand knowledge
7 of the permit-transfer process.

8 Q. Okay. You stated that it was
9 your opinion that the lightning
10 strike caused the explosion. Okay.
11 Can you give us any things that
12 caused you to form that opinion? Any
13 facts that you're aware of, or any
14 circumstances that you're aware of
15 that cause you to form that opinion?

16 ATTORNEY RAJKOVICH:

17 Again, he's not going
18 to speak on behalf of the
19 company to any investigation
20 they've done.

21 MR. RUTLEDGE:

22 Okay. I understand
23 that. He stated that it was
24 his personal opinion that that
25 was, in fact, the cause of the

1 explosion. I was just trying
2 to ask him if he could give me
3 any insight as to what might
4 have formed that personal
5 opinion.

6 A. Well, again, I'm not going to
7 comment on the specifics of the ICG
8 investigation.

9 MR. RUTLEDGE:

10 Okay. I don't have any
11 other questions right now.

12 Thank you.

13 OFF RECORD DISCUSSION

14 BY MR. RUTLEDGE:

15 Q. Again, you stated, for the
16 record, your opinion was that a
17 lightning strike caused the
18 explosion. I'm not asking you to
19 give me anything that --- any company
20 information or anything from a
21 company investigation. I'm asking
22 what is the basis for your personal
23 opinion? What things may have caused
24 you to come to that opinion?

25 A. I'd like to request a break.

1 MR. RUTLEDGE:

2 Sure.

3 SHORT BREAK TAKEN

4 MR. O'DONNELL:

5 Mr. Rutledge?

6 BY MR. RUTLEDGE:

7 Q. I believe the question was
8 asked, again, if you can give us
9 anything that caused you to form your
10 opinion that a lightning strike was
11 the source of the explosion or the
12 cause of the explosion.

13 A. The company press release that
14 you've shown me here, dated, March
15 14th, contains information that I
16 agree with, in shaping my opinion
17 about the lightning being the cause
18 of the accident.

19 Q. Okay. Could you elaborate on
20 a couple of specific points that
21 might be there or that you might have
22 used to form your opinion?

23 A. Well, the second page. At the
24 top of the page it talks about the
25 coincidental events of a lighting

1 strike, a detected seismic event, and
2 the alarm of the mine CO-monitoring
3 system. Those three events happened
4 within the space of roughly one
5 second. So those facts are primarily
6 why my opinion is lightning caused
7 the accident.

8 Q. Okay. Thanks. And either you
9 or your attorney said that you cannot
10 speak for the company or as a company
11 representative. Okay. Can you tell
12 me who would speak for the company or
13 as a company representative?

14 ATTORNEY RAJKOVICH:

15 Well, I think you have
16 to ask the company about that.

17 ATTORNEY CRAWFORD:

18 Well, he can ask him
19 whether he knows it.

20 ATTORNEY RAJKOVICH:

21 As to who's authorized
22 to speak for the company, you
23 can ask it. I don't know.

24 A. I don't know.

25 MR. RUTLEDGE:

1 Thank you. I don't
2 have any other questions right
3 now.

4 MR. STUART:

5 That was a good pick
6 up, wasn't it?

7 ATTORNEY RAJKOVICH:

8 A good what?

9 MR. STUART:

10 That was a good pick
11 up.

12 ATTORNEY RAJKOVICH:

13 A good pick up?

14 MR. STUART:

15 Uh-huh (yes).

16 MR. O'DONNELL:

17 Is it back to me?

18 MR. RUTLEDGE:

19 I don't have any other
20 questions. Thanks.

21 BY MR. O'DONNELL:

22 Q. So we don't know who would be
23 a company spokesperson then?

24 A. No. To answer that specific
25 question.

1 Q. Would it be the president?

2 A. Possibly.

3 Q. Well, who gave the press
4 releases for the company, then?
5 Wouldn't that person be the
6 spokesperson?

7 ATTORNEY RAJKOVICH:

8 Again, I think he's
9 saying that he doesn't know.
10 He isn't authorized to say ---
11 the company is supposed to
12 designate who speaks for the
13 company.

14 MR. O'DONNELL:

15 Okay.

16 ATTORNEY RAJKOVICH:

17 And this man isn't that
18 person.

19 BY MR. O'DONNELL:

20 Q. But you work for them. I
21 figure you know who ---.

22 ATTORNEY CRAWFORD:

23 Can you answer the
24 question?

25 ATTORNEY RAJKOVICH:

1 Again, who speaks for
2 MSHA? Which one of you guys
3 are authorized to speak for
4 MSHA?

5 MR. O'DONNELL:

6 I am right now, yes.

7 ATTORNEY RAJKOVICH:

8 What caused the
9 explosion then?

10 MR. O'DONNELL:

11 We're asking the
12 questions.

13 ATTORNEY RAJKOVICH:

14 Okay. All right.

15 ATTORNEY CRAWFORD:

16 Well, the question on
17 the table is ---. Isn't the
18 question on the table whether
19 he knew who wrote the press
20 release or who released the
21 press release? That's the
22 question.

23 ATTORNEY RAJKOVICH:

24 I don't think the
25 question was who wrote it.

1 MR. O'DONNELL:

2 I'll ask him whether he
3 knows that. Can he answer it?

4 ATTORNEY RAJKOVICH:

5 I don't think it was
6 who wrote it. Now, if that's
7 another question, we've
8 already addressed that.

9 A. I'll answer the question by
10 saying, I prefer not to comment on
11 the ongoing investigation.

12 BY MR. O'DONNELL:

13 Q. Okay. I just want to know who
14 represents ICG so we could talk to
15 them.

16 ATTORNEY RAJKOVICH:

17 I think you need to ask
18 the company.

19 MR. O'DONNELL:

20 Well, if I don't know
21 who to ask - - - .

22 ATTORNEY RAJKOVICH:

23 Ask the company's
24 attorneys.

25 MR. O'DONNELL:

1 Okay.

2 MR. STUART:

3 Well, since you're
4 speaking here today for the
5 company. Are you their
6 attorney, too?

7 ATTORNEY RAJKOVICH:

8 No, sir. I'm this
9 man's attorney. You don't
10 represent them, do you?

11 ATTORNEY CRAWFORD:

12 We weren't sure ---.

13 ATTORNEY RAJKOVICH:

14 Remind me to get that
15 answer later. You don't
16 represent him --- or you're
17 not answering things. Okay.

18 BY MR. O'DONNELL:

19 Q. Mr. Kitts, when you said you
20 weren't in the command center
21 whenever the misinformation happened,
22 but you had talked to families and
23 given them updates. Tell us a little
24 bit how that transpired and what your
25 involvement was with that, relaying

1 the information and how all that came
2 about.

