

# Deposition Testimony of:

## **Brad Billon**

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Page 5:01 to 5:16

00005:01 VIDEO SPECIALIST: This is the 30(b)(6)  
02 deposition of Brad Billon regarding the oil  
03 spill by the Deepwater Horizon in the Gulf  
04 April on 20th, 2010. Today is June 23rd,  
05 2011. The time is 8:32 a.m., and we are on  
06 record.  
07 MR. BRUNO: This, as has been  
08 indicated, is a 30(b)(6) deposition of M-I  
09 SWACO, LLC. We have received a written  
10 response to the deposition, but just for the  
11 completeness of record, Counsel, would you be  
12 so kind as to identify the person or persons  
13 who will be appearing today in response to  
14 the notice.  
15 MS. SCOFIELD: Yes. Brad Billon of  
16 M-I.

Page 5:19 to 5:24

00005:19 BRAD BILLON  
20 having been first duly sworn,  
21 was examined and testified as follows:  
22 MR. BRUNO: All right. Let's first  
23 mark under Tab 1 as 2801 the plaintiff notice  
24 of deposition.

Page 6:02 to 6:05

00006:02 MR. BRUNO: And as 2802, M-I's  
03 response.  
04 (Exhibits 2801 and 2802 marked for the  
05 record.)

Page 6:08 to 9:02

00006:08 Q. All right, sir. Have you ever  
09 given a 30(b)(6) --  
10 A. No, sir, I haven't.  
11 Q. -- deposition in the past?  
12 A. No.  
13 Q. Do you understand what it --  
14 what it's about?  
15 A. I think I do, yes.  
16 Q. Okay. Have you had an  
17 opportunity to review either the notice,  
18 which we've marked as 2801, or your company's  
19 response to the notice, which we've marked as  
20 2802?  
21 A. I have reviewed the notice.  
22 Q. Okay. Terrific. I was trying  
23 to decide how to eliminate questions in the

24 most efficient manner. In the notice, with  
25 regard to some of the topics, we see the  
00007:01 phrase "After conducting a good-faith  
02 inquiry, M-I does not have knowledge or  
03 information regarding this topic." And what  
04 I would like to do is allow you to explain  
05 that so that I won't have to go through each  
06 topic and cover it over and over again. And  
07 we'll let the notice stand on its -- on what  
08 you have there. Okay?

09 A. I think it will be -- it will be  
10 sort of difficult to explain unless we go  
11 through the topics.

12 Q. All right. Okay. I was trying  
13 to find a shortcut.

14 MS. SCOFIELD: Well, and, Joe, the  
15 reason why that answer is on the record is  
16 because those are not within his business.  
17 They're not within the type of business that  
18 M-I conducts.

19 MR. BRUNO: I know. That's what I was  
20 hoping to elicit with that question.

21 MS. SCOFIELD: Yeah, I understand.

22 MR. BRUNO: And I guess I just went  
23 whoosh.

24 BY MR. BRUNO:

25 Q. Okay. So do you understand what  
00008:01 counsel is suggesting, that there are certain  
02 topics which your company had nothing to do  
03 with?

04 A. Right.

05 Q. And I gathered -- yeah. And I  
06 gathered from reading your response that with  
07 regard to those subjects, we see the  
08 phrase -- let me find it again -- "After  
09 conducting a good-faith inquiry, M-I does not  
10 have knowledge or information regarding this  
11 topic." And all I'm trying to do -- we can  
12 go through each one of the subjects one at a  
13 time. But it seems to me that we have that  
14 phrase repeated, and it has some meaning.  
15 And I'm wondering if you would agree with  
16 what your counsel suggested, or maybe you  
17 could supplement it any way you'd like, that  
18 with regard to those topics where we see this  
19 response, M-I doesn't have any knowledge or  
20 doesn't do business in this area, etcetera,  
21 etcetera?

22 A. No, I -- you're exactly right.  
23 I mean, I agree, and we can certainly do  
24 that. But you didn't identify the topic, so  
25 I was just --

00009:01 Q. No, I identified the response.

02 A. The response. Got you.

Page 9:16 to 10:14

00009:16 Q. All right. What is your current  
17 position, sir?  
18 A. Currently, I'm the senior  
19 director of our oil field water management  
20 product line, business line.  
21 Q. All right. And according to  
22 your CV, you've been in that position from  
23 May of 2007 until today?  
24 A. No. May of 2011. There's a  
25 typo there.  
00010:01 Q. Okay.  
02 A. It should be May of this year.  
03 Q. May of this year?  
04 A. Yes.  
05 Q. All right. Would you share with  
06 us, what does the senior director of oil  
07 field water management do, exactly?  
08 A. Well, as I -- as I stated in the  
09 CV, you know, my job duty is to oversee the  
10 development and the commercialization of  
11 these new technologies that we're looking at  
12 that are involving the treatment of frac  
13 flowback, you know, some of the  
14 unconventional shale plays around the world.

Page 10:24 to 15:19

00010:24 Q. All right. And before then, it  
25 looks like June 2007 until April 2011, you  
00011:01 were senior director of Drilling Solutions  
02 for North America?  
03 A. That's correct.  
04 Q. All right. What does -- what  
05 did you do in that position?  
06 A. In that position, I represented  
07 our Drilling Solutions segment. Within M-I,  
08 we have three segments: drilling solutions,  
09 environmental solutions, and wellbore  
10 productivity, which was completion fluids and  
11 things like that.  
12 I worked and reported directly  
13 to the senior vice president of North America  
14 and provided sales marketing, operational,  
15 and technical support to that products  
16 segment within North America.  
17 Q. Okay. And then before then,  
18 from December of 2003 to May 2007, you were  
19 the Alaska regional manager?  
20 A. That's correct.  
21 Q. And was that within one of those  
22 three product lines?  
23 A. No. At that time, I managed all  
24 product lines. I ran our total business in

25 Alaska.

00012:01 Q. Okay. How is your company  
02 divided up in terms of the work flow? Are  
03 there -- are there regions throughout the  
04 world?

05 A. Yes.

06 Q. And is Alaska one of those  
07 regions?

08 A. Alaska is a region within the  
09 North American business -- well, at that  
10 time, the North American business unit.

11 Q. Okay. So really, the division  
12 is business units?

13 A. At that --

14 Q. At that time?

15 A. At that time, yes.

16 Q. Okay. How has it changed -- how  
17 did it change up until 2010?

18 A. Up until 2010? Well, in -- when  
19 in 2010?

20 Q. Well, we're going to focus on  
21 the catastrophe, so let's talk about the time  
22 period around April or -- you know, I don't  
23 know when these things occurred.

24 A. It was essentially the same as  
25 it was in 2007.

00013:01 Q. Okay. Then let's -- then let's  
02 go there. All right. How many business  
03 units were there at that time? That is, 2003  
04 to 2010.

05 A. Globally?

06 Q. Yes.

07 A. There were four, I believe.

08 Q. And what were their names?

09 A. The North America business unit  
10 and our South America business unit. And  
11 then we had two in the -- in the eastern  
12 hemisphere.

13 Q. Okay. Have you always worked in  
14 this hemisphere?

15 A. Yeah. I've never -- I've never  
16 been a resident outside of this hemisphere.  
17 I've gone and visited and done some work in  
18 other areas of the world, but for the most  
19 part, I've always lived here in the U.S.

20 Q. Okay. And then within the North  
21 American business unit, there are obviously  
22 some regions?

23 A. Yes.

24 Q. All right. And have those  
25 regions remained the same from 2003 until

00014:01 approximately the time of the catastrophe?

02 A. Yes. Yes.

03 Q. What were the regions within  
04 North America?

05           A.       Well, we've got our U.S. Land,  
 06 which is the lower 48. Of course, we had --  
 07 at the time, it was -- the region -- we  
 08 called it the Alaska region, but it was a  
 09 part of the -- we call it Canada-Alaska  
 10 region. So Canada and Alaska were together,  
 11 the lower 48, and then we had the Gulf of  
 12 Mexico.

13           Q.       Okay. Was it called simply the  
 14 Gulf of Mexico region?

15           A.       It was called the Southern U.S.  
 16 Gulf Coast region.

17           Q.       Okay. And that obviously would  
 18 have been the region which would have  
 19 included the work that was done for --

20           A.       That's correct.

21           Q.       -- the Horizon?

22           A.       Yes.

23           Q.       Okay. Thank you. All right.  
 24 And before then, let's see, November -- I'm  
 25 sorry, January 1999 to November 2003, you  
 00015:01 were the project engineering manager. I  
 02 guess -- what region were you in?

03           A.       Offshore. Worked office in  
 04 Houston, but we -- I took care of the project  
 05 engineers that were assigned to the offshore  
 06 rigs.

07           Q.       Gulf of Mexico?

08           A.       Yes.

09           Q.       All right. And what did you do  
 10 in that position?

11           A.       Primarily, my job in that  
 12 position, I primarily would handle the BP  
 13 account. I managed all of our people  
 14 in-house at BP. Of course, you understand  
 15 that we have people that sit inside of BP.

16           Q.       Well, let me just ask this  
 17 question, then. I saw some documents --  
 18 which we may touch on this same subject. How  
 19 important is BP to M-I SWACO as a client?

Page 15:21 to 15:22

00015:21 THE WITNESS: They're one of our  
 22 largest customers.

Page 15:24 to 18:17

00015:24           Q.       Are they not the largest  
 25 customer?

00016:01           A.       At that time or now or -- I  
 02 mean. . .

03           Q.       At the time of the catastrophe.  
 04 We're talking about, again --

05           A.       I don't really -- they could --  
06 they're one of our largest customers, but I  
07 couldn't say if they were the largest.  
08           Q.       Who would be in the same -- at  
09 the same level as BP? What other customers?  
10           A.       Probably some of the majors,  
11 like Shell, Chevron, Statoil,  
12           Q.       Now, if you -- please forgive me  
13 for asking this, but I just have to. The  
14 fact that BP is such an important customer to  
15 your company, would that in any way influence  
16 any of the answers that you will give me in  
17 this deposition today?  
18           A.       No, sir.  
19           Q.       Thank you.  
20                    All right. Before then, let's  
21 see, looks like December -- I'm sorry,  
22 January '97 to December '98, you were a  
23 project engineer?  
24           A.       That's correct.  
25           Q.       And that was also offshore?  
00017:01          A.       Yes.  
02           Q.       Okay. And what does a project  
03 engineer do?  
04           A.       Well, much like -- we interact  
05 with the customer, communicate with them. We  
06 write and prepare drilling fluid proposals,  
07 you know, for the customer, and look after  
08 our people and job, you know, when we -- when  
09 we start to work, make sure the job -- so  
10 it's just same.  
11           Q.       Would there have been a project  
12 engineer for the Macondo work?  
13           A.       Yes.  
14           Q.       And who was that person, sir?  
15           A.       Doyle Maxie.  
16           Q.       That was Doyle. And the project  
17 manager, when he does his or her work in  
18 connection with the project like the one on  
19 the Horizon, where are they physically  
20 located?  
21           A.       They have an office in our  
22 office, you know, in our -- where we're  
23 housed, and sometimes the customer requests  
24 that they sit in-house, you know. Say, for  
25 instance, in this case, BP.  
00018:01          Q.       Okay. Would that be referred to  
02 as a beach?  
03           A.       Yeah. Anything on land.  
04 Anything that's not offshore is a beach.  
05           Q.       Fair enough. All right. So  
06 when you were acting as a project engineer,  
07 did you actually reside with a particular  
08 company when you were doing some work?  
09           A.       Yes, I did.

10 Q. Okay. And am I gathering from  
11 your testimony that Mr. Doyle Maxie was  
12 actually housed within BP when your company  
13 was doing the work that it did on Macondo?

14 A. I believe he was.

15 Q. Okay. What can you share with  
16 us what -- what's the purpose of such an  
17 arrangement?

Page 18:19 to 18:20

00018:19 THE WITNESS: What do you mean by  
20 "arrangement"? I mean --

Page 18:22 to 30:19

00018:22 Q. Well, that is, you know, that  
23 the -- one of your employees would actually  
24 be physically located at the customer's  
25 facility.

00019:01 A. I think it's primarily for  
02 convenience.

03 Q. Okay.

04 A. Because we -- the customer  
05 requests that we attend meetings and things  
06 like that, and I think it's -- I think that's  
07 what it is, primarily convenience.

08 Q. Okay. All right. And then July  
09 '93 to December '96, you were a senior  
10 engineer?

11 A. Yes.

12 Q. Again, also for Gulf of Mexico  
13 in the Gulf of Mexico?

14 A. Yeah, I worked in our office  
15 here in New Orleans and basically supervised  
16 our -- actually, our -- look after our mud  
17 engineers, you know, and did some of the --  
18 some of the duties that a project engineer  
19 does, but maybe with -- maybe with some  
20 smaller customers.

21 Q. Okay.

22 A. Okay.

23 Q. And then finally, January '80 to  
24 June '9 -- I'm sorry, '93, drilling fluids  
25 engineer?

00020:01 A. Yes. I was a drilling fluids  
02 engineer, worked, you know, offshore, on  
03 land, you know. It's a field job.

04 Q. Okay. I should have asked this  
05 with regard to the senior engineer position,  
06 and I failed to. Was there a senior engineer  
07 assigned to the Macondo work?

08 A. No.

09 Q. Is there a reason why?

10 A. I don't know which -- well, I  
11 don't quite understand the question.  
12 Q. In other words, was there a  
13 person at M-I SWACO who was a senior engineer  
14 and assigned to the work that was done on the  
15 Macondo?  
16 A. I would think not. No, Doyle  
17 Maxie would have been the one assigned to it.  
18 Q. Okay. Is a project engineer the  
19 same or similar to a senior engineer, at  
20 least with regard to the work that they do?  
21 A. Similar, yes.  
22 Q. Okay. All right. Same question  
23 with regard to the drilling fluids engineer.  
24 Would there have been a drilling fluids  
25 engineer assigned to the Macondo work?  
00021:01 A. Yes. There were several on the  
02 rig, yes.  
03 Q. All right. And what were their  
04 names, if you know?  
05 A. You know, I don't know all of  
06 them. I can give you some of the names.  
07 Q. That's fine.  
08 A. Yeah. Do you want me to -- I  
09 mean, I'm aware of the ones that, you know, I  
10 can name Gordon Jones as one. Blair Manuel,  
11 Greg Meche.  
12 Q. M-e. . .  
13 A. -c-h-e, I think.  
14 Q. All right.  
15 A. And I do know Tab Haygood comes  
16 to mind.  
17 Q. Okay.  
18 A. But I really don't know -- I  
19 don't remember all of the names.  
20 Q. That's fine. I know -- I'm just  
21 taxing your memory at this point.  
22 A. Yeah.  
23 Q. Generally, what does a fluids  
24 engineer do?  
25 A. What does our drilling fluid  
00022:01 specialist do on the rig site?  
02 Q. Well, forgive me. I don't --  
03 A. Okay.  
04 Q. I want to use the words as I see  
05 them on your CV.  
06 A. Yeah.  
07 Q. On your CV, I see the phrase  
08 "drilling fluids engineer." Is that --  
09 A. Yeah. That was the old term  
10 that we used. Now we've moved to the term  
11 "drilling fluids specialist."  
12 Q. Okay. Thank you. So as of the  
13 time of the catastrophe, these employees  
14 would have been called drilling fluids --

15 A. Specialist.  
16 Q. -- specialist?  
17 A. Yeah.  
18 Q. Okay. Thank you so much.  
19 So what did -- or what does a  
20 drilling fluids specialist do?  
21 A. Well, to give you just an  
22 overview, the drilling fluids specialist, of  
23 course, is assigned to that rig to be out  
24 there. We usually have -- let me back up a  
25 little bit.

00023:01 We usually have two, and they  
02 work 12-hour shifts, you know, out on the  
03 rig. They're there to perform the testing on  
04 the drilling fluids and to recommend  
05 treatment to maintain the plan chemical, or  
06 rheological properties, if you will, of the  
07 fluid.

08 They're there to oversee the  
09 treatment of the -- of the fluid, to make  
10 sure that we've got an inventory that, you  
11 know, there are products and things to, you  
12 know, treat the fluid. I'm sure there's  
13 someone -- let's see. I'm just trying to --  
14 trying to give you just -- without getting  
15 into too many details, you know, just the  
16 kind of general view of what they do.

17 They keep a database, you know,  
18 they're there to run the analysis on the  
19 fluids and maintain that database and to  
20 advise the customer or the client, you know,  
21 on what they see, you know.

22 Q. Okay. Good. Thank you very  
23 much.

24 And then before then, you were  
25 not employed by M-I SWACO, this --

00024:01 January '80 is when you began, apparently?  
02 A. No, no. I mean, I have had some  
03 summer jobs, but that was primarily, you  
04 know, after I got out of school.

05 Q. All right. And you indicate  
06 that you received an A.S. degree?  
07 A. Yes.

08 Q. And what kind of degree is that?  
09 A. It's an associate science  
10 degree.

11 Q. All right. And then petroleum  
12 technology at Nicholls State University in  
13 1982?  
14 A. That's correct.

15 Q. Okay. All right.

16 A. I was actually employed by the  
17 company while I was going to school.

18 Q. So your entire career has been  
19 at M-I SWACO?

20 A. That's correct.  
21 Q. Okay. All right. Now, let's  
22 see the -- the way I think is best do this is  
23 to keep a copy of the notice here, and then  
24 as we go to the documents, try to -- I'll try  
25 to stay on the topic as best I can, given  
00025:01 that these documents are all over the place  
02 in these books.  
03 All right. The first topic is:  
04 The existence, nature, scope, meaning, and  
05 intent of drilling contracts, service  
06 agreements, mineral lease and/or mineral  
07 rights and/or royalty agreements, joint  
08 operation and/or exploration and/or  
09 production and/or joint-venture agreements,  
10 indemnity agreements and/or charter  
11 agreements, relating or pertaining to the  
12 Macondo Prospect, the Deepwater Horizon  
13 and/or the Macondo Well, including, but not  
14 limited to, contracts and/or agreements with:  
15 Mineral Management Services, Anadarko, MOEX,  
16 BP, Halliburton and/or Sperry, Transocean,  
17 Weatherford, and/or Schlumberger.  
18 Gives a pretty good  
19 understanding about what lawyers do now, I  
20 suppose.  
21 A. Yeah. Just to be sure I'm  
22 following you, I just. . .  
23 Q. You should be looking at the --  
24 your company's response, which is 2802.  
25 A. I see the response, yes.  
00026:01 Q. All right. And look under the  
02 Specific Objections and Responses to Topics.  
03 And I've just read the first --  
04 A. Yes.  
05 Q. -- topic. And will you agree  
06 with me that I read that correctly?  
07 A. Yeah.  
08 Q. Now, let's try to remove some of  
09 the fluff and get to the meat of the coconut  
10 here. Which of those phrases describes the  
11 relationship between your company and BP?  
12 And by that I mean, is it a drilling  
13 contract, a service agreement, etcetera,  
14 etcetera?  
15 A. It would be a drilling fluids,  
16 completion fluids, I mean, waste management  
17 product and service contract.  
18 Q. All right. You provide  
19 services?  
20 A. Yes.  
21 Q. Okay. So it's, in part, a  
22 service contract?  
23 A. Yes.  
24 Q. Okay. Do you sell goods to BP?

25 A. Yes.  
00027:01 Q. You sell product?  
02 A. Yes.  
03 Q. Okay. I take it there's no  
04 drilling contract? You're not doing any  
05 drilling for BP?  
06 A. No, we're not.  
07 Q. Okay. It's not a mineral lease?  
08 You're not leasing any minerals to BP?  
09 A. No.  
10 Q. No mineral rights or royalty  
11 agreements, right?  
12 A. Right.  
13 Q. And there really is not -- and  
14 listen carefully to this question. It is not  
15 a joint operation, is it?  
16 A. No.  
17 Q. Between you and BP? You're  
18 not --  
19 A. Not at all.  
20 Q. -- accepting any responsibility  
21 to operate that well?  
22 A. Not at all.  
23 Q. Okay. You're certainly not  
24 accepting any responsibility to explore for  
25 minerals; is that correct?  
00028:01 A. No. That's correct.  
02 Q. And you are not a joint venturer  
03 with regard to the production of any  
04 hydrocarbons?  
05 A. No.  
06 Q. Is that is correct?  
07 A. That's correct.  
08 Q. Okay. All right. So you're  
09 there to provide a service and sell product,  
10 right?  
11 A. That's sums it up pretty well.  
12 Q. Okay. Fair enough. Now, let's  
13 understand the nature of the service that  
14 you're providing for BP. Keep in mind that  
15 what we are talking about today will likely  
16 be read by a judge or a jury. So this is  
17 intended to help the fact finder understand  
18 what it is that your company does for BP.  
19 Okay? So with that, what services does M-I  
20 SWACO provide for BP in -- I'm just -- what  
21 services did M-I SWACO provide to BP in  
22 connection with the Macondo Well?  
23 A. Okay. What -- okay. We  
24 provided drilling fluids, completion fluids  
25 -- this is in the contract. You're talking  
00029:01 about the contract, or are you talking about  
02 just the Macondo Well?  
03 Q. Did the contract cover more than  
04 just the Macondo Well?

