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COMMITTEE ON ENERGY AND COMMERCE,

U.S. HOUSE OF REPRESENTATIVES,

WASHINGTON, D.C.

TELEPHONE INTERVIEW OF: JESSE MARC GAGLIANO

Friday, June 11, 2010

Washington, D.C.

The telephone interview in the above matter was held at 316 Ford House Office Building, commencing at 11:00 a.m.

Appearances:

For COMMITTEE ON ENERGY AND COMMERCE:

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For HALLIBURTON:

STEPHANIE BRAGG, ESQ.

JEFF TURNER, ESQ.

Ms. Fuchs. Good morning. My name is Meredith Fuchs. On behalf of the Committee on Energy and Commerce I thank everyone for joining us today. We are doing a transcribed interview of Jesse Gagliano. The chairman of the committee has requested this transcribed interview as part of the committee's investigation into the causes of the explosion on the Deepwater Horizon drilling rig on April 20, 2010 and the oil spill that is now spreading across the Gulf of Mexico.

Mr. Gagliano, thank you for being with us today. We're going to go through some formalities here at the beginning just to make sure that the record is clear. Can you please state your full name for the record?

A Jesse Marc, M-A-R-C, Gagliano, G-A-G-L-I-A-N-O.

Q Thank you. My name is Meredith Fuchs. I am the Chief Investigative Counsel for the Committee on Energy and Commerce. And we're going to go around the room and let some other people who are joining us identify themselves.

Ms. Cardille. Stacia Cardille, I'm Counsel with the majority staff.

Mr. Spencer. I'm Peter Spencer. I'm Professional Staff Member for the minority staff of the Energy and Commerce Committee.

Mr. Cohen. I am Brian Cohen. And I am Senior Investigator

and Policy Advisor with the committee.

Mr. Cobbs. I am Rob Cobbs. I'm a Policy Analyst with the majority staff of the committee.

Ms. Gaston. And I'm Molly Gaston. I'm counsel with the majority staff of the committee.

Ms. Fuchs. And can you identify who else is with you? Jeff and Stephanie?

Ms. Bragg. It's just me, Stephanie Bragg, Jeff Turner, and Jesse Gagliano.

Ms. Fuchs. Before we get into the actual questions, Mr. Gagliano, I'm going to just go over the standard instructions that we provide and explain what this interview is. Under our committee's guidelines for transcribed interviews you're permitted if you choose to have personal counsel attend the interview. Do you understand that?

Mr. Gagliano. Yes, I do.

Ms. Fuchs. And have you chosen to have personal counsel attend the interview?

Mr. Gagliano. No.

Ms. Fuchs. The majority is going to ask the questions first, that's me. And after I'm completed with up to an hour of questions, the minority will have an opportunity as well. We don't know -- you know, we're going to see how that goes, but we'll have an opportunity for both sides to ask those questions.

An official reporter is going to take down everything that

you say, and we will make a written record of that interview. So we need you to give verbal, audible answers, particularly because we're doing this over the phone. To assist the reporter in making a clear record can you please wait until we finish our questions before you start your answers?

Mr. Gagliano. I understand.

Ms. Fuchs. You are required by law to answer questions from Congress truthfully, and knowingly making a false statement to Congress could subject you to a criminal prosecution. Do you understand that?

Mr. Gagliano. Yes, I do.

Ms. Fuchs. Is there anything that would prevent you from answering questions truthfully today?

Mr. Gagliano. No.

Mr. Fuchs. Well, then I'm going to start asking you questions. If I'm not done with my questioning after an hour, I'll stop and consult with my colleagues about how to proceed. And at that point we may turn it over to the minority to ask questions or see if it makes sense for me to continue. We will make every effort to only take as much of your time as is necessary for this investigation. So we're not going to use up the time allotted if it's not necessary.

Do you have any questions before we begin?

Mr. Gagliano. No. I would like to share some background information about myself if it's okay.

Ms. Fuchs. Sure.

EXAMINATION

BY MS. FUCHS:

Q Why don't you start?

A Okay. I've got first off some brief information about myself. I was born and raised in New Orleans, Louisiana. I attended LSU, graduated with an industrial engineering degree. During my time at college, my sophomore year, I joined the United States Marine Corps. I'm still currently in the Marine Corps. I'm a gunnery sergeant. Been in 17 years. I've worked for Halliburton 11. I had a short break from Halliburton because I was activated to go to Afghanistan from 2004-2005. I worked with Halliburton in Lafayette, Louisiana for 2005. And then I was transferred to Houston into my current role until today.

With that, I would like to also share a few things about my job at Halliburton and some of the work that me and my colleagues did for BP for the Macondo well if that's okay.

Q Sure.

A We made recommendations to BP, but BP made the decisions. Sometimes BP made decisions against my recommendations, and I'm sure we'll cover that today. I have worked in the industry for 11 years, and I put everything I have into what I do for our customers. Sometimes I find myself identifying so much with my customers that we say we did things when I mean that our customers did things. If I confuse you on

who did what when I say we did things, please stop me and I'll make that clear.

BP was the well owner and BP hired Halliburton to provide cement services for the Macondo well. When I did my work on the project I physically sat in BP's office in Houston and I worked under BP's direction.

Over the years Halliburton has developed some pretty sophisticated software called OptiCem that helps us model a cement job for our customers. In designing a cement job we meet the well owner's specifications, we take into account a variety of factors, and then we make recommendations to the well owner, who then makes the final decision about how to proceed. My colleagues on board the rig would then run the cement jobs based on the decisions made by the well owner. I was in-house technical support for cement operations and responsible for providing proposals, design reports using OptiCem software simulations and lab testing the cement slurry. Throughout the Macondo project I made recommendations to BP about the type of cement best suited for each casing, volumes and rates of spacers in cement and on the production string the use of centralizers and foam cement.

We were frequently asked by the well owner to update our models based on the changing well conditions. On the Macondo well we ran several different simulations, including the ones on April 15th and April 18th, so that BP could make the final decision about how it wanted to proceed with seaming for the production

casing portion of the well.

The key thing here is that we, Halliburton, recommended to BP that they use 21 centralizers for the final casing string on the Macondo well. As you know, BP didn't want to run the additional 15 centralizers even though they made the effort to fly them to location and the centralizers were on the rig. BP opted to run six. Using the OptiCem software we modeled the job using six centralizers and channeling was predicted. Despite that, BP decided to go with the six centralizers.

You may have noticed in reviewing the report on April 18th there is a slight difference I did not detect until recently reviewing the documents. On page 16 of the April 18th design report I ran a model with seven centralizers instead of the planned six. At that time I knew BP made the decision to only run six centralizers. Running the report with seven centralizers did not make a material difference. The conclusion on page 18 that this well is considered to have a severe gas flow problem remains the same.

At the time, on April 18th, my concern with the conclusion that the well would have a severe gas flow problem meant that the cement job would require remedial work. That remedial work would include having to perforate the casing and squeeze additional cement behind the casing. I did not think there would be a well control issue.

That's all the comments I have at this time. I know you have

several questions. So with that background I'm glad to answer your questions about the specific work we did on that project.

Q Thank you, Mr. Gagliano. Can I ask you whether that statement was prepared in advance of this interview?

A Yes, it was.

Q And can you tell me who -- whether you prepared that statement on your own?

A I had assistance.

Q And who were you assisted be?

A Stephanie Bragg. And Jeff Turner, I'm sorry.

Q And does that statement reflect your view on what happened here?

A Yes, it does.

Q Well, we're going to go through a lot of the questions, and you certainly identified some of the issues that we're interested in. So why don't we kind of dive right in and we'll go over some of the things you raised in your statement.

A Okay.

Q Could you state what your current title and position is?

A Cementing sales adviser.

Q And how long have you held that position?

A Promoted to that position in March of this year.

Q And what are your duties as the cementing sales adviser?

A I currently still sit in-house at BP in an account rep role. I haven't fully moved into that position yet. But when I

will move into that position I will be assisting all customers in the Gulf of Mexico with technical support.

Q And when you say assisting with technical support what does that mean?

A That just means that if they have a job that arises that the account rep can't, you know, has some questions, they turn to me for assistance as technical support as a backup to their plan.

Q And who do you report to in your job?

A Ronnie Fall.

Q Have you had previous positions with Halliburton?

A Yes, I have.

Q And what were those positions?

A Associate technical professional, technical professional, senior technical professional, and that's basically an engineering position, it's just different levels. And then I've also held the account rep position.

Q Can you repeat that last one?

A Account representative.

Q And that was just prior to the position that you have now?

A That is correct.

Q So I think we're going to ask you some questions now about the work you did on the Macondo well. This is the well that was located in the Mississippi Canyon Number 252.

When did you first begin working on that project?

A I was involved with the project from the beginning.

Q And when was that?

A It was the summer of last year is when we started looking at the base of the design. I don't recall the exact month, but we looked at it a couple months before the well started.

Q So summer of 2009?

A Yes.

Q What was your role starting in the summer of 2009 with respect to the Macondo well?

A At that time I was an account representative for BP, and my role was just to collect basic information to design cementing operations for that entire well.

Q And who were the people at BP with whom you interacted in that work?

A The primary people at that time was Brian Morel, Mark Hafle and Trent Fleece.

Q And who were the people at Halliburton who were supervising you in your work starting in the summer of 2009?

A At that time it would have been John Landis, and then it transferred over to Roger Dugas. There was a transfer of management at that time, in that period.

Q And with respect to Brian Morel, Mark Hafle and Trent Fleece, I mean I think you mentioned earlier that you were located at BP, your office, is that correct?

A That's correct. I office inside BP's office. I'm in-house at BP.

Q So in what way did you communicate with Mr. Morel, Hafle and Fleece? Was it face-to-face?

A Several ways. Face-to-face, through e-mail. Those are the two primary ways, because we sat right next to each other on the same floor in a cube. So it was very easy to walk over and talk to them face by face or by e-mail.

Q And what was Mr. Morel's position?

A He was the drill engineer on the project.

Q And what was Mr. Hafle's, is it pronounced Hafle?

A Hafle, that's correct.

Q What was his position?

A He was a senior drilling engineer.

Q And what about Mr. Fleece?

A I believe he was a drill engineer at the time as well.

Q So starting in the summer of 2009, what was the nature of the work that you were doing with respect to the Macondo well?

A I was given a well schematic with some other information like frac and pour pressure graphs. And I was asked to design cement jobs, estimated volumes, estimated volumes of spacer based on the input that BP gave me as far as like APB or, you know, minimum cubic foot it needed to pump.

Q And when you were doing those kinds of designs what sort of, what was the deliverable or the work product that you would

provide for BP?

A I would give them a proposal. We call it HIPs. That would just give them an estimated cost and volumes of cement. Now, that BOD did not include the production casing at the time. This well was initially classified as an exploration well and it was unknown if it was a hydrocarbon bearing zone. So I did not price out a production casing part at that time.

Q When you're doing that proposal you're estimating the cost and the amount of cement. Are you also advising on the design of the well at that time?

A Yes. Based on the preliminary information provided by BP I make a recommendation on that information.

Q And do you know what BP did with the proposal that you prepared in the summer of 2009?

A I'm not sure. It was e-mailed to those individuals. I'm not sure what they do with it after that. I'm assuming there's some kind of folder for the well that they collected information.

Q How did your work change after you prepared that proposal with respect to the Macondo well? Do you work on other wells or just the Macondo well?

A At that time I was just working on that well.

Q Okay. After you gave them that proposal what was the next thing that you were working on with respect to the Macondo well?