3 A. Initially it was the family
4 members on-site in the mine office
5 were asked to leave and relocate over
6 to the Sago Baptist Church. And at
7 that time, I informed them that we
8 would provide communication and
9 updates on a regular basis.

10 And we continued that process
11 throughout the whole event. So
12 that's why --- I was the first ICG
13 person to go over to the church and
14 tell the families what we knew at
15 that point, which was very little.
16 But that initiated the process. And
17 then it was ongoing throughout.

18 Q. So were you at the church
19 whenever it was found out that they
20 had just found the missing miners?

21 A. Was I at the church at the
22 time of ---?

23 Q. Or did you give the release
24 that the miners were ---?

25 A. Were alive?

1 Q. Uh-huh (yes). Or how was that
2 information brought over there? How
3 did that happen?

4 A. The company did not do a
5 briefing to that effect.

6 Q. Okay.

7 A. There was no release or
8 briefing to that effect at all. I
9 was out of the command center in the
10 parking lot at the time the 12 alive
11 message came in to the command
12 center.

13 Q. And then there was a time
14 period that occurred, a lag in time,
15 to find out that there was a
16 miscommunication. And then there was
17 a period of time between when the
18 families were told. Do you have any
19 knowledge or do you know anything why
20 there was such a lag or why it
21 happened the way it did?

22 A. I can give you my personal
23 account of what happened during that
24 time period.

25 Q. Okay.

1 A. At approximately 11:45, I was
2 notified about the message of 12
3 alive. It was jubilation. Everybody
4 was just ecstatic at the news. That
5 celebration went on for maybe five or
6 ten minutes. I don't really recall
7 the exact time. But at that time it
8 became very apparent, though, that
9 the scope of our efforts had changed
10 dramatically. Up and to that point
11 it had been a search and rescue
12 effort through the mine-rescue
13 protocol.

14 At that time, the entire
15 complexion of the effort changed to a
16 medical response. So it became a
17 mobilization effort to get medical
18 personnel to the face of Two Left as
19 quickly as possible.

20 So from my perspective, it was
21 very, very hectic at that time. That
22 response was already mobilized and
23 headed through the mine. At the time
24 the mine rescue team reached the
25 fresh air base at approximately

1 12:30, the message came out that it
2 was not 12 alive, it was 1 alive,
3 which didn't really change what we
4 were doing. We still had a medical
5 response.

6 However, it was a very
7 difficult situation because we had no
8 communication along the track. We
9 had one team coming out as quickly as
10 they could with the survivor.
11 Another team going in with the
12 understanding that they were going to
13 retrieve 12 survivors. So that was a
14 very difficult time. We were
15 attempting to manage that situation
16 when indeed the survivor was brought
17 outside and immediately taken to the
18 hospital.

19 So at that point, our rescue
20 effort was very unorganized. In the
21 heat of the moment, there was not a
22 list, at least to my knowledge, of
23 who was on the medical response team
24 going underground. Up until that
25 point, we had been very careful to

1 monitor exactly who was in the mine,
2 where the teams were located and so
3 forth.

4 Due to the miscommunication,
5 that organization fell apart. So we
6 had to regroup the mine rescue teams
7 and debrief the people who had been
8 to the barricade. It was a very
9 hectic busy time for me personally
10 through all that.

11 So it wasn't --- it's hard to
12 tell about time, because I was not
13 keeping notes during this. But
14 through the debriefing and the
15 reorganization effort, they came to
16 me and said, we're going to --- we're
17 going over to the church to inform
18 the families.

19 So I know it's somewhere ---
20 two and a half to three hour time
21 frame went by, but from my
22 perspective it all went by very
23 quickly. It took an inordinate long
24 time to get from the mine office over
25 to the church due to the crowds. And

1 then at that point we went to the
2 church. And it was my understanding
3 that the families had been notified
4 already. It wasn't until I walked
5 into the church and looked out on the
6 crowd and saw all those smiling faces
7 and all the happiness that I realized
8 that they had not been notified.

9 So the news was broken. Just
10 the opposite of the jubilation that
11 had occurred three hours earlier
12 occurred in that church. It was just
13 gut-wrenching.

14 So Ben attempted to make a
15 statement. The situation was very
16 emotionally charged. And the
17 decision was made that it would be
18 better just to leave, so we left.

19 MR. RUTLEDGE:

20 I don't have any
21 questions.

22 MR. O'DONNELL:

23 On behalf of MSHA, I'd
24 like to thank you for
25 appearing and answering

1 questions today. Your
2 cooperation is very important
3 to the investigation as we
4 work to determine the cause of
5 the accident.

6 We ask that you not
7 discuss your testimony with
8 any person who may have
9 already been interviewed or
10 who may be interviewed in the
11 future. This will ensure that
12 we obtain everyone's
13 independent recollection of
14 the events surrounding the
15 accident.

16 After questioning other
17 witnesses, we may call you if
18 we have any follow-up
19 questions that we feel that we
20 may need to ask you. If at
21 any time you have additional
22 information regarding the
23 accident that you would like
24 to provide us, please contact
25 us at the information that we

1 provided.

2 The Mine Act provides
3 certain protections to miners
4 who provide information to
5 MSHA and as a result are
6 treated adversely. If at any
7 time you believe that you've
8 been treated unfairly because
9 of your cooperation in this
10 investigation, you should
11 immediately notify MSHA.

12 If you wish, you may
13 now go back over any answer
14 you have given during this
15 interview. And you may also
16 make any statement that you
17 would like to make at this
18 time.

19 A. I have no further statement.

20 MR. O'DONNELL:

21 All right. We'd like
22 to thank you very much. And
23 I'd like to put on the record
24 that the ICG investigation is
25 put on the record.