05           A.       No. But it covered some  
06 services that weren't, I guess, rendered on  
07 the Macondo Well. You know, we didn't  
08 complete the well. There were no completion  
09 fluids, you know, in the well. So --  
10           Q.       No, that's okay.  
11           A.       I don't mean to --  
12           Q.       Yeah.  
13           A.       I don't mean to --  
14           Q.       Let's forget about the  
15 catastrophe for a moment. I just want the  
16 judge to understand --  
17           A.       Right.  
18           Q.       -- why BP hired you guys and  
19 what did BP expect you to do. That's where  
20 we are right now. So there's no catastrophe.  
21           A.       Right. Okay. We were there to  
22 provide drilling fluids, completion fluids,  
23 and waste management. And also, part of the  
24 contract was to provide wellbore cleanout  
25 tools. And along -- and along with that, you  
00030:01 know, of course, selling the products, we  
02 provide what we call mud engineering or  
03 drillings fluids -- drilling fluid  
04 specialist, completion fluids, completion  
05 fluid specialist, waste management service  
06 technicians, if you will, you know, to  
07 perform the work.  
08           Q.       Let's take those one at a time,  
09 because this is very important.  
10           A.       Yeah.  
11           Q.       All right. The first one, mud  
12 engineering specialist. Right?  
13           A.       Drilling fluid specialist,  
14 right.  
15           Q.       All right. You provide, in the  
16 form of a human being, somebody who has some  
17 expertise with regard to mud  
18 engineering/drilling fluids, correct?  
19           A.       Yes.

Page 31:07 to 31:23

00031:07           Q.       Oftentimes a distinction is made  
08 between a subcontractor who is employed to  
09 actually perform some work or some part of  
10 the work, like drilling --  
11           A.       Right.  
12           Q.       -- like cementing -- okay -- as  
13 opposed to someone who is there simply to be  
14 an advisor, to offer advice, to offer  
15 expertise, which can be accepted or rejected  
16 by the person with whom you've contracted.  
17 Okay? I'm trying to understand, or at least  
18 I'm trying to illustrate for the Court,

19 whether or not M-I SWACO is in the role of a  
20 subcontractor who's actually been employed by  
21 BP to perform the work for them, or is it  
22 more like you were there to provide expert  
23 assistance to them?

Page 32:02 to 32:18

00032:02 Q. You can answer.  
03 A. I'm just waiting for you to  
04 swallow that.  
05 Q. Thank you.  
06 A. No, I -- yeah, we're there to  
07 provide -- or -- like you said, a service.  
08 Q. Okay.  
09 A. Our guys perform the duties that  
10 I explained to you earlier, you know, running  
11 chemical analysis, you know, testing on the  
12 drilling fluids, and advising the customer of  
13 certain things like, We -- I think we need  
14 that -- to add this to get this property up,  
15 or, You need to order some more material.  
16 Just the general things that -- I'm trying  
17 to put this -- can you repeat the question so  
18 I -- so I'm sure that I. . .

Page 32:22 to 32:23

00032:22 THE WITNESS: Sorry. I just wanted to  
23 be sure --

Page 32:25 to 33:08

00032:25 Q. No, no, no. That's fair enough.  
00033:01 Because I want to -- I think this is  
02 important enough to explore this and your  
03 understanding.  
04 (Requested portion read.)  
05 THE WITNESS: I think we're there to  
06 perform some work, but we're also there to,  
07 you know -- to advise, if it's within the  
08 scope of our -- you know, our work.

Page 33:12 to 38:08

00033:12 Q. Sure. Now, with regard to the  
13 topic, I guess, is the best way to describe  
14 it, mud engineering or the fluid specialist,  
15 what kinds of work does that person do for BP  
16 that's different from offering expert advice?  
17 A. Right. Well, again, he performs  
18 the analysis on the fluids, you know, on a  
19 daily, hourly -- you know, whatever the

20 timeframe is, while he's -- while he's, you  
21 know, on the rig site. And I'm trying to. . .  
22 Q. All right. So he performs  
23 analyses which take the form of a written  
24 report?  
25 A. Right. And like you said --  
00034:01 right. Again, you're right. Prepares a  
02 report, hands that to BP.  
03 Q. And they take that information  
04 and do whatever they do with that?  
05 A. That's right. That's right.  
06 Q. All right. Now, what services  
07 does a mud engineering/drilling fluid  
08 specialist provide?  
09 A. What services?  
10 Q. Does he offer advice about what  
11 kind of mud to use in a particular  
12 circumstance? I'm guessing here.  
13 A. Yeah, I think -- I think he  
14 would. Or, you know, if we needed to adjust  
15 the properties of the fluid, he would offer  
16 advice on: Okay, this is the product that we  
17 would use to -- you know, meet that criteria  
18 of the customer.  
19 Q. All right. Now, in all  
20 instances with regard to services, does BP  
21 retain the authority to accept or reject the  
22 advice offered?  
23 A. That's the way I understand it.  
24 Q. Is there any time that a mud  
25 engineering/drilling fluid specialist can, on  
00035:01 his or her own, make a decision that's  
02 binding on BP in the context of what they've  
03 been hired to do?  
04 A. No, not at all. I think, you  
05 know -- we make suggestions, you know; BP  
06 makes the decisions.  
07 Q. Okay. And they have to approve  
08 everything that you've been asked to do; is  
09 that accurate?  
10 A. Absolutely.  
11 Q. All right. Now, we've covered  
12 mud engineering, drilling fluid specialist.  
13 And forgive me, because I did not write down  
14 the next person -- or the next type of  
15 service that's provided by your company.  
16 A. Okay. The next one would be  
17 our -- what we call our compliance  
18 specialist. And this person is there to --  
19 again, to perform some analysis on cuttings  
20 and to determine the amount of -- in this  
21 case, the mud or base oil that is attached to  
22 the cuttings, because there is a regulation,  
23 you know, that -- you may have heard that  
24 there's a limitation to what you can

25 discharge, you know, on cuttings overboard.  
00036:01 So this guy is there to do that analysis, you  
02 know, for BP. He maintains a database,  
03 presents a report to BP on a daily basis. He  
04 monitors those discharges so that we can help  
05 BP -- or should I say meet BP's requirements,  
06 along with the -- you know, the EPA  
07 requirement for discharge.

08 Q. Okay. Do you remember, as  
09 you're sitting here today, who that person  
10 was on this job?

11 A. Greg Meche was the -- one of  
12 them. I don't know the other one. We  
13 typically have one, you know, per -- per  
14 hitch, I guess.

15 Q. All right. Now, I may have  
16 misunderstood this, but are all the gentlemen  
17 that you described before, all of them are  
18 mud engineering/drilling fluid specialists,  
19 right?

20 A. Greg Meche wouldn't. He would  
21 be a compliance specialist.

22 Q. All right. So Jones, Manuel,  
23 and Haygood would have all been drilling  
24 fluid specialists?

25 A. I believe so.

00037:01 Q. Okay.

02 A. To the best of my knowledge,  
03 yes.

04 Q. All right. So we've got two  
05 down. Is there another type of service  
06 provided by your company? I think you  
07 mentioned --

08 A. I mean, we do -- we do have --  
09 we provide, like you said, what we call a  
10 waste management service, where we -- we have  
11 equipment out there. We have a cuttings  
12 dryer, you know, which certainly dries those  
13 cuttings, you know, to minimize the amount of  
14 fluid, you know, that is on the cuttings that  
15 is discharged. So we would have service  
16 technicians, probably two per hitch, if you  
17 will, out there.

18 I don't think they were out  
19 there at the time of the incident, because  
20 they had been sent in. But we would have --  
21 you know, on a normal operation while we were  
22 drilling, we would have two service  
23 technicians out there.

24 Q. So with regard to waste  
25 management we're talking about methods that  
00038:01 might be employed to control waste?

02 A. Some equipment, yeah, that was  
03 employed to control the -- you know, what we  
04 call the synthetic-based fluid on cuttings,

05 to minimize that.  
06 Q. And can you recall the person  
07 who was assigned to do that role?  
08 A. I don't know.

Page 39:02 to 39:02

00039:02 (Exhibit 2804 marked for the record.)

Page 39:08 to 39:14

00039:08 Q. Okay. You got it? All right,  
09 sir, do you -- have you seen this exhibit  
10 before?  
11 A. Yes.  
12 Q. What is it?  
13 A. This is our contract with BP for  
14 the Gulf of Mexico.

Page 45:07 to 50:25

00045:07 Q. Okay. 906. And that is page 16  
08 of 19 of the document for the record.  
09 A. Yes.  
10 Q. And this says Mud Loss  
11 Calculations.  
12 A. Um-hum (affirmative response.)  
13 Q. So help us understand how this  
14 works, if you -- if you can. I'm sorry.  
15 Withdraw the question.  
16 Is this the only section which  
17 deals with bonuses or penalties?  
18 A. In the contract, yes.  
19 Q. Are there other methods by which  
20 your company receives a bonus or suffers a  
21 penalty?  
22 A. Some of our people on the rig  
23 have received bonuses in the past. And I  
24 guess they would -- BP would call them safety  
25 bonuses, or something like that, where after  
00046:01 a particular job, BP would say, you know,  
02 These guys had a really good safety record,  
03 and we're pleased with them, and they would  
04 like to give them -- I don't know, I'm just  
05 using a number, I don't remember -- say a  
06 thousand bucks --  
07 Q. Sure.  
08 A. -- apiece. So they would ask us  
09 to invoice them plus the burden, you know, so  
10 that these guys would get a thousand bucks.  
11 And that's happened -- it's not on every  
12 well, but it has happened in the past.  
13 Q. All right. So this section

14 here, then -- we're talking about that --  
15 with regard to the contract, the written  
16 terms of the contract, it's your testimony  
17 that this Section 4.1.5, Mud Loss  
18 Calculations, End of Well, that's the section  
19 that would deal with bonuses and/or some  
20 penalties?

21 A. That's right.

22 Q. All right. And if you'll  
23 forgive me, I interrupted your answer to my  
24 question, which was: How does this work?

25 A. This was something that BP, you  
00047:01 know, put into the contract. And the way  
02 it -- the way it works, I -- from what I  
03 remember, you see there's three categories:  
04 Sidetrack well, development well, exploration  
05 well, and there's some -- so those are the  
06 types of well, you know. First, you have to  
07 understand that those are the types of wells  
08 we're looking at.

09 And then there's some ranges of  
10 mud loss, you know, categories. If you look  
11 at the sidetrack well, for instance, it's  
12 5001 to 1,000, you know, or 1,000 to 3,000,  
13 and then so on. So those those are the  
14 categories.

15 And then right below that is, of  
16 course, whether or not the -- they call the  
17 reduction or the bonus would be paid. And  
18 while the well is drilling -- while the well  
19 is drilled, there are times when, you know,  
20 certainly you lose circulation, you lose  
21 fluid. What BP has done, I think, to come up  
22 with these ranges or these numbers, they  
23 looked at historical data, probably over the  
24 last, I don't know -- at that time of this  
25 contract, I think it was in 2008, they went  
00048:01 back probably five or six years. I don't  
02 remember the exact time. But look at  
03 historical data on all of the wells that they  
04 had drilled, whether they were sidetrack,  
05 development wells, or exploration wells, and  
06 came up with this range of losses.

07 And so at the end of the well,  
08 you know we would determine, you know, how  
09 much mud was lost, and again, it would fall  
10 into that category, and then you were  
11 either -- you either had to give that  
12 additional discount on that fluid or you  
13 would pay the bonus.

14 Q. Okay. Well, Macondo was an  
15 exploration well, right?

16 A. Yes.

17 Q. Okay. So we would look at the  
18 third --

19 A. Um-hum (affirmative response).  
20 Q. -- line. And so to be precise,  
21 if the losses exceeded 3,000 barrels, you  
22 would get -- you'd have to -- I'm sorry. If  
23 the losses were less than 3,000. . .  
24 A. You would get a bonus.  
25 Q. Or if they were between 3,000  
00049:01 and 5000? I don't understand the second  
02 column.  
03 A. The second column, if they  
04 were -- if it was between 3,001 and 5,000  
05 barrels, that would be -- there would be no  
06 bonus or no malice, you know, no --  
07 Q. Oh, I see. Okay. And then if  
08 it was 5,000 to 7,000, it would be a 10  
09 percent reduction?  
10 A. Right.  
11 Q. How much control does your  
12 company have with regard to the services and  
13 products that it provides over how much loss  
14 of mud might be experienced on a particular  
15 exploration well?  
16 A. We really don't have much  
17 control at all.  
18 Q. Well, I -- and again, I'm not --  
19 I don't know --  
20 A. Yeah.  
21 Q. -- half of what you know. Not  
22 even a tenth. Why on earth do you suspect  
23 that BP would pay a bonus to you for  
24 something over which you have no control?  
25 A. At the time, we had that very  
00050:01 similar discussion with the people at BP,  
02 you know, over that -- this same topic. I  
03 think -- I think they felt that if there was  
04 some sort of prize, if you will, to lose less  
05 mud, that maybe we would work harder, you  
06 know, to monitor things and suggest, you  
07 know, products and services that would help  
08 minimize these, you know, but. . .  
09 Q. Let's walk through this again so  
10 the record can be as complete as I can -- I  
11 can make it.  
12 As you're drilling the  
13 exploratory well, there are times when mud's  
14 just lost in the -- in the formation?  
15 A. Well, you encounter a formation  
16 that takes mud, yes.  
17 Q. Okay. And then when that  
18 occurs, what can be done to prevent that from  
19 happening?  
20 A. Then we would apply some type of  
21 product to try to cure those losses.  
22 Q. Okay. And those products are  
23 generally called what?

24           A.       Lost-circulation products -- or  
25 lost-circulation material.

Page 55:16 to 56:13

00055:16           Q.       Okay. All right. Well, help me  
17 understand. What kinds of information would  
18 cause you, your company, M-I SWACO, to  
19 believe that there would be a need to have  
20 premixed loss control materials in the pits  
21 ready to go?

22           A.       That would be information -- I  
23 guess geological information or off -- as I  
24 would call it, offset well information or  
25 just geological knowledge, you know, of what  
00056:01 we were, you know, going to be drilling into.  
02 It could be from seismic or whatever, I --  
03 you know, from another well. I don't know.  
04 I mean, that would -- that would come from  
05 BP.

06           Q.       Okay. All right. So then to  
07 kind of sum this up, the decision to  
08 recommend that there be premixed loss control  
09 materials in the pits ready to be injected  
10 into the well is based upon information  
11 provided to you from BP with regard to the  
12 nature of the formation that you're drilling  
13 into. Is that accurate?

Page 56:15 to 56:15

00056:15 THE WITNESS: I think so.

Page 59:15 to 62:06

00059:15           Q.       Okay. We were -- we were  
16 talking about Section 4.1.5, Mud Loss  
17 Calculations, and I think in the context of  
18 some of these questions, I had been using the  
19 phrase "loss control material," and I meant  
20 to say "lost-circulation material." In any  
21 case, what you've indicated is that this  
22 bonus/penalty section wasn't your company's  
23 idea?

24           A.       No, sir, it wasn't.

25           Q.       That was BP's idea, right?

00060:01           A.       That's correct.

02           Q.       Now, you obviously do business  
03 with other large companies, and I think that  
04 you referenced Shell. Does your contract  
05 with Shell have a similar bonus/penalty  
06 section in it?

07           A.       No, it doesn't.

08 Q. Do you have a contract with any  
09 major oil company that has a bonus/penalty  
10 section in it? Other than BP, obviously.  
11 A. None that I am aware of.  
12 Q. When your company was first  
13 presented with this contract which contained  
14 the loss/penalty provision, was there some  
15 discussion in your company as to whether or  
16 not to accept such a provision?  
17 A. Yes.  
18 Q. And when did that occur? When  
19 is it that you can remember?  
20 A. From what I recall, BP had -- we  
21 had discussions prior to the tender of the  
22 contract even coming out about -- they asked  
23 us to enter in that discussion, you know, on  
24 would we be comfortable with, you know, this  
25 type of arrangement and what maybe the -- I  
00061:01 guess the loss categories, the amounts, you  
02 know, what we thought would be -- would be  
03 agreeable, you know.  
04 Q. Right.  
05 A. And I was involved in that -- in  
06 some of those discussions. And we -- I guess  
07 as a company, we didn't really like this, you  
08 know, because there are times on a well when  
09 you have no control over losses, when, in  
10 fact, at some times, an operator may elect to  
11 drill ahead with losses. And, of course, you  
12 know, that's their call.  
13 And we brought that to their  
14 attention, and they indicated that, Well,  
15 after the -- you know, after the well was  
16 over with, we would go back and sort of talk  
17 about that, you know, and maybe decide, well,  
18 you know, we lost this much, but we really  
19 wanted to drill ahead with those losses, so  
20 we would deduct that, you know, from the  
21 amount. So. . .  
22 Q. I see. Was there any concern  
23 within your company that such a provision  
24 might put pressure on your employees on the  
25 rig? And by "pressure," I mean any kind of  
00062:01 pressure. Good pressure, bad pressure.  
02 A. No. No. I mean, that -- it may  
03 have been -- how should I say -- implied, but  
04 it -- but we certainly never discussed that,  
05 you know, talked about that with our  
06 employees.

Page 63:17 to 64:03

00063:17 Q. All right. Now, you know,  
18 Mr. Billon, that the -- we're all here to  
19 talk about the use of the lost-circulation

20 materials as a spacer.  
 21 A. Right.  
 22 Q. Okay. And I think we -- there's  
 23 no factual disagreement over how that came to  
 24 be. And that is, that employees of your  
 25 company made a suggestion to BP to use  
 00064:01 certain lost-circulation materials as a  
 02 spacer; isn't that true?  
 03 A. That is correct.

Page 64:14 to 65:12

00064:14 Q. Is there anything in this  
 15 contract which motivated your employees to  
 16 make the suggestion to use the  
 17 lost-circulation materials as a spacer to  
 18 deal with this waste in the way that they had  
 19 proposed? Let's do it that way.  
 20 A. I think there's some comments --  
 21 and I don't -- I don't know if I can put my  
 22 finger on it. But I think under the  
 23 performance, I think it talks about they  
 24 would like us to make every bit of a best  
 25 effort to minimize waste.  
 00065:01 And I think that's what our --  
 02 you know, our employees were complying with,  
 03 you know, they were -- we were -- BP always  
 04 encouraged a lot of their employ- -- well, a  
 05 lot of their contractors and -- and as I've  
 06 worked with them, to come up with ideas.  
 07 They called it innovation or incremental  
 08 benefit, you know, ideas which would -- could  
 09 certainly minimize waste. They were big  
 10 proponents of lessening the discharge into  
 11 the sea, you know, certainly from the  
 12 drilling rig.

Page 66:09 to 66:24

00066:09 Q. If you'll look at page 6 of 25,  
 10 at Bates page 974, I think we'll find the  
 11 section that you alluded to just a few  
 12 moments ago.  
 13 A. 74?  
 14 Q. Yes. Under 12.0? Is that the  
 15 correct section?  
 16 A. I'm looking at it now. Yes.  
 17 Q. All right. First of all, the  
 18 lost-circulation materials themselves, okay,  
 19 which were recommended to be used as a  
 20 spacer, would you regard that -- "you" being  
 21 your company, would you regard that as M-I  
 22 SWACO waste, or would you regard that as BP's  
 23 waste?

24           A.       It's absolutely BP's waste.

Page 67:14 to 68:01

00067:14       Q.       Okay. But going back to the --  
15 to your suggestion, what, if any, of these  
16 sections would be applicable to the  
17 suggestion made by your employees to use the  
18 lost-circulation materials as a spacer, if  
19 any at all?

20       A.       I don't -- I don't think  
21 anything in this section.

22       Q.       Okay. So this is -- I'm in the  
23 wrong section.

24       A.       Well, you're in the wrong  
25 section. I mean, it certainly ties to it.

00068:01 But let me -- give me a minute to --

Page 68:13 to 69:18

00068:13 VIDEO SPECIALIST: We're on the record  
14 at 9:59.

15 BY MR. BRUNO:

16       Q.       Thank you, Mr. Billon. Have you  
17 found it?

18       A.       Yes. If you look at -- I think  
19 it's 877, in Section 3 of the Scope of Work,  
20 Appendix 5.

21       MR. HAYCRAFT: Bates range was 877?

22       THE WITNESS: Yes.

23 BY MR. BRUNO:

24       Q.       In the instance that we may be  
25 looking at this document in standalone, it's  
00069:01 Section 3, Appendix 5, page 36 of 49; is that  
02 right?

03       A.       Yes.

04       Q.       Okay. So where are we looking?

05       A.       We're looking -- there's two  
06 pieces. 9.3.7.

07       Q.       Okay.

08       A.       It says, "Accurate recording and  
09 documenting the solid and fluid waste streams  
10 produced from the well. Contractor rig site  
11 personnel will work proactively with company  
12 and third-party personnel to minimize waste  
13 disposal volumes and cost."