A Basically what happens is I take each individual job, and as we collect the actual data or as I get more information from BP the job design changes. You know, I run the HIP proposal with the actual information, I do the OptiCem modeling and do temperature modeling and make it as accurate as possible.

Q And what is your training to do the OptiCem modeling?

A When I first started with Halliburton I attended a couple of classes for engineers, up in Duncan, Oklahoma, sat through classes and courses, and I've been running the OptiCem for the last 11 years.

Q What about the temperature modeling, what's your training for that?

A I've also attended courses to learn how to run that, and have also been running there for probably about 8 to 9 years.

Q So when you, after you made that initial proposal, is it typical that the well design would change after the original proposal is made?

A It's not uncommon for those to change.

Q I think we're today particularly interested in talking about the 9 7/8" X 7" production casing. Is that something that you worked on with BP on the Macondo well?

A Yes.

Q It's our understanding that this was the last casing string that was put into the well and it was a 9 7/8" X 7" production casing, is that correct?

A That's correct, yes.

Q So what documents would you have, what types of documents would you have prepared for BP that relate to that casing and cement string?

A I would have produced a proposal, OptiCem design report and lab test.

Q And can you tell us when you prepared a proposal with respect to that casing string for the Macondo well?

A The proposal had several iterations. I believe it had six versions. As new and more accurate information was given to me I updated those proposals. And I believe the last version went out on or around the 18th of April.

Q Is that the same document that you referenced earlier in your prepared statement in which the centralizer number was listed as seven?

A The proposal did not state that. That would be the design report has that information in it.

Q So you would prepare a proposal and you did six versions. You said the OptiCem design, is that the design report you're talking about?

A That's correct.

Q And in this case how many versions of the OptiCem design were prepared?

A There were several iterations of the OptiCem that were done starting as far back as February looking at different

options. As far as like a report that is generated, I know there was at least two or three from the 14th on that were done and distributed.

Q When you say the 14th, what month are you talking about?

A April 14th, I'm sorry.

Q And with respect to lab tests do you know how many lab tests were conducted for this proposal?

A I know at least three, possibly more.

Q And what are those lab tests, what are they comprised of?

A The lab tests, the first lab test I would have done I believe was back in February, is considered a pilot test. I was just testing to see the estimated amount of retarders and things of that sort that may be required for the job. And then the other tests would have been done closer to the job. I don't recall the exact date. Basically the lab tests have to do with we take the actual cement on location, send it to our lab and test it, using rig water and additives that we plan on using for the job to verify that it would get in place in time without setting up early, things of that sort.

Q Now, you indicated that you created a proposal related to this 9 7/8" X 7" production casing. When were you first aware that BP was considering using that type of a casing in the Macondo well?

A We had looked at it probably as far back as February.

We were running several different scenarios. I was looking at -- you know, they had me run casing models, they had me run liner models, they had me run models with and without expandable liners in the hole, just so we could kind of, I guess for them to plan ahead so see what it looked like, the different scenarios.

Q Do you know how many different scenarios you ran for them?

A It was probably in excess of at least four or five scenarios, probably more. I just don't recall all of them.

Q Can you describe the different types of casing choices that were considered in those scenarios? You said casing liner, with or without liner, expandable liner in the hole. Can you go through what those options were?

A We looked at the 9 7/8" X 7" option bar. At the time initially we looked at the 9 7/8" option because we obviously had to add some casing strings along the way. But we looked at the long string, or casing, the one that goes from the top of the well all the way to the bottom. We looked at a liner option. Then we looked at the casing option with expandables in the hole. And then we looked at the liner option with expandables. And that's the four I can recall off the top of my head.

Q Can you explain expandables to us?

A An expandable liner is a system that's available by a company called Enventure. At least that's what they would have used I believe in this case. It's a casing that's run in a hole

that has a smaller diameter. But once you get it in place you had the ability to pull or to expand the casing in diameter basically by pressuring up on it, which pushes an expanding cone, it pushes it up the wellbore. And the casing actually can expand up to 25 percent of the original OD. If I'm making sense with that.

Q I think I understand.

A Basically stretching the steel out, not to the point to where you're yielding it and cracking it, but stretching it to where it gives enough to where it can expand out. And then there's a system at the top of the expandable elastomers, there's like five, at least in my experience there have been five rubber elastomers at the top which actually grip the previous casing and hold it in place.

Q One of the types of casing options that you describe was one that you called a liner. Was that simply a liner that would be at the bottom of the prior casing string or was that a liner with a tieback casing or tieback?

A At the time I was modeling the cement we were just looking at the liner.

Q Was a tieback ever discussed?

A I don't recall ever discussing a tieback.

Q So what you just described for me, it's my understanding that that took place in around February 2010, is that correct?

A That's as far back as I recall us looking at it, yes.

Q And who were you working with at BP while you were

considering these options?

A The primary contact was Brian, but Mark Hafle was involved with some of the you know meetings and discussions.

Q Was Mr. Fleece still involved?

A Not at that time, no. Trent Fleece was involved when the Marianas was on the well. And then once the Marianas no longer was on the well Trent Fleece was not involved with the project directly.

Q Was a Mr. David Simms involved?

A He did attend the morning meetings. He is now more in a managerial role, but he does stay in contact with the team and does sit in the morning calls.

Q Is there a daily morning meeting while the well is under construction?

A That's correct. Every morning at 7:30 there is a meeting. It's either held in the office in the conference room or if it's on weekends or holidays it's done by conference call.

Q So as of the end of February after you presented these several options to BP, had a decision been made about what type of casing would be used at the Macondo well?

A The decision on what type of casing did not come till very late in the process on or around the 14th of April. It is my understanding that the decision, what was driving the decision is how well the cement job looked if we could get it in place and make it successful.

Q When you refer to how well the cement job looked, are you referring to the prior strings of casing and cement job?

A I'm actually referring to the cement job for that casing, that whole section.

Q Okay. So what you're, just to clarify, what you're talking about is you were going to look at the cementing options in order to assess the correct casing choice?

A What was driving their decision on which way to go, either casing or liner, was based on the simulations we were running. And what we were looking at is to make sure we can get cement in place without losing returns, to ensure that we got cement to the depth of 17,300.

Q So during March were there discussions, simulations, proposals, testing of different options or did it -- well, were there those kinds of discussions in March as well?

A I'm sure there were, because it was an ongoing discussion. I don't recall anything specific, but I'm sure I did look at it during the month of March.

Q So then moving into April, can you describe as of the beginning of April what the -- whether BP had made any decision or had a preference for a particular type of casing?

A I wasn't directly involved with the discussions. I know they were still looking at both options. Now, I can't speculate internally what they were discussing, if they preferred one way or another. I just knew I was providing information to them.

Q And when did you start providing those analyses, the cement analyses to them in April?

A In April?

Q Yes.

A It was an ongoing process.

Q It was ongoing. Okay.

A Yeah.

Q So let's take a look at -- excuse me. You said that they didn't make the decision until April 14th. How did you find out that they had made the decision on April 14th?

A We had a meeting to discuss the cement job where I, we were in a conference room. I actually had the OptiCem open and we were running through some iterations and had it on a screen. And we were looking at -- you know, at that point we had a lot more information based on logs and everything else that BP had collected. And we were inputting that information that BP was giving me to model it. And at that point we felt that we had a good design with a high probability of getting cement in place without losses and getting our objectives done.

Q And what was that design as of April 14th?

A It was a casing string 9 7/8" X 7" that we were modeling.

Q And who was in that meeting with you on April 14th?

A It was Brian Morel, Mark Hafle, Eric Cunningham, Brett

Cocales and Greg Walz, I believe were the people present.

Q And are you in a position to characterize what the factors were that led to the decision to do the 9 7/8" X 7" casing?

A I'm not sure what was driving them to want to run that instead of a liner. I'm not involved in those discussions.

Q Do you have notes from that meeting?

A No, I sure don't. Everything we were doing I was just modeling the OptiCem and running it in front of them and reviewing the output.

Q So you were doing it realtime on your computer?

A Yes, that's correct. I was logged into a Proxima and we had it on a screen.

Q And then do you know what the BP representatives did after that meeting with respect to selecting that as the option for the Macondo well?

A It was my impression when we left the meeting that we were going to proceed with the 9 7/8" X 7" casing. What they discussed after I left I'm not sure.

Q I would like us to take a look at one of the documents that Halliburton produced to us.

[Discussion off the record.]

Ms. Fuchs. Okay. We're going to go back on the record. I just wasn't sure how they had been provided to you. So we're going to take a look at a document that Halliburton provided to

you. We are marking it Exhibit 1. It's a report from you to Brian Morel. It's dated April 15, 2010. It is entitled 9 7/8" X 7" Production Casing Design Report. And it's 20 pages long. Its Bates stamp number HAL 0010592. Do you have that document?

[Gagliano Exhibit No. 1
was marked for identification.]

Ms. Bragg. Meredith, this is Stephanie. What we're looking at is all the same except we have a different Bates number. So it might take us a moment to understand why on our end.

Ms. Fuchs. Oh, really?

Ms. Bragg. Yeah. Our Bates number -- I mean it is 9 7/8" X 7" Production Casing Design Report for Brian Morel dated April 15, 2010. Our Bates number is HAL 0010699.

Ms. Fuchs. Yes, there are two different versions, so you're looking at the later version. The one that we're talking about, if you look at the bottom righthand corner of the second page it says that it was created at 3:30 p.m. on April 15, 2010.

Mr. Turner. This one says 6:12 p.m.

Ms. Bragg. Yeah. Meredith, can you give us about 2 minutes and let us track that down and get a copy?

Ms. Fuchs. Sure. Well, we can talk about the one that you have while someone is tracking that down.

Ms. Bragg. That's fine.

Ms. Fuchs. They look the same, but they're not the same. And that's what we wanted to ask you about. So we're going to

move on then to a different one which we're labeling Exhibit 2. It's a report.

[Gagliano Exhibit No. 2
was marked for identification.]

Mr. Turner. I'm sorry, the two copies I have I think I've got duplicates because both copies I have show 6:12 p.m. So maybe that's the problem.

Ms. Bragg. That's what I was trying to clear up on our end. I think our documents were mislabeled in the file.

Ms. Fuchs. Should we e-mail it to you?

Ms. Bragg. No, I'll get it. You guys just keep going.

BY MS. FUCHS:

Q Okay. So we're going to start with the one that you have in front of you. We're labeling it Exhibit 2. It's a report from you to Brian Morel dated April 15, 2010. The report is entitled 9 7/8" X 7" Production Casing Design Report. It is 22 pages long. And its Bates stamp number is HAL 0010699. And then if you turn to the second page of that report, on the bottom right you can see the document was created on 6:12 p.m. on April 15, 2010.

Can you take a moment to review Exhibit 2 and tell me when you're ready to continue?

A Okay. I believe I'm ready.

Q And you describe several types of documents you create for BP. Would this be the OptiCem design document? Is that what

you meant when you were referring to that earlier?

A That's correct. This report is generated from the OptiCem program.

Q I understand that you don't have what we are calling Exhibit 1 in front of you. So we're going to just talk about this document at the moment. Do you recall why this document was prepared?

A Yes, I do.

Q Can you explain?

A We had a meeting on April 14th, the meeting I was referring to earlier with those individuals I named present. At that time based on the information we had we felt that we had a good cement plan in place to achieve our objectives. There was some data that was missing that we had not received yet or I had not received yet to input into the program. So the next day on April 15th when I received that data, which was the caliber log data from the logging run and the directional data from Sperry I imported that information into OptiCem. And at that time I noticed that we had a channeling issue based on the current design.

Q Can you explain to me where this report reflects that there was a channeling issue based on the design?

