IN RE: CRANDALL CANYON

MINE INVESTIGATION INTERVIEWS

INTERVIEW

OF

JOE CYBULSKI

INTERVIEWERS:

JOE PAVLOVICH, ERNEST TEASTER

DATE:

JANUARY 7, 2007

BY MR. PAVLOVICH:

Q. Okay. Every time they've had an accident in the past since it's I guess Pyro they've always done an internal review out of MSHA. And this time because Mr. Stickler and Kevin Stricklin were both on site and pretty much hands on with a lot of the things that were going on, the Secretary elected not to do an internal review but to do what was called an independent review. So they asked Ernie and I to come out of retirement to participate. Ernie retired five and a half years ago. I retired about three years ago and they said would you come out of retirement and do this review for us. So we both agreed to do that. Of course you know the people behind you there are MSHA employees except fo[Ex. (b)(6) and Ex. (b] with SOL and we needed their help to help us facilitate this project and do this work. So they basically assigned them to work for us for this period of time. Once we finish this, we'll write a report that will go to the Secretary's office. It won't go to MSHA as done in the past for a cut on things. It will go directly to the Secretary's office. And then what she does with it she'll do I guess, we don't know. What we ask Joe, we're taping these interviews and the reason for that is so that we can use that as a reference. Is that okay with you?

A. Fine, yes.

Q. Okay. I've got a brief statement here to read to you and then we'll get started.

MR. PAVLOVICH:

The Secretary of Labor has assigned this group the task of evaluating MSHA's performance during the period preceding the August 6, 2007 coal bounce at the Crandall Canyon mine and the subsequent rescue effort. We will also be evaluating issues that were raised during this time period regarding Bob Murray and his interaction with MSHA. This is not an investigation or review of any individual

person. It is an administrative review of MSHA's actions as an agency. This evaluation will be presented to the Secretary in the near future and it is intended that the results of the evaluation will be made public. The interview is being conducted to gather information for this assignment. We also intend to interview a number of other MSHA employees. So that we may obtain unbiased information from all persons to be interviewed, we ask that you not discuss this interview with anyone until all the interviews have been completed. Okay?

A. Okay.

Q. All right. And you are a management employee; right?

A. Correct.

Q. Okay. So you are entitled to representation but not union representation, do you understand that?

A. Yes.

Q. Okay. All right. Can you tell us your full name, Joe?

A. Joseph A. Cybulski.

Q. Okay. And what is your present job title?

A. Chief roof control division.

Q. Okay. How long have you been the chief of the roof control?

A. About three months.

Q. Three months, and prior to that what was your position?

A. I was a supervisory mining engineer in the roof control division.

Q. Okay. So you were in management at that time, too?

A. Yes.

Q. Okay. About how big is your roof control group that you now manage?

A. It's constantly shrinking now, we just had another fellow retire. We're down to

about 12 people right now on the division.

Q. Okay. Twelve (12) in the division?

A. Yes.

Q. And you're responsible for the whole division?

A. Correct.

Q. Okay. How long have you been with Tech Support?

A. Since 1978.

Q. '78. And is that when you started with the government ---

A. Yes.

Q. --- or were you with the government prior to that?

A. No. I started direct with Tech Support in '78.

Q. Can you tell us a little bit about your history prior to '78?

A. I graduated Penn State University. I worked for Factory Mutual Engineering for about six months. Basically I was a loss prevention consultant going out and inspecting just about anything, insurance companies. Six insurance companies formed Factory Mutual Engineering. Basically we were like consultants for them or inspectors. So after college for about six months I inspected could be anything from like malls to manufacturing plants, things like that.

Q. Okay. Can you hear [redacted] (7)(C) You'll have to speak up pretty loud or if you guys want to move up closer somewhere.) Okay. I know the problem is, you know, you're speaking back this way and they're trying to hear. And this room is awful big so they don't get much reflection.

A. Okay. I'll try and speak up.

Q. Okay. So this was your first mining type job with MSHA?

A. Correct.

Q. Okay. All right. And you've always worked in Tech Support; right?

A. Yes, in the roof control division.

Q. Always in the roof control division?

A. Yes.

Q. Okay. Do you feel that the staffing of your division is adequate or was adequate when this accident occurred or ---?

A. Currently I don't feel it's adequate. Like I said, we've lost several people, a couple due to retirement. Another individual has taken a job or I guess will shortly take a job with the seals division. So I said currently we're down our field people. Basically we're what I consider really short right now. And we just lost the fellow that ran our lab, Ray Bazoni (phonetic) tested all our roof faults and all of that, he retired so ---.

Q. Okay. I didn't know that.

MR. TEASTER:

How many do you think you're short?

A. Oh, if you'd ask me I probably would like to have another --- at least another six to ten field people.

MR. TEASTER:

I know but how many do you need?

A. I probably need another six.

BY MR. PAVLOVICH:

Q. Okay. Primarily can you tell us a little bit about what the duties and the responsibilities of your group are?

A. Well, we respond to any ground control problems. Typically, we get involved in any ground control accident investigation underground. I said before any bolts or

plates we have a lab that we test bolts or plates. We do evaluations of cabs, canopies, HRS systems.

Q. Okay.

A. We participate in training for the inspectors and for industry, ground control related training. Those are both for coal and metal/non metal. And we conduct field investigations, ground control related field investigations all over the country now since there is no longer a Denver Tech Support System.

Q. Okay. So are you primarily then --- you assist the districts, the coal and metal districts and ground control issues?

A. Primarily the districts, yes. But we also do get requests from directly --- or through the --- from the mine companies or on occasion from manufacturers, too.

Q. Okay.

A. But our primary customer would be the districts.

Q. Okay. Do you assist them with approval of plans at all, roof control plans or ground control plans?

A. Portions of it. Occasionally we'll get a --- nothing on a regular systematic basis. But every now and then if there's a question with a roof control plan they might send in a portion of the plan for us to look at or the plan.

Q. Okay. And then how do you feel that your rule or your peoples rule is in that regard? I mean they're not actually approving the plan, are they, ---

A. No.

Q. --- they're assisting?

A. Yeah, we're assisting aspects. Like they might --- if there's a question about the HRS systems on bolt spacing, things like that, you know, they would send it in. And we would look at a certain aspect of it. But no, we don't approve the ---.

Q. And then you'd write a recommendation to them, a formal response usually or can you give verbal responses?

A. Both, yes. It would vary depending upon the nature of it. Sometimes it's a phone call and they'll say hey, I'm going to fax you a portion of a plan could you give me an opinion on this?

Q. Okay. Can you tell us if you had any formal training or your group has had any formal training in dealing with mine emergencies?

A. I participated in a couple of MERD exercises and ---.

Q. Okay. How long ago have those been, quite a while?

A. It's been quite a while, yeah.

Q. So for the most part probably not?

A. Probably not, no.

Q. Okay. Can you tell us about your experience with bumps?

A. Well my first experience was back in the early to mid '80s down at the Olga Mine.

Q. Olga; okay. In West Virginia?

A. Down in southern West Virginia, yes.

Q. Okay.

A. And then two years ago I participated in a fatal accident investigation out at the Aberdeen Mine in District Nine.

Q. Okay. So would you say you're pretty familiar with investigating bumps and anything about bump control?

A. I would say I'm familiar with it, yes.

Q. Okay. Have you ever presented any training to industry or MSHA people about bump prevention or control of bumps?

A. Personally I haven't, no.

Q. No. Okay. Does your group usually do that?

A. Yes.

Q. The people in your group have done that?

A. Yes.

Q. Okay. So you've been in District Nine before, you said the Aberdeen mine you investigated a bump. Have you been out there several times concerning bumps or bump issues?

A. No. That was the only time.

Q. Okay. Have you or your group ever made any recommendations to District Nine in regard to preventing or minimizing bumps that you know of?

A. Yes.

Q. Okay. So in the past people have been involved in that?

A. Yes.

Q. Okay. Would you happen to recall any of those instances or what they pertain to?

A. I said we've had request from District Nine in the past to conduct investigations out there regarding bumps. And typically in our memos there would be some recommendations or suggestions regarding ---.

Q. Of how to try to minimize or prevent them?

A. Yes.

Q. Okay. But usually that's a result of after a bump had occurred ---

A. Yes.

Q. --- when you investigate it?

A. Yes.

Q. How would you define a difference between a bounce or a bump or an outburst or a burst? Do you have any kind of guideline or a rule of thumb that you go by on that, Joe?

A. Well personally I don't. I mean a bounce seems to be a term that's associated with west --- out west, you know.

Q. Okay.

A. Back here in the east we --- you know, I never heard the term bounce associated with any of the forcible injections of coal.

Q. Okay. It's a bump.

A. Typically they call it a bump back here, although out in the west, you know, they've called them bounces or bumps, too.

Q. Okay. So it's kind of an interchangeable term?

A. Yes.

Q. I mean you wouldn't say well a bounce is one of this magnitude but a bump is this or anything?

A. No.

Q. And your group pretty much feels that way, too? I mean if you have an outburst of coal that's pretty much a bounce or a bump either one?

A. Yes. I would say so, yeah.

Q. Okay. How about an outburst or a burst? Is there any difference in that?

A. Well I guess if you can talk about a rock burst, you know, again they're metal on metal. Since we do deal with metal on metal, you know, you're talking about a rock outburst or a gas outburst.

Q. Okay.

A. We've conducted I believe one or two --- or our group has conducted one or

two investigations involving, you know, gas outbursts.

Q. Okay. Do you know when one, either a bounce or a bump or whatever would become immediately reportable to MSHA?

A. Well, if it would cause an injury or if it would halt production.

Q. So there's like five things --- you're familiar though --- I mean I don't expect you to have them all memorized. But you know there's specific items that says if this happens you must report it immediately to MSHA.

A. Yeah.

Q. Can you tell us a little bit about your experience and training in using ARMPS?

A. We've had some training in the past in the roof control specialist training. Typically what we'll do on occasion is bring in some of the NIOSH people such as Chris Mark.

Q. Okay.

A. And I've attended some of his sessions on ARMPS.

Q. Okay. Now do you guys also then provide that to the district people, too, ---

A. Yes.

Q. --- the training in ARMPS?

A. Yes.

Q. Is it a formal type thing or is it pretty much at their request?

A. Although this last roof control specialist training we did have some training on ARMPS, ALPS and LAMODEL formal, I don't know what your definition is like --- what you mean by formal or at their request, is it ---.

Q. Well I mean I guess if you said we're going to have the roof control seminar at the academy for all the roof control supervisors and you went and did a two hour presentation on the screen that showed here's ---

A. Okay.

Q. --- I would say that was formal.

A. Yeah, we've done that.

Q. But if [redacted] calls and says hey how about talking to me --- or talking me through one of those programs that probably be more informal or one of his guys. I mean do you do both?

A. We do both.

Q. You would do both; okay?

A. Yeah.

Q. Okay. So if someone had a specific issue or problem and said how about looking at this or helping walk one of my guys through it you would do that too. Plus you also would do the more formal training for a group of roof control people?

A. Yeah. Just to give you an example there was an issue in district four probably I want to say a month or two months ago, where they were using ARMPS to analyze a certain situation. And it really didn't fit into --- basically in this situation they wanted to know. ARMPS is very easy to use if you have a nice systematic recovery system. It doesn't fit all the mining situations that are out there. And basically what they were doing is similar to a situation here at Crandall Canyon. You know, where you're pulling --- you have three pillars in a row but you're only pulling two, how you model that in ARMPS with the barrier and all that. Well district four had a similar situation so Don Winston and I talked about it. I talked it over with Joe and I said this is probably the way you should approach this analyzing that barrier. So that's an example of kind of like a informal approach.

Q. Okay. Okay. Very good. How about LAMODEL, are you pretty familiar with it?

A. Personally I haven't used LAMODEL that much. A couple other guys in the group have used it, but personally I haven't.

Q. Okay. So you have some people in your group that have expertise?

A. More experience, yes.

Q. Does it have a different application then ARMPS does?

A. Well numerical modeling, well number one, it's much more labor intensive but you're able to model complex geometries mining sequences, cut sequences, things like that. So it is or like I said, I consider, you know ARMPS, ALPS things like that, you know, a good first cut, you know, based on past experience and all of that. But if you want to get down to the complex analysis you know LAMODEL and numerical modeling. But again it's very laborer intensive.

Q. Okay. Would it be advantageous to your group to have --- to be able to have all of your people or more of your people proficient in LAMODEL?

A. Well in fact we just had all our field people go through the LAMODEL training in the first week in December.

Q. Okay. The first week in December?

A. Yes.

Q. Okay. Was that a result of the accident at Crandall?

A. Probably. I guess, you know, it probably was.

Q. Okay. That's fine. That's fine. Would you consider ARMPS and LAMODEL valuable tools for evaluating bump potential applications?

A. Yeah, I think they're valuable tools, yeah, if used properly.

Q. Okay. If used properly?

A. Uh-huh (yes).

Q. And I guess you would put in any numbers you want to, to get any answer you

want; right?

A. Yes. And that's the caution.

Q. Okay. So if you got something from a consultant that said this is okay because we ran LAMODEL you would want to look at the numbers they used to see how viable this is; right?

A. Yes.

Q. Because they could put numbers in of strength of coal and other things that kind of tilted to what they want to do as opposed to what it will really do; is that true?

A. Yes.

Q. Okay.

MR. TEASTER:

Joe, if a company submitted something, analysis using LAMODEL and MSHA took an ARMPS program to evaluate that, what kind of result --- is that looking at it in a fashion that you're going to be able to determine whether the LAMODEL was accurate or how do they interrelate like that? I mean in this case here specifically Agapito used the LAMODEL and then we took an ARMPS --- on the ARMPS program I guess to evaluate.

A. Evaluate the overall ---

MR. TEASTER:

Right.

A. --- the overall stability. Like I said, I think ARMPS is a good first cut again. But even with ARMPS --- and not only with LAMODEL but even with ARMPS you have to make sure you're using the correct parameters and all of that. Because we've run into the situations where some of the districts, you know, require that a company do an ARMPS analysis and get a 1.5 stability factor. Well when they send in the

stability factor you see Ex. (b)(6) and Ex. (b)(7)(C) [redacted]

MR. TEASTER:

Okay.

Ex. (b)(6) and Ex. (b)(7)(C) [redacted]

MR. TEASTER:

Just to give you the 1.5?

A. Yes, yes just to arrive at --- if they know there's a target stability factor.

MR. TEASTER:

Okay.

A. So that's why you would have to analyze.

BY MR. PAVLOVICH:

Q. Some districts may have a specific stability factor that they require, that they go by. Do you think that's a true statement?

A. Yes.

Q. Okay. While other districts may not?

A. Well I think some districts use ARMPS more than others.

Q. Okay. Any reason for that, I mean ---?

A. That I couldn't say. It might be staffing. I couldn't venture a guess on that.

Q. Okay. When did you first become aware of the August 6th, 2007 accident at Crandall Canyon, Joe?

A. It was the morning of August 6th.

Q. Okay.

A. Terry Hoke our center chief called and said there had been a bump and they

said several miners were missing.

Q. Okay. So they told you right off it was a bump? I mean he knew right off it was a bounce or a bump?

A. I believe so, yeah.

Q. Okay.

A. That's my recollection, yes.

Q. Okay. How were your people assigned to respond or were you assigned to respond? Did Terry tell you to?

A. It was that first phone call was just a heads up.

Q. Okay.

A. He said I just wanted to give you a heads up, I guess he had some initial reports he said --- I think --- well all he said is he had heard there was a bump or had been told there was a bump at Crandall Canyon and some miners were missing, just wanted to give us a heads up that we might have to send people to respond.

Q. Okay. And then what was the next communication that you did send people to respond?

A. Well after Terry had called me I contacted Joe Zelanko and Mike Gauna and told them that there was a bump at Crandall Canyon and we might have to send people. And then later on that day, probably midday, Terry had called back and said that indeed we would have to send people out.

Q. Okay. Sometime that afternoon maybe ---.

A. Maybe around lunchtime, somewhere around there yeah.

Q. Okay. And so those guys --- you did send Gauna and Zelanko out that day?

A. Yes.

Q. Okay. And do you kind of remember --- go ahead.

A. Oh I'm sorry. No, they didn't fly out until --- they made their arrangements that afternoon and I believe they flew out early the next morning.

Q. Okay. Was there any problem with getting their travel approval or anything like that that you know of?

A. I believe that was the first --- we have had trouble in the past getting quick response out west with metal/non metal, you know, with our ---.

Q. Because you have to fly?

A. Well we have to fly in --- it's frustrating because we're dealing with Carlson.

Q. Right.

A. And there have been times where we've called him up and they said there isn't a flight available, you know, immediately and all that. And then if one of our fellows would get on the internet and say well there's a seat available here. So we have had some difficulty at times.

Q. Okay. But you're not real sure if anything like that happened this time. But you know of instances where it has happened?