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* * * * *
SWORN STATEMENT
CONCLUDED AT 10:12 A.M.
* * * * *

Map of Forensic Survey

depicting
 the results of a lightning discharge into a
 24" Yellow Poplar tree on the
 C.R. Rutherford farm near Sago,
 Upsher County at 6:26:35 am EST
 near the Sago Mine

Prepared for Doug Conaway, Director
 West Virginia Office of Miners'
 Health, Safety and Training
 West Virginia Department of Commerce

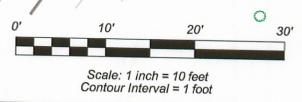
- Notes:**
- A. This map depicts the various wood shards and splinters in their proximity to a 24" yellow poplar struck by a high-intensity lightning strike. The length and width of each shard is depicted uniformly. It is noted that the actual width of each shard varies somewhat, normally tapering to some resemblance of a point on each end. Some, perhaps as many as 10% of the shards, were broken at some point along their length.
 - B. Inside the 50' radius from the poplar, only shards greater than 2' long and 0.1" in width were located. It is estimated that those located accounted for 40% to 50% of the total number of shards within the 50' limit.
 - C. Outside of the 50' radius, shards greater than 1' in length and 0.1" in width were located. It is estimated that those located accounted for 60% of the total number of shards outside of the 50' limit.
 - D. The Vertical Datum upon which this survey is based is that of the Sago Deep Mine, based upon GPS observations taken at Permanent Monument #3 at the mine and a GPS control point north of the survey site that was tied to the stations of this survey.
 - E. The Horizontal Orientation of this survey is Grid North, based upon an application of 8°24' W applied to a magnetic meridian established on the site at Survey Station #1.



GPS Control Point



LEGEND	
	Tree
	Branch
	Shard
	5' Index Contour
	1' Contour Line
	Survey Station



N.W. Robinson
 Marshall W. Robinson, PS
 3/22/06
 Date

Birch River Office 40 Powell Creek Road P.O. Box 438 Birch River, WV 26610		Weston Office 80 U.S. Highway 33 East Weston, WV 26452
PARTY CHIEF: Marshall Robinson, PS		DRAWING NO: treeshards.dwg
FIELD CREW: Ben Singleton, PS Jerry Robinson Robert Darling		PROJECT NO: 04-09-M-06
SURVEYED: January 13, 2006		PREPARED: January 14, 2006
		DRAWN BY: Stacey Brown

Land Surveyors, Mineral and
Construction Consultants

Marshall W. Robinson, PS
Licensed in WV, VA, KY and OH
Jonathan N. White, PS
Jeffrey L. McCartney, PS



Surveying West Virginia
Since 1988

Ben R. Singleton, PS
Dwayne A. Hall, PS
Michael H. Brown, PS
Damon L. Wilkewitz, PS

January 14, 2006

Monte Hieb, PE
Office of Miner's Health Safety and Training
142 Industrial Drive
Oak Hill, West Virginia 25901-0714

Re: Forensic Survey of lightning strike at the C. R. Rutherford farm, Sago, Upshur County.

Dear Mr. Hieb:

I have enclosed with this letter several copies of a map we have prepared depicting the effects of a lightning strike discharged into a 25" yellow poplar on Monday morning, January 2, on the C. R. Rutherford farm.

As we discussed on the site, we separated the density of our location by a 50 foot radius around the tree. Outside of the 50 foot radius, we located every wood shard or splinter that was over 1 foot in length and an inch in width. Inside of the 50' radius, we located every wood shard or splinter that was over 2 feet in length and an inch in diameter. I estimated that, outside of the radius, we located about 60% of the wood shards or splinters, and inside of the radius we located about 40%. This is a very rough estimate only. Within the 50 foot radius there were significantly more small splinters than outside of it.

We transferred elevations and coordinates from Permanent Monument 3 at the mine using survey grade GPS receivers. In the interest of time, because of the pending snow storm, we did not orient our GPS survey to the mine control, since we found in our efforts on January 2 that the mine control orientation, though not in agreement with the grid north orientation of the West Virginia Coordinate System, was not off by a factor that would be worth correcting for over the distance to the lightning strike (my memory, and Ben's, was that this disagreement between the mine control and the State Plane grid orientation was a little over 20" of arc). This displacement was corrected for in our work on January 2.

We oriented our two traverse points on the site to a magnetic meridian, tied to the GPS control point near the site, then adjusted this for the declination between magnetic north and grid north in the area (8°24' west), based upon isogonic data provided on the National Geodetic Survey's website.

P.O. Box 438 Birch River, WV 26610
Ph: 1-800-482-8606 Fax: (304) 649-8608
E-mail: marshall@alleghenysurveys.com

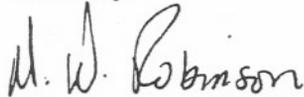
80 U.S. Highway 33 East Weston, WV 26452
Ph: (304) 269-6200 Fax: (304) 269-7262
E-mail: alleghenyweston@citynet.net

This method gave us a more reliable tie to the mine horizontally and vertically, without requiring the time and expense necessary to perform a full-blown static GPS survey to our control. If it is determined that this is necessary in the future for reasons we cannot yet anticipate, then we can tie the control at the site to the control at the mine with two or three additional static sessions.

You will notice that, per your instruction, we located all of the trees, with the exception of small saplings, within the 50' radius, and trees over 12" in diameter outside of the radius. Also, although the map depicts shards and splinters of uniform length and width, we depict the width throughout the shard as its width at the widest point. Most of the shards were tapered at each end, and many, perhaps 10% or so, were broken.

I hope that this survey meets the needs of whoever is able to utilize it in the on-going investigation. We set some fairly arbitrary criteria in the survey because of the pending snow storm, and we did so without any knowledge of what use our efforts might be put to. Let's hope that, if needed, it works.

Cordially,

A handwritten signature in cursive script that reads "M. W. Robinson".

Marshall W Robinson, PS

Enc.: five (5) copies of forensic survey map.

Land Surveyors, Mineral and
Construction Consultants

Marshall W. Robinson, PS
Licensed in WV, VA, KY and OH
Jonathan N. White, PS
Jeffrey L. McCartney, PS



Surveying West Virginia
Since 1988

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Michael H. Brown, PS
Damon L. Wilkewitz, PS

January 14, 2006

Monte Hieb, PE
Office of Miner's Health Safety and Training
142 Industrial Drive
Oak Hill, West Virginia 25901-0714

Re: Time differential in CO monitor's computer at Sago.