A Well, this report does not reflect a channeling issue. I was going through the steps of why we got to this report, I guess.

Q Okay. So go ahead. That's fine. Why don't you do that?

A Okay. So at that time I brought the issue to BP's attention in our discussions to kind of discuss what you can do to take care of the problem. I was charged to try to take a look to see what we can do about centralization. At the time we planned on running six centralizer subs. And so I spent a good part of the day on the 15th running different scenarios on getting the job in place without channeling. Through those number of scenarios I came up with this plan of running a total of 21 centralizers, and this report was generated based off of that.

Q Can you identify where in this plan it describes the use of 21 centralizers?

A Let me find the page number. On page 15 under 4.4, centralizer placement, it lists a number of centralizers there.

Q And how did you choose 21 centralizers for this proposal or this design report?

A I had run several iterations that afternoon. At first I tried to just use the six centralizer subs by placing them in different areas to see if that improved the standoff. That did not. I did stay in communication with BP with Brett Cocales list and Greg Walz, showing them what I was doing, you know going through the iterations. I then in turn started adding centralizers to it. I didn't just jump to 21 right off the bat. I added you know three or four here and there. And then finally I

got to the point 21 centralizers were needed to not have channeling for this job.

Q And is there a place in this report that shows that with 21 centralizers there would not be channeling or is that a conclusion based on your analysis of various things shown in this report?

A On -- and I'm not sure, do you have a color copy of this report?

Q Yes, we do.

A Okay. On page 19 there is a graph called fluid positions graph.

Q We've got it.

A And looking at that, at the bottom you can see, and I don't have a color, I'm not sure what color it is, but they show some green mixed in with maybe a yellow color.

Q Yes.

A That green reflects mud being left behind in the hole. So that is a visual of a channeling effect.

Q So the way it looks to us it shows the casing string, and there is a sort of olive green in the center of it. And at the bottom there is a stripe of bright green and then a stripe of yellow, which I think is the foamed slurry.

A I'm opening a color version of it. I have them on computer so I can actually see the colors you're seeing.

Q Oh, I see. Actually I realize this one wouldn't have a

channeling problem, because this is the one where you said you concluded there was no channeling problem, right?

A That's correct, yeah. I'm sorry. I'm getting confused with the other report.

Q No, that's fine.

A Yeah, this shows no channeling. And I have the color version open now. Do you see all the yellow at the bottom, and a little bit of pink and some light blue?

Q Yes.

A This shows with the 21 centralizers that there was not any channeling effect or very minimal channeling effect for this particular job.

Q And is there anything else in this report that would reflect the conclusion that there's no channeling?

A No, not in this report, no.

Q Now, on page 17 of this report, if you could turn to that. And if you look at Section 5.4. It says there, based on analysis of the above outlined well conditions this well is considered to have a minor gas flow problem. Wells in this category fall into flow condition 1. Do you see where I'm looking?

A Yes, I do.

Q The word "minor" is typed in uppercase letters?

A Yes.

Q Can you explain to us what that means?

A Gas flow potential on the scale that I've seen, you kind of rate it from 1 to 10. So 0 to 3 is minor, you know 4, 5 and 6 are medium, and 7 and above is considered severe.

Q And why would this have shown that the gas flow potential is minor, gas flow problem is minor?

A Because based on this design we are removing all the mud out of the wellbore and getting cement coverage across the zones of interest, which in turn cement sets up and will prevent flow.

Q Is that because in this design there would not be any channeling?

A That's correct.

Q Is this section of this report automatically generated by the OptiCem software or is this something that's based on a human analysis?

A This is automatic calculated by the OptiCem program.

Q Was your conclusion that 21 spacers was required based on the picture you showed us on page 17 or was -- I'm sorry, on page 19, or was it based on this statement on page 17?

A They are kind of one and the same. The gas flow potential gives you a number, and the fluid position graph is a visual picture of that number.

Q The way you've described it, on this day, on April 15th, you ran this report repeatedly. When you ran this particular one and completed it at 6:12 p.m. did you determine that your analysis was done with respect to what recommendation you might make?

A Yes. Working with BP, I felt this was a good cement plan. I presented it to BP and they in turn agreed.

I guess I need to correct one thing. I didn't generate reports. I ran different scenarios in OptiCem, but I did not generate reports for every single scenario.

Q So you ran them and you -- this was the final one. When we go back to Exhibit 1, if you all have found that, that's another one that was provided to us, and so we have at least a few that you've provided, so we do want to talk about those.

A Okay.

Q But now, was this the last one that you did on April 15th?

A Yeah, on the 15th this was the last one. I did do an additional one on the 18th, but on this day it was the last one.

Q And did you -- what did you do once you completed this, running these calculations and generated this report, what did you do with this report?

A I communicated to BP what my findings were, what my recommendations were, and then I e-mailed it out to the individuals on the team.

Q And did you get any response -- I'm sorry, when you say the individuals on the team, are you including Mr. Morel and Mr. Hafle?

A Yes. I believe I had a distribution list, a standard distribution list that I sent this out to everybody. And I

believe Mark Hafle, Brian Morel, Greg Walz and Brett Cocales would have definitely been on that list.

Q And did you receive a response from them?

A After I sent this report out, no, not by e-mail. I was in the process -- at the time I was running this report I was working with Brett Cocales and Greg Walz in the office, so there was a lot of verbal communication on what was going on and where I was at with the process and what I was recommending.

Q Now, can I ask you, have you located the prior document, HAL 0010592? Is Stephanie there?

A I have a copy of the document I brought with me, I believe what you're looking at, but we haven't found the one you provided.

[Discussion off the record.]

BY MS. FUCHS:

Q Okay. We can go back on the record.

After the April 15th one did you run any more of these production casing design reports with respect to the 9 7/8" X 7" casing at the Macondo well?

A Yes. I ran an additional one on the 18th.

Q Is that the only one that you did after that, is that the last one that you did?

A That is the last one I did.

Q All right. So we would like to talk about the one that you ran on April 18th. It is document HAL 0010988. It is a

report from you to Brian Morel dated April 18, 2010. The report is entitled 9 7/8" X 7" Production Casing Design Report. And it is 33 pages long. It was created at 11:25 a.m., which you can see from page 2 in the bottom right-hand corner on April 18, 2010. Do you have a copy of that report?

A Yes, I do.

Q Can you take a moment to review it and then we can talk about it when you're ready to continue?

A Okay.

Q So is this a Production Casing Design Report of the type that you described to us earlier where you inputted information into the OptiCem software and it performs calculations?

A That's correct.

Q What led to this report being generated?

A The main thing that led to this report being generated was the fact that I had received a call from the rig from the cementer on the rig, Vince Tabler, notifying me that the decision had been made by BP not to run the additional 15 centralizers, that they were only going to run the six centralizer subs. So then I in turn updated this model with that information, plus updated the model with the casing tally I received from the rig and generated the report and redistributed it out.

Q And who did you distribute this report to?

A It would have been distributed to several people on the team. It would have included Mark Hafle, Brett Cocales John

Guide, Brian Morel, Greg Walz, all the company men, the ones that are on the rig and even the ones that were off, the performance engineers on the rig for BP, the cementers for Halliburton and the coordinators for Halliburton is the ones I recall off the top of my head. So it was a pretty extensive distribution list I send this out to.

Q Okay. Let's turn to page 23 of this report, which has a picture, an image similar to the one that you pointed us to in the prior report in Exhibit 2. This one is Exhibit 3. And it's page 23.

[Gagliano Exhibit No. 3
was marked for identification.]

BY MS. FUCHS:

Q Can you describe the significance of the picture on page 23?

A The significance here is that at the bottom of the wellbore you can see there's some green mixed in with yellow. That green is indicating that there's mud being left behind and the cement is channeling through the mud.

Q And that mixture of green and yellow, is that where it shows the sort of squiggly lines? On our version that's what it looks like.

A Are you talking about the outer squiggly lines or the squiggly lines between the yellow and the green?

Q Between the yellow and the green.

A Yes. That would show that the cement is channeling, you're not removing the mud out of the way.

Q And now let's turn to page 18 of this document and go to Section 5.4. At that point -- are you there?

A I'm here, yes.

Q It says, based on analysis of the above outlined well conditions this well is considered to have a severe gas flow problem. Wells in this category fall into flow condition 3.

Can you tell us what that means?

A 10.9 is a very high gas flow potential. And it is showing that it is severe, it's going to be a severe problem.

Q Why would it have shown up as severe?

A It would have shown up as severe in part because of the channeling effect of leaving mud in the hole. And you're not isolating the zone of interest, you don't have cement across that zone, so it shows a severe potential of gas flow.

Q Now, you indicated that this report had two updates. One update you said was about the centralizers. Can you tell us where in this report it states the number of centralizers that the simulation was based upon?

A It would have been on page 16 and under 4.4, centralizer placement.

Q And how many centralizers is that report based on?

A This one is based on seven.

Q You also indicated that there was an alteration to the

casing tally. Can you tell us where in this report it references a new casing tally?

A It's in several places. I can start on page 1. Do you want to know all the locations or just some?

Q Maybe just the first.

A Okay. Let me get to that point. The first place I see it is on page 6. There's a table at the top of the page. The very last input shows 18305 was the final depth of the casing based on the casing tally. And of course that would be in several different places in here. It wasn't a big change. There's a small change, about five feet in this case.

RPTS KESTERSON

DCMN ROSEN

[12:00 p.m.]

BY MS. FUCHS:

Q So let me ask you a question. Did the -- first, did the casing tally have an impact on the gas flow problem, the potential gas throw problem?

A No, the casing tally -- just being an engineer and making everything as accurate as possible. From what I had of input before, the casing tally only changed the depth by 5 feet. That would not have made an impact on a gas flow potential. The main thing driving that was the channeling effect.

Q Would the number of centralizers have had an impact on the gas flow potential?

A Yes, it would have.

Q And can you explain the impact of having six centralizers as opposed to 21 centralizers on the gas flow potential?

A The use of 21 centralizers kept the casing more centralized in the whole which allows us to when we are doing the cement job, allows us to get the mud removal out of the way and have cement there instead of mud. The six centralizers, where they were placed, would have helped to keep the casing in the center hole. But above that, since there was no centralizers

present, the casing then would not have been centralized, and it would have been more of a channeling effect taking place.

Q And is there some sort of algorithm or some type of clear association between the number of centralizers and how much the gas flow potential increases or decreases?

A I am not really sure how it is calculated in the background on OptiCem. I know the centralizers, when you put them in the hole, you view a percentage standoff and usually shoot for about 70 or above for standoff.

Q So after you sent out this report -- so were there any more production casing design reports?

A This was the final one that I distributed out.

Q Okay. So I would like to go back a little bit to the prior one and I wanted to sort of walk through what happened between the one on the 15th and the issuance of this one. So after you issued the one on the 15th, which is Exhibit 2, you described that you disseminate that to a list of people on an e-mail. Was it your understanding at the time that that was the plan that would be used at the Macondo well?

A Yes. That evening, after reading the reports, we stayed late that day to run through all these scenarios. I notified BP of my recommendation of additional centralizers. And at that time, BP made several calls to Weatherford to try to get these centralizers sent to the heliport the next morning and flown out to the rig. So at that point, it is my understanding it was their

intention to get those centralizers out to the rig and to run them on the casing.

Q How do you know that BP made those outreaches to Weatherford? Was that because you were informed by e-mail or on person or on the phone?

A I was in the conference room with the BP representative at the time when he was on the phone with Weatherford in talking about getting to them and making sure we have enough time to get them there and getting hotshots to the -- I sort of heard that conversation.