14               And if -- then if we go down to  
15 9.3.17, that would just be, "Anticipates  
16 material movement, works closely with solids  
17 control personnel and mud engineer to reduce  
18 waste."

Page 69:24 to 70:11

00069:24 Q. Now, in this -- these are --  
 25 these are requirements placed upon M-I SWACO  
 00070:01 by BP through this contract?  
 02 A. Right.  
 03 Q. Now, let me just confirm -- and  
 04 we may have already, but this is a contract  
 05 that was drafted by BP and presented to your  
 06 company; is that accurate?  
 07 A. That's correct.  
 08 Q. So your options were to accept  
 09 or reject the contract as written or  
 10 renegotiate, correct?  
 11 A. Right.

Page 70:23 to 71:17

00070:23 Q. Understood. Did your company  
 24 have an opportunity to change the language of  
 25 the contract?  
 00071:01 A. We didn't have the opportunity  
 02 to change it. Now, we could have taken  
 03 exception to anything, you know, certainly,  
 04 and discussed that with BP. We did not take  
 05 any of these things as exceptions.  
 06 Q. Okay. So that you understood  
 07 and accepted that the contract required you  
 08 to anticipate material movement and to work  
 09 closely with solids control personnel and the  
 10 mud engineer to reduce waste?  
 11 A. Right.  
 12 Q. All right. And the other thing  
 13 that you were required to do was to  
 14 accurately record and document the solid and  
 15 fluid waste streams produced from the well,  
 16 which you-all did?  
 17 A. Right.

Page 71:25 to 74:25

00071:25 Q. All right. So you work  
 00072:01 proactively with the company and third-party  
 02 personnel to minimize waste disposal volumes  
 03 and cost. So you want to, obviously -- we  
 04 all want to reduce cost to the extent that we  
 05 can.  
 06 A. Sure.  
 07 Q. Okay. Now, so let's go back to  
 08 where we started here, which is this whole  
 09 business of the recommendation to use these  
 10 loss control materials as a spacer. Did I do  
 11 it again?  
 12 MS. SCOFIELD: Yes.  
 13 BY MR. BRUNO:

14 Q. I apologize. I'm reading --  
15 I'm actually reading it, because I wrote a  
16 note. My brain wants to say "control." I'll  
17 say L -- how about I say LCM? Okay.

18 A. That's fine, yeah.

19 Q. Now, this would not -- whether  
20 the material went onshore or whether the  
21 material went down through the well, that  
22 would not reduce the waste; isn't that true?

23 A. Well, had we had to have built  
24 another spacer, that would have been  
25 additional volume that would have gone  
00073:01 certainly overboard. Do you follow me?

02 Q. I follow you. And I just never  
03 heard -- do you believe that that was one of  
04 the motivators to this suggestion, that we  
05 had this stuff, and we could use this stuff  
06 versus building another spacer?

07 A. I think it could have been one  
08 of them.

09 Q. All right. And did this  
10 suggestion reduce costs?

11 A. Only the cost of building  
12 another spacer.

13 Q. All right. So the cost of using  
14 the material as a spacer versus sending it  
15 onshore for disposal were the same?

16 A. No, no. I should said the cost  
17 of using a new spacer, plus whatever disposal  
18 cost would be, which I don't -- I wouldn't  
19 know what that would be.

20 Q. Okay. All right. But again --  
21 and forgive me -- I don't want to be appear  
22 to be beating a dead horse here, but I do  
23 want to make this as crystal clear as we can.  
24 If we hadn't used the lost-circulation  
25 material, the LCM, as a spacer, what will we  
00074:01 have to do with that material in order to  
02 dispose of it?

03 A. My understanding, we would have  
04 had to put it in some sort of a vessel or  
05 tank, put on a boat and taken to shore to be  
06 disposed of.

07 Q. Is that expensive?

08 A. I don't know what you would  
09 categorize as expensive, but. . .

10 Q. Do we have some sense of what  
11 that would have cost?

12 A. Usually BP handles all of that  
13 because it is their waste. We never get  
14 involved. I couldn't -- I couldn't give you  
15 a number or couldn't give you an idea of what  
16 that would cost. I just don't know.

17 Q. Is it your company's position  
18 that the suggestion was made to reduce cost

19 to BP?  
 20 A. Repeat that again.  
 21 Q. Is it your company's position  
 22 that the suggestion was made in the first  
 23 instance; that is, to use the  
 24 lost-circulation material as a spacer, that  
 25 that was done in order to reduce cost to BP?

Page 75:02 to 75:03

00075:02 THE WITNESS: I don't think we have a  
 03 position on that.

Page 75:05 to 75:20

00075:05 Q. Okay. And you see why --  
 06 A. Yeah.  
 07 Q. You weren't finished. Go ahead.  
 08 A. Because we just don't know.  
 09 Q. All right. Well, what was the  
 10 motivation?  
 11 A. After talking to our project  
 12 engineer and the people on the rig, from what  
 13 I gather, from what they've told me, that the  
 14 motivation was what they considered  
 15 beneficial readings, you know. It was using  
 16 something that was there that, you know,  
 17 just -- it just made sense, you know.  
 18 Q. And with whom did you discuss  
 19 this issue?  
 20 A. I've talked to Doyle Maxie.

Page 77:14 to 77:17

00077:14 Is it your company's position  
 15 that no bonus and/or penalty motivated the  
 16 decision to use the lost-circulation material  
 17 as a spacer?

Page 77:19 to 77:20

00077:19 THE WITNESS: I don't know that,  
 20 either.

Page 77:22 to 78:06

00077:22 Q. Did the use of the  
 23 lost-circulation material as a spacer  
 24 entitle, in your company's opinion, your  
 25 company to receive a bonus?  
 00078:01 A. No.  
 02 Q. And if your company had not

03 suggested the use of a lost-circulation  
04 material to be used as a spacer, do you  
05 believe that your company would have been  
06 penalized in any way?

Page 78:08 to 78:08

00078:08 THE WITNESS: I don't think so.

Page 79:22 to 80:10

00079:22 Q. What is your understanding of  
23 your indemnity obligation to BP?  
24 A. My understanding is, I guess --  
25 I'm not a lawyer, but it is my understanding  
00080:01 that we have -- with respect to personal  
02 injury and/or death, we have basically a  
03 naught for naught type agreement, where we're  
04 responsible for our people, BP is responsible  
05 for theirs, right? And so that -- you know,  
06 with respect to personal injury and, you  
07 know, death.  
08 Now, with respect to pollution  
09 and/or property damage, it is our  
10 understanding that BP is responsible.

Page 81:12 to 81:17

00081:12 Q. Okay. That's all right. You  
13 also -- I think it's the company's position  
14 that you have no obligation to indemnify BP,  
15 pay money to them, for any monies that they  
16 have to pay for environmental loss, cleanup,  
17 or environmental damage?

Page 81:19 to 81:19

00081:19 THE WITNESS: That is my understanding.

Page 89:13 to 89:25

00089:13 Q. All right. Number 10, "The  
14 existence, nature, scope, contents and  
15 results of discussions, evaluations and/or  
16 analysis regarding the decision to mix  
17 batches, or pills, of lost-circulation  
18 materials, including, but not limited to,  
19 mixed lost-circulation material pills, to be  
20 used as spacer materials, as well as the  
21 suitability of the LCM material being used as  
22 a spacing material or space pill."  
23 Obviously you've been designated

24 to speak about that.  
25 A. Yes.

Page 92:09 to 92:16

00092:09 Q. When would you have been made  
10 aware of the need for a spacer?  
11 A. It would be at some time before  
12 we actually, you know, use a spacer. I mean,  
13 I don't know how far ahead of time. In this  
14 case, I think if you look at the e-mails and  
15 things, I mean, it was discussed several days  
16 beforehand.

Page 93:10 to 93:14

00093:10 Q. Well, I mean, what did your  
11 company think was going to be done in the  
12 first instance that would have required a  
13 spacer at all?  
14 A. Okay. So are --

Page 93:16 to 94:14

00093:16 THE WITNESS: Are you saying that what  
17 would -- what would have been just the  
18 standard knowledge knowing that we're going  
19 to get off of this well? At some point, BP  
20 was going to ask us to prepare a spacer and  
21 to provide it them, and they were going to  
22 displace the mud out of the well.  
23 BY MR. BRUNO:  
24 Q. Yes. So how would -- how does  
25 that normally occur?  
00094:01 A. That would be communicated to  
02 our drilling fluid specialist on the rig site  
03 and maybe to our project engineer in the  
04 office. Not always. I mean, typically these  
05 displacement procedures and things are, a lot  
06 of times, from my experience and from what  
07 I've read, are handled at the rig site.  
08 Q. Okay.  
09 A. You know.  
10 Q. So do I gather that there's not  
11 a written plan in advance that would describe  
12 the displacement procedure in order for -- in  
13 order to accomplish the temporary  
14 abandonment?

Page 94:16 to 95:10

00094:16 THE WITNESS: I think BP would have to  
17 provide us with information so we can draft

18 up, you know, a plan, if you will, or, you  
 19 know, sort of a step by step description of  
 20 what would occur.

21 BY MR. BRUNO:

22 Q. All right. Well, do you know --  
 23 what did BP provide you with regard to what  
 24 they intended to do to accomplish a temporary  
 25 abandonment of that well?

00095:01 A. I would assume they talked to  
 02 Leo Lindner our drilling fluid specialist at  
 03 the -- you know, who was out there at the  
 04 time. They communicated to him, and I don't  
 05 know in which way, on, you know, what they  
 06 were going to do.

07 Q. Well, in your experience, is  
 08 it -- is it normal to do a negative pressure  
 09 test in the same operation that you would  
 10 perform the displacement of the riser?

Page 95:12 to 95:21

00095:12 THE WITNESS: I have asked that  
 13 question of a lot of our -- you know, our  
 14 people that work, and I -- I don't know  
 15 whether you would say it was normal, but I  
 16 couldn't -- I couldn't find anyone, except  
 17 for BP, on the Horizon that possibly -- that  
 18 has done that before. And it was indicated  
 19 to me that they had done that several times  
 20 on prior wells, you know, on the Horizon.  
 21 BY MR. BRUNO:

Page 97:09 to 97:15

00097:09 Q. All right. So are you telling  
 10 me that you're not really interested in  
 11 whether or not BP is doing a displacement at  
 12 the same time that they're doing a negative  
 13 pressure test or in conjunction with any  
 14 other procedures? That's not your concern.  
 15 Is that accurate?

Page 97:17 to 98:05

00097:17 THE WITNESS: I don't think -- well,  
 18 you say we weren't interested. I mean, sure  
 19 we're interested in everything that goes on  
 20 out at the rig site. But it's not our --  
 21 it's not our call, it's not our decision. We  
 22 work as directed.  
 23 BY MR. BRUNO:

24 Q. All right. So what you're  
 25 telling me is, it's -- even though you're

00098:01 there in a support capacity, it is not within  
 02 the expectation of BP for you to comment on  
 03 whether or not it is appropriate to displace  
 04 the riser and do a negative pressure test at  
 05 the same time; isn't that true?

Page 98:07 to 98:08

00098:07 THE WITNESS: Yeah, that's out of the  
 08 scope of our know- -- you know, our work.

Page 98:10 to 99:13

00098:10 Q. Okay. All right. I understand  
 11 that. Now, so how do you know how much  
 12 spacer is required to do whatever it was that  
 13 BP intended to do in order to temporarily  
 14 abandon that well?

15 A. I think typically -- you know,  
 16 and I've had the experience myself. To  
 17 displace the wellbore and certainly the  
 18 riser, which is a fairly large diameter, that  
 19 you would like, you know, 200, plus or minus,  
 20 barrels, at least, you know.

21 And as far as the volume goes,  
 22 really -- I don't think they could really be  
 23 too much. I mean, if you -- as you're  
 24 probably going to ask, you know, was  
 25 400 barrels too much? I don't think so. As

00099:01 a matter of fact, the larger size of the  
 02 spacer probably would have helped clean the  
 03 riser and probably saved some time cleaning  
 04 it out later, prior to the completion.

05 Q. Well, that's really not where  
 06 I'm going, to be perfectly candid with you.  
 07 Because it's more like this. If you have  
 08 personnel who are accustomed to doing a  
 09 procedure in a certain way, if, as you've  
 10 told me, 200 barrels is generally what they  
 11 use, then wouldn't it logically follow if the  
 12 folks who were doing the procedure would  
 13 expect that they'd be using 200 barrels?

Page 99:15 to 100:13

00099:15 THE WITNESS: Not necessarily. I mean,  
 16 generally we would communicate to them that  
 17 we're going to use more, you know, this time,  
 18 and. . .

19 BY MR. BRUNO:

20 Q. Who would you communicate to?

21 A. I think our mud engineer would  
 22 communicate to -- well, certainly BP would

23 have approved this procedure, first of all.  
 24 And they would communicate to probably the  
 25 Transocean hands, because they are -- you  
 00100:01 know, the rig hands are the guys that turn  
 02 the valves and do everything. We don't -- we  
 03 don't do anything like that.  
 04 Q. Right. Well, you see where I'm  
 05 going with this. I'm just trying to  
 06 understand.  
 07 A. Yeah.  
 08 Q. Whether 400 is too much or too  
 09 little or whatever. . .  
 10 A. Um-hum (affirmative response).  
 11 Q. You would agree with me that the  
 12 way it's normally done is, it's about  
 13 200 barrels, or close to that?

Page 100:15 to 100:18

00100:15 THE WITNESS: Give or take.  
 16 BY MR. BRUNO:  
 17 Q. Give or take. But not -- you  
 18 know, not double or triple.

Page 100:20 to 101:18

00100:20 BY MR. BRUNO:  
 21 Q. Right?  
 22 A. In some cases, it could be.  
 23 Q. It could be. But generally  
 24 speaking --  
 25 A. Generally speaking, yes.  
 00101:01 Q. If -- like as you've candidly  
 02 told me, if you were to ask a Transocean hand  
 03 or a Shell person, give me an idea of how  
 04 much spacer you would need to displace the  
 05 drilling fluids on a -- you know, on a rig  
 06 like this, they would probably say about  
 07 200 barrels, more or less, right?  
 08 A. Right.  
 09 Q. Okay. And the -- and the volume  
 10 of the material would obviously have some  
 11 impact on how long to pump, so that you know  
 12 where this material is in the well, right?  
 13 A. Right.  
 14 Q. Because if you have a larger  
 15 volume or a lesser volume, that would  
 16 influence where the material ended up in the  
 17 well depending upon the pump time, right?  
 18 A. That's correct.

Page 102:13 to 103:14

00102:13 So do you agree with me that  
 14 this exercise, for lack of a better  
 15 descriptor, is something that should have  
 16 been written down, should be a writing  
 17 somewhere that would say, we're pumping this  
 18 much material and so many strokes, etcetera,  
 19 etcetera, etcetera?  
 20 A. Absolutely.  
 21 Q. Okay. And you would also agree  
 22 with me that that should -- writing should  
 23 have been communicated to all of the drilling  
 24 folks, people who were actually operating the  
 25 pumps, so forth and so on?  
 00103:01 A. Absolutely.  
 02 Q. And insofar as your company is  
 03 concerned, you don't go forward with this  
 04 procedure unless and until it is approved by  
 05 BP?  
 06 A. You're correct.  
 07 Q. Now, how -- forgive me. What is  
 08 the evidence of an approval? In other words,  
 09 do you need a signature? Do you need a  
 10 handshake? Do you need a verbal? What  
 11 generally do you accept as an approval for a  
 12 procedure?  
 13 A. I would expect that if BP  
 14 followed this procedure, they approved it.

Page 105:14 to 106:12

00105:14 Q. And -- okay. Let's just locate  
 15 it first. He's telling me we have very  
 16 little tape left. Take a quick look at  
 17 Document M-I 18685.  
 18 A. 18685.  
 19 Q. Got it?  
 20 A. Got it.  
 21 Q. Have you ever seen that before?  
 22 A. Yes, I have.  
 23 Q. What is it?  
 24 A. It is a document, I guess -- I  
 25 would assume it was produced by our mud  
 00106:01 engineer, or at least written up, describing  
 02 the displacement.  
 03 Q. And when?  
 04 A. I don't see a date on this one,  
 05 so I. . .  
 06 Q. Do we know whether or not this  
 07 was prepared before the catastrophe?  
 08 A. I would assume it was prepared  
 09 before, because it exists. You know, I. . .  
 10 MR. BRUNO: We're going to mark it as  
 11 2805 and then break for the tape change.  
 12 (Exhibit 2805 marked for the record.)

Page 106:25 to 108:08

00106:25 Q. 2805. All right. Did you see  
 00107:01 there's a cover page on this document? If  
 02 you'll just flip it over.  
 03 A. Yes.  
 04 Q. All right. Does that look at  
 05 all familiar to you?  
 06 A. I haven't seen this cover page.  
 07 Q. All right. Okay. So now we've  
 08 got this document, and we agree that it's a  
 09 written procedure for the -- is it Rheliant?  
 10 A. Yes, Rheliant.  
 11 Q. -- material. So to kind of  
 12 retread some old ground just for a second. . .  
 13 so your testimony is that ordinarily when you  
 14 reach this point in the drilling, and it's  
 15 time to do the displacement procedure, there  
 16 will be a document like this created?  
 17 A. Yes.  
 18 Q. Okay. And the document will be  
 19 reviewed with BP and with the drilling  
 20 personnel?  
 21 A. Yes.  
 22 Q. Okay. Now, does SWACO have a  
 23 procedure which would allow its employees to  
 24 know what it is that they are supposed to do  
 25 with regard to writing down their procedures?  
 00108:01 MS. SCOFIELD: Object to the form.  
 02 THE WITNESS: No, I don't think we have  
 03 a specific procedure. I think this is  
 04 something that is probably put together by  
 05 the guys on the rig site, having worked with  
 06 BP in the past, decided that this is the --  
 07 this is the format, if you will, that, you  
 08 know, the customer likes to see it in.

Page 108:10 to 112:08

00108:10 Q. All right. So, again, you've  
 11 kind of anticipated my question. So is it  
 12 true that your company doesn't train its  
 13 employees to create a writing to describe the  
 14 procedure like the displacement procedure  
 15 that we have on the table before us?  
 16 MS. SCOFIELD: Object to the form.  
 17 THE WITNESS: I would say that our  
 18 employees are capable and trained enough to  
 19 prepare this document, but some of the items  
 20 in this -- in this document don't pertain to  
 21 M-I, like a couple of the -- or the one we're  
 22 looking at now that talks about the negative  
 23 test.  
 24 BY MR. BRUNO:

25 Q. Well -- and that's exactly why  
00109:01 I'm asking these questions. Why, if that's  
02 so, is this document on your company's  
03 stationery?  
04 MS. SCOFIELD: Object to the form.  
05 THE WITNESS: I think the reason it is,  
06 is because this is the -- I guess our guys  
07 had a template, if you will, and they  
08 attached a logo to a lot of things, you know,  
09 on our -- on our company laptops.  
10 BY MR. BRUNO:  
11 Q. Is it -- is it because of the  
12 fact that your company made the  
13 recommendation to use the lost-circulation  
14 material as a spacer that caused them to  
15 prepare this written procedure, or do they  
16 always prepare a written procedure for the  
17 displacement?  
18 A. I think in most cases, they  
19 would always prepare a procedure, you know,  
20 or assist the client, or customer, BP in this  
21 case, with a -- you know, a procedure.  
22 Q. All right. But we don't know  
23 why the job fell to SWACO to actually do the  
24 document, do we?  
25 A. No.  
00110:01 Q. Who should do the document?  
02 A. Well, I'm not here to give you  
03 my opinion, but --  
04 Q. I'm entitled to it,  
05 unfortunately. Nobody wants my opinion, so,  
06 you know...  
07 A. Yeah. Yeah.  
08 Q. I'll take yours.  
09 A. But, again, our -- you know,  
10 workers, or our drilling fluid specialists,  
11 again, try to assist the customer, you know,  
12 in any way they can. And in my experience in  
13 the past, and, you know, I've done these jobs  
14 before, that it's -- again, it's probably  
15 a -- something that our guys can assist and  
16 help BP do, you know, just in the way of  
17 trying to -- you know, trying to help the  
18 well site leader out and, you know, say, Hey,  
19 I can write this up for you, you know, and  
20 distribute it to the -- to the rig crew, you  
21 know, prior to the displacement.  
22 Q. Okay. All right. Well, let's  
23 walk through this procedure.  
24 A. Um-hum (affirmative response).  
25 Q. There's two components to it.  
00111:01 At the top, it says -- well, the title of it  
02 is BP/Deepwater Horizon Rheliant Displacement  
03 Procedure Macondo OCS-G 32306, and then  
04 there's numbers 1 through 6. Right?