Dear Mr. Hieb:

This will document for you my efforts this past Wednesday to determine a common time when two simultaneous lightning strikes, the CO monitor's register of a spike in CO levels, and the Morgantown seismic base station's detection of seismic activity in Upshur County, all occurred. The time of the lightning strike and the seismic activity were both pegged very accurately to Universal Time, almost certainly using GPS receivers. The CO monitor was pegged to the clock on its computer, which was not considered to be accurate. My assignment was to determine the time differential between the CO monitor's computer clock and Universal Time as logged by an active GPS receiver. Our receivers, when you called, were in the office of my former partner, Bruce Hager, in Danville. You and I both agreed that there would be no significant time delay caused by synchronization over the phone, so, after calling the Sago Mine and speaking with John Scott of your organization to let him know of our discussion, I called Bruce Hager's office and had his senior party chief to set up the GPS receiver outside and allow it to gather enough satellite data so that the GPS receiver's clock would be updated by the satellite signals. This is a process that normally takes less than a minute of data. Once the GPS receiver had corrected its own clock, it was brought inside where a call was placed to me by the party chief. (I called a GPS service provider in Louisiana that specializes in the particular GPS unit we have (Trimble 4000 SSI) to make sure that, if the receiver remained on, it would maintain its clock accuracy when disconnected from its antenna, and the individual I spoke with confirmed this). On my end of the line I had a Hewlett-Packard 48GX data collector equipped with a digital clock that is utilized in performing astronomic observations, where highly accurate time is a necessity. Once we "pegged" the HP's clock to the GPS receiver over the phone, I called the Sago Mine and spoke to John Scott again. Mr. Scott told me the computer was still purging itself of the CO data, and I would receive a call when its download was complete. At about 5:37 or 5:38 I received a call from an individual whose last name was Hedrick. I do not recall his first name.

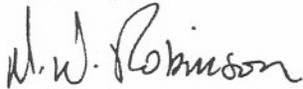
P.O. Box 438 Birch River, WV 26610
Ph: 1-800-482-8606 Fax: (304) 649-8608
E-mail: marshall@alleghenysurveys.com

80 U.S. Highway 33 East Weston, WV 26452
Ph: (304) 269-6200 Fax: (304) 269-7262
E-mail: alleghenyweston@citynet.net

In determining the differential between the computer for the CO Monitor and my HP 48, I asked Mr. Hedrick to tell me "mark" when the computer clock read the next even minute. This minute was 5:39:00 PM on Wednesday. Mr. Hedrick gave me a count-down from about 10 seconds before 5:39:00. When he said "mark" my HP read 5:34:04 EST. This means that there was a 4 minute, 56 second positive difference between the computer's clock and Eastern Standard Time as determined by the GPS receiver's corrected clock.

I hope this information helps you in your investigations into the tragedy at Sago. I applaud your efforts, and wish you the best of luck.

Cordially,



Marshall W. Robinson, PS



FOR IMMEDIATE RELEASE

Contact:
Media Relations for ICG
216-937-8909

**INTERNATIONAL COAL GROUP TO RESUME OPERATIONS AT SAGO MINE;
ANNOUNCES INITIAL FINDINGS OF INDEPENDENT ACCIDENT INVESTIGATION**

ASHLAND, Ky. – March 14, 2006 – International Coal Group, Inc. (NYSE: ICO) announced today that it has completed its on-site investigation into the explosion that occurred at the Sago Mine near Buckhannon, West Virginia on January 2, 2006. Although state and federal mine safety authorities had provided approval last week to resume mining operations at the Sago Mine, the company delayed resumption of coal production until it had announced its initial findings to the families and coworkers of those killed and injured in the accident.

The company revealed its initial findings to the families earlier today in a series of private meetings conducted at West Virginia Wesleyan College. Employees of the Sago Mine will receive their briefing as they report to work for their regular shifts beginning late tonight. Normal coal mining activities are expected to resume on Wednesday, March 15.

“By the end of last week, work crews had completed repairs to the mine infrastructure damaged by the explosion, and both state and federal mine regulators had confirmed that the Sago Mine was approved to resume mining operations,” said Ben Hatfield, President and CEO of International Coal Group (ICG). “However, our plan from the beginning was to delay restart of the mine until we had met with the families and with our Sago employees to review the initial findings of our independent investigation. It’s important that they get prompt information on what we’ve learned about the cause of the accident, and the steps taken to ensure that the mine is safe, so they will have some degree of comfort while we await the official MSHA and state investigation reports.”

Hatfield noted that ICG’s independent investigation utilized a diverse team of mining, electrical, and combustion consultants that are recognized industry experts in mine explosion investigations. That investigation has to date produced the following key initial findings:

- The explosion was ignited by lightning and fueled by methane that naturally accumulated in an abandoned area of the mine that had been recently sealed.



- The lightning ignition appears to be verified by three independent events that occurred concurrently at 6:26 AM on January 2: (i) an unusually large lightning strike of roughly three times normal strength was measured near the Sago Mine by an independent weather monitoring service; (ii) a seismic event at the Sago Mine was detected by a Morgantown area USGS seismic station; and (iii) the Sago Mine atmospheric monitoring system signaled a combustion alarm due to presence of carbon monoxide.
- The precise route by which the lightning electrical charge traveled from a surface strike location to the sealed area remains under investigation.
- The seals, constructed of Omega block under a plan approved by MSHA and designed to withstand forces of 20 pounds per square inch ("psi"), were essentially obliterated by the explosion. Calculations indicate that the explosive forces experienced at each seal were substantially greater than 20 psi. More specifically, the forces at roofline were as high as 30 psi at all the seals – and possibly as high as 60 psi at some of the seals.
- None of the citations issued at the Sago Mine during the accident investigation, or prior to the accident during 2005, were linked to the explosion in any way. Each citation has been promptly remedied.

The company will continue with data review and testing to verify the findings, and will continue full cooperation with the ongoing state and federal investigations.