Q Okay. And did he tell you what the conclusion of that conversation was? Was Weatherford able to provide those materials?

A That is correct. It was my understanding that they had gotten to the heliport and on the conference call the next day we had some discussions about it being at the heliport and the personnel being at the heliport and things of that sort.

Q And so was there any other discussion of alternatives to using the 21 centralizers on the 15th after you generated this report?

A No. It was my understanding we were going to run those 21.

Q Okay. So did anything happen with respect to this on the 16th of April? Were there any discussions or e-mails regarding how many centralizers would be used in the well that you

are aware of?

A No. But the next day would have been a Friday off. So we had a conference call and there were some discussions in the conference call about the logistics of getting the centralizers on the chopper and to the rig. Further than that, I don't recall any e-mails about centralization on that day.

Q On the 16th, you recall a conversation about logistics of getting the centralizers from the shore to the rig?

A Correct. And if I recall correctly, it was just a discussion like did the centralizers get there, do we need to get them on the chopper and things of that sort. Kind of the typical shop conversation about logistics and getting prior to the rig.

Q Was it about the actual delivery of the centralizers to the rig or more of just the logistics of how it would happen?

A It was my understanding that they arrived at the heliport and they were put on a chopper and flown out.

Q Was it your understanding that the centralizers arrived at the heliport on shore, were put on a chopper and were sent to the rig on the 16th?

A That is correct.

Q And that is based on who? Who told you that or were you a part of the conversation?

A I wasn't part of the conversation. I was just listening in on it and it was in a conference call. I don't recall who would have been on it. I don't recall actually who said it.

Q Okay. And then was there any other discussion on the 16th relating to the centralizers?

A None that I recall, no.

Q What about the 17th of April 2010?

A I don't recall any conversations that day either.

Q And what about -- okay. So that brings us to the 18th, which -- was that a Sunday, April 18, 2010?

A I believe so, yes.

Q And do you typically work on the weekends?

A Yeah. It is a 24/7 job. It is holidays, weekends. It doesn't matter. So we work all the time.

Q So let's talk about what happened on the 17th. What was the first that you knew that there was any question about the centralizers or the design on the 17th?

A No communication on the 17th. The first I heard about the changes was on the 18th.

Q How did you first hear about that?

A I received a call from Vince Tabler, our Halliburton cementer on the rigs, notifying me that the decision had been made that they weren't going to run the additional centralizers and only run the six centralizers.

Q What caused Vince to call you to let you know about this?

A I would assume he was aware of the impact it could potentially have. And whenever we had used a cement job, any time

there is anything that changes with the cement job or could affect the cement job, we always stay in good communication and keep each other informed of those changes.

Q Was anyone else part of that phone call or was it just you and Vince?

A I just talked to Vince at that point on that call.

Q And what did he ask you to do?

A He was just notifying me to let me know what was happening.

Q And what was your reaction when you heard that they were going to use the six centralizers?

A A little frustrated.

Q Why were you frustrated?

A Because of the work we put into it on the 15th and showing the simulation before and after, what it looked like, BP -- BP was aware of the fact that potential channeling could take place without those additional centralizers.

Q Did Vince tell you why they were using the six centralizers?

A No. The plan had always been to run the six centralizer subs.

Q I am not understanding you then. You had thought that they were going to use 21 centralizers. Is it because these were the fixed centralizers?

A I guess I am not understanding what your question is.

It was my understanding up from the 15 to the 18th that we were going to run the 21 centralizers, and then on the 18th, I received a call from Vince stating that the additional 15 that Halliburton recommended to run were not going to be run and that they were only going to run the six centralizers subs.

Q And did Vince explain to you why that decision had been made?

A No. I am sorry. No, he did not -- he did not tell me why they decided not to run the additionals.

Q Did he tell you who told him they were not going to run the additionals?

A He told me that Nathaniel Chaisson, who is the Halliburton engineer, notified him. And at the time, I wasn't sure who notified Nathaniel at BP. I am not sure who at that time told him. We kind of went through a chain and he called me.

Q Was Nathaniel on the rig or was he at BP in the office?

A He was on the rig.

Q Oh, he was. So Vince heard it from Nathaniel and then Vince let you know?

A Correct.

Q Did you ask them why that decision was made?

A At the time I asked him and he said he wasn't sure. They weren't given a reason. They were just informed that they weren't going to run them.

Ms. Fuchs. Okay. Can we go off the record for a second?

[Discussion off the record.]

BY MS. FUCHS:

Q We are not going to switch. We just discussed it internally and I am going to continue with the questioning. We are back on the record now.

Mr. Gagliano, do you have any idea why they would have chosen not to use all 21 centralizers?

A Not knowing who made the decision, I can't really speculate on what their reasonings are. I don't know.

Q So after you got the call from Vince, did you immediately go and run this design report or were there other conversations about this?

A No. After Vince notified me, within a couple of hours of the conversation, I went in and changed the design report to reflect what was actually being put into the hole and that report was redistributed out to the team.

Q Okay. At what time did you send the report out to the team on April 18th?

A I generate a report around lunchtime. It would have been, I guess, within a couple of hours after that. I don't recall exactly the time I sent the e-mail. But it would have been that same day after that evening.

Q Okay. And then what happened, did you get any responses to your dissemination of the report?

A I don't know. I don't recall any responses.

Q Did you hear anything more from Vince that day?

A I don't recall any specific conversations. I am sure I talked to them because since the cement job was coming up, it is routine that we be in communication. I am sure I talked to Vince or Nathaniel a couple of times that day and the next day. I just don't recall a specific conversation about those centralizers.

Q Did you ever find out, in fact, how many centralizers they did use?

A I was told they ran the six centralizer subs in the hole.

Q And who told you that?

A The cementer on the rig told me they were planning to run the six centralizers subs.

Q Who was that?

A Vince Tabler.

Q That was the same original phone conversation or was that a different conversation?

A I definitely remember him telling me in that same conversation. I don't recall any specific time after that, him telling me that.

Q Did you call anyone to express your concerns about flow potential with only six centralizers being used?

A No.

Q Why not?

A Because running through all the scenarios on the 15th,

BP was fully aware of what it would look like with and without the additional centralizers, and nothing major changed between the 15th and 18th. So they just decided to go without the centralizers and go on.

Q And you don't have any idea why they would have made that choice?

A No. I can't speculate.

Q Did you tell any people in the Halliburton -- in Halliburton about your concerns?

A I think I talked to Joe Edwards, who is my counterpart -- who works at BP as well. We always keep open communication detail with what is happening on each other's well, just because I cover him and he covers me when one person is out and we can both stay in the loop.

Q So does the choice -- does BP's choice to go with six centralizers mean that the gas flow potential in that well went from moderate to severe?

A In this case, yes, it does mean that.

Q I wanted to go through some e-mails that were provided by Halliburton that talk about the centralizer issue as well.

Can I clarify something, Mr. Gagliano? With respect to the report that we did talk about, which was Exhibit 2 which was the last one that you ran on April 15th, it said the gas flow potential was minor. So would the decision instead of using 21 centralizers to use six centralizers mean that the gas flow

potential moved from minor to severe?

A In this particular model, that is the case.

Q As far as you know, everything else about the model was consistent with what the actual design was at the well? There were no other factors that changed as far as you know?

A You are referring to from the 15th to the 18th?

Q Yes.

A Yeah. The only thing that changed was the number of centralizers, and, of course, the updated casing tally information which made minor changes in depths. Those are the two major changes to that report that I recall right now.

Q Okay. I am going to show you a couple of documents. One is a document that we are marking Exhibit 4.

[Gagliano Exhibit No. 4
was marked for identification.]

BY MS. FUCHS:

Q It is an e-mail communication from Bryan Clawson of Weatherford to Brett Cocales of BP on April 15, 2010 at 3:42 p.m. You are copied on this e-mail. And the subject line says 7-inch centralizer. It is one page long, and it is Bates stamped No. HAL 0010643. Do you have that exhibit?

A Yes.

Q The first line says Brett, please see the attached centralizers as per our conversation. Who is Bryan Clawson who is drafting this e-mail?

A He is a sales representative for Weatherford.

Q And who is Brett Cocales who he is writing this e-mail to?

A He is one of the drilling engineers on the team assigned to the Deepwater Horizon.

Q On whose team?

A The BP's Horizon team.

Q And can you read the sentence that starts with I have?

A "I have 31 of these type of centralizers with new design stop collars which are a 1/4 inch by 4 inch with Thread Lok ports. Stop collars will hold 105,000 pounds."

Q And then the last sentence?

A "Have additional centralizers with 3/16th stop collar."

Q Can you explain to us what is being discussed in this e-mail?

A It appears that Brett was asking how many centralizers they had in stock. And the stop collars, it is my understanding, use both spring centralizers are put on the outside of the casing. They are not like centralizer subs which are thread between casing joints. So the stop collar is a piece that you attach outside the casing and you put a full stream centralizer over the stop collar and the stop collar kind of prevents the centralizer from flying up and down the casing. It keeps it in one central area is my understanding.

Q Would these types of centralizers have been adequate in

order to comply with the specifications in the April 15th production casing design report which is Exhibit 2?

A Is that the one on the 15th?

Q Yes, the last one on the 15th.

A I am not a centralizer salesman. I don't know all the technical details of it and the ratings of it. I don't know if I can answer that.

Q So from this document, would you conclude that BP was able to get centralizers that were going to comply with your recommendation on April 15th?

A Yes. From this e-mail, the centralizers were available to be sent out from this e-mail is my understanding.

Q Did you have any discussions with anyone about the content of this e-mail?

A No, I sure didn't, no.

Q All right. Let's take a look at another document. We are going to label it Exhibit 5.

[Gagliano Exhibit No. 5
was marked for identification.]

BY MS. FUCHS:

Q It is an e-mail from you to Brian Morel dated April 15, 2010. The subject line is OptiCem report. It is three pages long. It is Bates stamped HAL 0010648. Do you have a copy of that?

A Yes, I do.

Q That is a document from Brian Morel who worked for BP?

A Right.

Q And can you explain what is being discussed in this e-mail? Why don't you start from the back of the e-mail, which is, I guess, the earliest part of the chain.

A Right. Yeah. This is showing after I realized we had a channeling issue, I sent that e-mail documenting the fact that we had channeling issues, once I imported the caliper log data, directional data, notifying them that we needed to -- just to give them an FYI that we probably needed to change the plan.

Q Can you explain on the back of it how -- can you read the part of it that explains why you need to change the plan?

A I am reading the e-mail. I am sorry. At one point underneath it says "Updating the above info now shows that cement channeling and the ECD going up as a result of the channeling. I am going to run a few scenarios to see if adding more centralizers would help with that or not."

Q What does the acronym ECD mean?

A Equivalent circulating density.

Q So what does it mean that the ECD is going up as a result of the channeling?

A What happens is when you are pumping the cement, if the cement channels through the mud, the height of the cement will be higher than the plan, which, in turn, would increase your ECDs, because you are not displacing all of the mud out of the hole.

You are leaving part of the mud in the hole so that cement volume hasn't changed but it has to go someplace. It would work its way further up the well bore.

Q Now, this part of the e-mail, which is the part from April 15, 2010 at 3:35 that you sent, how many centralizers are being discussed in this scenario that you are describing here?

A It looks like there were 10 in this scenario.

Q So with the 10 centralizers, you identified -- did you identify a problem under that design?

A Yes. There was still channeling taking place.

Q Is that why you chose to rerun the OptiCem report, because of the channeling?

A The reason why I chose to look at additional centralizers because of the channeling effect that I was seeing -- I don't know if I generated a report for this particular case.