A. Yes.

Q. Okay. So they were able to fly out then I guess the morning of the 7th?

A. Morning of the 7th, yes.

Q. Okay. And arrive sometime ---.

A. They went underground late afternoon, early evening the 7th.

Q. Okay. So they actually went underground the first day when they got there to do an evaluation ---

A. Correct, yes.

Q. --- to your knowledge?

A. Yes.

Q. Okay. And I guess what is your --- I have some questions. What's your understanding of their role when they got on site? I mean who did they report to?

A. That I couldn't tell you who they reported to, but typically what happens when we get involved in an accident investigation. Usually there's a lead accident investigator assigned to that, and that's who we would report to and find out what exactly our role is, what they want us to do. So in this case Joe and Mike would report to the command center at the time. And whoever was in charge there and say what do you want us to do. Typically that's what we would do. We are serving --- you know, basically assisting the ---.

Q. Employees and the advisor; right.

A. Right.

Q. Would you feel that you were more of an advisory role or ---?

A. No. Usually we're assigned a member of the accident investigation team.

Q. Okay. On an accident investigation?

A. Yes.

Q. But this really was more of a rescue operation?

A. Yes, okay.

Q. So you know, I realize --- I guess as an accident investigation team they say okay you're going to be my expert on telling me why this roof fell ---

A. Uh-huh (yes).

Q. --- or was the support adequate or something, I could see. But on this you got emergency situation.

A. Okay.

Q. Did they say I want you to go underground and tell me is it safe or did they say go look at it or do you know? I mean did the guys talk to you at all about what their

role was?

A. Joe kept me updated either via-email or phone calls ---.

Q. As to what was happening?

A. What was happening, yes.

Q. Okay. Did they ever express any concerns or --- and you were there I guess you arrived on the 14th, is that true?

A. I flew out on the 14th. My first day on site was the 15th.

Q. Okay. Well when you got there what did you feel your role was? Did anybody sit down and say Joe, here's what we need you to do?

A. I guess by that time it was pretty well defined since it had been a week into the rescue recovery operation. And Joe Zelanko kind of filled me in --.

Q. Okay. So what was it that he filled you in on?

A. Basically we ---.

Q. I'm going to make you tell me.

A. Okay.

Q. No, I'm just kidding.

A. Well you're right, you did point out a good point. I was more or less on the accident investigation. But you're right at this time we were still talking about a rescue recovery.

Q. Okay.

A. You know so basically what our role was, was to help evaluate any plan rescue recovery plan the company, you know, would submit.

Q. Okay.

A. But also going underground looking at evaluating ground conditions, too. So it would have been twofold.

Q. Okay.

A. And offering --- and again like you said, acting as an advisor on any ground control related issues.

Q. Okay. So did then the people that were I'll call them the MSHA decision makers, ---

A. Uh-huh (yes).

Q. --- whoever was in charge; okay?

A. Uh-huh (yes).

Q. Did they then come to you guys and say tell us what to do, give us some advice or did you pretty much have access to them?

A. I believe Joe and Mike had access or interaction with the people in charge.

Q. Well when you were there did you have any access?

A. Yes. Yes. I mean when Mr. Stickler was there or when Kevin Stricklin was on site or Al Davis or whoever it was in the command center. Oh yeah, so the access was there. In fact, you know, the first thing we would do is when you show up on site is report to the command center.

Q. Okay.

A. You know we are on site and, you know, basically, you know, is there anything we should be made aware of things like that. So as far as access, yeah, there was ---.

Q. Okay. So when you showed up on site did you get some kind of a briefing then from someone as here's what happened through the night?

A. Typically we would ask ---.

Q. Okay. You would ask what happened?

A. What transpired through the night, yeah. We would go in the command center.

Q. And then when you came out, what procedures did you have as far as communicating what information you had determined, when you came outside from the mine?

A. We would go back to the command center and say, you know, we're out of the mine and this is what we did.

Q. Okay. And who would usually be there, do you remember? Would it be like the Bob Cornett types?

A. Yeah, Bill Taylor.

Q. Bill Taylor?

A. Yeah, whoever was ---.

Q. Okay. So you would relay your information to like Bill Taylor?

A. I would go in there and say, you know, we're out of the mine and then typically we would see either Kevin Stricklin or Al Davis would be outside of the command center and we would talk to them, you know, if we ran into them and what we were doing ---

Q. Okay.

A. --- or what information ---.

Q. Well would they ever come and look you up personally and say tell us about this or that?

A. I can't recall any instance where they have to look us up. But we're all right there in the one area, yeah.

Q. Okay. So you would talk to them though on this?

A. Oh, yes.

Q. Okay. So you felt like you had pretty good access to Kevin or Al ---

A. Oh yeah, I ---

Q. --- or Stickler whenever they were there?

A. If they were there we would just, you know, talk to them. I mean there was nothing preventing us from at least --- well, you know, like I said, when I was there, there was nothing preventing Joe or myself or later on Mike and myself when we were together from going up to whoever or you know John Urosek again, since he was I guess the senior technical support person on site, you know, we would also keep John in the loop, too, and talk to him about that.

Q. Okay.

A. No, I never saw any problems with ---.

Q. Did you ever feel like they were --- you were more in a decision making process than you were an advisory rule? That they were counting on the tech support people for that, that kind of decision making?

A. Not more so than usual I think. I at least again you know when I arrived there on the 15th, again I can't speak to what transpired you know from the 7th up to that point. But when we were there I never felt that it was okay the decision is yours?

Q. Yours?

A. Yeah.

Q. Okay. You never felt that way?

A. No.

Q. No one ever told you, you make the cut, Joe?

A. Yes.

Q. Okay. So you personally arrived on site on the 15th, is that true?

A. Yes.

Q. Or the 14th?

A. I traveled on the 14th arrived on site the 15th.

Q. Okay. The 15th, okay. And when you got there was it pretty clear to you of the MSHA organizational structure?

A. Yes. As far as, you know --- you mean the command center?

Q. Yeah.

A. Yeah.

Q. I mean you kind of knew who was --- who do you feel was in charge?

A. Well I said, you know, we would report to the people in the command center, but again we never --- either Mr. Stickler, or Kevin Stricklin or Al Davis were there ---

Q. Okay.

A. --- we would ---.

Q. The highest ranking?

A. I would assume --- yeah, that's --- that was the assumption ---.

Q. So you kind of figured the highest ranking person on site is in charge; right?

A. Yes. Uh-huh (yes).

Q. Okay. And that's pretty much who you reported to or who you discussed things with if they were available? Whoever was available at the time?

A. Well like I said, you know, we always did report to the command center when we arrived and when we would leave for the day. We'd tell them, you know, we are leaving and these are our numbers.

Q. Okay. Were you ever asked to specifically come underground to evaluate certain conditions because something just happened, come in and help us look at this or something like that?

A. No. The first day we went --- let's see Joe and I went underground and took me down entry Number One. Kind of give me an overview of what had transpired up until then. And that was the day we started putting in convergence stations. But it

wasn't a request come down and ---.

Q. Okay. It wasn't that anybody said, you guys just did it, I mean that's pretty much what you assumed your role was when you got there was where you'll be evaluating things and looking things over?

A. Yes.

Q. Have you ever seen a bump of that magnitude before or a bounce ---

A. No.

Q. --- with that much material displaced and ---?

A. In fact what we were doing --- well I was back at the office that first week just trying to go through the literature to see if there was something that we could come up with, a bump with that magnitude. And the closest thing in coal we could come up with, there was a bump of that section wide magnitude down at Olga. But it didn't occur that quickly. In fact there were stories of one of the mine foreman actually staying underground as --- now this man has much more courage than I would because these pillars progressively fail. Again it was a section wide failure, but again it was much over a longer time period. And that's the only one, in fact we had contacted NIOSH or Bureau of Mines, not NIOSH, you know, to see if this extensive, this massive ---.

Q. Had ever happened before?

A. Had ever happened before, and the one that everyone kind of thought was the one at Olga. But again, you know, they thought it was more less a slower progressive type failure.

Q. So when the --- I guess the University of Utah, you probably say some of their seismic numbers; right? In their information?

A. Uh-huh (yes).

Q. When it says this lasted for four minutes does that mean these pillars were failing over a four minute period of time, or just the tremors were occurring over four minutes? Do you have any ideas on that?

A. No, I think that's just what they recorded now, you know, I can't say how it happened.

Q. It looked to you like maybe it was just a massive instantaneous failure?

A. Just by looking at it, you know, a week after I couldn't ---.

Q. You couldn't really tell one way or the other?

A. No.

Q. It could have been progressive failure of pillars over a few minutes or something?

A. It didn't seem to be as a slower progression as occurring that Olga incident that I told you about.

Q. Okay.

A. You know, so it seemed to be ---.

Q. That was more where guys watching them, boom.

A. Yes. The domino effect, yes.

Q. Okay. So when you arrived at the mine you would report in the command center?

A. Uh-huh (yes).

Q. And then did Bill Taylor or Al or whoever you saw would they say okay here's what I want you guys to do today? Or would you just kind of let them know hey we're here, we're going to go underground, go look at convergence stations, go look at this. Did they ever give you specific instructions of here's what we want you to look at and maybe part of a written plan or something?

A. Not on the 15th or the 16th, no.

Q. The days that you were there you never got that?

A. No.

Q. It was you just kind of did what you felt like here's what we got to do?

A. Yeah. We went into the command center and said we were going to install these convergence stations and we did that on the 15th. And then on the 16th told them, you know, we went in underground twice that day, once in the morning and once in the afternoon.

Q. Okay. And they basically just said okay.

A. Uh-huh (yes).

Q. I mean that was about the extent of your instruction?

A. Yes. Again, yeah.

Q. Okay. Did you interact with anybody from the company while you were there?

A. Yes.

Q. Okay.

A. If we needed any maps, things like that.

Q. Okay. Their engineering group or somebody?

A. David Hibbs, yeah, and Joe and Mike had I guess struck up if you want a relationship or a procedure where if we needed any information, you know, we would go up to their engineering office and say, you know, we might need a map.

Q. Did they have any stratic control experts or people that would go underground with you to evaluate anything?

A. When I went underground there weren't any, quote, unquote, stratic control experts that went underground with us, no.

Q. Okay. They maybe just had a truck driver take you in or something?

A. Well typically it would either be Gary Peacock.

Q. Okay. One of the mine managers?

A. Yes.

Q. Somebody in management?

A. Yes.

Q. But not one of their engineering staff or someone that says I'm pretty knowledgeable about bumps or any of this kind of stuff?

A. Correct.

Q. Okay. How about Agapito people, did you ever see any of them on site?

A. No.

Q. None of the consultants that you're familiar with or mine consultants, I guess? They wouldn't have been there?

A. No.

Q. Okay.

A. And prior to convening that panel of experts, no.

Q. Okay. So you were able to get maps and geologic information, depth of cover and things like that from the company, but not really from --- you weren't really working with somebody that would be on a par with your level of expertise from the company that knew ground control and all that stuff?

A. No. Because I wouldn't expect their consultants to be able to provide us immediately with all the --- to generate all the maps. So that's why we would, you know, go to the engineering department and ---.

Q. You'd get the engineering department; okay.

A. Yeah.

Q. Had you ever seen anybody clean up a bump of this magnitude or like this? I

know you never saw one of this magnitude, but clean one out like this where you're actually loading an entry full of coal out?

A. Personally I haven't.

Q. No. Did any of your guys ever say oh I've seen this done before that you know of?

A. Not that I'm aware of.

Q. No, so this is pretty much a first as far as everybody's experience goes that you're aware of?

A. Yes.

Q. Okay. Can you tell us were there scheduled daily meetings between MSHA and the company that you were ever a part of?

A. As far as regular scheduled meetings, I was never a part of any regular scheduled meetings. Although I was a part of meetings between MSHA and the company.

Q. Okay. Was that prior to the accident on the 16th or after the accident on the 16th?

A. After the accident on the 16th.

Q. Okay. So when you first got there the 15th and the 16th you weren't involved in any like a formal meeting with the company determining progress or anything like that?

A. No.

Q. Okay. What dealings did you have with Mr. Stickler while you were there?

A. Just discussing like I said before telling him, you know, what we were doing the two days that I went underground basically. To telling him what we did underground that day in installing convergence stations. And then the 16th more less

if we would see him just tell him what we had did. The results of our readings, things like that.

Q. Okay. Did he ask you any of your opinions about any concerns, safety concerns for the people involved in the rescue effort?

A. He asked us, well some of the questions you had, had I ever seen a bump to this magnitude and things like that.

Q. Okay. But did he ever ask about, you know, did you see any bumps while you were down there, were you concerned about them? Any of that kind of thing?

A. I don't specifically remember him asking a question like had we seen any bumps or heard any bumps while we were down there, no.

Q. Okay. Did he ask about footage of how far the Number One was advancing by any chance?

A. No.

Q. Never asked you any of that. Did you have any dealings with Bob Murray while you were? Two different things, prior to the 16th, after the 16th. Did you have any prior to the 16th?

A. No.

Q. No. Did you meet him at all prior to the 16th that you know?

A. No.

Q. How about after the 16th?

A. Yes.

Q. You did; okay. And can you tell us a little bit about those meetings?

A. Well after the 16th we were in a meeting with him and we have convened that panel of ground control experts.

Q. Okay.

A. And basically to give them a briefing. And then I guess you could call it a meeting, the night of the 16th when we were all gathered together ---.

Q. Okay. After the accident.

A. After the accident if you want to refer to that as a meeting.

Q. Okay. And did you have any opinions of how he responded in those areas?

A. He came across as emotional obviously on the 16th and even a couple of days afterwards. You know, he seemed emotional I guess is the best term.

Q. Okay. Was he overbearing, dominant, you know, was he running things, by then was he taking a back seat to what was happening?

A. No. He has I think a strong personality and so he would make his comments and ---.

Q. Okay. Did you ever meet him before this accident?

A. No.

Q. You had never met him before and had any dealings at any of his mines?

A. No.

Q. You never had been at any of his mines before that you know of, Galatia or the mines up here in Pennsylvania or any of those?

A. Well I guess I been to some of the mines he subsequently took over, like the Aberdeen Mine.

Q. Okay.

A. At the time, no.

Q. Okay. You never met with him before or had any dealings with him?

A. No.

Q. Okay. Was there --- when you first got to the site, I guess you met with --- you replaced Gauna; right?

A. Correct.

Q. I mean you kind of went in Mike's place and gave him a break to come home and Joe Zelanko was there to work with you?

A. Yes.

Q. And kind of get you started on one thing and then you were going to work with him for a period of time?

A. Yes.

Q. Is that kind of how it was going?

A. Yeah, for continuity we were probably --- we didn't know how long this was going to take. And Joe and I, was probably that weekend had decided we were going to just start two week rotations.

Q. Okay.

A. We didn't know and just for continuity sake we were going to keep Joe or Mike on site and then just start rotating people out.

Q. Okay. Was there a formal plan in writing do you know that was going on for the rescue operation?

A. Yeah, there was an approved plan.

Q. Okay. Did you see it? Did you have a copy of it and what was current on the 15th and 16th when you were there?

A. I think Joe showed it to me.

Q. Joe had a copy of it?

A. Yeah.

Q. Okay. So he had a copy and he told you here's what we're doing and why?

A. Yeah. And then they spoke about modifications that were made to that plan over the course of the prior week.

Q. Okay. Did you have any idea how that plan had been presented to the guys actually working underground, the miners that were working or the inspectors that were working underground?

A. No, I don't.

Q. No, okay. Did you have much interaction with them on the 15th and 16th when you went in, with the actual miners that were working or the inspectors that were working underground?

A. Oh yeah, we'd go down there and talk to them and explain to them what we were doing and if they had any concerns and, you know, if they had any questions.

Q. Okay. So you would give them an opportunity to tell you about concerns?

A. Yeah.

Q. Did anyone ever register any concerns to you?

A. Well they I guess were registering some concerns to Joe and that's the reason we put in some of the convergence stations.

Q. Okay. And what were those concerns, do you remember?

A. I guess they were concerned, you know, of activity happening outby --- .

Q. When you say outby can you kind of --- maybe you can point it on the map here I think.

A. Okay.

Q. Here's 120.

A. 120, the rescue operation, you know, was proceeding up Number One. But they were also concerned about something happening in this area here. They said on occasions they had heard --- so that's where we ended up installing ten convergence stations in this area. We put them in entries Two and Four starting I believe the feeder was somewhere around 120. Starting in like 119, 17, 15, 13 and 11. We put

one convergence station in each of those intersections and entries Two and entry Four. Really couldn't put anything in Number One as far as convergence stations because of the vehicular and traffic like that.

Q. Right.

A. But I know putting these in where, you know, possibly a result or result of, you know, some of the concerns --- I believe it was the inspectors, but possibly some of the other miners, too, saying that they were still hearing some activity I guess.

Q. Outby?

A. Well they really couldn't tell, but they thought it was outby. So we said well, you know to see if anything was coming down that way we'd, you know, put in those convergence stations.