05           A.       Right.  
06           Q.       And then below that, there is a  
07 subtitle called Displacement. And then there  
08 are another nine elements. Right?  
09           A.       Right.  
10           Q.       Okay. All right. So the first  
11 sentence says, "Before displacing the  
12 seawater, conduct a think drill with all."  
13           A.       Um-hum (affirmative response.)  
14           Q.       What's that?  
15           A.       I -- that's a term I believe BP  
16 uses now, or Transocean. I'm not sure. I  
17 haven't heard of that term, you know, prior  
18 to seeing this document a while back. But  
19 what it is, it's where they -- just sort of  
20 like a meeting with all the parties involved  
21 and everyone sort of, you know, thinks about  
22 what they're planning to do. And if anyone  
23 has any objections or, you know -- or  
24 concerns, they need to -- they need to say --  
25 you know, need to talk about it.  
00112:01       Q.       Okay. All right. But, you  
02 know, again, what's a little confusing, for  
03 me at least, is that your company's preparing  
04 the document and incorporating other  
05 companies' procedures, right?  
06           MS. SCOFIELD: Object to the form.  
07           THE WITNESS: We're preparing at the  
08 direction of BP.

Page 112:19 to 115:20

00112:19       Q.       Okay. Let's go to No. 2.  
20 "Remember it's very important that we must  
21 avoid trapping SBM in pits, pumps, lines and  
22 hole. We will displace SBM from all four mud  
23 pumps, both stand pipes, choke, kill, boost  
24 lines, casing and riser." What is SBM?  
25           A.       Synthetic-based mud, which would  
00113:01 be the Rheliant. That's our trademark in the  
02 system.  
03           Q.       Now, do I gather that that is,  
04 then, M-I SWACO'S directive, or is that the  
05 directive of BP and/or is it the directive of  
06 Transocean?  
07           A.       I would think it's sort of a  
08 standard procedure, and it's -- every -- all  
09 parties involved understand, you know --  
10 Transocean understands that, you know, they  
11 don't want to leave any mud in one of the  
12 pumps. In other words, when you displace  
13 with water, you want to -- you want to flush  
14 out everything, all of the equipment. You  
15 doesn't want to leave mud trapped somewhere  
16 like he's suggesting.

17 Q. All right. So is this kind of  
18 information that SWACO would have, based upon  
19 its experience in the field, and would know  
20 to include in the procedure?  
21 A. Absolutely, it is.  
22 Q. All right. Number 3, "Pump  
23 excess volume to BANKSTON, and have boat on  
24 starboard with mud hose on her." What are  
25 they were referring to when they say "excess  
00114:01 volume"?  
26 A. Well, on some rigs, there's not  
27 enough surface capacity to hold the volume of  
28 the riser, you know, the volume of  
29 synthetic-based mud in the riser. So as you  
30 displace, you're going to have to move some  
31 mud to the boat, you know, or somewhere.  
32 Q. In fact, is that what occurred?  
33 Did they pump the excess volume to the  
34 BANKSTON, or did they, if fact, just bypass  
35 the pits and go straight to the BANKSTON?  
36 A. From what I -- from what I  
37 understand, they pumped it out of the pits to  
38 the BANKSTON. That's what -- from what I --  
39 from what I've seen.  
40 Q. It wasn't excess, it was in and  
41 out?  
42 A. What do you mean?  
43 Q. In other words, as the material  
44 went into the pits, it went straight to the  
45 BANKSTON?  
46 A. I don't know that.  
47 Q. Well, am I reading this --  
48 A. There's --  
49 Q. -- correct -- I'm sorry. I  
00115:01 didn't mean to interrupt you.  
50 A. No, no. I was just -- I was  
51 explaining myself a little bit. There are  
52 many pits on these rigs. They're what we  
53 call active pits and then the reserve pits.  
54 I'm not sure whether they displaced into the  
55 active pits, and then as the fluid moved down  
56 into the reserve pits, then it was pumped to  
57 the boat.  
58 Q. Right. And that's exactly what  
59 I was trying to learn, because I wanted to  
60 know whether or not they -- that this  
61 directive, at least -- let's forget about  
62 what occurred.  
63 A. Yeah.  
64 Q. What this directive says is that  
65 once you fill up the pits, then you start  
66 pumping your excess volume to the BANKSTON.  
67 A. That's what -- that's the way I  
68 read it, yes.

Page 117:14 to 118:17

00117:14 Q. Okay. "Line up on sea chest."  
 15 What does that mean?  
 16 A. That is -- that's a common term  
 17 in the oilfield. It just -- they've got a  
 18 pump suction in the -- in the ocean, and  
 19 that's what's called the sea chest.  
 20 Q. Okay. All right. "Build  
 21 425 barrels WBM spacer in Pit No. 5 and use  
 22 Duo-Vis to thicken up." What is WBM?  
 23 A. Water-based mud.  
 24 Q. And the 425 barrels, do you know  
 25 where that came from? Why was it 425?  
 00118:01 A. I believe it was a combination  
 02 of the two, Form-a-Squeeze and the Form-a-Set  
 03 pills, that volume, you know, combine those  
 04 two and -- into Pit 5 and then use some  
 05 Duo-Vis to thicken it up.  
 06 Q. All right. So you think that  
 07 this 425 because when you add up what was  
 08 left of the Form-a-Set and Form-a-Squeeze --  
 09 A. Right.  
 10 Q. -- you've got 425?  
 11 A. I think pretty close. I'm not. . .  
 12 Q. Well, I mean, was the idea, do  
 13 you know, sir, that SWACO was going to use  
 14 all of the Form-a-Set and Form-a-Squeeze that  
 15 was in the pits and available, or were they  
 16 using certain quantities of these two to get  
 17 to the 425?

Page 118:19 to 118:20

00118:19 THE WITNESS: I think they were going  
 20 to use it all.

Page 119:01 to 119:04

00119:01 Q. So the intent was to use it all,  
 02 obviously. That would certainly not be  
 03 logical if you were trying to eliminate this.  
 04 A. Right.

Page 119:19 to 120:03

00119:19 Q. But whatever was in the pit --  
 20 well, let's retread this a little bit. The  
 21 idea was to get rid of what was in the pits,  
 22 right?  
 23 A. The idea was to --  
 24 MS. SCOFIELD: Object to the form.  
 25 THE WITNESS: -- was to combine the two

00120:01 volumes in those two separate pits, the  
02 Form-a-Squeeze and the Form-a-Set AK pills,  
03 into one and use them for the spacer.

Page 120:05 to 120:19

00120:05 Q. All right. Now, what is  
06 Duo-Vis?  
07 A. Duo-Vis is a xanthan gum  
08 polymer, which is used to viscosify  
09 water-based muds.  
10 Q. Now, we had to add some weight  
11 to the material, didn't we?  
12 A. Yeah. They -- from what I  
13 understand, we weighted the pill up from -- I  
14 think it was 14 pounds to approximately --  
15 well, to 16 pounds per gallon.  
16 Q. Yeah. I'm wondering why that  
17 doesn't appear in the procedure. Do you  
18 know?  
19 A. I don't know. I don't know.

Page 121:16 to 122:06

00121:16 Q. Well, was the idea to mix the  
17 two spacer -- I'm sorry. Was the idea to mix  
18 the two lost-circulation materials together  
19 first, and then add the weight?  
20 A. I believe that's what -- that  
21 was the idea, yes.  
22 Q. Okay. And would you add the  
23 barite before or after you put the Duo-Vis  
24 in?  
25 A. It depends. It depends on what  
00122:01 you -- you know, you could -- you could have  
02 put it before -- you could have put some  
03 before, you could -- you could put some  
04 after. It just depends on what the -- what  
05 the drilling fluid specialist was looking at  
06 as far as that fluid.

Page 122:15 to 122:18

00122:15 Q. Why would he care about whether  
16 it was mixed before, after, in between, a  
17 little bit before, a little bit afterwards --  
18 A. Because --

Page 122:21 to 124:20

00122:21 Q. -- if his whole goal was to  
22 simply use this material as a spacer?  
23 A. Well, because he was adjusting

24 the properties with the Duo-Vis to be sure  
25 that, you know, it was a fit as a spacer.  
00123:01 BY MR. BRUNO:  
02 Q. Okay. And the Duo-Vis, the  
03 purpose of the -- of the material is to  
04 thicken it, right?  
05 A. Right.  
06 Q. And you -- if you add Duo-Vis  
07 and barite together with the spacer material,  
08 what happens?  
09 A. You're going to increase the  
10 density of the spacer, and then you're going  
11 to -- again, you're going to thicken it up,  
12 you know, from where it was, you know.  
13 Q. Okay. Now, if we hadn't used  
14 the lost-circulation material as our spacer,  
15 what would you have used?  
16 A. You would have used water,  
17 Duo-Vis, and barite.  
18 Q. Water, Duo-Vis, and barite.  
19 Okay. Would you have used the same quantity  
20 of barite as you, in fact, used to weight up  
21 the combined lost-circulation materials?  
22 A. In total, it would have been  
23 approximately the same. But since you were  
24 starting out with a 14-pound-per-gallon  
25 spacer, you only went to 16, if you mixed one  
00124:01 from scratch, you'd be going from, you know,  
02 the weight of water, 8.33, up to the  
03 16-pound-per-gallon.  
04 Q. All right.  
05 A. So you would -- you would have  
06 used more.  
07 Q. You would have used more, but  
08 you only would need 200 gallons -- I'm sorry,  
09 200 barrels.  
10 A. 200 barrels, yeah.  
11 Q. And in this case, since we have  
12 425 barrels, we need more barite to -- we  
13 don't know how much we need. We need --  
14 whatever we need to weight it up to 16?  
15 A. Not necessarily, because it was  
16 between 14 and 16 pounds per gallon; whereas,  
17 if you built the spacer from scratch, you  
18 know, with water, again, it's going to  
19 take -- you're going to have to bring it from  
20 8.4 to 16 pounds. So. . .

Page 125:02 to 125:09

00125:02 Q. So if we -- if we would have  
03 only, let's see, used about half -- if we  
04 were using this water-based -- well, they're  
05 both water based. If we used the water,  
06 barite, and Duo-Vis, we would have only

07 needed 200 barrels, and we would have to go  
08 from 8.4 to 16. We'd have to double the  
09 weight, roughly?

Page 125:11 to 125:11

00125:11 THE WITNESS: Yes.

Page 126:06 to 126:21

00126:06 Q. Okay. So the fact of the matter  
07 is that we didn't save a money by using this  
08 material -- the lost-circulation materials as  
09 a spacer as opposed to building a new spacer.  
10 Because building a new spacer would not have  
11 cost very much --  
12 A. That's correct.  
13 Q. -- in any case? That doesn't  
14 work as a -- as an explanation for using the  
15 two lost-circulation materials, right?  
16 A. No.  
17 Q. Don't work. Okay. So we're  
18 back to the cost of transporting those  
19 materials to shore and disposing them in a  
20 normal way?  
21 A. Right.

Page 126:25 to 127:04

00126:25 Q. But clearly, Mr. Maxie must have  
00127:01 thought that it would have been cheaper to  
02 use the lost-circulation materials as a  
03 spacer than it would have to transport and  
04 dispose of those materials onshore, right?

Page 127:07 to 127:12

00127:07 Q. I mean, is that logical?  
08 A. I don't know if he was thinking  
09 about cost. I mean, I don't know. I don't  
10 know. I mean, there's...  
11 Q. In fairness, what else could he  
12 possibly have been thinking about?

Page 127:14 to 127:22

00127:14 THE WITNESS: The way he -- when I  
15 talked to him about it, he stated, you know,  
16 the idea of this beneficial reuse. In other  
17 words, if you're going to have to take this  
18 stuff, I would -- I would assume, you know,  
19 to somewhere on land, onshore, to dispose of

20 it, it would probably be, you know -- how  
21 should I say that? Maybe a better place, you  
22 know --

Page 127:24 to 127:25

00127:24 Q. Than in --  
25 A. Than in the -- in the Gulf.

Page 128:03 to 128:08

00128:03 Q. Okay. I guess. Okay. Anyway,  
04 that's his explanation. He thought that from  
05 an environmental perspective, it was better  
06 to dump it in the ocean -- I'm sorry, dump it  
07 in the Gulf as opposed to sticking it in some  
08 landfill somewhere?

Page 128:11 to 128:15

00128:11 Q. Right?  
12 A. I assume that.  
13 Q. Well, let me ask you this. As  
14 the company, was Mr. Maxie authorized to do  
15 what he did?

Page 128:17 to 128:17

00128:17 THE WITNESS: Authorized to do what?

Page 128:19 to 129:09

00128:19 Q. To make the recommendation to  
20 use these spacers -- I'm sorry. To make the  
21 recommendation to use these lost-circulation  
22 materials as spacers.  
23 A. We'll go back. Mr. Maxie made a  
24 suggestion to BP that this was an option, you  
25 know, and as you probably read all the  
00129:01 e-mails, and vetted everything out with the  
02 environmental people with BP and ran it  
03 through the whole drilling team, and he  
04 states that if -- he said if this isn't  
05 doable, you know, let's just dispose of it  
06 onshore.  
07 Q. Right. But I -- the question  
08 is, is he authorized to even make  
09 recommendations like he made?

Page 129:11 to 129:18

00129:11 THE WITNESS: I don't know what you

12 mean by "authorized."  
13 BY MR. BRUNO:  
14 Q. Well, I mean, as a company --  
15 let's do it this way. Since the catastrophe,  
16 have you said or done anything to your  
17 employees to make them less motivated to make  
18 recommendations like this?

Page 129:20 to 130:01

00129:20 THE WITNESS: No.  
21 BY MR. BRUNO:  
22 Q. All right. So you haven't  
23 changed your policies or your procedures in  
24 any way relative to making these kind of  
25 suggestions?  
00130:01 A. No.

Page 130:04 to 130:06

00130:04 Q. Have you changed your policies  
05 and procedures in any way, period, since the  
06 catastrophe?

Page 130:08 to 130:13

00130:08 THE WITNESS: No.  
09 BY MR. BRUNO:  
10 Q. So it's fair for me to conclude  
11 that the way you did business before the  
12 catastrophe is exactly the same way you do  
13 your business now?

Page 130:15 to 130:15

00130:15 THE WITNESS: In general, yes.

Page 133:10 to 134:24

00133:10 Q. So 794 strokes is what, exactly?  
11 A. That's how many pump strokes it  
12 will take -- if you're looking at 794  
13 strokes, and you've got 100 barrels 794  
14 strokes, that is -- that is what they've  
15 calculated to show that they can pump  
16 100 barrels by stroking the pump 794 times.  
17 Q. And that will be entire capacity  
18 of the choke?  
19 A. If his calculations are correct.  
20 Q. Right. And the same with regard  
21 to the boost, the kill and the drill?  
22 A. The drill pipe, yes.

23 Q. All right. So then it goes back  
 24 to 1 again. It says, "Line up for all SBM  
 25 returns to go to the pits and bypass  
 00134:01 sandtraps.  
 02 A. Um-hum (affirmative response).  
 03 Q. What does that mean?  
 04 A. There's a -- on most rigs, there  
 05 is what they call a sandtrap, and it sits  
 06 underneath the return line near the shell  
 07 shakers. And, again, I'm not familiar with  
 08 the Horizon, but when he says bypass the  
 09 sandtraps, that could just mean you bypass  
 10 that pit, but go to the active pit.  
 11 Q. All right.  
 12 A. Okay.  
 13 Q. Then it says, "Function test the  
 14 dump valve." What does that mean?  
 15 A. I guess open the dump valve,  
 16 which is -- a lot of times is located in the  
 17 sandtraps, or somewhere nearby. Probably  
 18 just open and close it to be sure they could  
 19 open it. Because a lot of times after you  
 20 drill for a long time in this -- exactly what  
 21 it is, this sandtrap or cuttings trap, there  
 22 are lot of cuttings and sand that builds up  
 23 down there and could cause that valve, you  
 24 know, to be difficult to open.

Page 139:18 to 140:25

00139:18 Q. Okay. All right. So before we  
 19 pump our spacer, the choke, the kill, and the  
 20 boost lines should have closed valves?  
 21 A. I would -- yes.  
 22 Q. Yes?  
 23 A. Yes.  
 24 Q. And why is that? Do you know?  
 25 A. Well, I can tell you that --  
 00140:01 because you're still getting mud in -- you  
 02 know, drilling fluid in the wellbore, and if  
 03 you get seawater pumped down, if you don't  
 04 close that valve, then the mud is going to  
 05 push the seawater back up the -- you know.  
 06 Q. Exactly. All right. So there's  
 07 a logic to that.  
 08 A. Yeah, you're right.  
 09 Q. So now we pump our mix of spacer  
 10 down the drill pipe, followed by seawater.  
 11 A. Um-hum (affirmative response).  
 12 Q. And we pump 775 barrels, or  
 13 6,150 strokes, right?  
 14 A. Right.  
 15 Q. Okay. Now, it says the spacer  
 16 should be above the upper annular.  
 17 A. Um-hum (affirmative response.)

18 Q. And that's based entirely upon  
19 the capacities we had calculated or talked  
20 about before, right?  
21 A. Yes. The capacities and the --  
22 and the pump output.  
23 Q. Okay. Do we know, in fact,  
24 whether or not there were 6,150 strokes?  
25 A. I don't know that.

Page 143:20 to 143:23

00143:20 MR. BRUNO: Yes. And we'll mark --  
21 we'll mark the whole thing with one number,  
22 and. . .  
23 (Exhibit 2806 was marked for the record.)

Page 148:11 to 149:04

00148:11 Q. In other words, your contract  
12 didn't call upon you to provide a SWACO  
13 person to be there and monitor this  
14 procedure; is that true?  
15 A. To monitor the strokes being  
16 pumped and --  
17 Q. Well, the whole -- the whole --  
18 A. Yeah.  
19 Q. -- displacement. I'm not saying  
20 that you need one guy next to each pump.  
21 What I'm saying is, generally, okay -- let's  
22 see if you and I are on the same page. One,  
23 the words to describe what was going on was a  
24 displacement procedure, correct?  
25 A. Um-hum (affirmative response).  
00149:01 Q. All right. So utilizing those  
02 words, did your contract require that you  
03 provide an employee to monitor the  
04 displacement procedure?

Page 149:06 to 149:14

00149:06 THE WITNESS: I would say that we would  
07 certainly be around and aware of what is  
08 going on, you know, overall. You know. . .  
09 BY MR. BRUNO:  
10 Q. How about available?  
11 A. Certainly available, yeah.  
12 Q. So somebody should be at least  
13 in the vicinity of this procedure?  
14 A. Yes.

Page 149:17 to 150:14

00149:17 Q. All right. Maybe not required

18 to observe the pumping, but certainly to be  
 19 available to BP and/or Transocean to answer  
 20 questions; is that fair?  
 21 A. Oh, absolutely.  
 22 Q. Okay. All right. Good.  
 23 Pump 775 barrels. And according  
 24 to BP, only 352 barrels, which would be about  
 25 half. Wouldn't you agree? Just roughly?  
 00150:01 A. Yeah.  
 02 Q. Okay. And we agree that if you  
 03 pump less water, the spacer will be lower in  
 04 the -- in the string?  
 05 A. Yes.  
 06 Q. Hear it says, "Spacer should be  
 07 above the upper annular."  
 08 A. Um-hum (affirmative response).  
 09 Q. Right? Okay. Now, can you  
 10 think of any reason why -- can SWACO think of  
 11 any reason why it would be a bad idea for  
 12 this spacer, the way it had been constructed,  
 13 to be at the same level as the BOP, or in the  
 14 BOP?

Page 150:19 to 150:25

00150:19 Q. Yeah. Would it be bad or good  
 20 or neutral or. . .  
 21 A. Well, I think the reason they  
 22 originally -- I guess BP had asked Leo to  
 23 calculate the amount of strokes to pump it,  
 24 and park it, if you will, above the annular,  
 25 right? That's what was asked of him.

Page 151:15 to 153:05

00151:15 Q. That much, we've got. But now  
 16 you're saying to me that Leo Lindner was  
 17 asked to do a calculation, which I didn't  
 18 know until just now. So --  
 19 A. Yes.  
 20 Q. What information do you have  
 21 about that? Share that with us.  
 22 A. If you know that -- you've seen  
 23 that ops note I think the e-mail is --  
 24 referred to from the rig, I guess -- I'd have  
 25 to -- I'd have to go back -- and I don't know  
 00152:01 if you guys -- where it would be located.  
 02 But that's the title of the e-mail, "Ops  
 03 Note." But it's -- I believe it's from or  
 04 to -- from the guys in the office to Bob  
 05 Kaluza, I believe. And Leo met with Bob  
 06 prior, you know, to this displacement, and  
 07 that's when he found out that they were going  
 08 to do the negative test, and that he had to

09 go back and redo his procedure. Because his  
 10 original procedure was to -- it was not to  
 11 stop -- there was no negative test planned.  
 12 His original procedure was to pump the -- you  
 13 know, spacer and mud, you know, completely  
 14 out all in one -- you know, one operation.

15 Q. Okay. So your testimony is that  
 16 Leo was asked to calculate the amount of  
 17 barrels or the strokes necessary to make  
 18 certain that this spacer material was above  
 19 the upper annular?

20 A. Yes.

21 Q. So it's SWACO's testimony that  
 22 BP wanted his spacer material to be above the  
 23 BOP?

24 A. That's the way I -- in talking  
 25 to Leo, that's the way I understand it.

00153:01 Q. All right. But my question  
 02 originally to you was, did SWACO have any  
 03 concerns about the spacer being located at  
 04 the same level of the BOP? Did you guys have  
 05 any concern?