Q Got it. And then now if you move to the front of the e-mail which appears to be a response to your e-mail --

A Correct.

Q And who is that response from?

A Brian Morel with BP.

Q And that is -- on April 15th at 4:00 p.m.?

A That is correct.

Q What did Mr. Morel respond?

A He stated we have six centralizers. We can run them in a row, spread out or any combination of the 2. It is a vertical

hole, so hopefully, the pipe stays centralized due to gravity. As far as changes, it is too late to get any more product to the rig. Our only option is to rearrange placement of these centralizers. Please see attached diagram for my recommendations.

Q What was your reaction when you saw this e-mail?

A By the time I saw this e-mail, I had already started communication with Brett Cocales and Greg Walz in the office. Brian was on the rig. I did bring it to their attention and they basically said that we need to look at the centralization, that Brian was not in the loop. But I did look at his recommendation and it still did not look like the job would be a good job because of the channeling.

Q And your conversation about ordering more centralizers that you referred to earlier, did that take place before or after this e-mail?

A It was brought to BP's attention that we needed additional centralizers before this e-mail, but we were still in the process of figuring out how many in placement of it when this e-mail was sent.

Q And so does that mean that the phone call that you overheard where they were talking with Weatherford about the availability of centralizers took place before or after this e-mail?

A The phone call I overheard was Brett ordering the centralizers out. At that point, we determined how many we needed

and he was calling Weatherford to try to get the logistics range to get it to the heliport by the morning.

Q Was it before or after this e-mail from Brian Morel?

A It would have been later in the evening. It would have been after this e-mail.

Q Did you speak to Brian Morel directly about the centralizers?

A No, I did not.

Q Do you know whether anyone communicated directly with Brian Morel after this e-mail about the centralizers?

A Yes. Brett Cocales had a phone conversation with Brian Morel.

Q When was that?

A That would have been later in the evening as well between 6:00 and 7:00. I remember we were at the office late that night about 7:00-ish going through scenarios. And it was right before I would have left. I heard Brett talking to Brian on the phone about the centralizers.

Q You overheard that conversation?

A Correct. Brett was at his desk and I was standing next to the desk. I think -- I didn't hear what Brian said but there was some questions that Brett asked me I assume came from Brian as a go between, but I didn't talk to him directly.

Q Can you describe the questions or -- can you describe what Brett said to Brian?

A The part of the conversation I heard was that he had a hole straight but the washout was more than we thought, things of that sort. That is what I remember him saying. I guess -- I got the impression Brian was asking why we needed additional centralizers.

Q So was the conversation trying to explain to Brian the rationale?

A Brett was trying to explain to Brian what the model was predicting based on the additional input that I had input into it.

Q Okay. Let's move on to another communication, another e-mail. This is a document that we are going to label as Exhibit 6. It is an e-mail exchange between you and Brian Morel dated April 16, 2010. The subject line is, "re, cement procedure." It is three pages long. Its Bates stamp number is HAL 0010815. Can you take a moment to review this exhibit and let me know when you are ready to continue.

A We are looking at it now.

Q Okay.

Mr. Turner. Can by go off the record for a second?

[Discussion off the record.]

BY MS. FUCHS:

Q There are a couple of other documents that we would like to talk about that you created regarding the final casing. There is a document that we are going to label Exhibit 7.

Mr. Turner. Is it 6?

Ms. Fuchs. Was it 6?

Mr. Turner. 6 was going to be the e-mail we didn't have handy.

[Gagliano Exhibit No. 6
was marked for identification.]

Ms. Fuchs. Right. 6 was going to be the e-mail you don't have handy. We have already labeled that one. So we are going to call this one Exhibit 7.

[Gagliano Exhibit No. 7
was marked for identification.]

BY MS. FUCHS:

Q It is a report, Mr. Gagliano, that you prepared on April 17th. The report is entitled "9 7/8ths by 7." It is production casing version 5. It is 12 pages long. It is Bates stamped No. -- the one that we provided to you is BP-HZN-CEC011444. Do you have a copy of this?

Ms. Bragg. We don't have the BP document, but he is going to pull up his version. There is also a Halliburton Bates labeled for that too.

Ms. Fuchs. We assumed there was.

BY MS. FUCHS:

Q So it says April 17, 2010, Version 5 on the front page?

A That is correct.

Q Can you explain the purpose of this report?

A This is our proposal that I use to communicate with the

teams on the planned -- with the information that I have at the time, the planned volumes and the cost of the job.

Q And how does this differ from the design reports that we previously discussed?

A It is using a different system. This is generated by the HIP system, which is a Halliburton integrated proposal system. It is an acronym called HIPS. And this is just a proposal. It just provides information to the customer on casing information, story information, the cost of the job. This is different than the OptiCem report. The OptiCem report is generated from OptiCem which is actually used to actually design the job, look at the ECDs, things of that sort.

Q Okay. And I am going to now show you another document, or reference another document which we are going to label Exhibit 8, which is a similar report. It was prepared by you and it is dated April 18, 2010.

[Gagliano Exhibit No. 8
was marked for identification.]

BY MS. FUCHS:

Q The report is entitled "9 7/8ths by 7 inch production casing, Version 6. It is 12 pages long. This one is Bates stamped HAL 0044606. Do you have a copy of that report?

A Yes, I do.

Q Can you explain the difference between Version 5 and Version 6 of this report?

A Do you want me to go step by step through each that is different?

Q Sure.

A Starting on page 3 --

Q Yeah.

A I am looking through.

Q Okay.

A I don't see any noticeable changes here on page 3.

Q On page 4, there is an example, there is a difference in the temperature. Is that anything significant?

A Yes. On page 4 of Version 6, it looks like the circulating temperature -- they had a problem with the input that defaulted back to the static. The actual circulating temperature was 135, which was correct in Version 5. But that does not have any calculation purposes in this document. That is just for informational purposes. Going down, the only thing I notice that is a major change is on page 8, below where it starts -- about three-quarters of the way down on the page where it says "hold safety meeting with all personnel and to discuss foam cementing operations possible hazards."

Q Yes.

A The procedure below that line is different. Version 5 is a basic procedure I had written up. And in Version 6, this procedure -- and you can tell the difference is in all caps. This is the procedure that was written on the rig and sent to me. That

was the major change between these 2 proposals.

Q Can you explain how they differ?

A The one in Version 6 I did not get input in. It was written on the rig by -- and I was not present. But I was told that Nathaniel -- and our Halliburton representative and Brian to discuss the procedures.

Q Can you take a minute to review the two procedures? And can you tell us if you have an opinion about whether the version that was written on the rig would have any impact on the success of the cement job?

A Version 6, No. 2, it would have been preferred to have circulated more volume than what was put in this procedure.

Q Can you explain that?

A It is Halliburton's recommendation and best practice to at least circulate one bottoms up on the well before doing a cement job. And that recommendation is based on different reasonings. For one, we wanted to make sure we have the mud in the hole. We break the gel strength development of mud to have it circulated around. Two, just from past experiences, if anybody dropped anything in a casing such as a glove or wrenches or anything like that, you want to circulate one whole volume around in case anything packed off at the bottom. You wouldn't have cement in the casing already. Another reason is to see what you have on bottom just to make sure there is no issues, things of that sort.

Q And can you explain to me at what point this circulation would have taken place? As I understand it -- and I would ask you to correct me if I have it wrong. The casing is lowered into the hole. It is then put in a position that is not its ultimate position. The cement is then pumped and the casing is then set into the cement. So when in that whole sequence would this bottoms up take place?

A Ones you have run all the casing in the hole and have it in place, you would then do a circulation before pumping any cement or spacer.

Q When you say bottoms up, is the preferred -- the procedure Halliburton would recommend -- can we just be clear about what "bottoms up" means? That means circu -- can you explain how much the drilling fluid is circulated?

A When I refer to bottom up -- because bottom up says you would pump enough volume to get whatever is on the bottom of that casing. That is the equivalent in volume to the surface. Does that make sense?

Q That makes sense. So in other words, you are just pumping enough in to make sure that everything that would be in the bottom would make its way back up to the rig?

A Correct. To the rig and over the shakers and the pits.

Q And how is that calculated, the amount that you have to circulate in?

A Knowing what the ODs and the IDs and the diameter of the

casing in the hole you have in the well, it is a fairly simple calculation to figure out a barrel per foot factor and then convert that to total number of barrels.

Q I have seen reference elsewhere to circulated one and a half volume or something like that. Does that sound familiar to you?

A Recommended is minimum bottoms up. It is always good to do more. It doesn't hurt anything to do more.

Q Is minimum 1-1/2?

A Minimum would be one bottoms up. But 1-1/2 is --

Q I see.

A I think that is derived in cases where you don't know exactly how much wash-up you have down hole. So you pump a little bit more to ensure that you have bottoms up. But in this case, we had done a caliber log. We had a good idea of what the actual hole size was.

Q So you think -- so in this case, one bottoms up, one full volume to get everything up to the rig would have been adequate?

A In my opinion, it would have been adequate since we knew the actual hole size.

Q So can you tell me on the Exhibit 8, which is the Version 6, you pointed us to page 8, Item No. 2 towards the bottom. Can you explain what it says should be done?

A If I was writing it, I would write circulate well,

minimum one bottoms up before proceeding with the cement job.

Q I see.

A Or something to that extent.

Q And how much volume are they saying to circulate here?

A They are saying to circulate a total of about 261 barrels.

Q And what would one bottoms up have been approximately? How much would have been necessary for one bottoms up?

A It would have been more than that. I don't have that calculation in front of me.

Q So let's go back for a second, then, to the prior exhibit, which is 7, and that is Version 5 of this document. Actually before we do that, what made you make the Version 6? Who requested that you create Version 6?

A There was no request. Just whenever there is a change in a proposal to make it as accurate as possible for documentation purposes, I took it upon myself to update the procedure that was sent to me by BP into the document.

Q Okay. Well, now, looking back at Exhibit 7, the procedure there also appears on page 8 of the document. Can you explain to us whether this discusses doing it bottoms up?

A Version 5, correct?

Q I am sorry. Yes. Version 5. It is Exhibit 7.

A Okay. What was the question? I am sorry.

Q About whether this discusses doing a bottoms up.

A No. It doesn't show in this procedure doing a bottoms up.

Q And why doesn't it show it in the procedure?

A We had an engineer and a home team leader on location and those discussions took place out there since the primary drilling engineer was on location as well.

Q Do you know whether discussions were held about doing a bottoms up?

A Yes. Once I received a procedure from the rig, I did have a conversation with Nathaniel Chaisson, who is the Halliburton engineer on location. And when I noticed Step No. 2 and the procedure on Version 6, I asked him if they had discussed doing a bottoms up and he said they had brought it up and that they were instructed that this is what they were going to pump and that is why it is worded the way it is worded. Where it states with rig pumps, pumps and circulate 111 barrels at 1 barrel a minute, next circulate 150 barrels at 4 barrels a minute as per company man. That is the reason why it was written in that way.

Q Do you know what time you made this alteration or this amendment to create Version 6 on the 18th?

A No. I don't recall a time. It was definitely -- I know Nathaniel e-mailed me the procedure from the rig. So it would have had to have been after that because I actually cut and pasted that procedure directly into the proposal. I made no changes to it.

Q Did you have any conversations with anyone other than Nathaniel about this procedure?

A No. I don't recall anybody other than talking to Nathaniel about it.

Q Just out of curiosity, why would Version 5 not have included bottoms up, mentioned?