Q. I know I have some questions about convergence and let's just go to those now while you brought it up; okay?

A. Okay.

Q. All right. So can you tell me in Laymen's terms I guess guys were concerned about activity outby. What would those convergence stations tell you about that activity?

A. Well hopefully what we would see that if there was any activity when we started to load things up. And we'd see as the pillars would start to load you would see some convergence.

Q. Okay. So you're thinking if you're getting some roof for bottom conversion somewhere that that's going to tell you those pillars are loading up?

A. Yes.

Q. Did you ever see any convergence?

A. No.

Q. None whatsoever?

A. No.

Q. Were those pillars continuing to bounce?

A. As far as these pillars right here, when we were in there we didn't --- I didn't observe any. But again on the 15th or the 16th ---.

Q. I mean just the ribs coming off or anything like that, that the guys told you about?

A. Not during that time frame.

Q. Not at that time frame.

A. Like I said, they were installed on the 15th and then we took two readings. The morning of the 16th and the afternoon of the 16th.

Q. Okay. So you really didn't have much chance to ---

A. No.

Q. --- do any kind of a long term ---?

A. Extended.

Q. Yeah, just the two readings. And you didn't see any convergence in those at that time?

A. Correct.

Q. Did those pillars look like they had taken some pressure, stored some energy and released some energy too?

A. Well the ribs are sloughed off, so they had --- all the pillars on that section were under pressure. But as far as, you know, being as heavily damaged as ---.

Q. Yeah, up here.

A. Up here, yeah.

Q. When, I guess --- I'm not real knowledgeable about this; okay. From what

people have told us --- how much convergence would you expect to see on one of these stations to know that pillar was loading up?

A. Probably not a lot, but again we were able to ---.

Q. Tell me in like inches or tenths of inches or quarter of inches what you think.

A. Well it'd probably be, you know, tenths of an inch, things like that. It'd be, you know, less than an inch. And again, you know, that's the other downfall of me not having a history, you know, to say what does a tenth of an inch of convergence mean. What does a half of an inch of the convergence mean.

Q. Okay. So we had no history prior to that?

A. Well at least, you know, we didn't. I'm not sure if the mine had any other region.

Q. Okay.

A. But at the time we were just looking for overall convergence just to see if in fact there was something happening out in this area. Because there was some concern expressed by inspectors.

Q. If between your first measurement, which I guess would establish your base line?

A. Correct.

Q. And then you took one other measurement. If you had seen the tenth of an inch convergence what would have that told you?

A. I think at that point we probably would've --- I guess if there was just a tenth on one of them, or a tenth overall. If we all a trend and, you know, quite possibly we would say well there appears to be activity increasing in this area or something continuing in this area. And at that point might have, you know ---.

Q. Okay. But no one had any kind of numbers to tell you that hey when this thing

bounced on the sixth we saw convergence of two tenths of an inch somewhere?

A. No.

Q. I mean there was none of that history. So you don't really know how much convergence and I guess with this solid sandstone top and the hard bottom none of this resulted in roof falls or anything? You got enough convergence to pressurize the pillars and they exploded. And then pretty much as it comes back to what it was?

A. No, I don't think it comes back, rebounds to the original ---.

Q. You think it still has some sag to it?

A. Yeah.

Q. Okay. So there would be maybe less more convergence then. Okay. Who determined where to put those stations in? Did you and Joe do that?

A. Yes.

Q. Okay. And that was as a result of people saying we're concerned about the outby area. So you said we'll put some station --- who helped you put those in? I mean you had to drill some holes, or what did you have to do?

A. We went off a bolt and just to drill an anchor in the floor. But we have to dig it out to make sure you're down into solid rock and then just ---.

Q. Okay.

A. So basically we're going off a roof bolt and an anchor installed in the floor.

Q. Okay. Was it solid rock floor or was it coal floor?

A. We would dig down to get the solid.

Q. So you had to dig a foot or two?

A. It depends on the location. A couple of times we had to move locations because we just couldn't get a solid base.

Q. Because of the coal? The bottom coal was too thick to get to a solid base?.

A. So basically we would anchor the bottom pin in the solid rock.

Q. Okay. So you'd try and dig down to solid rock somewhere?

A. Yeah.

Q. And about how much bottom coal on an average were you finding in that area?

A. I don't remember.

Q. You don't remember. Was it a foot, two feet, I mean or a couple of inches?

A. There were a couple of places where we had to dig --- again, solid to we got to what were we felt was a solid bottom. Sometimes we had to go down I would say eight inches to a foot at least.

Q. Okay. About somewhere in that range. Okay. So you actually take two readings, you didn't see any convergences at all. Is that true on the two you took?

A. Correct, we took a reading in the morning and the afternoon on the 16th.

Q. Okay. Was anybody assigned like to take one every hour or anything like that that you know of or were you guys the only ones working with those?

A. We were the only ones taking the readings.

Q. Okay. How did you determine that interval, of what interval you'd take them on? Was it like 8 hours, 6 hours, 12 hours? What time interval did you decide to try and take those on?

A. I think initially what we were going to do was take, you know, a couple of readings per day just to see how the readings --- if there were any change and all that and then we would probably lengthen that time in between readings if we saw no change.

Q. Okay. So you weren't really --- you didn't say okay we're going to take it on an eight hour interval ---

A. No.

Q. --- or two hour or four hours? It was just we're going to take a couple of readings to start and get a baseline to see what you were seeing.

A. Yeah.

Q. You know on that day of the I guess the 16th --- 15th, 16th.

A. Uh-huh (yes).

Q. There were several seismic activities reported and I guess these were some from the University of Utah. But on the 15th they show one at 2:26 a.m., 1.2, at 12:40 a.m., on the 16th 1.3, at 10:04, 1.5 and of course then this is the one that caused the additional fatalities at 1.9. When those three bumps occurred underground did that affect your convergence stations at all or would you have any idea if they did?

A. All I can say is you know from the readings we didn't ---.

Q. Didn't see anything.

A. We didn't see anything.

Q. Okay. So really what convergence station readings you were taking back here really wouldn't effectively show anything of what maybe happened up here at 125 or 126 or in this area. They would have just been in the area for back here?

A. Correct. Showing for this area in question, yes.

Q. And that area was of concern to the people working here because if it bounced real bad back here they'd be trapped?

A. Correct.

Q. So that's why you were mostly working here?

A. Uh-huh (yes).

Q. But not really doing anything in the area where the mining activity was going on or the I guess we'll call it mining because they were cleaning up, cutting coal again;

right?

A. Yes.

Q. Okay. So you weren't doing anything with the convergence to evaluate this area? And I'm talking the area 126 to 127.

A. Yeah. Because with the activity there, the mining activity putting a convergence station ---.

Q. You couldn't do anything there?

A. Yeah. It wouldn't be feasible to put something in up there.

Q. Was there anything that could have been done up there to install to try and predict when a bounce or bump might occur?

A. What we did in the Number One entry is I believe probably on 10 or 12 of the rock props we spray painted a line and to try and measure to see if those were rock props were taking any load by collapsing.

Q. Okay. Did you see anything on those?

A. On just one of them I guess towards the outby area I think there was a convergence. It might have been I want to say eighth of an inch somewhere around there, if that. But all the others showed no change. And like I said we did that there because we thought --- well we knew we couldn't put in the convergence stations.

Q. Okay. Are those rock props designed to yield a little bit under that kind of pressure and convergence?

A. I guess ---.

Q. Or pretty much do they either --- just rigid and then fail?

A. I think we would see a little.

Q. You think you'd see a little yield before failure ---

A. Yeah.

Q. --- there would be some? Did the underground workers there ever express anything, any other concerns to you about the areas they were working inby 120 that you know of?

A. Not to me.

Q. Okay. Do you know if they did to any of your other people? Either to Joe or Mike before he left, or had you heard about any of that?

A. That I couldn't say.

Q. Okay. Did Mike or Joe talk to you about when you first got there, I guess Mike had already gone; right? Or did you meet with him, too, when you got there and then he left afterwards?

A. Yeah. We met Tuesday night at the hotel.

Q. Okay. So he was there still when you got there and you all three met together and talked about ---. Did they express to you any concerns about what was going on?

A. No.

Q. I mean did they ever say boy it's pretty scary down there, Joe?

A. No. They just, you know, described the extent of it, the overall extent. I think that was ---.

Q. Did they tell you that it was continuing to bump as people were in there?

A. They had said that the area was continuing to work. But I don't recall them ever saying I'm not really --- you know, any fear or worry about it.

Q. Okay. So they didn't appear to be concerned for their own safety at all? I mean that's not why Gauna said boy I'm glad you're here I'm getting out?

A. No.

Q. Just asked.

A. No. Like I said, the reason we started that rotation is that we didn't know. We

thought this might turn out to be an extended, ---

Q. Okay.

A. --- you know rescue, recovery and at that point. And in fact I think Mike might have had another person issue he had to tend to back here, I'm not really sure. But no, that was the only reason ---

Q. Okay.

A. --- Mike left.

Q. Okay.

A. That I can --- yeah.

Q. Okay. Did they brief you on the fact, were you familiar with the fact that when the original cleanup started in Number Four entry that it advanced a certain portion and sometime on the morning of the 7th it bounced and pretty much refilled that entry?

A. I don't recall that, no.

Q. You don't remember ever hearing anything about that?

A. No.

Q. Did you ever recall hearing about an inspector, when that bounce occurred that was standing in front of the feeder that was knocked down and maybe some other people from the company knocked into the feeder when that bump occurred?

A. No.

Q. Nobody ever told you about that?

A. No.

Q. Did you ever hear about the equipment such as the continuous miner being partially covered up by bumps while they were working in the Number One entry?

A. Yes. I don't know if it was the morning of the 15th or the 16th.

Q. Okay.

A. But when we went in to check with the command center overnight ---

Q. Okay.

A. --- to see what had happened overnight they said the miner was down, had been down for a while.

Q. We just went through the log that was being kept on the surface that MSHA people were maintaining. And of course there's a lot of information being called out about measurements and --- but there was also information called out about bumps that occurred. And so what we tried to do was just take that bump information out of the book and so that --- you know, and that's kind of where we came up with this log. And starting on the 15th and I told you about some of those seismic things. But you can see here's the guys and I guess one of the things that we're not real sure of is what kind of instruction was given to the people underground as far as what to report and how to report a bump occurred.

A. Okay.

Q. Did you ever hear anything about that? You know we're suppose to report this if this happens outside or ---?

A. No.

Q. You never got any kind of guidance when you were getting ready to do that, you know, if a bounce happens or if something happens that throws coal out you're supposed to report it because I guess it's making noise all the time in there; right?

A. Yeah. On occasion yeah, you hear noise.

Q. Okay.

A. But no, I was never given any specific instructions like that.

Q. Okay. You never heard if anybody else was either?

A. I don't recall, no.

Q. Okay. So it was kind of left up to their opinion I guess what they called out?

A. I'm not sure. They might have been given specific instructions.

Q. Okay. Well you see that somebody reported two small bounces and 1.2 magnitude and that was at 2:26, lots of dust. And I guess one of the things that we're seeing in these is if a guy says we had a bounce, lots of dust, everyone accounted for. That concerned them enough to go and do a head count.

A. Uh-huh (yes).

Q. And so we see a lot of these throughout here. But he says it was significant, it blew out a couple of Kennedy panels and curtain, rib slouphage across the miner. And then this coarsely makes another comment in his notes about it.

A. Uh-huh (yes).

Q. He says he's questioning the rock props ability to support continuous miner partially covered on the right side. Both cutter and motor shafts on the miner sheared as a result of the bounce. So did anybody tell you about that incident?

A. As far as the --- yeah, when we --- let's see in the command center, yeah they talked about the cutter shafts being sheared.

Q. Okay. All right. What did you think?

A. What sounded like a bump that was maybe a little more or a bounce whatever you want to call it a little more serious than in the past, you know, to do some damage to that equipment.

Q. Okay. Did that give you any concerns when they told you about it?

A. The fact that, you know, there was activity up there you have to --- I think would give anyone concern, yes.

Q. Okay. Then again Rodney Adamson reported at 8:35 a significant bump.

Now he's determining 118 and maybe you can shed more light on that.

A. Okay.

Q. Can you actually tell --- if you're standing at 120 could you tell it was at 118? I mean how do you know where those are occurring?

A. Unless he's just going off ---.

Q. Just standing there.

A. Going on to sound, unless he's going off of material that was ejected, you know.

Q. Okay. See here like the ramp says noise at 117, bumps coming more regularly over 15 minutes from 117 to 118. Roof control Zelanko is suiting up to go check.

A. Uh-huh (yes).

Q. Okay. So I would imagine you probably went with Joe that day; right?

A. Uh-huh (yes).

Q. Okay. And was that a result of somebody called and said hey this is bumping pretty bad how about coming in and looking? Because it almost reads that way if you read the note.

A. Yes, it does, but I think we were going underground.

Q. Okay.

A. This was the 15th.

Q. So you weren't suiting up just to go check on this activity that was occurring? There was nobody that told you that?

A. I don't recall that, no.

Q. Okay. All right. And then, you know, they make another note at 9:55 MSHA going underground to travel outby from 120 and Number One and Two entries to

review current roof conditions between 118 and 119 and Number Three. New material is on the mine floors, Zelanko is on his way to check the roof conditions. Would you've been with him?

A. Yes.

Q. Were you aware that that's what they were wanting you to do?

A. Well I know in entry Number One Joe had marked some of the cracks with either spray paint or with wedges. And so we had checked those on occasion, too.

Q. Okay. But that was just routine; right? That wasn't like --- I mean he was checking those routinely not --- I mean if you read these two notes; okay. I'm reading those two notes and I'm saying man something happened down there they called and asked Zelanko to come in, because his is the only name here.

A. Uh-huh (yes).

Q. And I think they maybe were calling you guys big Joe and little Joe or one or the other.

A. Uh-huh (yes).

Q. But this is the only name noted, but it sounds like gee we're calling for him special; okay.

A. Uh-huh (yes).

Q. And he's coming in specifically to help us out and look because we got a real concern.

A. Uh-huh (yes).

Q. Now if you read those two notes what would you think?

A. Yes. From reading those two notes, yeah.

Q. Someone thought that, apparently whoever wrote that. But you never felt --- you never had that impression when you were going in?

A. No.

Q. Okay. And then they talk --- you know, there's some more instances here about another bump at 118, a small bump at 118 timbers knocked just outby 120, and three bounces occurred, a bump, another bump bigger than the last one damage stopping. All this happens on the 15th and I guess some of this is happening while you guys were actually underground; right? I don't know how long you would've spent underground here. But you went in at 9:55 it sounds like you're going underground so you didn't get underground until 10:00, 10:30, 11:00 and then I would assume you ---.

A. Yeah, this activity up here ---.

Q. Maybe not here?

A. Yeah.

Q. But these couple here might have been. Okay. And then again on the 16th let's see at 12:30, 8:30 ---.

A. Well let me go back.

Q. Okay.

A. The 15th during this time frame well we were probably --- well that's when we were installing the sag stations which took I'd imagine --- or convergence stations which did take a couple of hours. So at that point we were in entries Two and Four between cross --- in this general area.

Q. Okay. So you would have been in the area of 117, 118 and he thought here 116 to 118. Here's one at 118.

A. And again it's, you know, just by looking at this when he talks about three bounces. Again I guess it's who's reporting it, what is he calling about?

Q. What's he calling about.

A. Some noise up in the roof, you know.

Q. Right.

A. So that's --- you know.

Q. Yeah. Like here he says a bump at the face or inby also.

A. Okay. Yeah.

Q. So, you know if he's reporting everybody's okay I would think that's probably something that hit fairly significant, wouldn't you think? I mean I'm guessing that.

A. Uh-huh (yes).

Q. Okay. And then this is on the 16th of course you can see there was 8:31, 8:45, 8:50, 9:00, 10:02, 10:04, 10:05 there's a pretty big one that occurred here it was 1.5. And they talk about again everybody being accounted for. It covered the body of the miner, they backed the machine out, they're cleaning up and all that stuff. And then they talk about a lot more; okay. Was anybody --- what time were you guys in on that day? Do you remember any of that going on while you were in there?

A. We were in there in the morning and then ---.

Q. Okay. Would you have been there at this 10:05 bump, when the miner was covered up?

A. Probably not up here if we were in taking readings we would've been outby that area.

Q. Okay. Well I never been in one of these things. But if I was say standing at 114 and this bump happened at 127, would I have felt it and heard it here, or not?

A. It would all depend on the magnitude of the ---.

Q. Okay. The one that you think maybe covered the miner up with coal, would that be a pretty good shot? Or it just shows 1.5 magnitude recorded at Utah. But, I mean I don't know I'm just asking you if you felt like you would have felt it or not, or did you feel it?

A. I don't recall anything.

Q. Okay. You don't remember.

A. Anything when we were taking those readings.

Q. You never felt any?

A. No.

Q. Okay. Did anybody talk to you about any of those while you were underground? Did any of the guys say we had a pretty good bump up there that covered the miner up with coal?