Page 153:07 to 154:17

00153:07 THE WITNESS: Not that I'm aware of it,  
 08 you know. And when you say am I SWACO as a  
 09 company, I mean, this is a -- this is a --  
 10 probably a unique situation -- or a unique  
 11 situation that, you know, I don't think -- I  
 12 don't think was addressed, because -- well, I  
 13 just -- you know, I don't know. At the time,  
 14 I don't -- I don't know.

15 BY MR. BRUNO:

16 Q. Okay. Well, in recommending the  
 17 use of this -- these two materials to be  
 18 combined and weighted with barite, certainly  
 19 SWACO knew that the material would be pumped  
 20 into the wellbore?

21 A. Sure.

22 Q. And SWACO knew that the material  
 23 would at least pass by the BOP?

24 A. Um-hum (affirmative response).

25 Q. All right. So you knew that  
 00154:01 there would be some exposure of the BOP to  
 02 this material, right?

03 A. Absolutely.

04 Q. Okay. And did you consider at  
 05 all whether or not the exposure of this  
 06 material to the BOP would cause any issues or  
 07 problems whatsoever?

08 MS. SCOFIELD: Object to the form.

09 THE WITNESS: No. Not just exposing to  
 10 the BOP, no.

11 BY MR. BRUNO:

12 Q. Right. Now, next question. Did  
13 you consider that if the material were to sit  
14 for some period of time, exposed to the BOP,  
15 whether or not that would cause any problems?  
16 MS. SCOFIELD: Object to the form.  
17 THE WITNESS: No.

Page 154:19 to 155:04

00154:19 Q. All right. If you had  
20 considered it, if someone had said, "You  
21 know, this material might sit in the BOP for  
22 some time. What are the implications of  
23 that? Good or bad?" what would you have  
24 said?  
25 A. It would depend on whether there  
00155:01 was -- it was sitting in the BOP -- under  
02 what operation? You know, I -- I mean, I  
03 don't have enough detail to make a -- you  
04 know, to make a comment on that.

Page 157:05 to 158:02

00157:05 Q. That's in your materials, isn't  
06 it?  
07 A. No.  
08 Q. It cannot clog it? It cannot  
09 clog the pipe?  
10 A. That spacer material, if it was  
11 sitting in a pipe at some point, no, it would  
12 not clog the pipe.  
13 Q. Okay.  
14 A. You've got to remember that this  
15 material was not cross-linked.  
16 Q. It was not cross-linked, you're  
17 right. But it was exposed to drilling mud,  
18 wasn't it?  
19 A. Exposed to drilling mud?  
20 Q. Yeah.  
21 A. Well, yeah, exposed to drilling  
22 mud on one end, seawater on the other end.  
23 Q. So the two came into contact.  
24 A. Right.  
25 Q. And is there any potential for  
00158:01 cross-linking because of that fact?  
02 A. No.

Page 160:06 to 160:11

00160:06 Q. All right. What about during a  
07 negative pressure test?  
08 A. I'm not familiar with how to  
09 conduct a negative pressure test. You know,

10 I'm certainly no expert on that. And I don't  
11 believe Leo was, either.

Page 161:04 to 162:20

00161:04 Q. Well, if Leo was -- if the whole  
05 premise of this business was: Let's use  
06 lost-circulation material as a spacer in a  
07 displacement, where we expect it to be done  
08 in a certain way. . .  
09 A. Um-hum (affirmative response.)  
10 Q. Okay? And the way we expect it  
11 to be done is that we expect that all the  
12 choke, boost, kill valves are closed, and  
13 we're running this material basically down  
14 and up through the pipe.  
15 A. Yeah.  
16 Q. Okay. Now, so Leo and SWACO is  
17 making its recommendations based upon that  
18 fact, right?  
19 A. That's correct.  
20 Q. Okay. And if you change some of  
21 those facts, it may change some of the  
22 implications of the action in the first  
23 instance, right?  
24 A. No, you're right. You're right.  
25 Q. So all I'm saying is, is that if  
00162:01 BP then says, "Oh, by the way, oh, we want to  
02 do a negative pressure test" -- and let's  
03 assume that Leo doesn't know what that means,  
04 as you've told us. If it's going to change  
05 the configuration of the valve, somebody  
06 should have told Leo, right?  
07 MR. HAYCRAFT: Object to the form.  
08 THE WITNESS: Oh, I -- yeah. I see  
09 your point now. Yes, I agree.  
10 BY MR. BRUNO:  
11 Q. Okay. Because it may have had  
12 some implications, maybe not. But Leo  
13 certainly was not in a position to judge,  
14 because he didn't know, or we presume he  
15 didn't know, that these valves would be in  
16 some other configuration in order to  
17 accomplish a negative pressure test; isn't  
18 that true?  
19 MR. HAYCRAFT: Object to the form.  
20 THE WITNESS: I would say yes.

Page 163:04 to 163:20

00163:04 Q. All right. We were talking  
05 about the location of the spacer above the  
06 BOP. And at Line 4, as we have previously  
07 indicated, supposed to -- we're supposed to

08 pump 775 barrels or 6150 strokes. And then  
 09 it says, "Spacer should be above upper  
 10 annular." So has M-I SWACO done any  
 11 evaluation to ascertain whether or not, in  
 12 fact, if 775 barrels or 6150 strokes of the  
 13 pump had been accomplished, that the spacer  
 14 would have been above the upper annular?  
 15 A. No, we haven't.  
 16 Q. It's clear, though, from this  
 17 document, that its author expected that the  
 18 spacer would be above the upper annular,  
 19 wouldn't you agree?  
 20 A. I agree.

Page 163:24 to 164:04

00163:24 Q. And I think you previously  
 25 testified that the person who did the  
 00164:01 calculations, to conclude that 775 barrels of  
 02 water or 6150 strokes of the pump would  
 03 accomplish that was Leo Lindner?  
 04 A. Lindner?

Page 164:07 to 165:25

00164:07 Q. Lindner.  
 08 A. I would say that Leo Lindner  
 09 prepared this and initially did the  
 10 calculation. Whether or not he had any help  
 11 or, you know, was vetted out by the rest of  
 12 the team and some numbers changed, you know,  
 13 we don't know.  
 14 Q. All right. Next step is No. 5.  
 15 It says, "Close the annular and conduct the  
 16 negative test." And I think you've already  
 17 testified you don't know which valves were  
 18 closed or opened in order to accomplish the  
 19 negative test.  
 20 A. Right. I believe Leo inserted  
 21 these comments after he was told by BP that  
 22 they would conduct a negative test.  
 23 Q. "After successful negative test,  
 24 open the bag." Do you know what that means?  
 25 A. Yes.  
 00165:01 Q. What does that mean?  
 02 A. It's the annular preventer.  
 03 Q. And then No. 6 says to "Continue  
 04 the displacement up the riser until the  
 05 spacer is 500 feet past the BOP stack,  
 06 950 barrels or 7540 strokes. We can boost  
 07 the riser." Now, what does that mean, "past  
 08 BOP stack"?  
 09 MS. SCOFIELD: Object to the form.  
 10 THE WITNESS: When he says "past," I

11 would assume he means the spacer is -- the  
12 spacer is completely, you know, past the BOP  
13 stack, just like he says. And were you  
14 asking about the comment "we can boost the  
15 riser"?

16 BY MR. BRUNO:

17 Q. No, no. The first thing is --  
18 and the reason I'm asking about past is  
19 because I'm wanting to understand the  
20 difference between past the BOP stack and the  
21 other comment above, which says, "Spacer  
22 should be above the upper annular."

23 A. I would think that's one and the  
24 same. Past is just, you know, beyond the  
25 BOP.

Page 167:05 to 167:20

00167:05 Q. Okay. All right. Now, what is  
06 it -- what is "We can boost the riser"?

07 A. Well, typically when you're  
08 displacing or making a displacement like  
09 this, and you are in the -- in the process of  
10 displacing, when that seawater column or the,  
11 you know, below the spacer, and the -- and  
12 the spacer moves above the BOP stack, again,  
13 as the seawater moves across the kill line,  
14 choke line, boost line, you can go ahead and  
15 start pumping, which is the boost pump, which  
16 will additionally pump seawater, and that  
17 expedite the -- it will just add more flow  
18 rate, you know, to the -- to the operation  
19 and get the -- get the displacement over with  
20 faster.

Page 173:16 to 175:04

00173:16 (Exhibit 2808 was marked for the record.)

17 BY MR. BRUNO:

18 Q. And I just have a few questions,  
19 really, about this. This is an e-mail from  
20 Doyle Maxie to Brian Morel, LeBleu and  
21 others. Says, "Here is the next procedure as  
22 we discussed." And, of course, we have  
23 attached a document dated April 5th, which is  
24 Bates 8490. Can you tell me what the  
25 document dated April 5, 2009, is?

00174:01 A. It -- what it says, a Tandem  
02 Form-A-Squeeze/Form-A-Set AK missing and  
03 spotting procedures. It must have been taken  
04 out of a manual or something like that.

05 Q. All right. And if you go to the  
06 last page, which is Bates 8492.

07 A. Yes.

08 Q. Under Safety Considerations. . .  
 09 A. Um-hum (affirmative response).  
 10 Q. It says, "Once the Form-a-Set AK  
 11 plug has been pumped out of the pit, flush  
 12 both the tank and associated mixing pump --  
 13 mixing/pump lines with as much fresh water as  
 14 possible and send to the reserve pit."  
 15 A. Um-hum (affirmative response).  
 16 Q. Do you know why that safety  
 17 consideration is there?  
 18 A. I believe it's just to flush the  
 19 lines out of any remaining Form-a-Set AK, and  
 20 I'm assuming since this is the mixing  
 21 procedure that they cross-linked the  
 22 material, you know, mixed it and began to  
 23 pump it down hole, and then whatever's left  
 24 in the -- in the pit, you know, maybe left in  
 25 the lines, you want to flush that out.  
 00175:01 Q. Right. Because if you don't  
 02 flush it out, it will -- it will clog the  
 03 lines, right?  
 04 A. It could

Page 177:24 to 178:05

00177:24 Q. Okay. All right. Now, you  
 25 have obviously evaluated the e-mails between  
 00178:01 Doyle Maxie and John LeBleu?  
 02 A. I've reviewed them, yes.  
 03 Q. What is your understanding  
 04 of the purpose of the communication with John  
 05 LeBleu?

Page 178:07 to 179:24

00178:07 THE WITNESS: John LeBleu is I guess  
 08 what we would call the fluid specialist with  
 09 BP. And I believe his job is to -- well,  
 10 certainly to communicate with our -- with our  
 11 people. I think he was assigned to this  
 12 particular job, to look -- to oversee it, and  
 13 to certainly give guidance and  
 14 recommendations and advice, himself.  
 15 BY MR. BRUNO:  
 16 Q. Okay. Did SWACO understand that  
 17 it had received permission from John LeBleu  
 18 to proceed with the use of the  
 19 lost-circulation materials as a spacer?  
 20 A. Are you finished with your  
 21 question or --  
 22 Q. Yes.  
 23 A. Okay. Sorry. I thought you  
 24 were --  
 25 Q. I was just making sure it made

00179:01 sense.  
02 A. I think in the e-mails that I've  
03 read, that it seemed to me that it certainly  
04 implied that he was okay with utilizing that  
05 material for the spacer.  
06 Q. And, in fact, Leo Lindner  
07 reported that he believed that he had  
08 received permission from John LeBleu as well;  
09 isn't that accurate?  
10 A. I think so, yes.  
11 Q. Okay. All right. Now, other  
12 than John LeBleu, is M-I SWACO aware of any  
13 other BP employees having been advised of the  
14 proposed use of the Form-A-Set/Form-A-Squeeze  
15 as a spacer?  
16 A. I think so. The e-mails  
17 show that. I think the drilling engineer,  
18 Brian Morel, a lot of the environmental  
19 people -- I'd have to pull -- you'd have to  
20 show me the e-mail, I'll have to pull the  
21 e-mail up, but I think a quite a -- quite a  
22 few of the members of the drilling team,  
23 including the drilling foremen, were  
24 certainly aware.

Page 180:16 to 180:23

00180:16 Q. All right. Have you -- have you  
17 spoken to Mr. Lindner to find out whether or  
18 not he had met with anybody at BP,  
19 specifically, and gotten approval for this?  
20 A. We've talked to Leo. I'm -- he  
21 did say he discussed this with the -- with  
22 the well site leaders, you know, on location,  
23 you know, prior to the -- to the job.

Page 181:04 to 181:08

00181:04 Q. Yeah, just to see where I can...  
05 even though the presentation may be easier to  
06 read, it doesn't have numbers, so let's just  
07 go off of the -- Exhibit 2806, which we've  
08 already marked.

Page 184:20 to 185:01

00184:20 Q. Now, are you familiar with the  
21 term "management of change"?  
22 A. Yes.  
23 Q. And in your contract, I believe,  
24 you are required -- you, SWACO, is required  
25 to comply with BP's management of change  
00185:01 procedures.

Page 185:03 to 185:09

00185:03 BY MR. BRUNO:

04 Q. Isn't that true?

05 A. Yes.

06 Q. Okay. Now, does the use of  
07 these Form-A-Set/Form-A-Squeeze as a spacer,  
08 does that, in your mind, create a necessity  
09 for doing a management of change evaluation?

Page 185:11 to 185:25

00185:11 THE WITNESS: I think in this  
12 situation, it would -- it would be -- since  
13 Doyle Maxie, or it may have been someone  
14 before him, I -- you know, I'm not sure,  
15 brought that -- made that suggestion, you  
16 know, that we do this. I guess it would be  
17 up to BP to decide whether that would, you  
18 know, justify a management of change, you  
19 know.

20 BY MR. BRUNO:

21 Q. Well, that's where I was going.  
22 This procedure, even though it may have been  
23 suggested by SWACO, is a BP procedure once  
24 they accept the recommendation, right?  
25 A. Absolutely.

Page 186:11 to 186:20

00186:11 Q. And the need to or not do a  
12 management of change evaluation or risk  
13 analysis, therefore, is incumbent upon BP and  
14 not SWACO; is that correct?

15 A. Correct.

16 Q. Okay. Now, your contract  
17 obligates you to participate, to contribute,  
18 when asked by BP, with regard to any  
19 management of change evaluations that they  
20 believe need to occur?

Page 186:23 to 197:03

00186:23 Q. Right?

24 A. That's correct.

25 Q. Okay. If you look at page 2. I  
00187:01 just want to see where you agree and don't  
02 agree. Okay? Page 2, which is 98876 on the  
03 Bates -- using Bates numbers.

04 A. Got it.

05 Q. Logic for the Use of the Spacer.  
06 It says, "Mixture of Form-A-Set AK and  
07 Form-A-Squeeze." We know that's what it was.

08 A. Um-hum (affirmative response.)  
09 Q. No disagreement there, right?  
10 A. Right.  
11 Q. They indicate that "This is not  
12 designed for the operation but to dispose of  
13 contingency lost-circulation materials that  
14 had been mixed on the 6th of April into  
15 separate tanks." Is that -- do you agree  
16 with that?  
17 A. It says what it says, yes.  
18 Q. I know. But I'm asking -- this  
19 is -- this document's prepared by BP.  
20 A. Right.  
21 Q. And what I'm asking is whether  
22 or not SWACO agrees with BP's statements.  
23 Okay. That's the purpose of this exercise,  
24 that, in fairness to you.  
25 A. All right. That's fine. No, I  
00188:01 see where you're going.  
02 Q. All right. Now, "This type of  
03 spacer had not been used previously." You  
04 agree or disagree?  
05 A. I agree.  
06 Q. "The spacer used was not in the  
07 program. It is believed that it was a change  
08 brought about by perceived expediency." Do  
09 you agree with that?  
10 A. I can agree with that.  
11 Q. Okay. "The mud engineer's  
12 statement indicates that its use had been  
13 discussed on the rig with the BP office-based  
14 staff. The depth of the discussion is not  
15 completely clear, but there is no evidence  
16 that a risk assessment was performed."  
17 Now, in fairness to you, I don't  
18 know who they are suggesting should have done  
19 a risk assessment. So before asking you if  
20 you agree or disagree, let me ask it this  
21 way. With regard to "The mud engineer's  
22 statement indicates that its use had been  
23 discussed on the rig and with the BP  
24 office-based staff," period, do you agree  
25 with that?  
00189:01 A. Yes.  
02 Q. Okay. The second part: Do you  
03 know whether or not a risk assessment was  
04 performed by anyone?  
05 A. I have -- I haven't seen it.  
06 Q. So you have no -- you're not  
07 able to agree or disagree?  
08 A. Right.  
09 Q. Okay. Next page is 98877. It  
10 says, "Well contained 14 pounds per gallon  
11 Rheliant SOBM that had to be displaced to  
12 seawater." Do you agree with that?

13 A. That's correct.  
14 Q. "A single spacer to be used  
15 using density and viscosity contrast to  
16 achieve efficient displacement of the  
17 Rheliant." I'm not sure that's a complete  
18 statement, but can you agree with that?  
19 A. I agree.  
20 Q. "A 16-pound-per-gallon spacer  
21 was selected to give a 2-pounds-per-gallon  
22 contrast to the mud weight. There was no  
23 viscosity specification." Do you agree with  
24 that?  
25 A. I agree.  
00190:01 Q. "Spacer volume was selected  
02 based upon getting rid of the remaining LCM.  
03 It appears that approximately 424 barrels was  
04 pumped to the well followed by 30 barrels of  
05 fresh water and then seawater." Do you agree  
06 with that?  
07 A. Yeah. If they said it appears,  
08 I -- you know, I don't know the exact volumes  
09 but --  
10 Q. Okay.  
11 A. I agree with that.  
12 Q. "The mud engineer's statements  
13 and procedure indicate that the intention was  
14 to leave base of the spacer above the annular  
15 for the inflow test. Calculation shows this  
16 to be 1188 feet above the BOP." Do you agree  
17 with that?  
18 A. If the mud engineer's made those  
19 statements, yes, I agree.  
20 Q. We just went through the  
21 procedure. It says --  
22 A. Right.  
23 Q. -- above --  
24 A. That's what I'm --  
25 Q. Okay. I mean, it's not an "if."  
00191:01 It's a -- we've already established that he  
02 said that.  
03 A. Well, yeah.  
04 Q. At least Leo said that in his  
05 procedure?  
06 A. Right. Right.  
07 Q. Okay. "No statements have been  
08 found that considered the length of time  
09 expected for the inflow test or what would  
10 happen to the 16-pounds-per-gallon  
11 spacer-seawater interface during this  
12 period." Is that a true statement?  
13 A. That's correct.  
14 Q. "No evidence of compatibility  
15 testing could be found." Is that true?  
16 A. I don't know if I can agree with  
17 that, because Leo did take a sample of the

18 spacer, you know, of each one, combined them,  
19 you know, did sort of crude analysis, you  
20 know, to see what would happen, and I would  
21 say that was a -- you know, that was a form  
22 of compatibility testing.

23 Q. All right. When did he do that?  
24 Do you know?

25 A. He did that, I want to believe --  
00192:01 was it the night before -- I'm not sure on  
02 the timeline. I -- but I know he did do  
03 that. He told us he did that.

04 Q. All right. The next page is  
05 page 4 on the -- on the document and Bates  
06 page 98878. It says, "The components of the  
07 material are" -- by the way, this is  
08 Form-A-Set AK.