A Version 5 was not finalized yet. I knew there might be some changes coming and a lot of times those discussions happen verbally. The procedures I usually put in my HIPS document have to do with mainly dealing with the actual cement job, volumes, rates, things of that sort.

Q Do you know anything about the discussion that happened on the rig? Have you heard anything about the discussion that happened on the rig about doing the procedure this way? Was bottoms up actually specifically discussed?

A When I asked Nathaniel if it was brought up, he said they did not ask him about it and that they were instructed that they would just pump the volume indicated in Version 6.

Q What is your opinion of doing what was -- the procedure that is represented in Version 6?

A I would have liked to have seen especially in this job more volume pumped.

Q Okay. I am going to move on to another document. This is -- we are going to mark this Exhibit 9.

[Gagliano Exhibit No. 9

was marked for identification.]

BY MS. FUCHS:

Q Okay. This is a report that was prepared by you on April 20, 2010. It is entitled "9.875 by 7 inch Foamed Production Casing Post Job Report." It is 14 pages long. Its Bates stamp number is HAL 0028310. Do you have a copy of that report?

A You said 28310?

Q 28310.

A Yes, I do.

Q Can you explain the purpose of this report?

A This is a report generated by Nathaniel Chaisson to me. And it is just a report on what happened during the incident job to provide information for me regarding details of volume pumped, also gives us detail of the actual procedure that took place, times. And it also put the actual job data captured on the job into a report for review.

Q Is there anything in this report that references anything about the spacer -- I am sorry -- the centralizer decision?

A I do not recall -- I am going to glance at it real quick. I don't recall anything in here about the centralizer decision. No, I don't see anything in here regarding the decision to run centralizers. He wasn't involved in that conversation in the office, so he probably would not have captured that in this report. It would have been something I would have done -- what

usually happens is when -- an engineer at each location sends me a post job report. And I take his data and make a different version of the post job report in more detail and provide it to the customer. And I had not done that.

Q Is there anything in this report that references the bottoms up procedure that we discussed a few minutes ago? We are still looking at Exhibit 9.

A The only thing that I see that is referencing any circulation is on page 4, I believe, at a time of 16:24. It references them circulating before the job there.

Q And in that entry, it says "Company man feels uncomfortable with the circulating pressure being this low. Spoke with Jesse Gagliano about the situation." Can you explain what that means to us?

A At the time I had received one, possibly two calls before the job. They were having issues with converting the floats. And that is indicated -- let's see. Where was it? They had problems with pressuring up and converting the floats. They had tried several different times. And when they were finally able too circulate, they were seeing lower than expected pressures. So he had called me and let me know what had happened. I actually got a call beforehand saying they couldn't convert the floats and they couldn't circulate the well.

So he notified me of that. And then I guess the concern was after the fact that it took so much pressure to convert the float

that they may have broke something else down or something else happened. So they just called to give me an FYI about what had happened on the rig.

Q When you talk about attempting to convert the floats, are you making reference to the necessity -- it took nine attempts to convert the floats?

A That is correct. I am referring to that, yes.

Q And the circulation that is described here starting at 16:24 and going on through -- it appears to me 17:27; is that correct?

A It appears to be correct, yes.

Q Is that the same circulation that might be referred to as bottoms up?

A They did not pump enough volume to do bottoms up. But this would be referencing the part in the procedure where they talked about circulating ahead of time. And then Step No. 2.

Q In Exhibit 8, which is Version 6 of your production casing?

A Correct. That is correct.

Q Okay. Now, let me ask you a question. How long would it typically take to do a bottoms up that is one complete bottoms up?

A It would depend on how fast they pumped. In this case, the well probably would not have handled too high of a rate. So it would take a little bit -- it might be a little bit longer than

usual to circulate bottoms up in this case.

Q I am sorry, a little bit longer than what? So what approximate -- can you give us a range? Is it 30 minutes, an hour, 2 hours, 5 hours?

A I am guesstimating, not nothing exact volume for bottoms up, but I would assume it would be a 1-1/2 hour to 2-1/2 hour range. That is really off the top of my head.

Q Can I ask you, would the cement slurry that was ultimately chosen for this job, how long it would take for that to fully cure once the pumping of the cement was complete?

A Are you referring to the foam cement or the unfoamed portion of the cement?

Q Why don't you tell me about both, or each.

A The foam cement was on the outside of the casing. Now, at the end of the job, unfoamed cement was pumped and that volume would have been left in the shoe track of the casing. And the reason for that is for the completion purposes of my understanding, they would have to go down and drop some of the cement in the shoe track to fit the completion tools -- and I am not really familiar with that side of it, but I know they would have potentially had to drill some of that. And you don't want to have nitrified cement in the casing when you drill that up because then you would have this nitrogen gas coming back up at you.

Q And so what was the curing time for the foam cement?

A Based on the lab report, it shows 12 hour, 24 hour and

48 hours. I don't have it in front of me. But I remember 12 hours, 24 hours is the general psi, and then at 48 hours is around 1,000 psi, give or take a couple of hundred. I don't have the report in front of me right now.

Q Does that mean that it would not be until 48 hours that it could withstand a 1,000 psi?

A No. When you do a foam cement, it is cured -- the way we test it in the lab is we pour it in a cube and we put it in a hot water bath. This is done under atmospheric pressure it is not done under down hole pressure. That will affect the development of it. Also the static temperature of this bill was 210 for the cement job, and the hottest we could get the hot water bath was 180. If you go above the 180 degrees, the water starts to boil off and then you won't have any water left to cure. So the compression development would have been greater -- developed sooner under pressure, but we don't have the ability to do that.

RPTS CALHOUN

DCMN BURRELL

[1:02 p.m.]

Q I'm not sure that answered my question. I think you described the procedure, but do you know in this instance how long you ultimately -- I mean, in other words, at 48 hours, is that foam cement fully cured?

A Yes. Based on the lab tests I have, it would have cured to that psi at 48 hours. It's not to say that was fully cured, because we stopped the test at 48 hours. It could continue to develop the pressure after that, but we didn't test past 48 hours.

Q And so the other cement -- how do you describe the other cement? There's the foam cement and what did you have call the other cement?

A Unfoam cement.

Q Just unfoam cement.

A Correct.

Q Does that have a different curing time?

A Yes, it did.

Q And do you know -- so let me ask the questions a different way. At what point in the curing process would it be appropriate to do both either a positive pressure test or a negative pressure test in the well as finally designed and implemented?

A I'm opening up the lab test right now.

Q Can you also tell us what Halliburton document number that is?

Ms. Bragg. Meredith, we can get that to you. The copy he has doesn't have a Bates number on it.

Ms. Fuchs. Okay.

Mr. Gagliano. I'm opening up the document now. Based on the compressor strength development of the unfoam cement in the shoe track, I was uncomfortable after 8 hours and 40 minutes of giving a positive test on that.

Ms. Bragg. That Bates number, I've got that.

Ms. Fuchs. What is that?

Ms. Bragg. It's HAL0044605. Actually, it's attached to the e-mail that Molly sent to us a few minutes ago.

Ms. Fuchs. Say it one more time.

Ms. Bragg. 0044605. It's attached to --

Ms. Fuchs. We're going to go off the record for a second.

[Discussion off the record.]

Ms. Fuchs. We're going to go back on the record.

We're going to label this Exhibit 10, this being the e-mail and the accompanying document.

Mr. Turner. This being e-mail and the accompanying document?

Ms. Fuchs. The e-mail and the accompanying document. It is Halliburton Bates number HAL0044604 through 0044605.

BY MS. FUCHS:

Q Mr. Gagliano, do you have that with you now?

A Yes.

Q Okay. This appears to be an e-mail that was sent by you -- or, I'm sorry, sent to you by Christopher Haire.

A Yes.

Q Can you tell us who Christopher Haire is?

A He is one of the second cementers on the Horizon.

Q This e-mail references a number of attachments. And it also has an image in it. Is that image on the second page of it, is that one of the attachments or was that in the body of the e-mail?

A This was -- this is a chart -- this is usually part of the lab test. The lab test is ongoing, so I cut and pasted the e-mail to show the progress of the cement at that point.

Q Okay. So when we were just discussing the cement curing a moment ago, this is the document that you had pulled up to try to look at its curing time, is that correct?

A That is correct.

Q So can you describe for us what we see when we look at page -- at the second page, which has the chart on it. It's the second page of Exhibit 10.

A Do you all have a color copy?

Q We don't. But if you can tell us on the left-hand side of the chart each of the lines -- why don't you tell us in descending order each of the color of those lines?

A What this is showing you, this is showing you the compressor strength development of the unfoam cement that would have been inside the shoe track. So on the lefthand side you see four separate axes labeled temperature, transit time, compressor strength, and acoustic impedence. Now I know you don't have a color copy so it may be a little difficult. Looking at the X axis and zero, the furthest line at the bottom that kind of goes flat and then has a slight slope up and then goes flat again.

Q Uh-huh.

A That you can see the lines, that is in reference to the acoustic impedence. There's another line above that that is red -- I know you can't see it -- that starts off above the six in the Y axis. They go straight up to right above and flattens out.

Q Yes.

A That is temperature. And then there is another line that starts off around 16, goes out a little distance, and goes down and flattens out. That is in reference to the transit time. There's another one -- the fourth line, it doesn't start out until between the second and third notch on the X axis. That pretty much goes straight up for a while and thencurves out and flattens out above 12 and the Y axis.

Q Yes?

A Do you see that one? That is the actually compressor strength development of the cement.

Q So does this reflect the nonfoamed cement that was

actually used?

A That is correct.

Q Okay. So can you explain to us what it means in terms of the compressive strength and when you would do both positive and negative pressure testing?

A What this is showing here is -- and at the top of the page you can also see some writing on the righthand side, there's that thing that says 50 psi at 8:12 and then 500 psi at 8:40:30. That is letting you know numerically at what time you reach 500 psi. We are comfortable with doing casing tests and/or drillouts when the cement has reached 500 psi.

Q Can you explain why you're comfortable with that?

A That is given -- the best practices that Halliburton uses. You could probably test the casing with a lower psi, but we like to wait until 500 psi in case the temperature is off by a little bit and the compression development is lower than we expected. This gives us a little safety factor to have in place.

Q And at that point you're comfortable with both positive and with negative pressure testing or just one?

A I'm comfortable with the positive test. I'm not necessarily sure that the negative test would be affected by this. I'm trying to think. I don't really get involved with the negative test side of it. The positive test you're actually testing against the cement in the shoe track. So that is very important to have in place. Not being real familiar with the

negative test part of it and how it affects this, I'm not sure. I can't answer the negative test side of it.

Q So these numbers where it says 500 psi at 8:40:30, does that mean 8 hours 40 minutes and 30 seconds after the cement job was completely pumped? Where do we start measuring the time?

A The way -- it depends on who submits the test. In this case, I had the lab circulate the cement before pouring the compressor strength development to simulate job placement time. So in this case this should have meant after the cement was in place, 8 hours 40 minutes and 30 seconds later, it should have reached approximately 500 psi in compressive strength.

Q After the cement is in place, does that mean after the casing is set into the cement or is that a time before that?

A Well, the casing -- I'm trying to understand your terminology. The casing is not set into the cement. The casing is in the whole and the cement is pumped down the casing and outside the casing.

Q Right. But we understood that after that happens, the casing is pushed down a little bit to get it in place.

Forget my terminology. Let's go back to at what point would you consider the casing had been pumped?

A This would have meant after the cement was -- was shut down and we got the cement in place, after we finished displacing the cement, that 8 hours 40 minutes afterwards, the cement would approximately have 500 psi.

Q And would the cement be fully cured at that point?