"While our independent investigation is certainly not the final word on the explosion, we are confident that the joint federal-state investigation will reach a similar conclusion," Hatfield said. "We hope that the announcement of our preliminary findings as to the cause of the explosion will provide meaningful information to the families and our employees and will answer many of their lingering questions."

Hatfield added, "We recognize that the Sago Mine will be under close scrutiny from state and federal inspectors, as well as our own employees, as we resume operations. Frankly, we welcome that scrutiny. We have worked hard to address all concerns and are confident that we will provide a safe working environment for our miners."

To prepare the mine for resumption of coal production, more than 80 employees have been working underground for several weeks to repair damage from the explosion. All ventilation controls, including stoppings and overcasts, have been reconstructed. The formerly sealed area will be ventilated to the surface through two boreholes and a small ventilation shaft that were drilled recently, which will eliminate the need for those seals.

ICG also confirmed its commitment to technological advancements within the coal industry to attempt to prevent any future accidents of this nature. ICG, along with other coal companies, is participating with the National Institute for Occupational Safety and Health in its underground coal mine communications research effort. Additionally, ICG is

independently reviewing potential underground communication technology for testing and possible implementation in ICG mines.

"We are pleased that we can get our Sago employees back to work with the knowledge that the explosion was an unpredictable and highly unusual accident," Hatfield said. "This tragedy will always remain in our memories, but we've got to do more than just remember the good people that died and were injured. We must learn lessons from this accident that will make coal miners safer in years to come. That is our commitment to the families of the twelve miners lost."

The Company's more detailed "Initial Findings of ICG Independent Investigation of Sago Mine Explosion" are being provided as an attachment to this news release.

ICG is a leading producer of coal in Northern and Central Appalachia and the Illinois Basin. The company has eleven active mining complexes, of which ten are located in Northern and Central Appalachia, and one in Central Illinois. ICG's mining operations and reserves are strategically located to serve utility, metallurgical and industrial customers throughout the eastern United States.

The foregoing statements in this document and the attachments hereto which are not statements of historical fact are forward-looking statements within the "safe harbor" provision of the Private Securities Litigation Reform Act of 1995. Because these forward-looking statements are subject to various risks and uncertainties, actual results may differ materially from those implied in the forward-looking statements. The following factors are among those that may cause actual results to differ materially from the forward-looking statements: market conditions for coal, electricity and steel; the outcome of the investigation into the explosion at the Sago Mine; changes in legislation, regulations and government policies affecting the coal industry, affecting safety requirements and affecting coal usage and changes in relationships with customers, transportation, a variety of other operational, geologic, environmental, permitting, labor, transportation, weather and market related factors. The investor should keep in mind that any forward-looking statement made by ICG in this news release or elsewhere speaks only as of the date on which the company makes it. New risks and uncertainties come up from time to time, and it is impossible for the company to predict these events or how they may affect the company. ICG has no duty to, and does not intend to, update or revise the forward-looking statements in this news release after the date of issue, except as may be required by law. In light of these risks and uncertainties, the investor should keep in mind that any forward-looking statement made in this news release or elsewhere might not occur.

FOR FURTHER INFORMATION, CALL 216-937-8909

###

INITIAL FINDINGS OF ICG INDEPENDENT INVESTIGATION
OF SAGO MINE EXPLOSION
MARCH 14, 2006

In addition to supporting state and federal mine safety officials at each step of their on-site investigation, ICG retained several outside consultants to conduct an independent investigation into the Sago Mine accident. This independent investigation team includes consultants that are recognized industry experts in mining, electricity, combustion, and materials engineering – all of whom have direct experience with investigation of coal mine explosions. ICG has substantially completed its accident investigation, subject to ongoing verification analysis, and today announced the following initial findings:

- The Sago Mine explosion occurred within an area that was sealed off from the active working sections of the mine.
- The area where the explosion occurred was sealed with 40-inch-thick Omega block seals, which were installed under a plan approved by the federal Mine Safety & Health Administration (MSHA) requiring seals to withstand forces of 20 pounds per square inch (psi). Inspection records confirm that the seals were scrutinized during the period of construction, and after construction, by both federal and state mine inspectors.
- Initial calculations indicate that the forces of the explosion were as high as 30 psi at roofline at all the seals and physical evidence at some locations near the seals within the sealed area indicate pressures of 60 psi or higher. The calculation of the magnitude of the forces is determined by measuring the forces required to bend substantial steel items such as roof bolt plates, "pie pans" used for roof support, or belt hangers that were left after the belt was removed from the sealed area.
- The seals were completely destroyed by the explosion. In only one place, at the No. 1 seal, were there any significant remnants of the Omega blocks used to build the seals. Many of the seals were completely pulverized by the explosion. Also, wood block crib structures constructed at the seals as contemplated by the MSHA approved plan were also destroyed and debris from those cribs within the sealed area may also have contributed to the destruction of the seals.
- The explosion appears to have been fueled by methane naturally liberated in the sealed area. There is no evidence that the gas well located adjacent to the sealed area was a contributing factor to the explosion.
- Coal or float dust in either the active workings or the sealed area did not appear to provide fuel for the explosion and did not propagate the explosion within the active areas of the mine. In the area of the seals particularly, every indication is that the area was more than sufficiently rockdusted.
- When there is an ignition of methane within a sealed area, investigators look at a number of potential sources of ignition: electrical equipment, roof falls, and

lightning. Electrical equipment and roof falls do not appear to have caused the ignition.