09 A. Yes.

10 Q. It's a blend of PHPA, 70 percent  
11 acrylamid -- or acrylamide, I guess.

12 A. Acrylamide, yeah.

13 Q. -- and fiber. Do you agree with  
14 that?

15 A. Yes.

16 Q. Form-A-Set XL, it's a CR(III)  
17 salt, acetate, cross-linker. Do you agree  
18 with that?

19 A. It's pretty close to that. I  
20 think they got a lot of this from our -- you  
21 know, our documentation.

22 Q. Right. "Form-A-Set RET retards  
23 the system set time at higher temperature?"

24 A. That's correct, yeah.

25 Q. "Duvois Xanthan gum  
00193:01 viscosifier/suspension agent." That's the  
02 Duo-Vis?

03 A. The Duo-Vis, yeah.

04 Q. Duo-Vis.

05 A. Duo-Vis.

06 Q. All right. "Rarely in low  
07 temperature applications, an accelerator may  
08 be used." Do you agree with that?

09 A. That's correct.

10 Q. Okay. "Form-A-Set ACC  
11 accelerator for low-temperature applications,  
12 not a part of this formulation"?

13 A. That's correct.

14 Q. Okay. "Characteristics include:  
15 Tonguing or ringing gel when cross-linked."  
16 What does that mean?

17 A. I think it's sort of a physical  
18 description of if you tried to pour this  
19 stuff, you know, it would, as you see in the  
20 picture --

21 Q. Yeah.

22 A. You know, the stuff sort of

23 tonguing out of the container, that's -- I  
24 believe that's what we're referring to here.  
25 Q. Okay. "Material would not  
00194:01 X-link without Form-A-Set XL."  
02 A. Right. Would not cross-link  
03 without Form-A-Set XL.  
04 Q. All right. And "Contains  
05 fibrous LCM"?  
06 A. That is correct.  
07 Q. All right. Next page is page 5,  
08 or Bates page 98879. It says, "What are the  
09 materials used for Form-A-Squeeze," which is  
10 the other material.  
11 A. Yeah.  
12 Q. Says, "The only component of  
13 material other than barite and water is  
14 Form-A-Squeeze. This is understood to be a  
15 blend of diatomaceous earth and fibers under  
16 low differential pressures. It dehydrates to  
17 form a thick cake. The chart indicates  
18 particle size distribution of  
19 Form-A-Squeeze." Do you agree with that?  
20 A. That's fairly accurate, yes.  
21 Q. Okay. All right. Next document  
22 is page 6 or 98880. It says, "Mixing of the  
23 spacer on the rig, Form-A-Squeeze." The  
24 material was fresh water, 175 barrels.  
25 Form-A-Squeeze had 175 barrels or 80 pounds,  
00195:01 I'm guessing. I'm -- 175 of what? That's  
02 not barrels.  
03 A. That's sacks.  
04 Q. That is sacks. 80 pounds?  
05 A. Yeah.  
06 Q. Barite, 100 pounds or 75 sacks.  
07 And then the barrels mixed, 249 at  
08 14.3 pounds per gallon.  
09 A. Um-hum (affirmative response).  
10 Q. Resultant formulation was fresh  
11 water, Form-A-Squeeze, barite in the  
12 proportions indicated.  
13 A. Right.  
14 Q. That's as the material sat in  
15 the pit, correct?  
16 A. That is correct, yeah. That's --  
17 from my understanding, yeah, this is the --  
18 this is the formulation we used to build a --  
19 Q. All right.  
20 A. -- build a Form-A-Squeeze  
21 spacer.  
22 Q. Next document is page 7, it's  
23 98881. And this is the way that the  
24 Form-A-Set AK was mixed, and -- as it was --  
25 as it sat in the pit. So it had fresh water,  
00196:01 175 barrels. Had 175 sacks of the Form-A-Set  
02 AK. And it had Form-A-Set retarder of

03 25 sacks or 5 gallons. Is that accurate?  
 04 A. It should be 21 pails. They're  
 05 5-pound pails, yeah.  
 06 Q. All right. And then Duo-Vis,  
 07 is that that three pails or --  
 08 A. Three --  
 09 Q. Sacks?  
 10 A. Three 55-pound sacks.  
 11 Q. Okay. Barite?  
 12 A. 750 100-pound sacks.  
 13 Q. And then -- and then there's the  
 14 mixture, which would end up being 242 barrels  
 15 at 14 pounds per gallon.  
 16 A. Okay.  
 17 Q. If we add the 242 and the 249,  
 18 we get 491, right? Am I adding that  
 19 correctly?  
 20 A. I think you're right.  
 21 Q. 491?  
 22 A. Right, 491.  
 23 Q. Okay. And we pumped into the  
 24 well 425?  
 25 A. That's -- from what I  
 00197:01 understand, that's what --  
 02 Q. Okay. So we have -- do we have  
 03 some missing material?

Page 197:05 to 199:10

00197:05 THE WITNESS: I don't know. We'd have  
 06 to check where this information actually came  
 07 from, because as you go back to the front, it  
 08 is a draft, you know.  
 09 BY MR. BRUNO:  
 10 Q. Understood.  
 11 A. Okay.  
 12 Q. But at least -- so far as SWACO  
 13 is concerned, you've already testified that  
 14 all the material was used, and the total was  
 15 425?  
 16 A. That's what was pumped, yes.  
 17 Q. All right. All right. Then  
 18 page 8, or Bates page 98882, describes the  
 19 "Mixing of the spacer on the rig, the final  
 20 blend." Now, this says that the Form-A-Set  
 21 AK maintained at 240 barrels in Pit 5.  
 22 A. Um-hum (affirmative response).  
 23 Q. And 150 barrels of  
 24 Form-A-Squeeze from Pit 3. I can't read the  
 25 small handwriting there. So this is  
 00198:01 suggesting they only had 150 barrels of the  
 02 Form-A-Squeeze as opposed to the. . .  
 03 A. As opposed to the 425, right?  
 04 Q. As opposed to the -- as opposed  
 05 to the 249 which they --

06 A. Right.  
 07 Q. -- indicate on their slide.  
 08 There's some confusion there. So in any  
 09 case, it looks like they started in Pit 5,  
 10 and then they added 150 barrels of the  
 11 Form-A-Squeeze from Pit 3. Now, I see  
 12 "Series PR point 4/19- --" do you know what  
 13 that means, the little note below the words  
 14 which appear in the box?  
 15 A. I don't know, but I assume  
 16 that's the volume, right, the last number?  
 17 At that point, if you look at the 390.4,  
 18 wouldn't that --  
 19 Q. Right.  
 20 A. -- be the 150 plus the 240?  
 21 Q. Right.  
 22 A. Okay.  
 23 Q. And same thing with the other  
 24 one, "Series Pit 5 point," it says -- it  
 25 looks like 238.1. It's not quite on. . .  
 00199:01 A. Yeah.  
 02 Q. But close enough. So that's  
 03 combined. And then combined fluids weight  
 04 up, and then the volume was increased to  
 05 430 barrels. Would the addition of the  
 06 barite increased its volume?  
 07 A. Yes.  
 08 Q. So according to this -- let's  
 09 see. 410. They're adding about 15 barrels  
 10 of barite?

Page 199:12 to 201:07

00199:12 BY MR. BRUNO:  
 13 Q. About right?  
 14 A. That's about right, yeah.  
 15 Q. Okay. And they end up with  
 16 430 barrels of spacer?  
 17 A. Yeah. I think it says 432.5.  
 18 Is that the number right there at that  
 19 last --  
 20 Q. Yeah, I'm looking there, and  
 21 then if you look above where it says "Pit 5."  
 22 A. Oh, I see.  
 23 Q. That's where I was --  
 24 A. It's just rounded out.  
 25 Q. But's it's rounded out at 430.  
 00200:01 A. Yeah.  
 02 Q. So we're still missing five  
 03 barrels somewhere.  
 04 A. Yeah.  
 05 Q. All right. It says, "11.5 hours  
 06 later, we pump the combined pill as a  
 07 spacer." So apparently, according to this,  
 08 they believe that the materials stayed in the

09 pit for about 11.5 hours. Does SWACO agree  
 10 with that?  
 11 A. Yeah, I agree with that.  
 12 Q. All right. Go to page 9, Bates  
 13 page 98883. We've looked this for a brief  
 14 moment before.  
 15 A. Um-hum (affirmative response.)  
 16 Q. "Mud engineer's procedure  
 17 clearly states spacer should be above the  
 18 upper annular." You agree with that. You  
 19 told us that.  
 20 A. I agree.  
 21 Q. "Step 3 says pump 425 barrels of  
 22 WBM spacer followed by seawater." You agree  
 23 with that.  
 24 A. What are -- I. . .  
 25 Q. Second -- it's not -- I hate to  
 00201:01 call it a sentence.  
 02 A. Yeah. Okay. Says pump 775,  
 03 huh? Is that. . .  
 04 Q. No. "Step 3 says --"  
 05 A. Step 3.  
 06 Q. "-- pump 425 barrels of WBM  
 07 spacer --" I'm right above you.

Page 201:15 to 201:16

00201:15 Q. Do you agree with that?  
 16 A. I agree.

Page 201:19 to 201:23

00201:19 Q. "Step 4 says pump 775 or 6150  
 20 strokes. Note that volume and strokes are  
 21 consistent for pumping 775 barrels of  
 22 seawater after spacer." And you agree with  
 23 that?

Page 201:25 to 202:16

00201:25 THE WITNESS: Yeah, I will agree with  
 00202:01 that.  
 02 BY MR. BRUNO:  
 03 Q. Okay. And this is where they  
 04 say 352 barrels of seawater was actually  
 05 pumped, leaving the spacer across BOPE. And  
 06 you have already testified you don't have any  
 07 facts which allow you to agree or disagree  
 08 with that statement, right?  
 09 A. That is correct.  
 10 Q. Okay. And then they go through  
 11 some theoretical heights. "After placement  
 12 of spacer, the theoretical heights of the

13 spacer in the various annuli were," and  
14 they've got some numbers. Does SWACO agree  
15 or disagree with that, or do you have any  
16 basis with which to agree or disagree?

Page 202:18 to 203:11

00202:18 THE WITNESS: I have no basis -- no  
19 basis to agree or disagree.  
20 BY MR. BRUNO:  
21 Q. All right. Next page is page  
22 10, Bates No. 98884. This is entitled  
23 Efficiency of the Placement of the Spacer.  
24 Do you know what BP is intending to convey  
25 here?  
00203:01 A. No, I don't.  
02 Q. If we read briefly what is typed  
03 below the slide, it says, "Using some assumed  
04 properties of the spacer and the known  
05 properties of the SOBM, data was input into  
06 BP's simple displacement model, which  
07 indicated that dynamically, displacement  
08 would have been relatively clean, although  
09 some channeling of spacer into the mud would  
10 be expected in the riser." Do you agree with  
11 that?

Page 203:13 to 204:23

00203:13 THE WITNESS: I don't know what BP's  
14 displacement model is, but it would be -- I  
15 mean, it sounds reasonable.  
16 BY MR. BRUNO:  
17 Q. All right. The phrase "would  
18 have been relatively clean, although some  
19 channeling of spacer into mud would be  
20 expected," can you explain that? Or do you  
21 know what that means? better phrased.  
22 A. I don't know exactly what that  
23 means, but when they mean -- when they do say  
24 clean, typically, when you're discussing this  
25 type of an operation, that that would mean  
00204:01 that the interface was very minimal, you  
02 know. So it's a -- what we'd call a clean  
03 displacement.  
04 Q. All right. Says, "However,  
05 there appears to be no good model readily  
06 available to predict the behavior after the  
07 spacer is in place," open paren, "static,"  
08 close paren. Do you agree with that?  
09 A. Yes. We don't have anything to  
10 model it with.  
11 Q. "Logically, the interface  
12 between the spacer and the

13 14-pounds-per-gallon Rheliant SOBMs would be  
 14 reasonable stable initially." Would you  
 15 agree with that?  
 16 A. That's correct.  
 17 Q. Okay. "Likewise, it is assumed  
 18 that the interface between 16 pounds per  
 19 gallon and --" I'm sorry,  
 20 "16-pounds-per-gallon spacer and 8.6  
 21 pounds-per-gallon seawater would be quite  
 22 unstable, with the seawater tending to swap  
 23 with the spacer." Do you agree with that?

Page 204:25 to 205:01

00204:25 THE WITNESS: I don't know that. I  
 00205:01 don't know that for that fact.

Page 205:11 to 209:05

00205:11 Q. "It is possible that with  
 12 extended time, the dilution of the spacer  
 13 weight with seawater could make SOBMs  
 14 interface less stable." Do you agree with  
 15 that?  
 16 A. This says the dilution of the  
 17 spacer weight with the seawater could make  
 18 the synthetic-based mud interface less  
 19 stable? They're talking about the  
 20 synthetic-based mud interface is up, you  
 21 know, one above, but --  
 22 Q. One's above and one's below,  
 23 yeah.  
 24 A. Seawater's not in contact with  
 25 the synthetic-based mud, so I don't see --  
 00206:01 that doesn't make sense to me.  
 02 Q. All right. This -- and then  
 03 they say this cannot be proved, which, of  
 04 course, you would agree to?  
 05 A. Yes.  
 06 Q. All right. Okay. Now, No. 11 --  
 07 page 11, Bates page 98885, "Inflow Test, What  
 08 We Know and Assume. Interaction With the  
 09 Kill Line: The kill line was over-displaced  
 10 to the annulus ahead of pumping the spacer."  
 11 Do you agree with that?  
 12 A. Based on what they've said and  
 13 based on, you know, what we've, I guess --  
 14 some of the information I've seen that they  
 15 did, you know, pump seawater down the kill  
 16 line. And, of course, the instructions were  
 17 to over-displace by a certain amount of  
 18 barrels.  
 19 Q. All right.  
 20 A. So I would say I assume that

21 that happened.

22 Q. "Circulating pressures pumping  
23 seawater and spacer were not reported as  
24 unusual." Do you agree with that?

25 A. I don't -- I didn't see that  
00207:01 anywhere, but I'll have to agree that. . .

02 Q. "Approximately five minutes  
03 after the cessation of pumping the spacer,  
04 the kill was opened to bleed off 1200 psi,  
05 residual U-tube pressure," close paren. "No  
06 indication of spacer into the kill line." Do  
07 you agree with that?

08 A. I don't know that to be a fact.

09 Q. Okay. "Between seven and  
10 12 minutes after the cessation of pumping the  
11 spacer, the kill line was closed. During  
12 this time, it is postulated that the well  
13 flowed 25 barrels, but no pressure observed  
14 at the kill line." Do you agree with that?

15 A. I don't know that.

16 Q. Between 59 and 106 minutes after  
17 the cessation of pumping the spacer, the kill  
18 line was opened to the Halliburton unit.  
19 700 pounds per square inch was recorded with  
20 a flow of between three and 15 barrels into  
21 line. The flow was reported." Do you agree  
22 with that?

23 A. No, I don't. I want to say why,  
24 because --

25 Q. Please do.

00208:01 A. In talking to our guys, they  
02 weren't involved in those discussions, you  
03 know, or in that operation at all.

04 Q. All right. "Approximately 137  
05 minutes after the cessation of pumping the  
06 spacer, the kill line was bled from 30 psi to  
07 to 0, with a return of .2 barrels." Do you  
08 agree with that?

09 A. Again, I don't know.

10 Q. Okay. And, "Approximately  
11 175 minutes after cessation of pumping the  
12 spacer, the kill line was closed." Do you  
13 agree with that?

14 A. I don't know that, either.

15 Q. All right. Page 12, Bates page  
16 98886, it says, "Circulating Out After the  
17 Inflow Test." It says, "What We Know and  
18 Assume. Pressure to resume circulation, need  
19 2700 pounds per square inch to achieve flow  
20 out." Do you agree with that?

21 A. I don't know that.

22 Q. Okay. Now, it says "Properties  
23 of Returning Spacer: The spacer was reported  
24 as returning to the surface on strokes."  
25 What does that mean?

00209:01           A.       That means -- in Greg Meche's  
           02   testimony, I believe he commented on -- he  
           03   made that exact statement, that the spacer  
           04   came up on strokes, it came up on time, as  
           05   expected.

Page 210:10 to 210:18

00210:10           Q.       All right. "After 84 barrels  
           11   had been returned to the surface, pumping  
           12   shut down for the sheen test, after which all  
           13   returns were diverted overboard. There is no  
           14   report of the density of the returning spacer  
           15   or its properties. Greg Meche, M-I SWACO,  
           16   makes no mention of anything out of he  
           17   ordinary about the spacer in his statements."  
           18           A.       I agree with that.

Page 212:10 to 212:12

00212:10           Q.       The next one is, "Settling, high  
           11   solids and low permeability likely from  
           12   observations."

Page 212:15 to 212:23

00212:15           Q.       Do you know what that means?  
           16           A.       I assume that's the testing they  
           17   did in these tubes, you know, with fluid, and  
           18   that's their observation, you know.  
           19           Q.       Well, that's their belief, that  
           20   the barite had kind of settled out on the --  
           21           A.       Right.  
           22           Q.       -- liquid and somehow blocked  
           23   the valves, or at least the lines.

Page 213:01 to 213:02

00213:01           Q.       Do you -- does SWACO agree or  
           02   disagree or have any opinion upon -- on that?

Page 213:04 to 213:14

00213:04   THE WITNESS: I wouldn't know.  
           05   BY MR. BRUNO:  
           06           Q.       Okay.  
           07           A.       We didn't do the testing, so. . .  
           08           Q.       Says, "X-linking, only if TO  
           09   personnel added the XL, not likely or  
           10   provable." Do you agree with that?  
           11           A.       I agree.  
           12           Q.       Other Mechanisms for Plugging

13 the Kill Line: Valve not open, out of scope  
14 but unlikely." Do you agree with that?

Page 213:16 to 214:02

00213:16 THE WITNESS: Could be.  
17 BY MR. BRUNO:  
18 Q. "Hydrates, not likely given  
19 over-displacement with seawater." Do you  
20 agree with that?  
21 A. I don't know.  
22 Q. Okay. "Mechanism for high  
23 circulating pressure: Very high viscosity of  
24 spacer, well documented." Do you agree with  
25 that?  
00214:01 A. It was a thick viscous spacer, a  
02 it should be.

Page 215:04 to 215:07

00215:04 Q. You have not done any testing or  
05 any analysis of the effects of the LCM  
06 material on the -- on the BOP?  
07 A. That is correct.

Page 215:16 to 216:05

00215:16 Q. I'm curious. If your guys were  
17 supposed to be knowledgeable about these  
18 acts, why was it necessary for Doyle to make  
19 inquiry of BP as to whether or not the  
20 regulations permitted the disposal of these  
21 unused LCM overboard?  
22 A. I think we're knowledgeable  
23 about the procedures and what has to be done  
24 and who to contact. BP, in effect, is the  
25 generator of this waste. You know, M-I SWACO  
00216:01 is not a generator of the waste, if waste has  
02 to be sent in from that rig. So BP has to  
03 make that call. They're the ones that have  
04 to dispose of it, you know, and follow the  
05 right, you know, protocol.

Page 224:02 to 224:05

00224:02 Q. All right, Mr. Billon, my name  
03 is Matt Leopold. I'm here questioning on  
04 behalf of the United States of America.  
05 A. Okay.

Page 225:23 to 226:09

00225:23 Q. Okay. Did you conduct any  
24 interviews with employees of M-I SWACO in  
25 advance of the deposition?  
00226:01 A. I spoke to Doyle Maxie and  
02 Leo Lindner.  
03 Q. Okay. And that was it?  
04 A. Yes.  
05 Q. Has M-I SWACO endeavored to do  
06 an investigation into the cause of the  
07 blowout and the explosion that took place  
08 in --  
09 A. No, we have not.

Page 231:08 to 233:13

00231:08 Q. Did M-I SWACO do a total  
09 calculation of how much mud was lost in the  
10 Macondo Well?  
11 A. Yes.  
12 Q. Do you recall, sitting here  
13 today, how much mud was lost?  
14 A. I don't know the number exactly.  
15 I would hate to give you the wrong number.  
16 But we did do that.  
17 Q. Okay. If you would turn with me  
18 to Tab 29.  
19 A. Okay.  
20 Q. This has previously been marked  
21 Exhibit 691. And if you would, look at the  
22 bottom right-hand corner, and there's a  
23 little -- well, first of all, let me ask you,  
24 have you ever seen this document before?  
25 A. I don't believe I have. I may  
00232:01 have seen some -- one, but I'm not sure if  
02 this is the exact one.  
03 Q. Does this appear to be a  
04 document calculating fluid losses at the  
05 Macondo Well?  
06 A. It could -- yeah, it very well  
07 could. I mean, I could see it come -- this  
08 is coming out of our database, you know.  
09 Q. Okay.  
10 A. And. . .  
11 Q. And if you would, look at the  
12 bottom right-hand corner. It says, "Total  
13 Mud Lost According to Baroid and M-I SWACO  
14 Mud Reports." Do you see that?  
15 A. Yeah.  
16 Q. And if you can make it out, I  
17 think -- I think it stays 15,926. Is that  
18 right?  
19 A. If you say so, yeah. I can't --  
20 I would have to take my glasses off or get --  
21 but okay.  
22 Q. Does that refresh your memory

23 with regard to how many barrels were lost in  
 24 the Macondo Well?  
 25 A. I'm not sure if that's -- if  
 00233:01 that's -- because it says total mud lost  
 02 according to Baroid and M-I SWACO mud  
 03 reports. I don't know what was lost on the  
 04 Baroid portion of the well. So I don't --  
 05 I'd have to ask someone. I'm not -- I'm not  
 06 familiar with this.  
 07 Q. And to be clear, Baroid is the  
 08 mud contractor that was on MARIANAS rig, to  
 09 your knowledge?  
 10 A. That's right.  
 11 Q. Okay. In your business, is  
 12 15,926 barrels a lot of -- a large volume of  
 13 mud to lose into one well?

Page 233:15 to 235:14

00233:15 THE WITNESS: On an exploratory well?  
 16 Probably not.  
 17 BY MR. LEOPOLD:  
 18 Q. Okay. So --  
 19 A. I mean, it is large, but it's  
 20 not -- you know, it's not uncommon.  
 21 Q. All right. What was the  
 22 arrangement that you had with BP in terms of  
 23 paying for mud? And let me expand a little  
 24 bit. Was it -- was the arrangement where mud  
 25 was being leased from M-I SWACO by BP, and  
 00234:01 then when it was returned, there was a credit  
 02 to the BP account?  
 03 A. If you'd like, I'll go ahead and  
 04 explain.  
 05 Q. Sure. Please.  
 06 A. The synthetic-based mud and  
 07 other products are sent out to the rig  
 08 basically on consignment. And they are under  
 09 the ownership of BP, but what we do is, as we  
 10 consume products and as we -- mud is lost,  
 11 then we invoice BP for that amount.  
 12 Q. Okay. And for the mud that's  
 13 recovered, do they pay rental charges on that  
 14 mud? Is that -- is that how you put it?  
 15 A. No, there's no rental charge on  
 16 the mud.  
 17 Q. Okay.  
 18 A. The mud is recovered, what do  
 19 you mean? Typically, we would -- we would  
 20 invoice them maybe after each interval. You  
 21 know, we would see how much mud wasn't there.  
 22 Or even after the well, just how much wasn't  
 23 returned, you know,. The difference between  
 24 what went out and what came back in, that  
 25 would be what BP would pay for.