A No. At 8 hours and 40 minutes it would only have 500 psi. If you follow that line that starts between the second and third hashmark on the X axis, that shows the development over time. And I'm not sure how far your chart goes. It might be cut off. But as a reference, at 15 hours, if you follow it up and look at that line, the cement has approximately 2600 psi on it. And you see that slope still goes up a little bit over time.

Q Right.

A So this actually shows the development at a specific time. And we stopped this test at around, it appears, 46 -- or 48 hours.

Q Okay. I want to go back to one more document and this was I think the one that we originally tried to talk about earlier. We already previously marked it as Exhibit 6 and it's one of those e-mails that we forwarded to you. It's Halliburton 0010815. It's an e-mail exchange between you and Brian Morel. At the very top of it, it is dated Friday, April 16, 2010, at 5:05. It looks like it began, if you go to the very end of it, began Friday, April 16, 2010, at 8:03 a.m. The subject line is Re: cement procedure. And the document is three pages long.

So could you, starting at the back of this e-mail chain, could you walk us through these communications. That would be on page labeled HAL0010817.

A Correct. Okay. It appears I had sent out a procedure

and for some reason the company man, Ronnie Depavido, on location had received it and Brian didn't. So apparently there must have been a problem with the e-mail I sent out. So I replied to him, letting him know I did send it out last night, and I reattached it again to him in case there was some kind of issue with the e-mail. And then he made some comments. He replied back, saying, Attached are our comments. Please update to reflect and let us know your ideas behind the questions which are asked. And then I made some comments to his procedure and then he in turn replied back and answered in red and he had some additional comments.

Do you want me to go through all.

Q Could you explain to us what those comments were -- your comments and his comments? So now we're looking at the first page of the document.

A Correct. I don't have the attachment where I -- there's an attachment with the procedure, and I was making comments based off that procedure. I don't have that document in front of me but I can just read through what we have here.

Q Okay.

A Okay. The first one is a reference to the spacer behind the cement. I believe they were asking the question why I had recommended spacer behind the cement. And I was giving him a reasoning behind that -- or the volume I was coming up with.

Q And so can you explain what your comment was and what his response means?

A I was telling him -- I was recommending spacer behind the cement because oil-based fluids, depending on the volume and concentration, can potentially destabilize foam. So it's important to keep the foam cement separated from the mud, hence we use spacers upfront and behind. I was recommending using 10 to 15 barrels of spacer approximately behind because this was a tapered string. And what I mean by a tapered string, you have a 9-7/8ths casing by a 7 inch. So the diameter changes. And whenever you're using plugs, a top plug and bottom plug to isolate the cement, there is a potential to pump around that plug because it is designed to fold up and go into a smaller ID, those fins can be flimsier than usual. There is a tendency to pump around those fins and get in contact with the cement. So my recommendation was to have spacer behind the top plug in case that did take place or if we had a plug failure to prevent the oil-based mud from coming in contact with the cement.

Q Can you tell us what SOBM stands for?

A Synthetic oil-based mud.

Q And do you know how this was resolved?

A We wound up pumping some spacer behind. I think approximately 15 barrels of cement behind. Spacer behind; excuse me.

Q And that was your recommendation?

A Yes.

Q Okay. And can you go into the next issue?

A It is the pumping of base oil and adding WellLife?

Q Yes.

A That step.

Q I guess you didn't write any comments back. Why don't we go down to cement behind top plug.

A Okay, cement behind top plug. Okay. I will just read it out loud. Cement behind top plug. There will be three or four barrels of cement in the lines that will be behind the plug. This volume would not be much help with drilling out plugs. By the time that small of a volume would get to 18300', it would be contaminated with mud. In order for the cement to help you with the drilling of the plugs then you would have to pump a larger volume, 10 to 20 barrels, behind. This volume would cause issues with FasDrill or logging if necessary. No cement -- and then I think he added the comment, No cement behind plug.

Q The darts.

A What I was replying to, I got the impression they were talking about possibly putting cement behind the plugs. It might have been a miscommunication. Either that or he had actually agreed with my reasoning for not putting cement behind the plug here. Not having that original document I was writing off of, its hard to say, but I'm going off of memory on that.

Q Okay. Let's go to compressibility. That's the next one.

A Okay. Compressibility. You have written half shoe

track, six barrels. Does that mean you want to pump calculated plus compressibility, 16 barrels, plus half shoe track to see plug bump or do you want pump calculated plus half shoe track. I will change but just want to make sure I understand who to capture -- should have said how -- but who to capture on the procedure.

Basically, communication that I was referring to, I was confused on the exact volume they were referring to and I just wanted to make sure it was accurate and I was understanding what they were trying to get at. His response was, Compressibility, 14 barrels, plus half shoe track, 3 barrels.

Q That is just a clarification for you?

A That was more of a clarification, correct.

Q And then let's go to the one at the bottom under I think you say, Brian, and then you start talking about the lab test.

A Right.

Q Can you explain what that's about?

A In regard to the other e-mails regarding lab tests. I have submitted another lab test with an additional gallon of retarder to see what pump time that gives us. The test came off this morning and when I review the chart it didn't look right so I'm having them put the test back on again to verify pump time. Below is the compressive strength chart for the current test with eight gallons of retarder. I am having them run the test out to 48 hours. It is currently at 41:50. I have not received any foam compression strengths yet. The job placement time is currently

4:08, pumping all cement at two barrels a minute, and we currently have 5:30 pump time, which gives us a 1:22 minute cushion. I will forward the results of this test with additional retarder once I get it. Let me know if you have any questions. Thanks.

That was in reference to I had submitted a lab test. When I submit a lab test, I request a certain pump time window to hit based on job placement time with a certain amount of safety factor. That eight gallons hit the window and I presented it to BP. And this is stating that that pump time was 5-1/2 hours. It was shared with BP and I believe Brett Cocales told me he would like to see what nine gallons looked like. I guess they wanted a little bit more pump time, a little bit more cushion. So I submitted another test adding an additional gallon of retarder, which would have made nine gallons. This e-mail is in reference to me testing an additional nine gallons and telling them where we're at in the process of the testing.

Q So this is something that's along the way to determining the final mix that you'd use for the cement?

A The only thing that would have been changed in the pump time is the retarder concentration. Everything else would have stayed the same. There's an additive that we call a retarder that you vary the amount to give you different pumps times. Of course, the more retarder you put in there, the longer pump time you will get. The lesser, of course the lesser time you will get.

Q And in your comment you say, The test came off this

morning and when I reviewed the chart, it didn't look right. So I'm having them put the test back on again to verify the pump time.

Can you explain what that means?

A Once we run a test, it's reviewed by me. The pump time chart, when I looked at it -- when you look at a chart and you have experience looking at charts you can tell if it loses control. Because this is a machine. You program it and you let it run. Sometimes it loses control. Sometimes the chart didn't look right. Sometimes it looks like it's too thick. Could be various number of reasons. I just thought the chart didn't look perfect to me for this type of job, so I had the lab just put it back on and rerun it to verify pump time.

Q Okay. Can I turn to a slightly different topic that is not really as document-focused at the moment. Do you recall as the well was being designed and Halliburton was assisting with its various calculations and reports about the design of the casing and the cement job whether any discussion was held about doing a cement bond log?

A It was my understanding that before the job took place it was critical that we design the cement job to have full returns because of the fact that if we lost returns during the cement job, they would have to run a cement bond log to see where the top of the cement was and then potentially remediation would be required.

Q You said it was your understanding. What's that based

upon?

A Just sitting in a room and being in a room with conversations that took place. That's why this job was critical that we get it in place without fracturing and getting cement above the zone with full returns. It's my understanding that if that did not take place, they would have to do a bond log and see where the top of the cement was.

Q And so this is sitting in a room with who from BP?

A I believe Brian Morel would have been present; I think in some instances Mark Hafle might have been present; Brett Cocales. I don't remember -- sometimes these conversations took place after morning calls, things of that sort. We was hanging out. But those are some of the people probably involved in the discussion.

Q Do you have a specific recollection of a discussion about a cement bond log?

A I knew the discussion was that if we didn't have returns -- that we lost returns -- that MMS may have required for them to run a bond log.

Q How would the returns -- or who would be measuring the returns?

A That's done on a rig. I'm not exactly sure who would be monitoring the rig. I know they have several ways to watch it. But I'm not sure. The feedback I got was we had full returns. And I believe it was documented in the DIMS report. But the

specific individual who watched that, I am not sure who that was.

Q We talked earlier about a document which we labeled Exhibit Number 9, which was the Casing Post Job Report. Would that tell us whether there were full returns?

A On page two on the job information there's a big chart at the top. On the left-hand side there's a place that says, Returns while cementing, and it says, Yes.

Q And what does that mean?

A That leads me to believe that we had full returns during the job.

Q In your discussions with BP about doing a cement bond log did they ever express a view about whether they wanted to do a cement bond log or did not want to do a cement bond log?

A I was never directly involved with those conversations. That's usually a decision made by BP. I was in a room when some of those conversations took place, but they weren't actually talking directly to me. So I have really no decision in that.

Q Can you explain why it was critical to have full returns?

A In my opinion, it was critical to have full returns because that would give us a good indication that we did get cement in place and to the objective depth. If we would have lost returns, it would have been unknown where the cement, top of the cement would have been. One of the objectives of this cement job was to get cement to 17300', which would have put us 500 feet

above the zone of interest we needed to cover.

Q Were there other circumstances under which a cement bond log was being discussed? I mean, in other words, you have described that whether or not you got full returns could help decide whether to do a cement bond log. Were other contingencies or situations discussed that would merit a cement bond log, that you recall? I understand that you weren't the central participant here.

A The only discussion I was aware of is if something went wrong with the cement job, they would most likely have to run a cement bond log. That's the only one I'm aware of.

Q Can I ask you how you heard about what happened with the blowout and explosion on the Deepwater Horizon?

A Yes. I was at home. It was approximately 10:30 at night. I was just laying down to go to bed and I received a call from a friend of mine who asked me pointblank, Is the rig on fire? When he said that, I was shocked. And I said, Nobody has told me anything. We had the discussion. I asked him how he found out. He was friends with several people on the rig. I'm unclear if he got an e-mail or he got an instant message or somehow through the computer he saw something come across saying, Rig on fire, evacuation, send help. He knew I called on the rig. He knew I was watching Horizon. So he called and asked me. And I said, No, I was not aware of anything.

So I then got off the phone with him and I attempted to call

the rig, which I just got a dead signal. And at that point I didn't know what to do. I was hesitant of waking up drilling engineers on an unconfirmed report. But I went ahead and I believe I attempted to call Brent Cocales on his cell phone, and I got his voice mail, which I didn't leave a message. Then I text messaged I believe Brett and Mark Hafle and simply asked, Is everything okay on the rig? And then I never did get a response from Brett, but Mark Hafle texted back asking, Who was this, because I guess my name didn't pop up, and I said, This is Jesse. And I replied, This is Jesse. I'm getting unconfirmed reports the rig is on fire.

After that, I did receive a call from Mark Hafle asking how I heard about it. So I went through the story with him. He said he had got off the phone with the rig at this point probably an hour, hour and a half prior to that. He said, I just talked to the rig not long ago. Everything was fine then. Then I said, Okay. He goes, Let me make some phone calls and find out what's going on. And then I received a phone call -- approximately 20, 30 minutes later -- from Mark Hafle, confirming that the rig was on fire.

Q On that day on April 20th, I know you received the Casing Post Job Report. Did you have other communications with the rig on April 20th?