A. No, I don't believe so.

Q. No. Okay. And you know this kind of continued on through, well the whole day until of course the bump that happened that Gary Jensen was killed in along with the other two miners. And that happened at what, 6:42 I guess. Okay. Were you guys still at the mine then when that happened, or had you already left?

A. No, we were back at the hotel.

Q. Okay. You were back at the hotel. Well I guess back to this one on the 15th when you went with Joe and these guys make these notes it sounds like, you know Joe's going specifically ---.

A. Uh-huh (yes).

Q. When you got underground nobody told you hey, you guys need to come up here and look at this, this is really bumping bad and we're concerned, that you remember?

A. No.

Q. They didn't; okay. So you just kind of went around your regular business of installing the convergence stations and didn't do any other kind of evaluation pertaining to the reason these bumps occurred?

A. We installed the conversion stations and then walked up the Number One entry. And at that point is when we were marking some of the rock props.

Q. Okay. But none of the miners or inspectors up there said boy we're glad you guys are here to help us this thing is bumping?

A. I don't recall that.

Q. Kind of like this would indicate?

A. Yeah.

Q. Not that you recall?

A. No.

MR. PAVLOVICH:

Okay. You want to take a break, Ernie?

SHORT BREAK TAKEN

BY MR. PAVLOVICH:

Q. Were you ever aware that any of the company workers asked to be withdrawn from the face area because of safety concerns?

A. Yes.

Q. Okay. And what was your understanding of that?

A. They felt uncomfortable working under those conditions and asked to be moved, you know.

Q. Okay. Did someone tell you about that or did you talk to any of them, or how did you know that?

A. In fact, I think I heard it through a news report.

Q. Oh, through a news ---?

A. Yeah.

Q. Okay. Okay. Did you ever talk to any of those guys?

A. No.

Q. No? So you never specifically went up and hunted one of them out and said, what's your concerns down there, what ---?

A. No.

Q. No. Do you know if anybody did from MSHA?

A. No, I don't.

Q. Okay. We already, I guess, talked a little bit about the magnitude of this bump and the extent of it. With what you saw there did you think there was much chance of survival of those six missing miners?

A. Well, I guess we thought there was a chance in that --- just due to the overall magnitude I thought maybe the most extensive damage was going to be under the deeper cover, and up where they were supposedly mining was lesser cover. So the hope was that, you know, the damage would be less --- maybe less severe up there.

Q. Well, wouldn't it actually be about the same? I mean, here's 15, this bounce took 120. I mean, wouldn't that --- I mean, the cover here of 120 was probably about the same cover at 139 or 138 or whatever where they would have been; right?

A. Now, see there was ---

Q. This is showing ---.

A. --- max cover ---.

Q. Which I guess was 2,200 feet?

A. Uh-huh (yes).

Q. And then you got your 2,000 foot lines, and I realize there's some --- I don't know if these are the accurate ones or misaccurate.

A. It's usually accurate.

Q. These are the accurate. It was actually some misconception about where

these were originally. Did you ever hear about that?

A. Yeah. The problem was, I think, the company used a local coordinate system and there was ---.

Q. So something was wrong?

A. Yeah.

Q. But I mean if you look at it the maximum cover here is between 129 and 130 to 2,000 is, say, 125, 133 and 1,500 is there. So I mean, that in essence where the miners were were about where it started here.

A. Uh-huh (yes).

Q. I mean, so did anybody give you some rationale of why they thought, oh, we're going to get to it here and then it's going to be clear the rest of the way?

A. No, other than the --- you know, a feeling that once it got past the max cover and maybe dropped back under 2,000 it ---. You know, it might be less severe. That was ---.

Q. Okay. Were you aware that when the first borehole went down that the readings that was taken out of there was seven percent oxygen? And I think that borehole actually here drilling started --- breached the mine on the 9th, and it had 7.4 percent oxygen, ---

A. I remember seeing ---.

Q. --- which was right here.

A. I remember seeing information on that, but as far as specific numbers, you know, I don't recall. Yeah, that was information ---

Q. You knew it was low oxygen; didn't you?

A. --- that was disseminated.

Q. How would that have made you feel about the chance of survival?

A. Well, obviously with lower oxygen you would feel less of a chance, but again based on that one hole ---.

Q. Okay. Did you guys ever put together any kind of a log like this of bump activity or did Joe or Mike while they were there? Did anybody show you, said, here's how many bumps we've had in the last --- or was that pretty much just a word of mouth thing as we had one last night?

A. Yeah, I don't recall. I think after the fact --- after the 16th that we might have asked for a copy of some of the activity that was written down in the command center log, but I don't recall seeing a log like that.

Q. Okay. Do you know maybe why they wouldn't have done that?

A. No.

Q. Wouldn't that have been useful to look at while making your evaluations as, you know, how many bumps have occurred for the safety of the people up here?

A. Probably.

Q. And, you know, when we look at a lot of those bumps, I guess, the only reason somebody didn't get hurt in them they just weren't in the right place at the right time; right? I mean, if you got material that flies out and covers up the machine, probably if there was a man standing there they could have been significantly hurt; right?

A. And I think that's why they had precautions in it to keep exposure limited, keep people outby that area when they were mining knowing that as that would be the area where you would expect that activity.

Q. Right. Okay. Did you ever hear anybody make any suggestions about possibly stopping this rescue operation because of the continuing bumps that were going on?

A. No.

Q. Was there any --- no discussion about that at all that you remember?

A. Not that I was involved in, no.

Q. I mean, basically we're going ahead?

A. Yeah. That's ---.

Q. Okay.

A. That's the feeling I got.

Q. Did anybody from MSHA, Al or Kevin or --- ever ask you, hey, do you think maybe we should stop this before somebody gets hurt or was that never brought up as an issue?

A. Not in the --- not that specific question. I was ---.

Q. Okay.

A. I was never asked, no. No.

Q. What kind of question did they ask? Any?

A. You know, just overall impressions of ground conditions, things like that, but as far as continuing forward a direct question like that I was ---.

Q. Nobody said, how dangerous is it?

A. No.

Q. Did they ever ask you that? I mean, ---.

A. No.

Q. No. What was your opinion of using the rock props for support?

A. Well, I had seen the rock props along with the wire mesh and the cables used at the Aberdeen Mine.

Q. Okay. So you actually saw those being used?

A. Yeah, they were used at Aberdeen. Yes.

Q. And what were they being used for at Aberdeen? What was their intended

purpose?

A. To control any material coming out from the rim.

Q. Okay. So they weren't a roof control thing, more of a secondary barrier type to control material coming off the rib?

A. Yes.

Q. Have you ever seen any of those knocked down or blown out prior to the 16th?

A. At Aberdeen we didn't see any ---

Q. Okay.

A. --- knock down. Again, we were only there for a limited time, and most of that investigation was on the longwall face.

Q. Okay. Did any of the inspectors or the press personnel ever tell you about seeing rock props blown out at Aberdeen?

A. I don't recall.

Q. No?

A. No.

Q. You ever see any of those rock props knocked out by a shuttle car?

A. I never saw a shuttle car knock one out, but I had heard that ---.

Q. That they had?

A. Had been, yeah.

Q. Do you think the shuttle car would be able to apply a lot more force than a bump would?

A. It depends on the magnitude of the bump, you know.

Q. Okay. But I mean, you could have a bump that certainly would be as forceful or more so than a shuttle car would be?

A. Oh, yes.

Q. If those --- did you ever go look at the Number Four entry inby crosscut 120 when you were underground?

A. No.

Q. Okay. So you never did see that entry?

A. No.

Q. Okay. It was basically refilled with coal?

A. Uh-huh (yes).

Q. Do you think if they had been setting the rock props over there when they were developing up Number Four and that bounce occurred and refilled that entry with coal those rock props would have held that?

A. I can't say.

Q. You didn't see it so you don't ---?

A. No.

Q. Did the company suggest to you some rock props or did MSHA suggest it? Do you know?

A. That I couldn't tell you. That was all done before I got on site.

Q. Would have Mike and Joe been involved in that at all? Did they ever talk to you about that, ---

A. Well, ---

Q. --- that the decision was made to use rock props?

A. --- they would have been involved in the analysis of the plan submitted by the company.

Q. So you think that the plan to use rock props was submitted by the company after Joe and Mike got on site or had it already been approved before they got on site?

A. No, it was probably developed when --- while they were on site.

Q. They got there the night of the 7th.

A. Yeah. Went in around the 7th, and I believe if I'm not mistaken that plan was developed around that time.

Q. Okay. All right. So you think they may have had some involvement or is that pretty much what the company suggested?

A. I'm sure they had some involvement. Now, whether or not he was a ---.

Q. He didn't make it up?

A. It was developing it or just looking at it and evaluating what the company had submitted. I'm not sure.

Q. Did anybody ever express any other suggestions on potentially what protection could be used there in lieu of the rock props or was that pretty much the only way to go?

A. Well, I guess subsequent to the 16th there was some discussion then about, you know, why weren't tunnel liners used, things like that. But on the 15th or 16th I don't recall any.

Q. Nobody ---?

A. No.

Q. Nobody was making any suggestion ---

A. No.

Q. --- at that time in lieu of ---? Did anybody ever talk to you about the system may have been used or developed at the San Juan Mine in New Mexico?

A. No.

Q. No? Had you ever seen anything like this, which was the base for, I guess, pair of rock props that would --- I'm drawing upside down, but if this was your coal rib

and this was the base we're looking at you would actually have two rock props, and these things even have it looks like almost a miner digger something welded ---

A. Uh-huh (yes).

Q. --- onto the bottom that would dig into the bottom here and also dig into the top there to try and prevent any movement.

A. Uh-huh (yes).

Q. Have you seen any of that or anybody mention anything like that or ---?

A. No, not to me.

Q. So you never heard anything about it?

A. No.

Q. You never seen any of this ---

A. No.

Q. --- type of stuff? Do you know if anybody ever mentioned any of that to Mike or Joe or anybody ---?

A. You'll have to check with them on that.

Q. They never told you, hey, somebody told us about this, ---

A. No.

Q. --- this other ---?

A. A better way to install the rock props, no.

Q. Do you know how they arrived at setting the pressure on those rock props by any chance?

A. No, I don't.

Q. Were they color coded based on the height or strength or ---?

A. Color coded based on the height.

Q. Based on the height. Was there any concern about the recommended set

height being exceeded?

A. I don't recall any of that, mention, no.

Q. Was there any attempt to collaborate a --- or calculate a lateral load capacity of the rock props that would be set at that pressure they were being set at, do you know?

A. Not that I'm aware of, no.

Q. So you don't know if anybody ever determined this is what we think these props will hold?

A. No.

Q. How were those being set on the top and the bottom bearing surfaces? What was ---?

A. Wooden.

Q. Wooden. On the bottom, too?

A. Wooden block, yes.

Q. On wooden block on the bottom ---

A. Yes.

Q. --- and the top? Was there any concern about the wood yielding after the initial set?

A. I don't recall that being mentioned, no.

Q. Did you look at them when you were in there, in the Number One entry?

A. Yes.

Q. Did you see any of them that appeared to be tilted or kicked out at the bottom?

A. There were a couple that were not set as straight as you would look, and then we had mentioned that to one of the inspectors and he passed that along to the

section foreman at the time.

Q. So did you feel that it was a result of not being set straight to begin with, the fact that they may have moved during some of this bumping activity?

A. The couple that we saw appeared just not to have been set straight during initial installation.

Q. What basis did you determine? What did you use to determine that? Just the fact they were leaning?

A. Just the fact --- say one was leaning and the one adjacent to it was straight, and, you know, ---.

Q. So you feel that one wasn't probably set straight to begin with, ---

A. Yeah.

Q. --- not the fact that something kicked it out?

A. No.

Q. Could it have been forces that would have kicked them out or moved them a little bit to where they didn't appear to be straight?

A. They could have been, yeah.

Q. Nobody evaluated that? I mean, to the best of your knowledge they didn't say, well, this had been set straight to begin with, now it's moved?

A. Yeah. I think it was just based on the fact that the ones adjacent to it. It wasn't that we would see so many in a row all kicked out, except that one appeared to be improperly installed.

Q. Did you have any ideas from any means that could have been used to support or protect people working in there other than the rock props and the chain link and the wire rope?

A. No, I think the problem is most of the focus has been on roof support and we

had very little on rib support. And then when you talk about take that a little further, stuff like that a little further going from rib support to trying to control a bump, you know, some of the force is generated in that. Like I said, I had seen the rock props and the chain link, you know, work before. Then I've also seen, you know, other standing --- similar standing support like cans, cans used.

Q. For rib support?

A. For rib --- as a barrier, too. I think part of the problem with the cans is their diameter. I think that would have meant doing that is to put two rows of cans in there you would have had to take out even more coal increases the chance. So I think what the thinking was behind the rock props was that, you know, if you're looking at a 14 foot roadway, a rock prop on either side, you know, maybe you could get by with only cleaning up a limited amount. Now, you start talking about --- even a 24 inch diameter can to get equipment in there, you know, you're starting to clean up a substantial amount of area --- substantial amount of coal, sorry, you know, increase ---

Q. Right.

A. --- that width. And, you know, part of the thinking, I'm sure, that went into that was disturb the minimum amount of coal. But, again, going back to Aberdeen they have used can, 24 inch diameter cans, similar to the rock props. Twenty-four (24) diameter cans, wire mesh, things like that.

Q. Similar ---

A. Yeah.

Q. --- to how they used the rock props?

A. Yeah.

Q. When --- I mean, I guess when these entries filled up with coal and you, as a strata person, probably explain it to me better, but did that entry being filled with coal

then was kind of acting as support for the pillars; right?

A. I think ---

Q. At least somewhat?

A. --- it confined it, yes.

Q. Confined it, ---

A. Yes.

Q. --- now it's working?

A. Yeah.

Q. So when you take a swath out of the middle of the entry whether you take a 1 foot wide swath or 12 foot wide or 20 foot wide, how much difference does that make? It's kind of lost to confinement then; right?

A. Well, I think what happens you probably have that coal the angle of repose down there unless it's full of solids. I think the wider you would --- the more coal you would excavate the more confinement you --- or less confinement you would have.

Q. But even when you take it out of the middle your angle repose is ---

A. Uh-huh (yes).

Q. --- destroyed in essence. I mean, it's just loose material there then?

A. Uh-huh (yes).

Q. So basically then by taking this cut out to the middle of number one you're taking away the support that the pillars have provided for themselves by bursting?

A. Well, it might not be a case where this could just be loose coal in there, too. You know, in which case ---.

Q. Did it look pretty loose to you or did it look pretty tight?

A. Some of it was tight.

Q. Did it look to you like this barrier to the left had actually moved over into the

entry? Did anybody talk to you about that where they were actually cutting coal --- oh, about ten foot of coal off the barrier, but the roof bolts were in tact overtop of it?

A. Yes.

Q. How does that happen?

A. That's a good question.

MR. TEASTER:

We thought so, too.

BY MR. PAVLOVICH:

Q. But then give me a good answer. How does the whole pillar move? Does the roof move, did the pillar move, did the bottom move? I mean, what moved there?

A. It just appeared that a section --- the outer ---. I want to say the outer shell of the pillar ---

Q. Actually moved over?

A. --- moves into the entry, yeah, it set over.

MR. TEASTER:

So if you can get in the middle of that barrier sort of speak there would be a gap like 15 feet. Did it separate from this half and move 15 feet outward toward the entry?

A. No, there wouldn't be a gap in the middle of the barrier.

BY MR. PAVLOVICH:

Q. So it like didn't separate down there here and move part of it over. You think the whole thing literally moved?

A. Well, I think as it separates and starts to bulk I couldn't envision a 10 or 15 foot gap in the barrier there.

Q. I guess --- you know, the guys explained to me and I thought, all right, did the

whole roof move over or did the whole barrier move over? I mean, physically I can't imagine either, but yet it happened. Something happened here and how does that happen? I mean, ---.

A. Not the whole barrier, just the outer ---.

Q. You think just the outer core ---

A. Yeah.

Q. --- of the --- or the outer edge of the barrier moved over and then the internal part of it filled with loose material?

A. Uh-huh (yes). Yeah.

Q. So then what was the stability of that barrier that was left especially when they were cutting out an extra ten feet of it?

A. I don't follow you, they were cutting out an extra ten feet.

Q. Well, the barrier moved over into the entry from all reports about ten feet.

A. Uh-huh (yes).

Q. And so to maintain the straightness of the entry they actually cut ten foot off the barrier?

A. They were just cutting the coal in the entry. Right.

Q. Yeah, but ---.

A. Cleaning up the coal in the entry. Right.

Q. I don't know. I don't know if that's what it --- okay. These guys said as they looked at this entry, okay, and here's roof bolts in tact however many they had in that ---. If this is the barrier over here, okay, and this is the pillar, ---

A. Okay.

Q. --- naturally the entry was pretty much full of material all the way to the top, but when they cut about ten foot that this was actually like solid barrier. When they

were literally cutting this, but the roof bolts were over top of it. So if this barrier was --- I'm going to say 200 feet and it actually moved 10 feet into the entry and now we're cutting off 10 more feet that's leaving us 190 feet; right? Is that kind of how you would perceive that or not?