00235:01 Q. Okay. So I'm trying to get  
 02 understanding. So they pay whatever they're  
 03 paying you under the contract, and then they  
 04 pay an additional amount for the mud that's  
 05 lost; is that correct?  
 06 A. No. You're only paying for mud  
 07 that's lost. In other words, we send the mud  
 08 out there, and until they lose it, they don't  
 09 pay us anything. They pay to treat it,  
 10 maintain it, and any other products that --  
 11 you know.  
 12 Q. So they're paying for your  
 13 services, but not necessarily for the mud  
 14 that their using; is that correct?

Page 235:16 to 235:22

00235:16 THE WITNESS: Well, they're using the  
 17 mud, but they're using our products to treat  
 18 and maintain. As you drill a well, a lot of  
 19 the products in the mud are consumed, they  
 20 have to be replaced. Emulsifiers, you know,  
 21 ^ gelling ^ ?? agents, what have you. So  
 22 that's the -- that's the way it is.

Page 236:20 to 240:12

00236:20 Q. So this is previously marked as  
 21 Exhibit 1026. Have you seen this document  
 22 before?  
 23 A. Yes. Yes.  
 24 Q. Is this the drilling fluids  
 25 program for the Macondo Well?  
 00237:01 A. It appears to be, yes.  
 02 Q. Okay.  
 03 A. I mean, I'm looking at the cover  
 04 page, so --  
 05 Q. Sure. Do you want to take a  
 06 second to look at the document?  
 07 A. Yeah, let me just page through a  
 08 few pages here, just to be confident that it  
 09 is the one. (Reviews document.) Yes, it  
 10 appears to be.  
 11 Q. Okay. And you offered to  
 12 explain -- walk through the document and  
 13 explain the types of services you provided to  
 14 BP by this report?  
 15 A. If I can, yeah.  
 16 Q. Let's do it.  
 17 A. Whatever you'd like to do.  
 18 Q. Yeah, that would be great.  
 19 Well, I mean, I was just trying to get just a  
 20 general summary of what this document is.  
 21 A. Okay.

22 Q. And, you know, if you could --  
23 if you could just start off by telling me,  
24 you know, when this was created and -- when  
25 was this document created, to your --

00238:01 A. Okay. This would have been  
02 created at some -- or worked on at some time  
03 prior to drilling the well, of course. Like  
04 I explained I think this morning to Mr.  
05 Bruno, you know, BP comes to us and gives us  
06 a -- I guess if you looked on -- what is it?  
07 It's not -- the ^ aren't ^ ?? pages numbered.  
08 But the one that we talk about  
09 the basis of design, the well schematic,  
10 which is a few pages in, they would come to  
11 us with a diagram similar to this saying:  
12 This is the well we're going to drill, here's  
13 a lot of -- you know, here's some of the  
14 information that we've put together, and we  
15 would like you to put together a fluids, you  
16 know, program for this.  
17 Usually the first thing they'll  
18 ask when they're doing a project like this  
19 is, "We really need a cost estimate," you  
20 know, because that's important, you know.  
21 For them to get money to drill the well, they  
22 have to -- you know, they do this with all  
23 their services, I'm sure, you know, to try to  
24 figure out what the -- what the cost is going  
25 to be.

00239:01 So we would do that, and then we  
02 would put together a -- the program with some  
03 recommendatin -- some property  
04 recommendations and things like that.  
05 But as you -- as you walk  
06 through this, you'll see that BP provides us  
07 with a lot of -- a lot of information in  
08 order to put this together. You know, we  
09 rely on BP for -- you know, for everything  
10 with regards to mud weights, poor pressure,  
11 you know, all of those type things. Area --  
12 you know, areas of lost circulation, you  
13 know.

14 Q. Okay. So in advance of you  
15 putting this report together, BP provides you  
16 a lot of information about the well?

17 A. Absolutely, yes.

18 Q. And you rely on that information  
19 in order to make whatever recommendations you  
20 make?

21 A. Yes, that's correct.

22 Q. Okay. Specifically, I mean --  
23 then -- understanding that you rely on the  
24 information provided by BP, what type of  
25 service do you then provide? You recommend

00240:01 what type of mud to use; is that right?

02           A.       Yes. And then in some cases, BP  
03 knows what mud they want to use, and they'll  
04 just -- you know, this is what we're going to  
05 use.

06                   We'll go through and determine,  
07 you know, maybe for different hole sizes,  
08 what the -- what the recommended property  
09 should be, rheology, viscosity, you know,  
10 those type of things, and what products we're  
11 going to need to -- you know, to treat the  
12 fluid, you know, with respect to that.

Page 242:10 to 245:21

00242:10           Q.       Okay. So they're familiar --  
11 your personnel on the rig in this case, the  
12 Deepwater Horizon, are familiar with the  
13 volumes of mud in the well; is that right?

14           A.       Yes.

15           Q.       And they're familiar with the  
16 amount of time it will take to circulate the  
17 volume -- those volumes?

18           A.       I would think so, yes.

19           Q.       And would -- another function  
20 they perform be to execute adjustments in the  
21 mud properties?

22           A.       Yes.

23           Q.       Like for example, weighting up  
24 the mud?

25           A.       Well, if BP would instruct  
00243:01 them -- and typically on mud weight, that's  
02 typically the operator's call. That's BP's  
03 decision on what that mud weight should be.  
04 They may tell our guy, Hey, we'd like to  
05 raise the mud weight to 14 pound or 14.2 or  
06 whatever. How much barite do you think it  
07 will take us to do that? Our guys can figure  
08 that out. And then they will instruct the  
09 drill crew, you know, or the pit man or the  
10 dirt man, whoever is in charge of weighing  
11 up, you know, a lot of the equipment down  
12 there to -- we need to weight the mud up.

13           Q.       So in terms of the instruction  
14 of how much the mud should be weighted to,  
15 that all comes from BP?

16           A.       Absolutely, yes.

17           Q.       All right. Does any of that  
18 information come from Transocean?

19           A.       No.

20           Q.       Okay. So if I understand it  
21 correct, BP gives the instructions to the mud  
22 engineers, M-I SWACO mud engineers, and then  
23 they execute whatever plans that BP gave  
24 them; is that right?

25           A.       That's a good way to put it,

00244:01 yes.  
02 Q. How would you put it?  
03 A. No, no. I mean, that's the --  
04 essentially that's what they do, yeah. They  
05 tell us what they -- what they want, and, of  
06 course, we -- or they may go to Transocean  
07 and, "Look, guys, we want to raise the mud  
08 weight, you know, to a certain point," and  
09 the Transocean guys would actually operate  
10 the equipment and, you know, raise the  
11 weight.  
12 Q. Does M-I SWACO get involved in  
13 making recommendations on mud weight?  
14 A. No.  
15 Q. So Mr. Maxie, for example,  
16 doesn't make recommendations to the BP mud --  
17 fluid engineers about a certain mud weight  
18 that might be needed in the Macondo Well?  
19 A. I don't -- I don't know about  
20 the Macondo Well. The only time a mud  
21 engineer or someone like Doyle Maxie would  
22 make a recommendation, you know, maybe on mud  
23 weight would be if on some wells, we would  
24 have what they call shale problems or heating  
25 or something.

00245:01 Someone may notice that these  
02 cuttings are -- you know, are getting a lot  
03 of cuttings over, we're not drilling fast,  
04 we -- and that is an indication that, you  
05 know, maybe your mud weight needs to be  
06 raised to -- you know, to stabilize things.  
07 But that's something that -- essentially BP  
08 would make that call, you know, but Doyle may  
09 bring that to their attention.  
10 Q. And that -- is that an example  
11 of the type of suggestions that you mentioned  
12 earlier today?  
13 A. Yes.  
14 Q. Okay. Thanks. And I think you  
15 just told previous counsel that M-I SWACO  
16 doesn't have anything to do with moving the  
17 mud around in the pits; is that right?  
18 A. We don't physically do anything,  
19 you know, along that -- well, as far as  
20 turning valves or moving mud or lining pumps  
21 or anything like that. No, we don't.

Page 246:10 to 246:19

00246:10 Q. Okay. Does M-I SWACO do  
11 anything with tank cleaning?  
12 A. No, they don't.  
13 Q. Do they supervise the  
14 contractors that are brought in to do tank  
15 cleaning?

16 A. No.  
17 Q. Does M-I SWACO have anything to  
18 do with flow checks on the rig?  
19 A. No.

Page 247:09 to 249:06

00247:09 Q. Do you know anything specific  
10 that they would communicate about that was  
11 part of M-I SWACO's job on the rig?  
12 A. I think a lot of times we have  
13 some hydraulic modeling software that we use  
14 to plan wells and things like that, and we  
15 typically model, you know, what the  
16 equivalent circulating density may be given a  
17 certain flow rate, ROP, depth. And sometimes  
18 the Sperry guys, of course, would have some  
19 realtime data, you know. And we may compare.  
20 We may talk to them and say, hey, you know,  
21 we're modeling. We modeled this in our plan.  
22 What is the actual looking like, you know.  
23 So, those type discussions.  
24 Q. Is that what M-I SWACO refers to  
25 as virtual hydraulics?  
00248:01 A. Yes.  
02 Q. And those virtual hydraulics,  
03 they're done -- can you give me a -- strike  
04 that. Can you give me a sense of when the  
05 virtual hydraulic predictions are done, at  
06 what point in the well?  
07 A. Typically in the planning  
08 process, you know, that it is. I mean, it's  
09 a software for planning, for the most part.  
10 To estimate, you know, what the effective mud  
11 weight may be at the bottom hole, you know,  
12 because it may differ from the surface mud  
13 weight that you're pumping in given your  
14 effects of temperature and pressure.  
15 Synthetic-based muds are  
16 compressible, unlike water-based muds. So  
17 there's got to be a way to predict that so  
18 that you don't, you know, you don't have your  
19 mud weight too high or too low in some cases.  
20 Q. So are the virtual hydraulics  
21 done at the time that you're putting together  
22 the drilling fluids program?  
23 A. Yeah. Based upon the  
24 information BP gives us, you know, we do some  
25 modeling. And you will see some of the  
00249:01 results in the mud program, some of the  
02 modeling that is done there.  
03 Q. Which page are you looking at  
04 there?  
05 A. I'm looking at -- it's 189.  
06 16189. I think that's it.

Page 249:16 to 250:12

00249:16 Q. After this initial virtual  
17 hydraulics model is run for a well, does M-I  
18 SWACO come in and adjust their predictions  
19 after you gather more information about the  
20 well?  
21 A. It's possible. Certainly, yeah.  
22 We'll -- our guys will continue to run it,  
23 you know, as we drill the well to, you know,  
24 validate, you know, what we modeled. Or if  
25 there's some changes then, you know, they'll  
00250:01 make changes. And then, of course, because  
02 things may change from when we modeled it  
03 early on, you know, different depths,  
04 different hole size, different mud weight.  
05 So they were able to change that or maybe  
06 they foresee something down the hole that may  
07 change, so they're modeling and actually  
08 planning for the next well but while we're  
09 drilling a portion of the well.  
10 Q. And are those updated models  
11 then provided to BP?  
12 A. Yes.

Page 258:07 to 258:11

00258:07 Q. Sure. Are you familiar with  
08 BP's request to Mr. Maxie to calculate  
09 pressures that should have been seen during  
10 the float collar conversion on the Deepwater  
11 Horizon?

Page 258:13 to 258:20

00258:13 THE WITNESS: The way -- I talked to  
14 Doyle Maxie about that. He told me that he  
15 was asked initially -- and I think this was  
16 prior to the cement job -- to run -- asked if  
17 he could run virtual hydraulics to determine  
18 what the ECD would be while they were  
19 circulating during the cement job or, you  
20 know, through the casing.

Page 258:24 to 260:01

00258:24 Q. Go ahead.  
25 A. So then later on I think -- and  
00259:01 it may have been after the cement job --  
02 someone called him and asked him, you know,  
03 when you ran those numbers before, the ECDs,  
04 I think, looked okay, but the pressure wasn't

05 correct. Well, our program is not designed  
 06 to model pressure through float equipment.  
 07 We have no idea what the -- what the -- I  
 08 guess the internal design specifications are  
 09 for, you know, for that tool or equipment.  
 10 And our program is designed to model, you  
 11 know, circulating primarily through a bit.

12 I think Doyle and John LeBleu  
 13 tried to, I guess, trick the program, if you  
 14 will, to try to come up with a pump pressure  
 15 by putting some information in there that I  
 16 guess I don't know -- I don't know who gave  
 17 them, to try to estimate what that equivalent  
 18 opening would be, you know, at the bottom of  
 19 the tool or the insides or whatever. But the  
 20 program is not designed to, you know, to  
 21 model pump pressure through a, you know,  
 22 float equipment.

23 Q. So, do you have a position on  
 24 the pump pressures that Mr. Maxie was  
 25 predicting during the float collar  
 00260:01 conversion?

Page 260:03 to 260:07

00260:03 THE WITNESS: Mr. Maxie predicted the  
 04 ECD. If there was a pump pressure, you know,  
 05 noted, I think Doyle has told me that, to  
 06 him, it wasn't accurate, you know. He  
 07 communicated that to everyone.

Page 264:22 to 265:01

00264:22 Q. Is it your understanding that --  
 23 strike that. You testified earlier that Mr.  
 24 Maxie suggested the idea of using the LCM  
 25 material that was on the Horizon as a spacer  
 00265:01 to BP; is that right?

Page 265:03 to 265:16

00265:03 THE WITNESS: No. I said that in the  
 04 e-mails, if you read just the e-mails, you  
 05 would think that Mr. Maxie was the one that  
 06 first suggested it. But after talking to Leo  
 07 Lindner, we learned that it was discussed on  
 08 the rig site many days or even on other jobs,  
 09 you know, when we had these pills mixed up  
 10 and, you know, if there was a case where we  
 11 would not use them, this could be a  
 12 possibility.  
 13 BY MR. LEOPOLD:  
 14 Q. So, you're saying that it was

15 discussed on the rig prior to the e-mails  
16 that Mr. Maxie sent; is that correct?

Page 265:18 to 265:25

00265:18 THE WITNESS: I believe, yeah, that's  
19 correct.  
20 BY MR. LEOPOLD:  
21 Q. And did Mr. Lindner make the  
22 suggestion to BP personnel about using the  
23 spacer?  
24 A. I don't know if he did himself  
25 or not.

Page 267:04 to 267:06

00267:04 Q. Okay. So you recall speaking  
05 with Mr. Lindner about a conversation he had  
06 with the well site leader; is that correct?

Page 267:08 to 267:11

00267:08 THE WITNESS: Someone at the rig site.  
09 BY MR. LEOPOLD:  
10 Q. Okay. And what did he say was  
11 the content of that conversation?

Page 267:13 to 267:17

00267:13 THE WITNESS: We really didn't go into  
14 a lot of detail. I think we just talked  
15 about the idea of using this LCM as a spacer  
16 had been kicked around prior to when Doyle  
17 bought it up in these e-mails.

Page 267:19 to 268:03

00267:19 Q. And was Mr. Lindner part of the  
20 group that was kicking around the idea?  
21 A. I don't know if he was referring  
22 to him kicking around or maybe some of the  
23 other mud engineers, you know, that we had  
24 on-site.  
25 Q. So, you would agree that Mr.  
00268:01 Lindner was aware of these conversations  
02 then, correct?  
03 A. I would say so, yes.

Page 268:14 to 269:01

00268:14 Q. And you might have said this  
15 before. But has, to your knowledge, has M-I

16 SWACO ever used the LCM as spacer material  
17 for other clients in the Gulf of Mexico?  
18 A. Not that I'm aware of.  
19 Q. Or any other clients, to your  
20 knowledge?  
21 A. Not that I'm aware of, no.  
22 Q. And if I recall correctly, you  
23 said there was no prior testing of LCM  
24 material done to model what effects it might  
25 have in the -- if it were introduced into the  
00269:01 BOP; is that correct?

Page 269:03 to 269:16

00269:03 THE WITNESS: No, I didn't say that  
04 there was no testing done. I said there was  
05 what we would call sort of a rig site  
06 analysis where Leo actually combined two of  
07 the spacers together, you know, in the mud  
08 lab, if you will, on the rig and observed and  
09 analyzed it, you know, to see if there was  
10 any effect. From what he told us, there was  
11 not.  
12 BY MR. LEOPOLD:  
13 Q. Okay. Did M-I SWACO have any  
14 concerns about whether that material would  
15 react in a certain way if it were trapped  
16 inside of piping or the BOP?

Page 269:18 to 269:19

00269:18 THE WITNESS: No, we didn't have any  
19 concern of that.

Page 270:06 to 270:06

00270:06 Exhibit 2810.

Page 270:09 to 270:11

00270:09 Q. And at the bottom of that page  
10 there's an e-mail from Doyle Maxie to Andrew  
11 Wilde, is it?

Page 270:22 to 270:23

00270:22 MR. LEOPOLD: I'm referring now to the  
23 second page, which is M-I 00016420. Are we

Page 271:02 to 271:09

00271:02 Q. And in that e-mail, Mr. Maxie

03 says, towards the bottom, "Can we or would  
04 you recommend them to be used as spacers for  
05 displacement, is there a chance that the FAS  
06 will plug and dewater?" Do you see that?  
07 A. Yes.  
08 Q. What does that mean? Do you  
09 have an opinion on what that means?

Page 271:11 to 271:20

00271:11 THE WITNESS: What -- that is our  
12 Form-A-Squeeze pill. And that's what it does  
13 in a formation, you know, it will dewater and  
14 it effectively -- I wouldn't say plug, but it  
15 would seal off a sand, you know, matrix if  
16 you will. And that's what it's designed to  
17 do.  
18 But inside a pipe or inside the  
19 tank, you know, there's no mechanism there  
20 for it to dewater.

Page 271:22 to 271:24

00271:22 Q. Do you think this demonstrates a  
23 concern on Mr. Maxie's part that it might  
24 plug and dewater inside a pipe?

Page 272:01 to 272:02

00272:01 THE WITNESS: No, I don't. I don't  
02 read that into it.

Page 272:06 to 272:08

00272:06 Q. What do you think he means by  
07 "Is there a chance that the FAS will plug and  
08 dewater?"

Page 272:10 to 272:12

00272:10 THE WITNESS: I really don't know  
11 unless he is talking about it out of the  
12 formation, you know.

Page 273:08 to 273:23

00273:08 And this is previously marked  
09 Exhibit 1015. This is an e-mail from Mr.  
10 Maxie to, again, Mr. LeBleu and some other  
11 members of the BP team on Friday, April 16th.  
12 A. Um-hum.  
13 Q. 2010. And I'd like to direct

14 your attention to towards the bottom of the  
 15 e-mail where Mr. Maxie says, "I do not know  
 16 the exact tool that will be used. If there  
 17 are any small restrictions in the assembly,  
 18 this would be a risk." Do you see that, Mr.  
 19 Billon?

20 A. Um-hum (affirmative response).

21 Q. Is Mr. Maxie there referring to  
 22 risks associated with the LCM material that  
 23 is being proposed for use as a spacer?

Page 273:25 to 274:07

00273:25 THE WITNESS: I think he's just being  
 00274:01 prudent, you know, because he's talking to  
 02 all these guys. I think he's bringing up  
 03 things that -- I mean, maybe that could be  
 04 possible. Just bringing out things. I think  
 05 he's just being prudent and going through all  
 06 of the different things that, you know, that  
 07 could come up and --

Page 275:02 to 275:03

00275:02 Q. Is it fair to say that Mr. Maxie  
 03 had identified this as a risk?

Page 275:05 to 275:18

00275:05 THE WITNESS: I don't know if -- I  
 06 don't know if he had identified it as a risk,  
 07 but he was just, again, being prudent, just  
 08 laying out all possibilities. Maybe he would  
 09 use this and after it was vetted out, and  
 10 then at that time you develop a short list of  
 11 actual risks.

12 BY MR. LEOPOLD:

13 Q. Doesn't he use the word "risks"?

14 A. Yes, um-hum (affirmative  
 15 response).

16 Q. Are you saying that Mr. Maxie  
 17 didn't think that there was a risk associated  
 18 with pumping LCM through small piping?

Page 275:20 to 276:07

00275:20 THE WITNESS: He doesn't say anything  
 21 about small piping or anything like that.

22 BY MR. LEOPOLD:

23 Q. I'm sorry.

24 A. He talks about tools.

25 Q. Right. Okay.

00276:01 A. That's a difference.