- There was no power source in the sealed area. No track or conveyor belt extended from the active areas of the mine into the sealed area to serve as a conduit for electrical energy. Steel wire mesh, which was installed to protect against roof falls, had been appropriately removed in the area of the seals.
- There was no energized electrical equipment in the sealed area. Although there was an abandoned water pump under water at the faces of old 2 Left, it was not connected to any power source. Presence of such abandoned equipment within sealed mine areas is not prohibited by regulations.
- Investigators inspected the area where the ignition started and determined that it was unlikely that the methane was ignited by a roof fall.
- All evidence gathered to this point indicates that the ignition occurred due to lightning. A violent thunderstorm passed through this area on the morning of January 2. Data from an independent weather monitoring service confirmed an unusually large lightning strike (3 times normal strength) occurred in the vicinity of the mine, a seismic event near Sago was recorded by the USGS seismic monitoring station at Mont Chateau, and a carbon monoxide alarm was triggered on the Sago Mine monitoring system almost simultaneously at approximately 6:26 AM on January 2.
- At the location where the ignition is thought to have begun, there are several unusual streaks across the roof on either side of a coal pillar. The streaks across the roof appear to have an associated increase in magnetism, which would suggest the passage of electrical energy across or through the rock. The testing of these unusual features has not been completed to determine if it was created by the passage of electrical energy from lightning.
- Although it appears that lightning was the source of the energy for ignition, it has not been determined how it passed into the sealed area. There is no obvious conduit directly from the surface, such as a borehole with a metal casing, although searches have been conducted on the surface. The track, belt conveyor, electrical cables and steel roof mesh did not pass through the seals and it does not appear they were a direct conduit for electricity into the sealed area. There are several potential paths for the electricity into the sealed area: through the mine, through the ground itself, through the gas well casing and through the ground, or through the network of gas well lines on the surface and into the ground. The ground above the sealed area was tested and indicated a lower resistivity to electricity. One of the mapped lightning strikes was 300 feet away from a power pole that supplied power to the mine and it is possible that the electrical energy entered the mine through this mechanism traveling perhaps along the conveyor belt structure. At this time, however, there is no definitive evidence on how the electrical energy was conducted into the sealed area.

- None of the citations issued at the Sago Mine during the accident investigation, or prior to the accident during 2005, were linked to the explosion in any way. Each citation has been promptly remedied.

###



West Virginia Office of Miner's Health, Safety, and Training

142 Industrial Drive
Oak Hill, WV 25901



Mine Safety and Health Administration
Approval and Certification Center

ROBERT C. BORING

Electrical Engineer

Industrial Park Road
RR No. 1, Box 251
Triadelphia, WV 26059

(304) 547-0400
FAX (304) 547-2044
E-Mail boring-robert@msha.gov

dot

MEMO

TO: Brian Mills
FROM: Monte Hieb
DATE: March 8, 2006
SUBJECT: Analysis of Sago pump cable

Two (2) hypotheses are to be tested in regards to an abandoned 1" cable found leading to an abandoned pump located at the down-dip end of the sealed Old 2nd Left section. The cable (totaling approximately 1350 ft.) runs SE from the pump to a nearby pump box, and generally follows what was the track entry, outby to a cathead located in the immediate vicinity where the ignition is suspected to have occurred.

This cable was found to be broken in only 3 places between the cathead and the pump. It is possible this cable could have been continuous along its entire length at the time of the explosion, however testimony indicates it was deliberately cut at Break 1 (see attached map) prior to the section being sealed and the subsequent explosion.

The 1" pump cable is branded as follows:

600/2000V 3/6 6AWG
Type G-GC
P-7K-184035-MSHA
CPE FTI FT5 50C

It is estimated that on the inby side approximately 1/3 -1/2 of the total cable length was submerged below the water pool at the time of the explosion. This section of the cable and the pump box were, on visual inspection, left virtually undamaged by the explosion.

The cable lengths between Break 1 and Break 3 were partially buried in floor debris from the explosion, in general being tangled up in this debris, including being interlaced with the many crib blocks lying scattered throughout this area.

Break 2 and Break 3 appear to be a relatively violent breaks, the latter of which occurred at a cable splice. Testimony indicates the cable was manually cut a Break 1 with an ax prior to the section being sealed and abandoned. It is believed that the paired ends of the three (3) resulting breaks mate to one another. These ends, along with the cathead and pump box, have been recovered for closer examination and testing.

In order to investigate all possibilities of contributing causes to the explosion the following two related theories are offered for exploration and testing, to be disproved or supported as the evidence and analysis directs. Both of these hypotheses involve lightning.

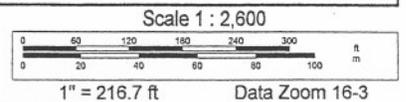
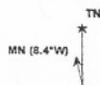
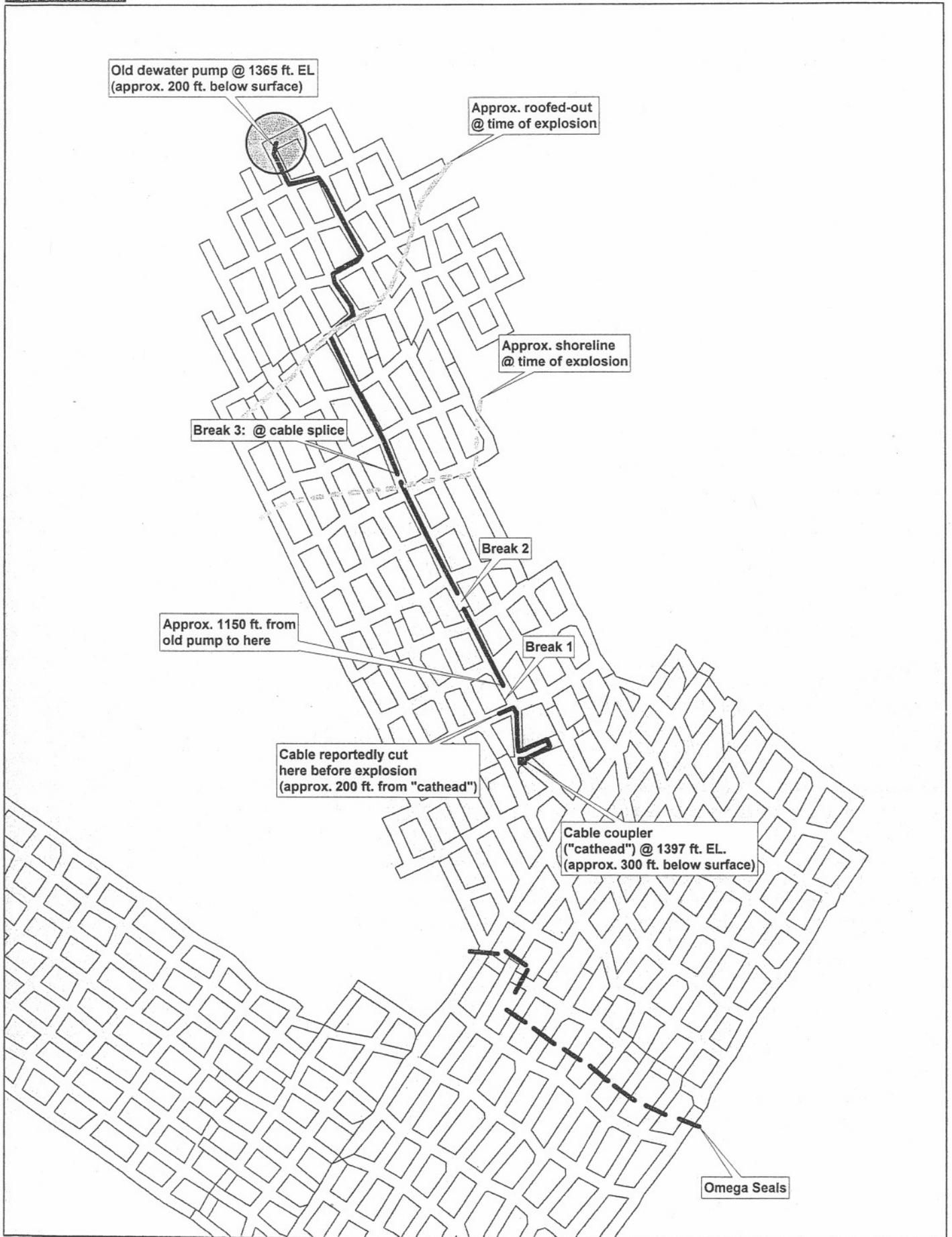
Theory 1: Electrostatic discharge: The old pump located at the down-dip end of the sealed Old 2nd Left section was under water at the time of the explosion. Preliminary conductivity tests suggest the accumulated water pool (est. to be approx 200,000 gallons) was capable of transmitting electric current. In the event a lightning strike at the surface were able to communicate electrically with this pool, electrical energy could have entered the pump and therefore the cable, passing on to the vicinity of the cathead or the first outby cable break which may have existed prior to the explosion.