A. Well, I don't see the whole 200 foot barrier moving.

Q. You don't think it all moved, you think a portion of it moved?

A. Yeah.

Q. Somewhere here it rubbleized and this part of it moved over, and in here you now have rubbleized material?

A. No. I agree that you have --- after this ten foot portion we have a portion reduction in the width of the barrier, yeah.

Q. Is it really holding anything anymore or is it --- if it moves like that is it basically failed? I mean, I don't know. I'm just --- it's not a question I have an answer to. I'm asking your opinion.

A. No, I can't imagine the whole 200 foot barrier moving.

Q. And actually how wide was that barrier, 100 and ---?

MR. TEASTER:

197 feet, I believe.

BY MR. PAVLOVICH:

Q. Do you remember?

MR. TEASTER:

It was 240 because they were going to take 40 foot cut and reduce it to 97, so about 230 feet.

BY MR. PAVLOVICH:

Q. So you don't think the whole 230 feet moved over 10 feet? You think a

portion of it moved out somehow? I mean, I don't know how. I don't ---.

A. Yeah, the portion. Yeah. So I do agree it's whatever portion, you know, had failed here reduced the width of that barrier.

Q. All right. But whatever also moved out left some --- it's not a ten foot void, I'm sure, because it's now full of material. But it's already stretched to the max where it's not supporting anything; right?

A. Oh, it's providing support.

Q. It's providing some ---

A. Yeah.

Q. --- support still more of a lateral than a vertical support?

A. No, it's still providing vertical.

Q. Vertical support also?

A. Yeah.

Q. I'm just asking your opinion because I have no idea how that ---. When you guys were underground did Mike or Joe --- I mean, would you solicit from the miners and the inspectors under there any kind of opinions or, you know, concerns or anything like that?

A. Yes. Typically, I guess, where they were gathered together, you know, I may be in the kitchen and if we saw them there. You know, because a lot of times they would ask what we were doing and all that if they saw us with the convergence and would tell them. And, you know, and just in general overall conversations.

Q. And did anybody ever express any concerns or anything that they were concerned for their safety?

A. No one ever came up to me and said specifically, you know, I'm concerned for my safety.

Q. When those rock props were being installed, how were the wire ropes being anchored, Joe, on the last props?

A. That I couldn't tell you.

Q. Well, it was told to us at Aberdeen that primarily those props would have been set to protect from this pillar rib line coming off, ---

A. Uh-huh (yes). Yeah.

Q. --- but that many times the wire rope was wrapped totally around the pillar, which tied it all in together. Then obviously that couldn't be done here because crosscut number two were full of coal, so on the last prop the rope would just be looped around and then clamped with crosby clamps. I guess, you know, it helps to hold the chain link on, but how much support does that give if you have a bounce that's significant enough to knock out a prop? They're not all tied in. I mean, this last one is like floating.

A. Uh-huh (yes).

Q. I mean, it's --- do you think that was adequate?

A. I guess it would depend on the amount of material in the force which it came out, but that's ---.

Q. So it's enough to knock one out, it theoretically could take them all out. There was nothing tying them all together or tying them all together, but didn't tie them into the ---?

A. Tie them around the pillar, yeah.

Q. Tie them around, so where they couldn't go anywhere if they were hit. Did you ever feel that you guys' tech support or did Joe or Mike ever tell you that they felt MSHA was relying on them too much as decision makers, if it got too dangerous

underground, could make a decision as to whether to continue or not?

A. I never heard Joe or Mike say that. I know Joe and Mike said they were being relied upon a lot for evaluating the rock props and things like that, yeah. That they were --- you know, felt that they were, you know, being consulted and merely a lot was being, you know, ---

Q. Put on them.

A. --- put on them.

Q. Did they feel that was maybe too much pressure on them from --- to be the ones to make that decision?

A. Well, I think they all realized, you know, it was a high profile, high pressure situation, but I don't believe --- you know, you said Mike or Joe never said they felt it was too much other than it just seemed to be more than ---

Q. Normal.

A. --- more than normal maybe.

Q. What would --- I guess, what would normally be more of the function of tech support in an emergency situation like this? I mean, how would you assume it to be? Probably roof control is not called out near as much as ventilation is.

A. Yeah.

Q. But you know the ventilation guys. I mean, you know, you've worked with all of them. Normally what would the role be in an emergency situation like this or rescue or whatever? How would tech support's role fit in? Would they be the ones that are actually making the decisions or I mean, how would that be?

A. I mean, I see --- I'm just speaking from the roof control division ---

Q. Sure.

A. --- now just as an advisory capacity. I mean, we're not the ones --- it's not our

decision. We aren't the ones in charge of the situation. We are there as an advisory capacity, ground control expert capacity.

Q. So it'd be more of an advisory thing? In other words, if I was running the operation I'd come to you and say, Joe, ---?

A. What do you think.

Q. Yeah. Here's what I want to do or here's what we're thinking of doing, give me an opinion?

A. Yes.

Q. Then you would give that opinion?

A. Yes.

Q. Was it more of the fact that I made that decision now and now I'm relying on you as you go underground and you evaluate and you think it's too bad, you come out and tell me? Is that kind of how this turned into?

A. I don't follow the first part of your question. You lost me.

Q. All right. We've already established the plan.

A. Okay.

Q. Okay. I've asked you your opinion on the plan ---

A. Okay.

Q. --- and you say, okay, I think that plan is okay. And I say, I'm going to approve it as a decision maker. Now, as this event goes along I'm kind of relying on you as to be my eyes and ears underground. You go underground and then I'm figuring if Joe doesn't come out and tell me it's bad down there, then everything is wonderful. I'm putting that decision, that burden on you as to be the one to come out and inform me how bad it is or how good it is. Did you ever feel that that was the kind of position you guys were in here?

A. No. And I don't think that should be our position, you know, as far as ---.

Q. It shouldn't be your position ---

A. No.

Q. --- is what you're saying? Do you think that the people that were in charge of this operation felt that that's what was happening?

A. I can't speak to that, but I never got that impression that the sole --- our sole observation or opinion because we weren't

---. Obviously, we weren't there around the clock, inspectors were underground, you know, on every shift. And so I wouldn't

think ---.

Q. So people told us, well, we weren't evaluating all this stuff because tech support was underground, how would you take that statement?

A. Well, what stuff? Evaluating what?

Q. Well, if --- I mean, number of bumps that were going on and concerns about people withdrawing themself, and equipment being damaged, and possibility that rock props moved and all that kind of stuff. And people that are decision makers said, I wasn't looking at that, I had the tech support guys down there. Would you have assumed that was your role?

A. I mean, certain items were brought to our attention, but obviously we can't be everywhere all the time.

Q. I understand that.

A. And so I wouldn't --- I would think that, you know, some things have to be, you know, brought to our attention to evaluate.

Q. So you wouldn't think that somebody that's making decisions would --- should make that assumption, that I didn't need to worry about this because I had tech

support down there? Because that wasn't your role. I mean, that wasn't what you were intended to do there; right, in your opinion, ---

A. To make a ---

Q. --- to make a decision?

A. --- overall decision, be in charge?

Q. Yeah.

A. No, that wasn't our role. We were there, you know, to advise and observe, evaluate and make suggestions.

Q. Did you guys attempt to do any modeling efforts while this was going on as far as ARMPS, LAMODEL or ALPS or any of that stuff while the rescue operation was going on from the 6th to the 16th?

A. Joe and Mike started modeling ARMPS initially and then they did some of the model

--- modeling. I'm not sure of the dates. If I had to guess and I hate to do it, probably I would say within the next day. If they arrived underground on the 7th probably the 8th I imagine they started doing some modeling, and I believe Joe started with some ARMPS and then --- because you can do ARMPS modeling a lot quicker with LAMODEL. You have to set up the model. It's much more labor intensive, so they probably --- if they wanted to get some quick results probably do an ARMPS analysis first and then move on to LAMODEL.

Q. Were they able to actually run some models?

A. Yes. And Joe was, I guess, in consultation with Keith Heasley, a professor at the University of West Virginia, developer of LAMODEL program. And Keith was helping him during LAMODEL.

Q. Do you know what those showed?

A. Initially Joe said that based on their LAMODEL it appeared that things came from the north as far as the failure mechanism.

Q. Was there any usefulness with running those as far as prediction of subsequent bumps?

A. I think the usefulness they ran those to help confirm or which attack or which entry should be used during a rescue recovery operation, which ---.

Q. You think that was used more to determine which entry to use ---

A. Yeah.

Q. --- than it was to try and predict ---

A. Yes.

Q. --- a problem in the future that when we get to the Crosscut 123, for example, we're going to expect a pretty good bounce?

A. Correct.

Q. So it was mostly just to say, we need to go to Number One as opposed to Number Four?

A. Yeah. Initially that was the mindset at the very beginning. I think that was ---.

Q. Wouldn't that have already been determined by the concerns about ventilation of which entry they needed to use to provide ventilation? Well, Number Four entry ---

A. Number Four.

Q. --- was a return, natural return. I mean, that was where the return air was and Number One would have been the intake?

A. Uh-huh (yes).

Q. And I guess if you're going to develop up to Number Four entry One, Two and Three are blocked, how far can you ventilate up Number Four with it being a return? So don't you think that was the reason they went to Number One because you could

actually push air up Number One since it was the intake and then have it bleed through whatever was opening in the crosscuts into Four, which would have been the pool and return?

A. I think some of what went into their decision to go up Number One and Two some of the preliminary information I got back from Joe based on their understand observations initially when they went, I guess, on the 7th that there appeared to be less blockage in number one. And their initial impressions were that roof conditions in the Number One entry as compared to Two, Three and Four.

Q. Oh, okay.

A. Compared to them.

Q. So they thought ---

A. Yeah.

Q. --- that Number One had less damage to the roof as compared to Two, Three and Four and that it initially appeared to have less material in it ---?

A. Material, yes.

Q. And they thought they could clean it up faster?

A. Yeah.

Q. And so you think some --- they were fairly instrumental in making a decision to start mining in Number One entry or start advancing in Number One, and then based on their ARMPS programs, too, they felt that was the best entry?

A. Uh-huh (yes).

Q. And that --- pretty much was that the extent of their recommendations to the MSHA people in charge based on these analyses, this is the best entry to approach it?

A. I think from that standpoint I think they made some other recommendations during the course of their visits underground. As far as, I believe, keeping people

from congregating, you know, up towards the faces, and so there were some additional recommendations I think that ---.

Q. But that wouldn't have been based on ARMPS?

A. No.

Q. I mean, that was a personal observation ---

A. Yeah.

Q. --- you don't need to have ten people up there?

A. Yeah.

Q. Of course let's just expose one guy, but I wouldn't want to be the one guy; right?

A. Uh-huh (yes).

Q. And you neither?

A. No.

Q. It was too dangerous for ten, it's too dangerous for one. I mean, that --- but I understand what you're saying, is they did minimize the number of people going in.

A. Uh-huh (yes).

Q. Who's decision was it to try and contact Keith Heasley? Was that Mike and Joe's when they were there or was that yours?

A. Mike and Joe. They checked with people in charge, whether that was Kevin Stricklin or Mr. Stickler and told them --- asked them that they were going to contact Keith Heasley since Keith was a developer of the model. And that's how that progressed and in the course of that first weekend, I guess, they e-mailed back and forth.

Q. Was there any thoughts of bringing those Keith Heasley kind of people on site

---

A. Prior to ---

Q. --- prior to the 16th?

A. --- the 17th.

Q. Yeah. No?

A. I don't recall that, no.

Q. Why not?

A. I don't know. I know Joe was --- you know, I said working closely with Keith over the e-mail and phone conversations.

Q. Well, there was, I guess, several people that were called in afterward; right, after the 16th?

A. Yes, an expert panelist convened.

Q. And the expert panel made the decision that no further work should be done underground; is that true?

A. They issued a statement and I believe their statement said that going inby crosscut 107 that the Main West area and the north and south barriers were too unstable.

Q. And what made it too unstable to go inby 107 on the 17th, but on the 15th it wasn't?

A. Well, I think they had the benefit --- I hate to use the word benefit, but the event that happened on the 16th. They had that knowledge of ---.

Q. But nothing really changed other than you had one more bounce out of 50 or whatever, there was one more?

A. Well, I think just ---.

Q. The one that happened on the 16th, and that one that happened on the 16th

said, now, it's too dangerous for anybody to be inby 107?

A. I think just the extent of that one. The magnitude of the one that happened on the 16th was much greater than, I think, anything that led up to that.

Q. Well, in reality it wasn't. I mean, there was some that occurred prior to that, but at least one we know of the one that occurred the night of the 7th it was the greater magnitude than that one.

MR. TEASTER:

It was 2.2.

A. Okay.

MR. PAVLOVICH:

Yeah.

MR. TEASTER:

It completely filled the entries back up.

BY MR. PAVLOVICH:

Q. So there was never any discussion, to your knowledge, about bringing those type of experts on site prior to the 16th?

A. Not to my knowledge, no.

Q. Keith Heasley and --- I guess Keith Heasley was contacted on the 17th; right? Did he come on site on the 17th or do you know who was there on the 17th, ---

A. Yes.

Q. --- who were the experts?

A. They were contacted. We tried to get a hold of them on the 17th. They traveled on the following day, the 18th. They came on site that Sunday, which would have been the 19th. Keith Heasley, Tony Iancioni (phonetic), Chris Mark, Ahmeed Valecki (phonetic), Pete Swanson, Morgan Moon and Rick Nelson.

Q. Did anybody ever say why none of those people were asked to come on site to help before the accident on the 16th?

A. No.

Q. No one had any ideas about doing that, to your knowledge?

A. No, as far as ---.

Q. So they were basically counting on you guys?

A. Well, we were --- outside people were being contacted, you know, for information, you know, such as, you know, Keith Heasley and all that. Just that no one was --- there was no mention of bringing anyone on site.

Q. If you --- you guys have been in tech support for a long time.

A. Uh-huh (yes).

Q. If I want to do something in the District as a district manager and I call you and say, here's my plan, and here's the circumstances, I can give you the circumstances and you're going to agree with my plan; right, and you're aware of that? Do you understand what I'm saying?

A. No, no, no, no. I'm not reading in between the lines, I guess.

Q. All right. If I tell you I want to mine an area and I can tell you any circumstances that I want to concerning the conditions there, and if I say I'm going to mine it with three foot roof bolts, if I tell you the right conditions you're going to say, that'll be okay, whether they're true conditions or not?

A. If you're asking ---.

Q. Do you agree with that?

A. If you're asking for an opinion if you give false ---

Q. Yeah.

A. --- give misleading information and I ---?

Q. I can give you whatever information I want to to make you agree; right?

A. Okay.

Q. I mean, let's face it, ---

A. Yeah.

Q. --- it can happen. I'm not saying we would want to do that, but ---. Because if I called you I would prefer to give you truthful information ---

A. Yeah.

Q. --- but if I wanted to do something, okay, and do the minimum I could always give you information and somebody come back to me later and I can say, tech support agreed. Now, you can always say, well, he didn't give me the right information, I agree with it, but

--- I mean, we all know that happens, it happens to us in the field. So, you know, what I'm saying, I guess, is if you take that into consideration is it not better that these experts would be on site to see this for themselves or to be somewhere NIOSH or WVU listening on a phone call?

A. Well, I think ---.

Q. What would be your opinion for --- to be the best and most accurate means of getting their valid opinion? Talk to them on the phone or have them on site to see what was going on?

A. Well, I guess it depends what type of information you wanted them to provide, you know.

Q. Well, what did we want them to provide?

A. You know, as far as helping with the development of the LAMODEL program, that model.

Q. I think the information we wanted them to provide on the 17th was that nobody

should go in anymore. They didn't even go underground and look; did they?

A. We made the offer and they didn't go underground.

Q. So what did they base the decision on that it was too dangerous if they didn't go underground?

A. I guess photographs taken underground, all the information regarding the rescue recovery operations.

Q. Did they use something like this bump log to determine how many bumps were occurring that probably that's not a good idea to go back in?

A. I believe they had access ---.

Q. So you think something then was put together for them?

A. They had access to all that information.

MR. TEASTER:

How long did they meet before they came to the conclusion that it was too unstable to continue with the operation?