A I don't recall talking to anybody on the rig on the 20th. I know I received a Post Job Report from Nathaniel, but the phone team had left that morning. I don't specifically recall any

conversations with the cementer or anybody on the rig that day.

Q Can I ask you a question? This question about whether there were full returns, is there anywhere else -- perhaps a different type of document -- that we should be looking at other than the Exhibit 9, Casing Post Job Report, that you have pointed us to?

A The DIMS report for that day I would think show indication because usually on past cement jobs whenever we had losses, they usually capture how many barrels they lost. So the DIMS report may give some indication about the full returns. I know also Sperry-Sun records all the data on the rig that would show what volume and how much returns they receive and the data they capture. That's the only two I think off the top of my head.

Q The DIMS report is that daily -- a daily operations report of some sort?

A Correct. It's a report generated by BP that captures all the events that took place the prior 24 hours.

Q Okay.

A It usually goes from midnight to midnight. So when I would have gotten to the office that morning on the 20th, we would have had a DIMS report from midnight to midnight on the 19th.

Q I think we have copies of those. Thank you.

Ms. Fuchs. Peter, do you have some questions you would like to ask?

EXAMINATION

BY MR. SPENCER:

Q This is Peter Spencer. We've spent a lot of time so -- and you covered the area that I've been interested in as well. But I do have a couple of questions that just come to mind in this discussion. The first one is what we've just been talking about full returns and the reports on the full returns.

Earlier, we were talking about the severe risk to flow due to channeling. Can you talk a little bit about how measuring returns is an indicator one way or another of channeling?

A Returns wouldn't -- the amount of returns would not tell you if there's channeling or not. Full returns just indicates the amount of fluid you're pumping into the wellbore, you're getting the equal or very close to equal volume back at surface, which is telling you that you're not fracturing any fluids into the formation or losing any fluids. It's not really an indication of channeling.

Q So full returns is a measure of losing fluids but not in a sense -- so I can try to understand -- not in a sense the quality of the cement on the casing as it's set. Is it?

A Correct. It's an indication if you're losing fluids to the formation. Correct.

Q So when the decisions were being made -- I forget which day, I guess it was the morning of April 20th or the evening of April 19th -- and they were based on full returns, that information wasn't going to the fact of whether there was

channeling or not.

A I'm not sure I follow that question. Could you repeat it?

Q Well, I guess I'm just trying to say the same thing another way. I'm sorry. The measure of returns did not measure channeling?

A No.

Q Okay. Did you have any discussion or are you aware -- did you have any discussion about the fact that the measure of returns would not measure channeling with anybody at BP?

A No, I didn't have that specific discussion.

Q Okay. How about with anybody at Halliburton?

A No. Not in regard with channeling and returns, no.

Q Okay. When you first -- I think it was the report on April -- which is Exhibit 3, I suppose it is, where you indicate the severe flow -- I am using my terminology instead of what is actually in the report -- was there any discussion at that time about how to measure the potential for channeling?

A You're referring to the design report on April 18?

Q Yes, sir.

A No, I didn't have any discussions with anybody regarding this document after I sent it out.

Q Okay. When we talk about the cement bond logs, would cement bond logging be able to identify whether there's channeling or not?

A That is not my area of expertise, but in my understanding it would give you some indication of approximately where the top of the cement and if there was bond or channeling there.

Q Okay. Let me go back to the full return point. Who came up with the plan for what to measure, whether it be full returns or whether to do cement bond logging? Was that Halliburton or was that BP?

A The decision to bond log is a BP decision.

Q I'm talking about sort of the plan for the day -- when you ran the cement job and afterwards when you were going to go back and sort of identify whether it was successful or not. Was that a Halliburton procedure that was recommended or was that a BP procedure?

A We provided the information to BP and they based their decisions off the information we gave them to bond log or not. We do not recommend running a bond log or either way. We just provide information.

Q And you didn't recommend -- you didn't make any recommendation for how to measure for channeling?

A I'm not sure I understand the question. I mean OptiCem predicted channeling based on the number of centralizers we were running, but there's no way to measure that through returns, that I'm aware of.

Q Right. No, that's fine. I'm just looking just to

understand it a little bit better.

And one other question -- we may come back to this -- but one other question is on April 14th I believe you mentioned there was a point there where prior to that there had been a lot of discussions about different types of casing to run or liners to run. If you could just -- could you talk a little bit about what was it that -- what was the information that convinced BP to go with the 9 7/8" X 7" casing, I guess the final string that we were all working on -- or you were all working on.

A It was my understanding depending if we had a high probability of success of doing the cement job, that they would go with the 9 7/8" x 7" casing.

BY MS. FUCHS:

Q Can you explain what that means?

A That basically means running that casing in the hole using Ocusim. If we are able to do the cement job and successfully get the cement job in place with the objective put forth to us prior to the job.

BY MR. SPENCER:

Q I think what I'm trying to understand is I think you said that there was some sort of test or some sort of lab result about the cement design or particular cement design. So what was the particular lab result that was convincing for BP?

A It didn't have to do with the lab results. It had to do with the ECD seam while placing cement in place that we're looking

at. The concern was that the ECDs would get too high and that we would lose returns, thus not getting cement to the objective depth.

Q What modifications were you doing or BP doing to change -- to come up with an acceptable ECD result?

A We were changing the rates of placement; how fast we can put the cement in place. Also, we're updating, towards the end, updating the well information to the actual information we were collecting from the well, such as caliber log, directional data, things of that sort.

Q One of the questions that floated around I think in the press, and so forth, is the use of the foam cement and the nitrogen in the cement at these depths of 18,000 feet or thereabouts.

Can you talk a little bit about the use of the nitrogen at that depth and what sort of considerations you had to address when you were estimating all that?

A The first thing is, you know, using nitrogen at these depths and oil-based mud, you just have to ensure you have a good amount of spacer heading behind to isolate it. The foam is more -- we have more flexibility with the foam in changing density. That being said, you run a lab test and get a certain pump time. That pump time stays consistent no matter how much nitrogen you put in or take out of that system, to where you can actually change the density of the cement very close to the start

of the job if you needed to, to get it in place. So it allows you that flexibility. There's also been some SP papers and studies done that state that completing a well through foam cement you have better completion rates. It's not an unusual thing that, at least in my experience, that we use foam in production casing jobs.

Q Okay. Does the use of foam have an impact on the risk of channeling?

A Actually, foam would help the ability to remove the mud out of the hole. Foam is an energized fluid and it will actually expand the further it comes up the wellbore, hence giving you more flow rate, which would help with removing mud. So it only helps you with that fact.

Q Okay. Just one other question. When you identified the issue with the centralizers, and I believe earlier you discussed or you expressed the understanding that BP was going to be following your recommendations, did you ever get any confirmation from BP that they would be following your recommendations?

A When I left the office on the 15th, BP went out of their way to have centralizers sent to the heliport to be flown out to the rig. So that's not a usual operation we do. Usually, that stuff is sent out by boat. When you fly it to the rig, you're usually trying to get it out there pretty quick to get it on a job. So I had the impression that that was their intent to run it and they had the personnel and the equipment on the rig to do

that.

Mr. Spencer. Okay. I think I'm good.

BY MS. FUCHS:

Q I just have a couple of follow-up questions, Mr. Gagliano. Thank you so much for your time.

Were you part of any discussions with BP about the benefits of choosing a particular casing design? I know you talked about the documents you prepared describing how each would work. But in terms of the choice to do the full string of casing versus a liner option, were you part of any discussions in which BP described the benefits of one option versus the other?

A No, I was not part of any discussions on which casing to choose, no.

Q And so when the decision was made to do the full string of casing, that didn't strike you -- or did that strike you as surprising, based on your prior interaction with BP?

A I guess indifferent. That was the plan going forward. Looking at the model at the time, it seemed reasonable that we can get the cement job in place without losses. So nothing really struck me as surprising.

Q It does sound, however, that you were surprised when you were told that they wouldn't be using 21 spacers, is that correct?

A Twenty-one centralizers?

Q Sorry. Twenty-one centralizers. Is that correct?

A That's correct. I was a little surprised when I heard

that.

Q And I think earlier you said you were frustrated as well.

A Correct.

Q So what happened between the 15th to the 18th that allowed a change that was dramatic enough to both surprise and frustrate you? Did you have any sense of what was going on behind the scenes?

A No. I was not part of any conversations regarding -- my understanding on the 15th is that we were going to run them. And that was the plan. I was not in the loop or involved in any discussions between the 15th and the 18th until I received a call from Vince Tabler letting me know that they decided not to go with them. There was no major changes between the 15th and the 18th that I felt warranted a change.

Q Did you have any sense that BP was in a rush?

A No. In the oil field in general we always try to plan our business to be as efficient as possible. I saw nothing out of the ordinary other than just trying to be efficient and get things done. Nobody came to me and said you need to get this done sooner or you have got to push your people. Nobody told me that.

Q Did you think that BP was acting unsafely by choosing the 6 centralizer design?

A I wouldn't look at it as unsafe. The channeling indicates to me there was a high potential of remedial work that

would be needed to be done after the fact. That was what I was concerned with.

Q And if there was a high risk of channeling, would Halliburton have made a recommendation about doing a cement bond log?

A I think BP would have went ahead and done it, because based on my understanding before the job that was the plan. Excuse me; you're talking about channeling, not losses. Correct?

Q Yes, channeling.

A Yes. There's no way to tell if the job actually channeled. The model predicted channeling. But there's no indication by returns to know if it channeled or not.

Q Would you necessarily have a change in the returns if there was channeling? I mean is it possible for there to be channeling without there being a loss of reserve -- I'm sorry, I'm using the wrong words. A loss of returns.

A If I understand your question, you're saying is there a possibility that channeling with full returns?

Q Yes.

A Yes, there is a possibility of channeling with full returns.

Q How would you describe the likelihood of channeling with full returns?

A Based on the predicted model, it showed a high probability of channeling in this case.

Q I guess I'm sort of surprised. I mean from your description here and the actions you took, you seemed to be pretty struck by their choice on the centralizers. So you sent out the new design report.

Did you do anything else to alert BP that you had concerns that the cement job would not do what they wanted it to do with that design?

A After I sent that report on the 18th, no. But BP was fully aware based on my conversations on the 15th of what the potential risk of channeling was. And there was no major changes between the 15th and the 18th. We work by the direction of BP, and that was their decision. We provide the information to them.

Q Counsel also questioned about the flow potential that's in those two design reports. Is the flow potential a linear measure? In other words, does the number that you referenced that led to a conclusion of moderate or severe, is that -- is the gas flow potential kind of linearly correlated to that number?

A It's hard for me to say because I'm not sure of the exact calculation that's being done behind the scenes. I know several factors are in it, such as hole size, weight of cement, bind of cement, length of cement, things of that sort. I couldn't tell you if it was linear or not.

Q Okay. Mr. Gagliano, is there anything that you think we should know that we haven't asked you about?

A No. Not at this time, no.

Q Do you have any concerns about the responses you've given to any of our questions that you would like to tell us about now?

A No. No concerns with my responses.

Q Okay. Well, then I want to express our appreciation for your taking the time to talk with us today. We are going to conclude our questioning now. On behalf of Chairman Henry Waxman, Chairman Bart Stupak, and Ranking Member Barton, I wanted to thank you for participating voluntarily in this transcribed interview proceeding. This is very helpful to the committee and will help us with our investigation. So thank you.

A You're welcome.

[Whereupon, at 2:00 p.m., the telephone interview was concluded.]

Certificate of Deponent/Interviewee

I have read the foregoing ____ pages, which contain the correct transcript of the answers made by me to the questions therein recorded.

_____

Witness Name

_____

Date