Theory 2: Magnetic inductance: A peak magnetic radiation field of 2500nT was generated by the 101 kA lightning strike that occurred SW of Sago Mine at the same time as explosion. Given sufficient length of windings of the motor coils and/or length of the pump cable conductors, it is "possible" that even in the absence of an electrical connection to the surface that under the right conditions such a large magnetic flux from this large lightning stroke may have induced an energy pulse through the static cable, passing on to the vicinity of the cathead or the first outby cable break which may have existed prior to the explosion.

Analysis needed to assist hypotheses testing:

Additional work is being done at this time to challenge the above theories. To assist in this effort testing of the electrical components is necessary. The following is not a complete list, as it is anticipated that after preliminary discussions with the testing experts at MSHA-Tridelfia, and at various stages of their analysis and findings, that additional tests will be desired and needed.

- 1) The pump box and the cable end pairs at Break 1, Break 2, and Break 3 (see attached map) should be analyzed and tested to determine if a continuous cable ran from the cathead to the pump at the time of the explosion. This is important both to establish continuity to the location of the suspected ignition and to establish the length of cable available for inductance calculations.
- 2) What was the mechanism for cable breakage at Break 1, Break 2, Break 3? (i.e. manual cutting, damage from moving equipment [such as scoop bucket, etc.], explosion-related tears, dilation from a voltage surge, etc).
- 3) Is there any evidence of sparking, heating, melting, etc. at any of the cable ends at Break 1, Break 2, Break 3, the cathead, or the pump box?
- 4) Do the respective cable end pairs at Break 1, Break 2, and Break 3 match up as they appear to?
- 5) Other



Vaisala sensors: on GPS time

Main Identity

From: <letha.reilly@vaisala.com>
To: <mhieb@verizon.net>
Cc: <thunderstorm.netsupport@vaisala.com>
Sent: Friday, January 13, 2006 4:56 PM
Subject: RE: What is the time datum?

Hello Monte,

All our sensors record the lightning events in UTC and are synchronized with GPS engines.

I hope this answers your question.

Thanks,
Letha

Letha Reilly

Senior Technical Support Representative
Vaisala Inc., Tucson Operations
2705 E. Medina Road, Tucson, AZ 85706 USA
International Tel: 520.889.0839
Domestic Tel: 800.221.9779
Fax: 520.741.2848

E-mail:

Technical support: thunderstorm.support@vaisala.com

Direct: letha.reilly@vaisala.com

Division Website: www.vaisala.com/thunderstorm

Corporate Website: www.vaisala.com

NOTE: For all support type problems, please email thunderstorm.support@vaisala.com and not my direct email address, thank you.

From: Monte [<mailto:mhieb@verizon.net>]
Sent: Thursday, January 12, 2006 4:17 PM
To: thunderstorm.netsupport@vaisala.com
Subject: What is the time datum?

Is your time datum the same as used for GPS synchronization?



STRIKEnet Report LA105304

Reference:	Sago 01-02-06	Start Time	01/02/2006 05:00:00 EST
Ordered by:	Monte Hieb	End Time	01/02/2006 07:00:00 EST
	WV Office of MHS&T	Center Latitude	38.9408
	142 Industrial Drive	Center Longitude	-80.2028
	Oak Hill, WV 25901 USA	Location	LAT/LON
		Search Radius	5.00 mi

Details for all strikes detected within the search area.

Date/Time	Latitude	Longitude	kA	Bearing	Range
01/02/2006 06:26:35.522 EST	38.897	-80.231	+38.8	206.8	3.4 --
01/02/2006 06:26:35.680 EST	38.926	-80.233	+101.0	237.8	1.9 --
01/02/2006 06:38:51.838 EST	38.975	-80.123	-12.6	61.4	4.9
01/02/2006 06:38:51.846 EST	38.980	-80.138	+85.7	51.8	4.4 --