A. We had a briefing for them Sunday morning that I want to say probably lasted a couple of hours. They probably met five, six hours and then during that point Joe Zelanko and I, we were off in a separate trailer. They had brought a separate trailer on site, and we convened --- they convened in there. And basically Joe Zelanko and I acted as facilitators. If they said, hey, it would be useful if we had a copy of this or a copy of that, well, then we provided that to them. This was after the overall briefing in the morning. We gathered the expert panel together and then, I believe, Kevin led off with directive, opening remarks, this is what you're being asked to do. Then we had Laine Adair and some of the other mine people go through a history of the mine. Then Joe Zelanko went through a PowerPoint presentation with all of the underground photos they had taken I believe from the 7th and 8th and all that. Then I went in to

some of the convergence monitoring. Then we had some of the inspectors there who were on the initial rescue operations give a little briefing just to the extent of the damage because there was some areas, I guess, that we couldn't get back in. They didn't want anyone traveling back in, which they had access to the first night. So after briefing all those --- briefing by all those people then we reconvened in the smaller trailer and they met. So Joe Zelanko and I were there acting as facilitators, and probably I'd say --- I want to say sometime that evening they felt they, I guess, had sufficient information. And at that point they were going to --- Joe and I excused ourself because at that point they were just going to make their decision, you know, or start the preliminary steps, you know, where they go from there. And they didn't want any outside people in there to help influence their decision making, so at that point Joe and I left and I guess they were close to an agreement that Sunday night but they just finally went back to the hotel and came back in the morning, reconvened and finished and they presented that draft --- or that final statement. So I know that was a long --- you just probably wanted a short answer, but that's basically how ---.

BY MR. PAVLOVICH:

Q. So once they got the information that you folks basically had it wasn't too long after that they viewed that information and came up with some conclusion?

A. On Sunday, yeah.

Q. When you guys were in contact with Keith Heasley prior to the accident on the 16th do you know anything about what his feedback or what his comments were about cleaning up this Number One entry? Did he ever have any reservations prior to the 16th about that in the phone conversations or the e-mails?

A. Not that I'm aware of.

Q. So you don't know of any?

A. No.

Q. I mean, he felt that was absolutely the right thing to do?

A. Joe was the one in contact with him, Joe Zelanko, so I'm not aware of any.

Q. Had you ever looked at any of the Agapito reports that were sent in to justify or document the approval of the plans to mine both the north and the south barrier?

A. Yes, I briefly looked at --- I guess right after this happened we got a copy of one of the Agapito reports.

Q. You got a copy of just one of them?

A. One of them initially and I believe the second one, the earlier one came, yeah.

Q. So did you have a chance to look at those in detail?

A. I haven't looked --- examined them in detail because that's what ---. I didn't want to duplicate the efforts that Joe and Mike were doing, but I did read them, yes.

Q. What was your initial opinion about mining this north and south barrier when you looked at the map.

A. Well, initially you look at it and say, okay, they're going in between two gobs. I mean, you have to wonder about turning us into the Agapito report. When I said during my reading of that what seemed a little unusual is the fact that they seemed to discount any overriding stresses from the previously mined out areas, you know. And that's one thing that seemed to focus in on the reason for the bumps, bounces or whatever in terms of the hanging roof, I mean, roof hanging in the gob, you know. Like I said, I just did a brief review of that, but that's one of the things that did pop out to me, that they seemed to be discounting possible effects from previously mined areas.

Q. Were you aware when you looked at that of the bounce that had occurred in the north barrier, that basically ran them out of the north barrier?

A. That was included in that --- the last Agapito report.

Q. The last report.

A. Because it was ---.

Q. That said a major bounce occurred in the north barrier, so you were aware of that, that a major bounce occurred ---

A. Yes.

Q. --- in the north barrier? And what did you think of their proposal to mine the south barrier after they had a major bounce in the north that ran them out about halfway back?

A. Well, I think it would be something that we'd have to look at --- should have been looked at very closely, the fact that, again, you're looking at basically going down to the barrier on the other side of the Main West. So it's something that should have been evaluated fairly closely.

Q. Do you think that elongating the blocks from 90 feet to 129 feet was really a valid change to prevent a secondary bounce in the south barrier, that that would make that much difference by lengthening those pillars?

A. It makes a difference, but I think probably what is most critical is the minimum --- would be the width.

Q. So the width remained the same?

A. The same. So it did provide some additional, but again a lot of times you're controlled by that ---

Q. Maybe not as much as ---

A. --- by that minimum.

Q. --- Agapito gave credit for?

A. Again, I really can't speak to specifics, but yeah, it does increase. But ideally

you would want to increase the width.

Q. Did you see in that second report that one of those things they recommended is because of the bump in the north barrier that there should be no pillars left or no rows of pillars skipped when they mine the south barrier?

A. Yes.

Q. What did you think when you saw that MSHA required them to skip three rows of pillars in the south in contradiction of what Agapito recommended? Do you think that was a wise decision or ---?

A. Well, without further in depth analysis --- again, I'm not so sure if Agapito was focusing --- had a complete grasp or a complete grasp of the entire mechanism of what was causing this. Like I said, I think they were discounting any pressures from previous mined out areas and solely focusing on the pressures developed by --- generated by the pillar line.

Q. So do you think Agapito basically in those reports to justify mining this kind of gave them a report of what they paid for as opposed to really what was truthful? And by paying what they paid for was the company wanted the mining, said you develop a report that says I can't.

A. I guess we all know that that happens all the time and then, too, it's like --- just like beauty, truth is in the eye of the beholder, too. Within the miracle modeling it's ---. Again, it's how it's interpreted and all those assumptions that are made. Again, there's no black and white, I guess, and so if a consultant knows what outcome he should have I think --- you know what they're going to try and do. And a lot of times you're talking about gray areas, too, where it can be debated. There's no coal strength or abutment angle, things like that. If there's some room for judgment in there they'll lean one way, we'll --- MSHA, tech support might lean the other way.

Q. So I guess it would be a valuable experience for all of MSHA's managers to understand that just because there's some expert engineering report that's sent in that justifies something that that may not necessarily hold water?

A. Upon closer examination.

Q. Did you ever run any of the ARMPS or LAMODEL after this first bump occurred to kind of look at the --- evaluate the Agapito reports ---

A. No.

Q. --- just on your own?

A. No.

Q. Were you ever familiar with any of the BLM reports that were done prior to this accident, say, from 2004 to 2007 on BLM investigations here?

A. No.

Q. No? You never had heard anything about them or seen them?

A. No.

Q. Once this ground control expert panel which convened after the accident on the 16th did you ever ask anybody why some of those people weren't brought on site beforehand?

A. No.

Q. I mean, I think I asked you that before, ---

A. Yeah.

Q. --- but ---.

A. No, I didn't. No.

Q. Nobody ever said we didn't --- here's why we didn't, no specific reason was

ever given why?

A. No. Like I said, I know Joe was in contact with both Chris Mark and Keith Heasley prior to that.

Q. Do you know Billy Owens?

A. Yes.

Q. Did you --- apparently you've been in tech support a long time. You knew Billy when he was the center chief in Denver or ---?

A. Well, I knew him prior to that because he worked his career up through the --- they call it the ground control division out there, engineer supervisor, engineer, then division chief and then center chief.

Q. Do you feel --- based on your knowledge and experience do you feel Billy had pretty good background in ground control?

A. I believe so. It wasn't his first dance with bumps. I mean, he spent his ---.

Q. He probably knew --- been around as many bumps as anybody in tech support?

A. I believe so. Oh, yes, I believe so. Yeah, definitely.

Q. When you got to the mine did you kind of wonder where Billy was?

A. I asked that --- no, in fact, I might have asked Joe that question prior to going there because I ---. During that first week end and he just said, Billy was back in town.

Q. Do you know why?

A. No.

Q. Well, if you were one of the most knowledgeable people about bumps and someone that was certainly familiar with the area, and you had an accident of this magnitude would that not be the first person you'd grab and take out there to help you ---

A. You would think you would want those people.

Q. --- if it was you that was going to be running it? Well, then do you have any idea why he wasn't there?

A. No.

Q. Did he ever show up at the mien site during the --- not while you were there?

A. Not while --- I never saw him there.

Q. You know, on prior to bumps --- prior to bumps. Prior to this accident did District Nine or anybody else ever make a concerted effort to prevent bumps or is it more of a air bag type of effect? I mean, we put shielding in, we put body armor on the guys, we do this and this, but was there ever efforts made to literally stop or prevent bumps from occurring, to your knowledge?

A. Oh, yeah, I think there were concerted efforts. I believe even just look at what a couple of other mines are doing with the barriers in between the longwall panels. Like Aberdeen where basically in response to that. That's a pretty substantial step forward where you're sacrificing 600 --- you need to do it because of the depth of the cover. So ---.

Q. So they were doing that prior to this accident?

A. Oh, yes. Yeah.

Q. So there was ---

A. Yeah.

Q. --- issues with bumps before ---

A. Oh, no.

Q. --- where you guys had made recommendations and the District adopted them or ---?

A. No, that --- we didn't make any ---. We didn't get involved in Aberdeen.

Q. You didn't get involved?

A. This is something that developed between the company and the District.

Q. Prior to?

A. Prior. I believe back in I want to say '96 I think Aberdeen had a fatal accident, and after that I think they progressively went to the barrier design, something pretty innovative that no one else to my knowledge is doing. So that was done without our --- without tech support's input.

Q. Do you guys get a lot of requests from District Nine for technical assistance?

A. We get our share. I don't --- it's tough to say what's ---

Q. What's a lot.

A. --- what's a lot. I mean, you can do anything with statistics. I guess if you break it down a percentage of requests we get and a percentage in underground mines I would say we get our fair ---. If you want to break it down like --- look at it like that, you know.

Q. Was this the one you referenced in here? I think in May 2007 NEP requested tech support assistance at Aberdeen, and I think this is ---.

A. Maybe.

Q. This is one of your forms?

A. Yes.

Q. I mean, ---.

A. Yeah, this is a control sheet, tracking sheet if you want to say.

Q. So what do you normally do with those? If someone calls in or sends you a memo or an e-mail or something asking for assistance you fill out one of these forms ---

A. Yeah, we start ---.

Q. --- as a tracking sheet?

A. Tracking sheet.

Q. You start a tracking sheet?

A. Yeah.

Q. And then you follow through with it as to who responded, what was done?

A. Yes.

Q. So what kind of work did they do there at Aberdeen? Do you remember?

A. Again, conducted an --- just an investigation to the continuing ---. Like it says, outburst floor heave problem, and the investigation came up with a memo.

Q. So they made a recommendation on what should be done or ---?

A. Yes. Suggestions are included in the memo, yeah.

Q. Did they go to Crandall or was there any request made for Crandall Canyon?

A. No.

Q. Never, not to your knowledge anyway?

A. Not to my knowledge.

Q. Did you ever find out that on the day that these guys went to Aberdeen the day before Billy Owens went to Crandall Canyon but they didn't ask the tech support guys to go there with him?

A. I subsequently found out that week that our fellows were out in District Nine.

Q. Were you kind of surprised about that

or ---?

A. Well, I guess the question is, why did he go to Crandall Canyon, what was the purpose? I mean, it could be something simple as a meeting just to clear up some language in the roof control plan.

Q. I guess to find out --- to look at the conditions and see if pillar mining would be

feasible.

A. Okay.

Q. Normally would you get requests for assistance like this through an e-mail or a phone call or you expect those to be in writing or how?

A. We get them in all forms, phone calls, e-mails or sometimes memos.

Q. So you respond to any of them however they come in?

A. Yes.

Q. Do you have like an SOP for dealing with requests from a district as far as this goes, a standard operating procedure of how you would handle requests?

A. No, other than if it --- it depends rather than logging it into the system like that. That's how we would respond to assigning someone. If the request comes into the division sheet then it just flows downhill from them usually to one on the supervisors. Sometimes a request comes into our individual investigators.

Q. If I call Mike Gauna and say, Mike, ---

A. Yeah.

Q. --- I need help with such and such, how does that get to you? How do you find out about it?

A. He'll either tell his immediate supervisor, Joe Zelanko, or he'll tell me about it, that --- he'll do it for a couple of reasons. Number one, to see if we're going to respond to it. Okay?

Q. Okay.

A. And if he's going to be the one responding to it so we get it filtered up, but ---.

Q. So somehow it gets into the system?

A. Yes.

Q. And you get a formal acknowledgement?

A. Yeah. I think what happens if it's a request for a certain area our guys maybe certain area of expertise take [redacted] for instance on your panel typically if there's an investigation dealing with ATR's cab's canopies a lot of times they'll contact [redacted] directly and say, hey, I have this problem or could you come out, take a look at this machine or --- then [redacted] will inform us.

Q. Do you ever get any complaints about the timeliness of tech support responses as far as, you didn't get out here fast enough to look at this or your memo recommendations is taking too long or any of that kind of stuff?

A. I think we've had to address some of them. We've had some of those complaints lately.

Q. Lately?

A. Yeah. Yeah, typically ---.

Q. How do you think it can --- you can deal with that, ---

A. Well, ---.

Q. --- how you can improve that response time, I guess? Is it people, is it ---?

A. Right now it's people. We're down to six field investigators. Well, five if you discount the supervisor, Joe Zelanko, so we've lost three, four investigators, ---

Q. Field people?

A. --- which doesn't sound like a lot, but when you're talking about a small group ---.

Q. Right. It's a third of them at least?

A. Yeah.

Q. Do you think that --- you were tech support when they closed the Denver tech

support center. What did you think of that move? Did it help or did it hurt MSHA?

A. Oh, I think initially it probably hurt a couple of areas I would think. I think response times are --- suffered a little because of that, and then maybe some of the expertise that was lost out there. So I think it did.

Q. So response time is primarily for District Nine?

A. And Rocky Mountain and Western District for metal/non metal.

Q. District Nine and Rocky Mountain District primarily had their own tech support, ---

A. Yes. Well, ---.

Q. --- which is nice for them?

A. East and west of the Mississippi was our breakdown.

Q. That was a breakdown. You thought that was advantageous to have that, in your opinion?

A. It seemed to work. I mean, there were times obviously we went west and they came east, ---

Q. Right.

A. --- but that was ---.

Q. Like the elevator guys?

A. Yeah.

Q. I mean, they were all in Denver, so they all had to come to the east for, you know, ---.

MR. PAVLOVICH:

You want to take about ten minutes? I don't know. How long are we scheduled with Joe?

MR. TEASTER:

Are next one is at 1:00.

MR. PAVLOVICH:

And I know [redacted] has some questions. Let's take about five minutes and we'll come back and finish up Joe. I'm done with my questions, so ---.

SHORT BREAK TAKEN

MR. PAVLOVICH:

Okay. Ernie, got any questions?

MR. TEASTER:

Yeah, I got maybe just a couple here, three, four, five. Five.

BY MR. TEASTER:

Q. We made a request and I think we made it to both, but I'm not sure which one. We made a request for District Nine's request to tech support for assistance, and when we got back the information that I've been privy to mostly just dealt with ventilation. I mean, if you looked at it there was no request from District Nine for assistance from the roof support group. And we know that that's not --- probably not accurate.

UNIDENTIFIED SPEAKER:

You mean like copies of our ---?

MR. TEASTER:

Any requests generated by the District and any responses that you had back to the District as a result of those requests.

UNIDENTIFIED SPEAKER:

Yeah, because I have a folder. Well, wasn't this included in there? Isn't that ---?

MR. PAVLOVICH:

We don't know where that came from. [redacted] do you know?

UNIDENTIFIED SPEAKER:

I got that one personally, but I think we did provide that, Joe.

A. Because I have a folder where there's reports attached. What I did, I went through --- yeah, I can get you a copy of that, but I do have a folder responding to that.

MR. TEASTER:

Have you seen ---?

UNIDENTIFIED SPEAKER:

Joe provided stuff. The issue was that the District didn't provide anything, so we couldn't see if there was any correlation, if there was anything ---.

A. I mean, it's not a thick file. I want to say probably half dozen reports, because there was only a one year period. But, yeah, I can get that to you.

BY MR. TEASTER:

Q. Of course when we looked at that there was --- the only thing we asked for the District that dealt specifically with ventilation requests, and most of those were sealed, approval of seal.

UNIDENTIFIED SPEAKER:

Right.

A. Well, there wouldn't be a copy of like this ---

MR. PAVLOVICH:

In the District.

A. --- District unless ---. Because that --- I mean, going back looking at this, this was a phone call probably from Knepp to Hoke. But, yeah, I can --- I have that.

BY MR. TEASTER:

Q. Okay. We'll check again and see. We don't have to call you. Okay? What about the --- it seems to us or to me in particular was that this LAMODEL within MSHA doesn't seem to be a well used tool, that ARMPS is the program that the District seems to be set up to establish to evaluate. I don't know how prevalent --- maybe you can give us some insight. How prevalent is it for the industry to submit an analysis using the LAMODEL program and then we take it and evaluate it with an ARMPS evaluation?

A. Let me address a couple of questions there. I mean, you're right about LAMODEL not being widely used within MSHA probably for a couple of reasons. It's very labor intensive. You know, it does require some technical expertise being a numerical model

--- numerical modeling program. The ARMPS most districts use that to varying degrees, but we are seeing more and more it seems recently I want to say --- well, LAMODEL's only been around for ---. It hasn't been around that long either, but we are seeing more and more justification. Maybe not justifications, but additional information that the companies are providing in the form of the model. Especially the mines in District Nine seem to be doing that. We've had all of --- we had our guys looking at a lot of the abutment mines, and a lot of the stuff they were getting back. The company seemed to use that a lot, but I think --- I'm trying to think which districts would even ---. Prior to this latest training, which I have for LAMODEL, which districts would even have run LAMODEL on their own. And I know we did training, we did training, LAMODEL training just this past year for the roof control specialist. But you're right it's ---.

Q. Did they even have the program?

A. It's only been around --- I know they had ARMPS because what we did, we

typically hand out the latest NIOSH programs ---

Q. Right.

A. --- at the roof control specialists.

MR. PAVLOVICH:

I think the issue that came out of District Nine was they didn't have AutoCAD except on one computer, and that was the program analyst's computer or something, which you'd need AutoCAD to run LAMODEL; right?

A. And then there's the problem. You have to have the certain version, the latest version if you have AutoCAD, whatever it is, 2008 that won't do you any good because Keith Heasley has updated LAMODEL so you can use AutoCAD 2008. You have to use ---

MR. PAVLOVICH:

The older version.

A. --- the older ---.

BY ATTORNEY TEASTER:

Q. Well, you said it hadn't been out long. Didn't that come out around 2000?

A. Yeah, I'm not --- yeah, I mean, as compared to ARMPS, which had been ---. Again, ARMPS is much easier. It's much more user friendly where ---.

Q. Well, which one gives you a better look?

A. LAMODEL does. I mean, because you can do complex mining geometries, you can do cut by cut, but, again, it can take days or even a week to get any type of meaningful information out of it because you got to set up LAMODEL and all that. And, again, even within our group, talk to Ex. (b)(6) and Ex. (b)(7)(C) We had Mike Gauna, Joe Zelanko, Steve Sawyer basically prior to the past couple of months. They were basically our LAMODEL people, but if push comes to shove I think, yeah, LAMODEL

wins hands down. But, again, if you need to analyze basic geometries, something fairly quick, ARMPS is a good first cut. ARMPS can maybe give you a red flag, say, okay, it looks good or we might have to look at it further, more in depth.

Q. When you get into a situation like you had up there at Crandall Canyon in the West Mains where you had gobs and stuff, maybe you needed to take a closer look.

A. Uh-huh (yes).

Q. LAMODEL may have given us if we would have taken a look at that. Although Agapito did use that ---

A. Yeah.

Q. --- and theirs came out favorable, so ---.

A. Again, it's --- and we're putting out ---. I guess there will be a PIB issued hopefully sometime this year on the cautions even using ARMPS. It's only as good as the information you put into it. You start fooling around with the defaults like we said before, with the AMZ. If they know we want to see a 1.5 they're ---

Q. You get it.

A. --- they're going to do whatever they can. Now, hopefully you would think it's --- I don't want to say ---. Now, it's --- before you could change something like that and say, well, I didn't realize it would affect it. Now, Chris is changing ARMPS, so if you go into there and you change that value you're going to have a warning flash up and say, by changing this you can use all our case history, all our database. Because that's where people get messed up, they say, well, all his case histories and his recommended stability factors are all based on using these defaults, 900 psi, AMZ of a certain width, 20 degree abutment angle. So that's the value of something like ARMPS is that you have all this case history, but it's only good when you preserve that. And, again, it's a good first cut, first approximation. The other problem

--- I know I'm probably rambling on so I'll stop here, but it was even trying to model this.

Q. Uh-huh (yes).

A. You know, only ---.

Q. Pillars.

A. Only pillaring two leaving that third one there. How do you do that with a barrier or

--- you know, ---.

Q. Okay. You're right. Right. What do you account for the entry in the pillar?

A. How do you --- that was the criticism, too, if you read the ---.

Q. NIOSH report?

A. I don't say rebuttal, but the NIOSH report. That one of the flaws they found, too --- again, it comes down to engineering judgment is that they gave more credit to these barriers than they probably should of have.

Q. Because they counted the entry and the pillar as part of the barrier.

A. All they did was --- say the pillar was 60 feet wide or whatever, add that 60 feet to the barrier, you can't do that. That gets back to that situation I explained we went around with District Four about, the best way to do that. Actually the increased barrier would be something less than adding 60 feet of barrier to that.

Q. So, Joe, you wasn't aware of the bump that occurred over there in Number Four entry when you were there. It occurred in the early morning hours like 1:13 or something like that in the morning of the 7th.

A. Uh-huh (yes).

Q. It completely --- they had cleaned up two or three crosscuts with the scoops, and they wasn't setting any kind of supports, and when they ---. They were just going

up a scoop, taking it and dumping it into the back entries there as they're trying to assess that area as quickly as they could. But when that bump occurred it knocked an inspector down who was standing over here in the crosscut here to the belt entry right in here. Knocked him down, it also knocked another miner down that was over in the feeder, knocked stoppings out outby and it completely filled that entry back up to the point that it was prior to them starting cleaning like it was after the initial on the 6th. That one registered 2.2 on the Richter scale. If you look at all that material that came over there it would have been very difficult for those rock props and the support system that they had to withstand that kind of --- in my opinion. I don't know what --- what would you think based on what it done over there on the 16th, what kind of support it might have provided there on the ---?

A. I said having not seen the extent of that damage, but I would tend --- we tend to agree. If it was that massive ---.

Q. Joe, what we're looking at here is we know what --- we've got information on mine explosion and mine ---. We can look at the gases and pretty much tell when it's too dangerous to continue working there. And same thing if you got a bad roof falling in we can tell on the evaluation that it's too unsafe to continue. With bumps it don't seem like we've got much information. When you put this log together over here there was a lot of bumps, 2.2, 1.9, 1.6. I mean, these things continued to occur. There were a couple of days that --- the 8th and 9th there was very little activity and mostly just set up over in Number One entry, but there was a lot of bump activity. The one in the morning on the morning of the 16th I think it registered 1.5 or 1. --- it was pretty significant. They had them on the 15th, it was pretty significant. So you're getting all this activity and some of that transpired while you were there, and you wasn't even aware of it. But knowing that these kind of bumps was taking place --- I

mean, to me when you blow stoppings out, you knock people down, you fill the entries back up, you broke motor shaft, it should be something that's people looking at to say, does this thing continue? Should we continue with this, should we look at another support system? What's your thoughts now that you're --- we talked about all these bumps and how they registered on the Richter scale and some have damaged the mine? Did you have full confidence the tech support system would withstand the bumps and provide the protection for people working in those areas?

A. Well, I don't think I --- if a full pillar, an entire pillar would go, I don't think that ---. Obviously, that's not going to hold. That was designed to only withstand so much force, and we didn't anticipate full pillars bumping again, I guess. And that's based on the --- obviously, I guess I was down --- I was underground there a couple of times, walking around up the Number One entry. I don't think I was ever at the mine when they were actively mining, but there were times when I was up to the tailpiece of the miner. I think we all realize that and we put in --- that support's only going to withstand so much.

Q. How was those rock props anchored? You made it from one crosscut length to the other. How was they anchored in? Was they anchored any way into the crosscut or into the mine roof? I mean, at Aberdeen you said they circled blocks.

A. Yeah.

Q. I can see where that would provide you a lot more, but if you --- how did they anchor the ends of those rock props? With wire ropes?

A. They were just anchored around the last rock prop.

Q. So if you got something going it could have had a cascading effect ---

A. Yeah.

Q. --- particularly if it was on --- started at the entrance?

A. Uh-huh (yes).

Q. You indicated earlier to a question Joe had talked about the breaking in the motor. You said it would cause concern if you had that information. What would --- what does concern mean? If you had the information that you had a bump that broke those motor shafts and you learned of that, what would that concern cause you to do?

A. Well, I would just keep reinforcing the precautions that were in the plan to make sure that when they're in there actively mining to make sure that they only advance as far --- because I think they reduced the distance of advance. I think there was some changes made to that --- to those plans, too, to make sure when they were actively mining

---. Because I think that was the point we were most concerned, when they were in there actually loading out the coal. And, again, I guess there's even two schools of thought. Is it better to have seismic activity or is it a lull before the storm or something loading up, loading up? You get disagreement around ground control experts on that, and that's why it's so tough to forget. You can probably --- we're just trying to predict when a bump will occur. Is it because you have an increase in seismic activity or activity, some type of activity? Does that mean the grounds are leaving itself, or does that mean it's leading up to a larger one or is it worse that you have no activity and everything is just building up, building up and then finally it goes? You even get disagreement among that. That's why --- part of the other problem with bumps, if you go back through the mining history you look at the resources put into bump evaluation from the Bureau of Mines or NIOSH. The early mid '80s, Olga and all that, and then there was --- that was hot and heavy for about five years. And then another ten years go by and then you have a couple out in District Nine.

Q. Uh-huh (yes).

A. That was the one --- Aberdeen one and another one. And I think it's so infrequent that it's a tough ---

Q. And you have ---.

A. --- one to handle

Q. After most of that stuff went into trying to predict when a bump might occur during normal mining either development under high cover, or retreat mining with longwall or with miner under normal mining. But nobody ever did anything on cleaning up a bump. I mean, nobody had any prior experience on cleaning up something like this. Even that what you had from 20 years ago at Bishop and Olga and wherever, the other stuff in southwestern Virginia. They did a lot, I guess, and around Princeton and everything. How does it apply to this?

A. And no one has had success back then even in predicting when a bump is going to occur. That's with months or years of history at a particular mine, and there you go into a situation where you don't have all that background.

Q. Right.

A. I mean, just bumps in general I think are the least understood.

Q. There's a --- Joe went over those bumps and there was one in there that the inspector documented that it had moved the tops and the bottoms of those rock props out. Was you aware of that?

A. He might have discussed it. I don't recall.

Q. I don't know that Joe mentioned it, but I know it was in the log there.

MR. PAVLOVICH:

I think it's the one that --- this happened on the 15th, I think, at 2:26, and this is a note from Barry Grosley that says, atmosphere black with dust, appears rock props have moved out tops and bottom. Question, rock props are built

in to support? Continuous mine partial covered on the right side, curtains blowing out, Kennedy panels, both covered motor shafts sheared. So I mean, he's making a statement and this is at 2:26 a.m. in his notes. Who that went to I don't know, but he says it appears that the rock props moved out.

A. I remember when we were reported in the command center as being told the bump --- or the ---

MR. PAVLOVICH:

The shafts were broke.

A. --- the shafts were down, yes.

MR. PAVLOVICH:

But they didn't say anything about the props breaking and ---?

A. It didn't say the props broke or just ---?

MR. PAVLOVICH:

No, it just --- he says it appears they move out. It says, appears they moved out, and now I'm questioning the ability of them to provide protection if that bump caused them to move. But now what happened with that, we don't know.

BY MR. TEASTER:

Q. You indicated that when you dug down for your convergence, anchoring the mine floor you had 8 to 12 inches of mine of coal on the floor?

A. Of loose material. We would typically dig down 8 to 12 to get something solid, yeah.

MR. PAVLOVICH:

Then what effect would that have on those supports when you're pressurizing to 1,100 psis and you're setting them on the coal bottom versus a

rock bottom?

A. Well, you'd want to set them as firm a bottom as you could.

MR. PAVLOVICH:

Do you know --- were they digging down to the rock, as far as you know, to install? I mean, just was digging down and setting them on --- you said they were setting them on a wooden ---?

A. I think they were digging down to a firm surface, I believe.

MR. PAVLOVICH:

And setting them on a half header or something?

A. They used a half header, cap lock on the roof to pressurize it.

MR. PAVLOVICH:

What were they using on the bottom?

A. I don't recall.

BY MR. TEASTER:

Q. There's tech support --- this was the western tech support at that time. They put a report out that said mining of pillars should not be permitted when you have 1,500 or more feet of overburden. Now, this was particular to that one mine. Did you ever read that report? Are you aware of it?

A. No, which mine?

Q. You got me there.

A. Okay.

MR. TEASTER:

Do you remember which mine?

UNIDENTIFIED SPEAKER:

What was it now?

MR. TEASTER:

It was a mine --- tech support came out. Was it Soldier? Soldier's Mine.

UNIDENTIFIED SPEAKER:

Soldier Canyon.

BY MR. TEASTER:

Q. Soldier Canyon. You're not familiar with it?

A. No, I'm not aware of that. No.

MR. TEASTER:

That's all I have.

UNIDENTIFIED SPEAKER:

I guess I got a couple, Joe. Now, we talked a lot about the Richter readings.

A. Uh-huh (yes).

UNIDENTIFIED SPEAKER:

To what extent when you got there were you aware of Joe or Mike or anybody else for that matter investigating Richter readings at that point in time? I know there's been a lot done after the fact now where they've talked a lot to the University of Utah. But that point in time what can you tell us about what was being done as far as looking at Richter readings?

A. I don't believe there was a lot being done at that time.

UNIDENTIFIED SPEAKER:

Okay. So no real effort as far as looking at a Richter reading and correlating it to any of these bumps that we're talking about in the bump logs?

A. Yeah, I don't recall a lot of time

being ---.

UNIDENTIFIED SPEAKER:

Okay. The other thing --- just, again, getting back to the bump log that Joe ran through a good bit of those mines. You mentioned that as far as briefing and debriefing you guys had to check in with the command center before and after. Did you or Joe or Mike ever actually look at the command center log or were they relying on the person there to give them verbal --- what was moved?

A. Yeah, we were relying on the person running the log. Yeah.

UNIDENTIFIED SPEAKER:

So if they didn't remember something or think something was significant it might not have been passed on to you?

A. Correct. We did ask for a copy of the log, which was probably provided on the 17th or 18th.

UNIDENTIFIED SPEAKER:

After?

A. Yeah.

UNIDENTIFIED SPEAKER:

Again, just going to the number of bumps and all that, I kind of had a sense that when Joe was going through the bump log and he was throwing that number out, 40 or 50 bumps that had occurred, that that was somewhat surprising to you. Did you have a sense that they were occurring on that kind of basis or is it fair to say that you were surprised and then we go through all of this that we come across?

A. I guess it depends what they're calling a bump, a bounce. That's the whole problem I have with it, at least it's something really significant. Here I am several crosscuts outby and my hearing isn't what it used to be, but still something that severe

--- again, ---.

MR. PAVLOVICH:

You would have thought you heard that?

A. Again, I didn't hear the usual, and part of it I wonder, too. Not to criticize anyone, but at what point were some of these calls being phoned out by --- I want to say Murray, but when they brought in their people from outside from Ohio, their foremen and all that. Now, because I know some of those people are not all familiar with what they were seeing. Not to downplay any report, but you hear a bump or a thump and you've never heard it you're going to really wonder. In fact, just --- Joe and I were taking readings the one day and one of the Murray people that he had --- I guess one of the foreman he was from Ohio, and he's looking at the rib conditions and all that. His eyes are wide open not knowing what's normal for that high cover, high coal and all that. So that's what I wondered if some of that could be attributable. Again, not knowing the timeline, but who was phoning that out or who was reporting that.

MR. TEASTER:

Most of this stuff we've discussed in MSHA.

MR. PAVLOVICH:

I think most of these are MSHA people, but that's not to say that they all have the same experience with bumps either because you did have guys that were from District Nine there, but you also had guys from District Two, Three and Four and whatever out there. So some of the --- what we tried to do was take the ones that documented that somebody says large bounce, material thrown off, lots of dust, took a head count, everybody okay. I kind of put some faith in that, and especially then if you could go to the University's Richter magnitude and see a

correlating time where maybe a 1.3 happened or a 1.4 or 1.5 or something that correlates to the same time as reported. And that's mostly the ones where --- I guess the way you looked at it ---. For example, on the 3rd it shows a 1.5. Okay. On the 5th they had a 1.6 and a 1.8. This is even before the accident. Of course the big one was 3.9. They had one of the rescue teams went behind the seals right here and said just as they were leaving the scene or got out in the fresh air they said they had a big bump behind the seals, that one shows up as 1.9 because the time correlates. The one that knocked down Ron Paletta and filled the Number Four entry up shows 2.2 because the time correlates with it. Okay. And then some of the other ones --- like here's one that was a 1.7 on ---. I forget what day, but anyway. Then a couple of days there's nothing listed in the book at all for no bump activity. We don't know why and can't figure out why, but there's a lot of stuff then that's --- here's one that says, big bump at 1/17 by Ron Hixson. Well, don't know what Ron Hixson's experience is in bumps, but it was pretty big to him. And I think one of these knocked some timbers out at the power center and they fell over onto the power center and knocked the high voltage switch and knocked the power off. So was that big or not, I don't know, but going on --- see here's one that's 1.2 that talks about specific damage. Here's a 1.5 that kind of happened when --- maybe about the time you guys were going underground. I don't know. We'll look at that log, and then the 1.6 --- well, I mean, 1.6 is more than 1.2 or 1.5, but fairly close to 1.5 or you had 1.7 and 1.9 and 2.2. And how much bigger was this one? It just ended up three people got killed and the other ones they didn't, and I guess like you said, these experts called in. They had the benefit of knowing we just lost three people. If they would have looked at it on the 15th would they have said the same thing about it's too dangerous to be in there? I don't know. None of us know. I mean, that's --- but you see there's a whole lot of

them that are about the same type magnitude that are happening.