01/05/2006 20:24:39.526 GMT



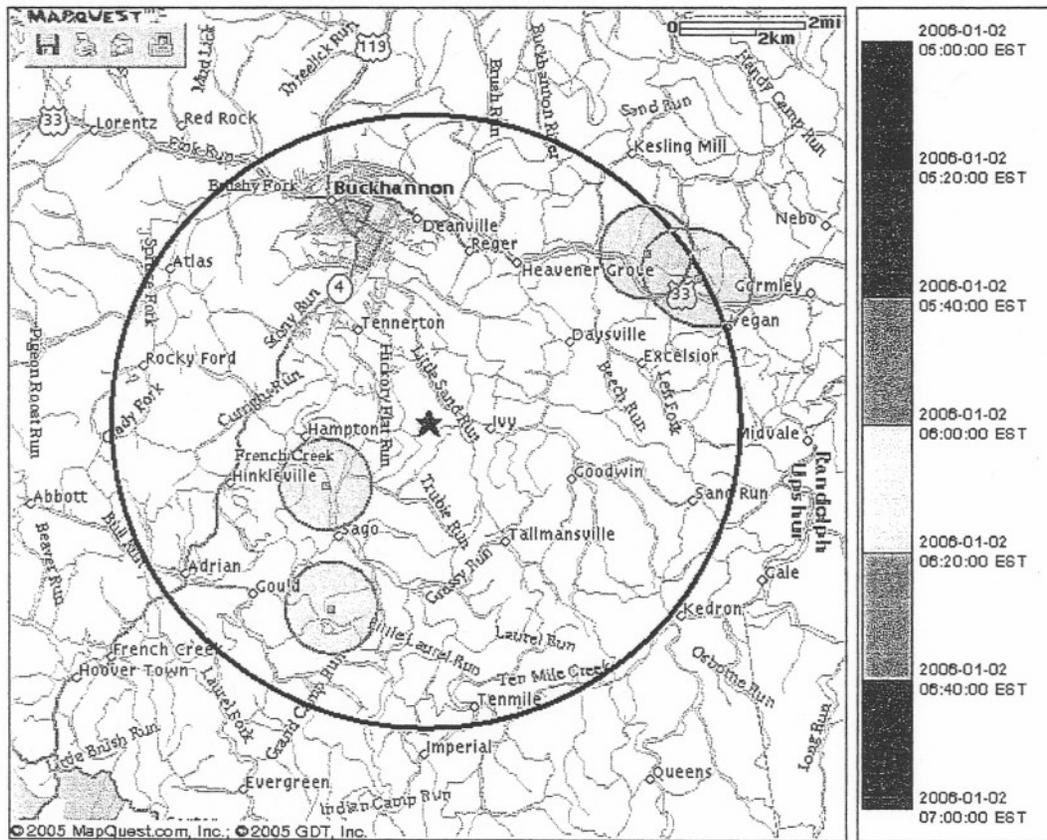
Page 2 of 2



STRIKENet Report 105610 Redo of 105304

Reference:	Sago 01-02-06	Start Time	01/02/2006 05:00:00 EST
Ordered by:	Monte Hieb	End Time	01/02/2006 07:00:00 EST
	WV Office of MHS&T	Center Latitude	38.9408
	142 Industrial Drive	Center Longitude	-80.2028
	Oak Hill, WV 25901 USA	Location	LAT/LON
		Search Radius	5.00 mi

99% confidence ellipses for all strikes detected within the search area.



Median strike location accuracy is 300 meters. Lightning data provided by the U.S. NLDN[®] and CLDN.



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Vaisala STRIKENet Provides the Most Reliable Lightning Location Technology for Objective Claim Verification

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Scientifically proven, the U.S. National Lightning Detection Network® (NLDN) and the Canadian Lightning Detection Network (CLDN) provide the most accurate lightning data information available.

Vaisala STRIKENet® is trusted and used by the top ten property and casualty insurance companies, power utilities, researchers and legal investigators to provide objective, documented evidence of the presence or absence of lightning.

Since 1995, over 200,000 lightning claims reports have been verified by Vaisala STRIKENet® and data from the NLDN. It has been verified that almost one-third of all lightning claims did not involve lightning on the date of loss.

Vaisala STRIKENet® lightning verification reports help control costs and streamline the claim verification process.

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- Vaisala STRIKENet® Basic Report: A summary of the number of lightning strikes detected in your search area for a time period up to 24 hours.
- Vaisala STRIKENet® Location Map: Get a map with lightning activity plotted within your search region.
- Vaisala STRIKENet® Confidence Ellipse Map: Add 99% confidence ellipses to your point plot map. These ellipses indicate a 99% certainty that the recorded lightning event contacted the ground within the bounds of the ellipse.
- Vaisala STRIKENet® Strike Details Report: Includes the date, time (to nearest second), latitude, longitude, peak current (kA), bearing and range from the search center point for each detected strike.

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 URL: <http://www.vaisala.com/businessareas/measurementsystems/thunderstorm/knowledgecenter/aboutnldn>

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Vaisala's U.S. National Lightning Detection Network®

Vaisala's U.S. NLDN® is the most reliable lightning information system monitoring cloud-to-ground lightning activity across the continental United States, 24 hours a day, 365 days a year.

Key Applications for NLDN Lightning Information

- Weather forecasting: Help predict severe weather for public warning
- Electric power utilities: Pre-position field crews for approaching storm threats and to improve engineering and design with lightning analysis
- Air traffic control: Re-route aircraft around hazardous thunderstorms
- Airports: Suspend high-risk activities like fueling during lightning threats
- Insurance and arson: Investigate lightning as the cause of property damage or fire
- Power-sensitive manufacturing and processing operations: Prepare for storm-caused power outages by switching to back-up power early
- Hazardous materials handling: Warn personnel working near explosives and flammable materials to evacuate
- Forestry: Dispatch crews to suspected fire starts for more successful initial attack
- Golf and outdoor recreation: Warn players to seek safety from storms
- Launch facilities: Monitor for safest weather conditions for shuttle and satellite launches

How the NLDN works

Step 1: Network of lightning sensors

U.S. NLDN consists of more than 100 remote, ground-based Vaisala IMPACT ESP Lightning Sensors

Step 2: Lightning detection

Vaisala IMPACT ESP sensors instantly detect the electromagnetic signals given off when lightning strikes the earth's surface

Step 3: Data collection from sensors

Vaisala IMPACT ESP sensors send raw data via satellite to the Network Control Center in Tucson, Arizona

Step 4: Lightning data analysis

Within seconds, the NCC's central analyzers process information on location, time, polarity, and amplitude of each stroke

Step 5: Lightning information delivery

Lightning information is sent to customers across the country