MR. TEASTER:

I'm sorry [redacted] I didn't mean to get off ---.

UNIDENTIFIED SPEAKER:

My other ones have really been answered already. Then I had some ---.

MR. TEASTER:

[redacted]

UNIDENTIFIED SPEAKER:

Yeah, I just got a couple of things to follow up on. We ask you before the 16th the lateral pressure that's being applied to one of those rock props that were set at, say, 1,100 psi or something like that. Was it ever calculated after the fact?

A. No, I don't believe so, but it could be something that is based on the effect of the area, the pressure there, set pressure if you're looking at those things. Probably I think you can set them up to 20,000 pounds and just make some assumptions about coefficient and friction.

UNIDENTIFIED SPEAKER:

I'm just thinking you talked about that one of the reasons that they use these because in the average mine they saw and thought they worked. I'm just wondering if they had any big bounces if they worked. It doesn't know what the actual --- what they were told and if that's a good system or not?

A. Yeah, it probably would be a good number to get. Yeah. I think part of the problem is initially you're looking at a rock prop, which was designed for roof support, and now you're testing a NIOSH like that. And now it's being asked to be used as a

barrier against material being ejected from the rib.

UNIDENTIFIED SPEAKER:

Knowing that of course we'll probably need to ask Mike and the other gentleman that how were they determined that the rock props would be the best thing to use? I know that was made before you got there, so it's probably something you'd have to follow up. I mean, just based on what you said that they were roof support and not rib support.

A. Yeah. I'm sure what went into a lot of that is the fact that it had been --- again, going back to you said at Aberdeen and getting back to the other comment about the caps, too, which they used in Aberdeen. I think the feeling there was to move as little material as possible. They could get by with a narrower railway using rock props.

UNIDENTIFIED SPEAKER:

Were you aware that those reports of cans had been moved and destroyed and tore out by bumps?

A. It wouldn't surprise me at all. I mean, bumps --- I figure they can move a continuous mining machine.

UNIDENTIFIED SPEAKER:

Well, along those lines what was the process that was in place? I mean, did the underground miners come out and talk to any of the decision makers and say, hey, I've seen --- these rock props are not going to hold or I've seen other things to happen? Was there a system in place or was there a feeling that people could voice their opinions? And this might be just your opinion, but ---.

A. Yeah, I wasn't aware of any set system. I never got that impression. I think it was more or less just like any time. If someone had a complaint I don't know if there's a specific track thing we do --- use or something ---.

UNIDENTIFIED SPEAKER:

Briefings and debriefings before they went underground or they come out, that they can just --- everybody sat down and just said, what do you think? What's going on?

A. They might have conducted that with the crews going on and coming off. I'm not aware of it.

UNIDENTIFIED SPEAKER:

Okay. This is kind of just maybe to jog your memory or something. I know that you said that you wasn't aware of anybody calling out and saying, hey, tech support come in and check this out. Do you know Peter Saint?

A. Yes.

UNIDENTIFIED SPEAKER:

Okay. He's an inspector that was there on the 16th and there was something that occurred underground. He called out. He was talking to, I think, Bill Taylor in the command center.

A. Uh-huh (yes).

UNIDENTIFIED SPEAKER:

And he requested that tech support come in. Were you aware of that? I mean, I know ---.

A. No. I said on the 16th we made two visits underground, once in the morning and once in the afternoon to read the convergence stations and to look at overall conditions. I don't recall any specific requests to look ---.

UNIDENTIFIED SPEAKER:

Do you know if Mr. Stricklin or Al Davis was in the command center when you was underground or coming out on the 16th? Can you recall?

A. No.

UNIDENTIFIED SPEAKER:

You can't recall it?

A. No, I don't. I don't recall.

UNIDENTIFIED SPEAKER:

Just one other thing. You talked about that you guys had some training and you had made some recommendations about bumps to District Nine and other places.

A. Yes.

UNIDENTIFIED SPEAKER:

Did you have a copy of that somewhere that we can get later on to see what you've done?

A. Yeah. It's in that folder of information that I thought I had provided. There's, I believe, three or four memos in there, and there should be recommendations.

UNIDENTIFIED SPEAKER:

That's all I have.

UNIDENTIFIED SPEAKER:

I just have a couple of questions. I don't know --- I don't remember you mentioning in the other rescues that you've been a part of, but if you have ---. If you've been a part of other rescues how did this one compare to others that you've been involved in? Did it seem pretty organized or ---?

A. I haven't been involved in any other rescues.

UNIDENTIFIED SPEAKER:

Okay. Well, even without that to compare it to what was your

general sense of how this rescue went? Did it seem fairly organized, disorganized?

A. Again, I got there a week after the fact. By that time I think things had settled down, so it did seem fairly organized and there was a routine and --- so that's ---.

UNIDENTIFIED SPEAKER:

Okay. And Joe and Mike never expressed to you that, boy, this is a mess or they never expressed any --- their thoughts, I guess, to you on how it was ---?

A. No.

UNIDENTIFIED SPEAKER:

Okay. You talked a little bit about predicting bumps, and I guess it's a fair statement to say that there's no perfect science at best. And I just wanted to know whether or not you knew that there seems to be a pretty pervasive belief from some of the districts that as long as you hear bouncing and bumping it's safe because the mountain is relieving itself. Were you aware of that?

A. Well, I think I discussed previously there's even two schools of thought like if you're talking a ground control expert, is it better that you hear your bump and that it's really --- or is it ---? What happens when it's quiet? I mean, there's --- if you get enough ground, quote, unquote, ground control experts together you're going to get different opinions like that.

UNIDENTIFIED SPEAKER:

But there's no scientific authority to support ---?

A. Again, it's more earth and science right now.

UNIDENTIFIED SPEAKER:

Okay. And just one last question. Given the unusual nature of this Crandall Canyon plan are you surprised at all that tech support didn't have

more involvement than it did?

A. When you say unusual nature what do you mean? I mean, what specifically?

UNIDENTIFIED SPEAKER:

Well, we've heard that the mine barriers is not something that is usual, it's a little abnormal. And just given that, I'm curious as to whether or not you're surprised that tech support didn't have additional input on that plan?

A. Not surprising in one regard that if you look at the roof control supervisor they had in place there he came up through the ranks of tech support basically, ground control division. Used all that experience out there, so from a technical standpoint, I don't want to insult Ex. (b)(6) and Ex. (b)(7)(C) here, but Billy is one of the supervisors that has a lot of --- Ex. (b)(6) and Ex. (b)(7)(C) isn't technically oriented, so it's not completely surprising. I'm willing to say that well, --- he has no background or they have no background looking at this, and so I think it comes down to what they feel comfortable with.

UNIDENTIFIED SPEAKER:

That's all I have.

UNIDENTIFIED SPEAKER:

When you look at the map before they mined the barriers they mined the South Mains out. As they were mining the South Mains the room and pillar, the rock props and the longwall panels that were left and right?

A. Okay.

MR. TEASTER:

Of course here's the portal and here's the West Main. He's talking about the south mains here where they actually pulled these pillars out and mined these remaining barriers to the --- where the longwall was pulled out from.

A. Okay.

UNIDENTIFIED SPEAKER:

Do you understand that? I mean, has that ever been an issue that somebody said, can you do that?

A. We haven't evaluated that. I think on --- not to that extent where ---. I think it's been done, but not taken as much.

UNIDENTIFIED SPEAKER:

As far as you know nobody --- as far as tech support never done a study, ARMPS or any kind of calculation to see if ---

A. For that particular ---?

UNIDENTIFIED SPEAKER:

--- to do that?

A. For that particular one?

UNIDENTIFIED SPEAKER:

Any one.

A. No.

UNIDENTIFIED SPEAKER:

I've never seen that done before.

A. Yeah.

UNIDENTIFIED SPEAKER:

Even back here.

A. Under lesser cover, yeah.

UNIDENTIFIED SPEAKER:

And as far as mining the barriers in the north and south, have you seen that done in the west before?

MR. TEASTER:

Are you talking about this north barrier or south barrier here?

A. No, I personally haven't seen it done.

UNIDENTIFIED SPEAKER:

And do you know what any manufacturers consulted this as far as roof support, strata products? Did anybody call any manufacturer and say, you got anything you would recommend or you got any input?

A. I think Joe did contact a couple of the manufacturers early on. I know he was talking with Tom Barzak (phonetic), I believe, during that first week before I got there.

UNIDENTIFIED SPEAKER:

But you didn't contact them?

A. No.

UNIDENTIFIED SPEAKER:

So it was somebody else?

A. Yeah.

UNIDENTIFIED SPEAKER:

And you said that the first week you was looking to see if this had ever happened before. What was the name of that mine?

A. Olga.

UNIDENTIFIED SPEAKER:

Where was that at?

A. Southern West Virginia District Four and, in ---.

UNIDENTIFIED SPEAKER:

Was it a fatal or ---?

A. No, that's why it's tough getting information on it because there are a couple of fatal reports out there, which we did --- I did send to Joe and Mike when they were out

there. But they were no much smaller events. The section wide event was a non-injury accident, so it's tough getting information on that.

UNIDENTIFIED SPEAKER:

Did they abandon the area or what is the information?

A. No. Olga wasn't a mine where they were going back in and mining the barriers in between gob areas.

UNIDENTIFIED SPEAKER:

Do you have an approximate date?

A. Early '80s. I want to say '83, '84. Yeah, I think in that area. I think they had two fatals over a three year period. I want to say the early '80s.

UNIDENTIFIED SPEAKER:

When you set these conversion stations they were all outby ---

A. Yes.

UNIDENTIFIED SPEAKER:

--- face area?

A. Yeah.

UNIDENTIFIED SPEAKER:

Has convergence been used to predict bumps? Has that ever been used anywhere in these other mines that ---?

A. I think during some of the NIOSH or Bureau of Mine studies they've used convergence to help document ground conditions that were occurring as the area loaded up.

UNIDENTIFIED SPEAKER:

Were there any normal or just ---

A. No, again, ---.

UNIDENTIFIED SPEAKER:

--- looking for something to check?

A. Yeah. Again, I think it's like if you just look at roof sag from section to section and we can change. Here we did have --- or Joe received some concerns from either one of the inspectors or some of the guys underground that they heard activity outby by then, and they didn't want to be something that happened outby while they were up in entry Number One. And so we ended up doing --- when I talked to Joe, when I came out of that second week or whatever brought out materials for convergence stations and we thought we'd run the two lines down there to see Number One. If we were getting something could we tell if it was --- because at the time maybe Joe's opinion and Mike's opinion has changed since then. But they were thinking some of this came down from the north, so that's the reason we ran the two lines to see if we were getting any change, what could we tell, was something coming down from the north or was it because of some activity up here? It was just something additional we thought --- just looking for some additional piece of information we might be able to obtain.

UNIDENTIFIED SPEAKER:

When you reported to them was it the 15th or 16th?

A. Yes. We installed the stations on the 15th and recorded them on the 16th.

UNIDENTIFIED SPEAKER:

When you reported to the Blue Goose, did anybody in the Blue Goose give you any --- did they debrief you at all, say, this is what happened last night? I know Joe had been there for a week.

A. Yeah.

UNIDENTIFIED SPEAKER:

Did they bring you guys up to date, this is what happened?

A. The one --- that morning, I believe, of the 15th when we showed up to report an incident and say, hey, we're here, we're on site and all that. We had talked about the one bounce, bump, whatever you want to call it, that had damaged the continuous miner, but as far as any scheduled debriefing, no.

UNIDENTIFIED SPEAKER:

Joe, just as far as discussion of the convergence. How sensitive is the convergence out there as far as increments that you could read?

A. Down to millimeters, one millimeter which is --- what's a millimeter on metric? 400ths of an inch, yeah.

MR. TEASTER:

Pretty sensitive?

A. Yeah, yeah. We were --- at that point we were looking for ---

MR. TEASTER:

Any movement.

A. --- any movement, and ---. Well, in fact, we did end up installing a dozen more outby Crosscut 107, I think, when they were talking about recovering some equipment, so ---.

BY MR. TEASTER:

Q. I just have one more question. On your log in, when we look at these log books --- they're rather confusing as far as ---. Apparently these are the books you guys signed when you went in and came out of the mine.

A. Okay.

Q. All right. Now, it appears like it says, there are crews going on shift and then of course there's tons of names, but it has your name and Joe Zelanko at 6:30 a.m.

A. Uh-huh (yes).

Q. So this is when you signed to go in the mine?

A. Yes.

Q. Okay. Then there's a page in it that says crew's leaving mine and they have Zelanko and Cybulski. These dates are the 16th, of course. And it says you come out at 10:12 a.m., so you went in at 6:30, came out at 10:12. That is when you did the first measurements on your stations; ---

A. Yes.

Q. --- right? The next page on this one says 1:01. Is that when you went back in?

A. Yes.

Q. So you came out at 10:12, went back in at 1:01 and then this page is 4:00 p.m., that's when you came out?

A. Yes.

Q. Okay. Well, [redacted] and I worked two days trying to figure out how these books were ---.

A. Oh, no.

MR. PAVLOVICH:

Well, you would have missed those bounces that occurred. Like you went underground, you was back outside at 10:00 something on the 16th.

A. Okay.

MR. PAVLOVICH:

And that bounce occurred right around noon. The other one occurred --- I noticed that you went in ---.

BY MR. TEASTER:

Q. Just about the time you went in.

MR. PAVLOVICH:

Yeah, it occurred about 10:05 and you went in at 10:08 according to the book.

MR. TEASTER:

No, they came out at 10:08.

A. Came out at 10:08.

MR. TEASTER:

They come out at 10:08.

MR. PAVLOVICH:

I'm talking about on the 15th.

UNIDENTIFIED SPEAKER:

How long did it take to ride out, 30 minutes?

A. Yeah, about 30 minutes on the 15th. They said --- especially when we were making those convergence, the loop for these convergence. It wasn't noisy.

MR. PAVLOVICH:

Yeah, see, the 15th they went in. You guys went in at 10:08.

MR. TEASTER:

Right. So that bounce occurred at 10:04, 10:05. So it occurred while you were signing in or ---

A. Okay.

MR. PAVLOVICH:

Just before you went in.

MR. TEASTER:

--- before that, so you had gotten underground.

MR. PAVLOVICH:

You didn't feel it on the surface?

A. No. And then I --- probably what happened, too, then ---. That was, what, 10:00. We probably didn't get up to the face --- what time did we sign out that day? Because we started installing the stations which took --- reading the stations doesn't take too long, but installing them took the better part ---.

MR. PAVLOVICH:

It looks like you signed out at 4:16.

A. 4:16. So I imagine by the time we worked our way inby that it was later in the afternoon because I know we had trouble installing those stations.

MR. TEASTER:

Okay. Joe, anything else that you think --- can think of that you might want to talk to us or tell us about?

A. No. I will get you ---

MR. TEASTER:

Oh, okay.

A. --- that packet. I apologize for that.

MR. TEASTER:

Okay.

A. But I thought that it was sent. Like I said --- because I have a copy of it sitting on my desk back at Briston, a folder.

MR. TEASTER:

Oh, okay. All right.

UNIDENTIFIED SPEAKER:

Check with me. I'll get some stuff before you do all that

because I don't have ---.

A. Well, okay. It would be --- I'd say it would be a bunch of sheets like this, but some of them have the reports attached to it.

UNIDENTIFIED SPEAKER:

Yeah.

A. Lab reports, probably ---.

UNIDENTIFIED SPEAKER:

I've got some PDFs of some ---

A. Yeah.

UNIDENTIFIED SPEAKER:

--- stuff that's been scanned in here, a roof control report.

A. Yeah, that would be it. Yeah.

MR. TEASTER:

Okay.

A. Yeah.

MR. TEASTER:

All right. Let us check on that. Okay.

A. Yeah, there should be I want to say three ---.

UNIDENTIFIED SPEAKER:

But it's got that form ---.

A. On the cover, but, yeah, behind --- like typically the field investigation was there. There's probably three reports of field investigation, probably have two or three of lab investigations.

MR. TEASTER:

Okay. Okay. Well, Joe, that's all the questions we have for you at this time, but we appreciate you coming in, talking to us. Appreciate your patience with us. Congratulations on your promotion. Good luck on your future endeavors with that and we really appreciate you answering all our questions and taking time. If you would have anything else that you would think about in the future give us a call, let us know and if we have any additional questions that come up that we'd like to talk to you about we'll get in touch with you and work that out. But, again, we ask that you not discuss any of this interview with other people. Okay?

A. Okay.

MR. TEASTER:

All right. Very good. Thank you.