02 Q. I think we talked about piping  
03 earlier, which is why I used that term.  
04 A. That's fine.  
05 Q. But doesn't he say that there  
06 would be a risk associated with pumping  
07 through certain tools?

Page 276:09 to 276:13

00276:09 THE WITNESS: Certain tools, yes.  
10 That's why he's asking BP to tell him if  
11 there's a certain tool that he's not aware of  
12 that, you know, may pose that risk.  
13 BY MR. LEOPOLD:

Page 277:01 to 277:04

00277:01 Q. Did, when you were talking with  
02 Mr. Maxie, did he identify what kind of tool  
03 he had in mind that might present such a  
04 risk?

Page 277:06 to 277:10

00277:06 THE WITNESS: He did not. That's why  
07 he was asking the question, you know. And, I  
08 don't know, I would have to look at the  
09 reply. I haven't seen the reply from BP or  
10 John LeBleu to this e-mail.

Page 277:14 to 277:19

00277:14 A. Yeah.  
15 Q. -- this is something that Mr.  
16 Maxie had identified. And I'm wondering if  
17 you're aware of any tool that presents a  
18 certain risk with the LCM materials that  
19 we've been talking about?

Page 277:21 to 277:24

00277:21 THE WITNESS: I can't think of one  
22 right now. I'm not a -- we're not in the  
23 tool business. That's why he put that forth  
24 to BP.

Page 278:12 to 279:02

00278:12 Q. Does M-I SWACO do any formal  
13 analyses of risks associated with pumping LCM  
14 materials?  
15 MS. SCOFIELD: Objection to form.

16 THE WITNESS: Through tools?  
17 BY MR. LEOPOLD:  
18 Q. Through tools or -- yeah, let's  
19 start there. Through tools.  
20 MS. SCOFIELD: Objection to form.  
21 THE WITNESS: Not that I'm aware of,  
22 no.  
23 BY MR. LEOPOLD:  
24 Q. Does M-I SWACO have any views on  
25 effects that the LCM material we've been  
00279:01 talking about might have on the efficiency of  
02 pumps on Deepwater Horizon?

Page 279:04 to 279:09

00279:04 THE WITNESS: No.  
05 BY MR. LEOPOLD:  
06 Q. Do you have any views on the  
07 pressure readings that might have been  
08 associated with pumping the LCM material on  
09 the Horizon?

Page 279:11 to 279:19

00279:11 THE WITNESS: No.  
12 BY MR. LEOPOLD:  
13 Q. And I believe I heard you say  
14 earlier, but I just want to make the record  
15 clear. You don't have any views on the  
16 effects that the LCM material might have had  
17 if it were trapped inside the BOP during a  
18 negative pressure test?  
19 A. No.

Page 279:23 to 280:02

00279:23 Q. And do you have any views on  
24 whether, indeed, the displacement procedure  
25 that Mr. Lindner put together was successful  
00280:01 in getting LCM spacer above the BOP before  
02 negative pressure test?

Page 280:04 to 280:08

00280:04 THE WITNESS: I don't know.  
05 BY MR. LEOPOLD:  
06 Q. M-I SWACO doesn't have a  
07 position on that?  
08 A. No.

Page 281:04 to 281:21

00281:04 Q. So the information in terms of  
05 how many barrels needed to be pumped and the  
06 volume of the displacement of the riser and  
07 the kill line and the choke line and the  
08 boost line, all that information was provided  
09 to Mr. Lindner by BP?

10 A. Probably the dimensions and some  
11 of the capacities and things like that, yeah.  
12 I mean, he's quite capable of calculating it  
13 himself. But, typically, on these rigs, I  
14 mean, they have several people calculate  
15 these numbers, and then they compare, you  
16 know, before they do a job to make sure that  
17 everyone is right.

18 Q. Does M-I SWACO have any  
19 advantage in doing these calculations over BP  
20 or Transocean?

21 A. No.

Page 281:25 to 282:02

00281:25 Q. Do you have knowledge of why the  
00282:01 task fell to Mr. Lindner to put together this  
02 displacement procedure?

Page 282:04 to 282:05

00282:04 THE WITNESS: Oh, I couldn't tell you  
05 that.

Page 283:13 to 283:17

00283:13 Q. Sure. So when the spacer was in  
14 contact with seawater as it was being pumped,  
15 is there a potential for the spacer material  
16 to interact with the seawater?  
17 A. Yes.

Page 283:19 to 284:05

00283:19 THE WITNESS: Yes.  
20 BY MR. LEOPOLD:

21 Q. And when I -- when you say  
22 interaction, what does that -- what do you  
23 mean by that specifically?

24 A. Well, they come in contact for  
25 sure, right. And then there could be an  
00284:01 interface or mixing of the two, you know. To  
02 what degree, I couldn't tell you.

03 Q. Has M-I SWACO run tests on that  
04 type of thing?

05 A. No.

Page 284:09 to 284:13

00284:09 Q. So what you -- is it fair to say  
 10 that there could be mixing between the spacer  
 11 and the seawater; is that right?  
 12 MS. SCOFIELD: Objection to form.  
 13 THE WITNESS: Yes, that's correct.

Page 287:15 to 288:14

00287:15 Q. So, is Form-A-Set AK and  
 16 Form-A-Squeeze, are those hazardous  
 17 materials?  
 18 A. No, they're not.  
 19 Q. They're not?  
 20 A. Not that I'm aware of. They're  
 21 not hazardous materials, you know, certainly  
 22 before they go down hole. You know, as mixed  
 23 -- I mean as mixed -- if you were to mix them  
 24 together, I wouldn't think -- they would have  
 25 to be tested. I noticed in some of the other  
 00288:01 e-mails that, you know, and some of the  
 02 testimony, I saw the term hazardous waste,  
 03 you know, mentioned. And, really, this -- if  
 04 this spacer was put together and sent to  
 05 shore to be disposed of, it would be probably  
 06 classified as industrial waste and would have  
 07 to be tested. We would have to submit to BP,  
 08 you know, all of the MSDS sheets, the  
 09 components. And then they would determine  
 10 where it would go. But in this case, I do  
 11 not think it would be classified as hazardous  
 12 waste.  
 13 Q. Okay. Is it toxic to human  
 14 beings, that you know?

Page 288:16 to 288:21

00288:16 THE WITNESS: I'd have to refer you to  
 17 the MSDS sheets for the individual products.  
 18 I just don't --  
 19 BY MR. LEOPOLD:  
 20 Q. So, you don't know about  
 21 toxicity to humans or marine life?

Page 288:23 to 289:13

00288:23 THE WITNESS: Well, I don't know in  
 24 what form. You know, once these things are  
 25 mixed, things are a little different, you  
 00289:01 know. And the reason I say that is because  
 02 dust may be an irritant but, you know, when  
 03 mixed, of course there's no more dust. I'm

04 just trying to simplify this. Is that what  
05 you're sort of --  
06 BY MR. LEOPOLD:  
07 Q. Well, specifically the pills  
08 that were mixed before they were pumped down  
09 the Macondo well as they sat in the pits,  
10 were they toxic to humans or --  
11 A. To the best of my knowledge, no.  
12 But again, you will have to refer to those  
13 MSDS sheets to have a look.

Page 292:09 to 292:21

00292:09 Q. And I thought you indicated  
10 those were the only two you recalled seeing;  
11 is that right?  
12 A. No.  
13 Q. There's another version of that?  
14 A. There is a version -- well, I  
15 don't know if it's -- it's not a version,  
16 but it's an earlier displacement procedure.  
17 Q. Okay. And let's mark that,  
18 then, as Exhibit -- what? Will it be 2811?  
19 Can I put the sticker on there?  
20 COURT REPORTER: Sure. Thank you.  
21 (Exhibit 2811 was marked for the record.)

Page 293:11 to 293:17

00293:11 Q. All right. Mr. Billon, let's  
12 turn first to the 2807. That's the one with  
13 the handwriting on it. I'm just using the  
14 one with the handwriting because it makes it  
15 easier to refer to them. I don't care about  
16 the handwriting. Comfortable with that?  
17 A. Yes.

Page 294:24 to 296:13

00294:24 BY MR. DOYEN:  
25 Q. You know, in fact, it was not  
00295:01 Mr. Lindner's intention, if you follow the  
02 instructions as he wrote them out here, the  
03 spacer would end up a thousand feet or so  
04 above the BOP?  
05 MS. SCOFIELD: Objection to form.  
06 THE WITNESS: I don't know.  
07 BY MR. DOYEN:  
08 Q. You asked Mr. Lindner about  
09 that, didn't you?  
10 A. I asked Mr. Lindner. He said  
11 above the BOP.  
12 Q. You didn't ask him how far above

13 the BOP?  
 14 A. No, I didn't.  
 15 Q. Did he say a thousand feet?  
 16 A. He didn't tell me that.  
 17 Q. Did he say 12 feet?  
 18 A. He didn't tell me that.  
 19 Q. And you didn't inquire one way  
 20 or the other?  
 21 A. No.  
 22 Q. Well, let's look at the document  
 23 itself. So, Step 3 is we pump 425 barrels of  
 24 spacer, right? Got that?  
 25 A. Step 3?  
 00296:01 Q. Step 3.  
 02 A. Okay. Under the displacement,  
 03 right?  
 04 Q. Yes.  
 05 A. Okay.  
 06 Q. I'm sorry, under the  
 07 displacement, Step 3.  
 08 A. Yes, I see that.  
 09 Q. Step 4 pumps 775 barrels?  
 10 A. Um-hum.  
 11 Q. Correct? Do you understand  
 12 that?  
 13 A. Yes.

Page 296:19 to 297:21

00296:19 Q. Okay. Is it your testimony that  
 20 that instruction means after you pump 425  
 21 barrels, pump another 775 barrels and another  
 22 6,150 strokes?  
 23 MS. SCOFIELD: Objection to form.  
 24 BY MR. DOYEN:  
 25 Q. Is that what that means?  
 00297:01 A. Let me read it again.  
 02 Q. Sure.  
 03 A. I don't know.  
 04 Q. Well, let's look down to Step 6.  
 05 "Continue displacement up the riser until  
 06 spacer is 500 feet past BOP stack." Do you  
 07 see that?  
 08 A. Um-hum (affirmative response).  
 09 Q. 950 barrels, 7,540 strokes. Is  
 10 it your testimony that that instruction means  
 11 after you pumped the 775 barrels, you pump  
 12 another 950 barrels and another 7,540  
 13 strokes? Is that what that instruction  
 14 means?  
 15 MS. SCOFIELD: Objection to form.  
 16 THE WITNESS: I don't know.  
 17 BY MR. DOYEN:  
 18 Q. You haven't tried to figure that  
 19 out?

20 A. I haven't run the calculations.  
 21 No, I haven't.

Page 298:24 to 300:15

00298:24 Q. And you can tell 11,800 --  
 25 sorry, 1,188 feet would be further up above  
 00299:01 the BOP than 500 feet. We can agree on that,  
 02 correct?  
 03 A. Yes.  
 04 Q. And if you pump 950 barrels and  
 05 you only get to 500 feet above the BOP, then  
 06 it must be that if you pump only 775 barrels,  
 07 you're below 500 feet? Can't we agree on  
 08 that?  
 09 MS. SCOFIELD: Objection to form.  
 10 THE WITNESS: I would have to do the  
 11 calculation, sir. I don't --  
 12 BY MR. DOYEN:  
 13 Q. You really -- you can't tell  
 14 that just by looking at this, that  
 15 775 barrels pumping is below 500 feet, based  
 16 on the calculations reflected in this form?  
 17 MS. SCOFIELD: Objection to form.  
 18 THE WITNESS: No, I just can't do that  
 19 in my head.  
 20 BY MR. DOYEN:  
 21 Q. Do you know anybody at M-I SWACO  
 22 that has attempted to figure out if you  
 23 followed the instructions written up by Mr.  
 24 Lindner, how far above the BOP the spacer  
 25 would end up?  
 00300:01 MS. SCOFIELD: Objection to form.  
 02 THE WITNESS: No one has communicated  
 03 that to me.  
 04 BY MR. DOYEN:  
 05 Q. And you don't know of anybody  
 06 that's done the calculation?  
 07 MS. SCOFIELD: Objection to form.  
 08 THE WITNESS: Not that I know of, no.  
 09 BY MR. DOYEN:  
 10 Q. You really don't know either way  
 11 what Mr. Lindner intended when he wrote this  
 12 up, how far above the BOP he was trying to  
 13 get with the spacer with these instructions?  
 14 MS. SCOFIELD: Objection to form.  
 15 THE WITNESS: That's correct.

Page 302:05 to 302:20

00302:05 Q. Do you have any basis for  
 06 disagreeing with this interpretation of the  
 07 plan written up by Mr. Lindner that called  
 08 for 425 barrels of spacer and 350 barrels of

09 seawater to be pumped for a total of  
 10 775 barrels?  
 11 MS. SCOFIELD: Objection to form.  
 12 THE WITNESS: I don't have any basis to  
 13 agree or disagree.  
 14 MR. DOYEN: Okay. All right. Do we  
 15 have the -- the drilling fluids program was  
 16 earlier marked as an exhibit. Somebody  
 17 marked that today. Do we have a number?  
 18 MR. STEINBERG: 2806.  
 19 BY MR. DOYEN:  
 20 Q. 2806. Could you turn to --

Page 304:01 to 305:15

00304:01 Q. Okay. This has been more or  
 02 less implicit. I don't think we've been  
 03 explicit about it. Do you see at the top  
 04 where it says, "Form-A-Squeeze is a quick and  
 05 easy lost-circulation product that can be  
 06 used to address severe lost circulation  
 07 problems while drilling." Do you see that?  
 08 A. I see it.  
 09 Q. And you agree with that, don't  
 10 you?  
 11 A. Yes.  
 12 Q. Turn a couple pages later to  
 13 6342, Appendix 8 at the bottom of the page,  
 14 says Form-A-Set AK.  
 15 A. Yes.  
 16 Q. 6217 on yours?  
 17 A. I've got 6287. Oh, I'm sorry.  
 18 Q. Appendix 8, Form-A-Set KA. Do  
 19 you see that?  
 20 A. Yes.  
 21 Q. "Form-A-Set AK is a special  
 22 blend of polymers and fibrous materials  
 23 designed to plug matrix and fractured zones."  
 24 Do you see that?  
 25 A. I do.  
 00305:01 Q. Do you agree with that?  
 02 A. Yes.  
 03 Q. Do you know of anywhere in this  
 04 document where it describes either of those  
 05 materials, Form-A-Set AK or Form-A-Squeeze,  
 06 as suitable for use as spacers?  
 07 A. No, sir, I don't.  
 08 MS. SCOFIELD: Object to the form.  
 09 BY MR. DOYEN:  
 10 Q. And, in fact, you've never seen  
 11 any brochure or bulletin or report from M-I  
 12 SWACO describing either of those two products  
 13 as appropriate for spacer, correct?  
 14 MS. SCOFIELD: Objection to form.  
 15 THE WITNESS: That's correct.

Page 306:09 to 306:22

00306:09 Q. The M-I SWACO BP contract that  
10 pertains to this case that was introduced  
11 earlier today as Exhibit 2804. I'll put that  
12 in front of you. And then I'm asking you to  
13 turn well into the document. The Bates  
14 number at the end is 23250, part of Section  
15 7, "Health, safety, security and  
16 environment."  
17 A. Yes.  
18 Q. Do you see that?  
19 A. Um-hum (affirmative response).  
20 Q. Where it says management of  
21 change?  
22 A. Yes.

Page 307:21 to 307:24

00307:21 Q. So your understanding is that a  
22 management of change process would not be  
23 perform by M-I SWACO in any case; it would be  
24 performed by BP? Is that your testimony?

Page 308:01 to 308:05

00308:01 HE WITNESS: Yes. And we would  
02 probably participate in the, you know, in  
03 putting together the management of change.  
04 But it would be a BP management of change  
05 document.

Page 308:07 to 308:25

00308:07 Q. Okay. In this clause here,  
08 Section 9, it says, "Work arising from  
09 temporary and permanent changes to  
10 organization, personnel, systems, process,  
11 procedures, equipment, products, materials,  
12 or substances and laws and regulations cannot  
13 proceed unless a management of change process  
14 is completed." Do you see that?  
15 A. I do.  
16 Q. And is it M-I SWACO's view that  
17 this provision applies to the use of an M-I  
18 SWACO product for a purpose for which it has  
19 never been tested or previously used?  
20 MS. SCOFIELD: Objection to form.  
21 THE WITNESS: I don't know.  
22 BY MR. DOYEN:  
23 Q. You don't have a position on  
24 that?

25           A.       No.

Page 309:22 to 310:07

00309:22           Q.       Okay. You did make an effort to  
 23       determine whether or not -- strike that. Was  
 24       any such management of change process carried  
 25       out by M-I SWACO in connection with the use  
 00310:01       of the Form-A-Set and the Form-A-Squeeze as a  
 02       spacer at Macondo?  
 03           A.       No.  
 04           Q.       And do you know whether any such  
 05       process was carried out by BP?  
 06           MS. SCOFIELD: Objection to form.  
 07           THE WITNESS: I am not aware of any.

Page 310:17 to 310:22

00310:17           Q.       That's not been marked as an  
 18       exhibit. Why don't we mark that one. So  
 19       we're marking -- at the top there is a  
 20       May 11, 2010, e-mail from Doyle Maxie to Brad  
 21       Billon. And it's attaching an earlier e-mail  
 22       from Doyle Maxie to several people.

Page 311:14 to 313:14

00311:14       0000137274.  
 15       BY MR. DOYEN:  
 16           Q.       Did you talk with Mr. Doyle --  
 17       Mr. Maxie about this e-mail --  
 18           A.       Yes, I did.  
 19           Q.       -- Mr. Billon?  
 20           A.       Yeah.  
 21           Q.       So I'm looking down on a couple  
 22       sentences in. He says, "I have talked with  
 23       Armand, Wilde -- " did you say?  
 24           A.       Wilde.  
 25           Q.       "Wilde, Manuel, Smith about the  
 00312:01       possibility of using the pills as the final  
 02       displacement spacer prior to cleaning the  
 03       riser for NILE." And the pills we're talking  
 04       about are the Form-A-Set and Form-A-Squeeze,  
 05       correct?  
 06           A.       Understood.  
 07           Q.       Okay. And then the next  
 08       sentence says, "We have to clear all  
 09       operational issues before doing so such as  
 10       BHA for final displacement. I am assuming  
 11       that will be a cement stinger." Do you see  
 12       that?  
 13           A.       Yes.  
 14           Q.       And the BHA there is the bottom

15 hole assembly, correct?  
 16 A. That's the way I understand it.  
 17 Q. Which is an attachment to the  
 18 end of drill string or pipe, correct?  
 19 A. Yes.  
 20 Q. He says there, "We have to clear  
 21 all operational issues." Who is "we"?  
 22 A. I would assume when I talked to  
 23 him, he was talking about the team.  
 24 Q. "The team" meaning what?  
 25 A. Well, the group that he sent the  
 00313:01 e-mail to down in the middle here.  
 02 Q. Brett Cocalles is one of those,  
 03 correct?  
 04 A. Yep. John LeBlue, Brett  
 05 Cocalles, Brian Morel, Mark Hafle.  
 06 Q. And who did you understand Mr.  
 07 Cocalles was?  
 08 A. I understand he's one of the  
 09 drilling engineers at BP.  
 10 Q. And Mr. Morel?  
 11 A. He is a drilling engineer at BP  
 12 also.  
 13 Q. And Mr. Hafle?  
 14 A. The same.

Page 314:13 to 315:03

00314:13 Q. Okay. And whose responsibility  
 14 was it to identify the relevant operational  
 15 issues that would need to be cleared before a  
 16 decision could be made to use the pills for  
 17 the final displacement?  
 18 MS. SCOFIELD: Objection to form.  
 19 THE WITNESS: It would be the drilling  
 20 team comprised of those BP drilling  
 21 engineers. I'm not sure exactly which one,  
 22 but...  
 23 BY MR. DOYEN:  
 24 Q. And do you know whether any of  
 25 them identified any additional operational  
 00315:01 issues that needed to be cleared before final  
 02 displacement?  
 03 A. I do not know that.

Page 318:10 to 318:14

00318:10 Q. And is there anyone else, to  
 11 your knowledge, at M-I SWACO who concluded  
 12 that with that tool in the hole, there will  
 13 not be any restriction that would cause the  
 14 Form-A-Squeeze to set up?

Page 318:16 to 318:16

00318:16 HE WITNESS: No, I'm not aware.

Page 319:04 to 319:12

00319:04 Q. Did you ask Armand, Wilde,  
05 Manuel?  
06 A. Oh, I'm sorry.  
07 Q. Smith?  
08 A. I have asked Andrew Wilde, yes.  
09 Q. Okay.  
10 A. He agreed with me.  
11 Q. How about the others?  
12 A. No, I didn't ask them directly.

Page 320:17 to 321:02

00320:17 Q. So, in your view, whose  
18 responsibility is it to determine if there  
19 are or will be any small restrictions that  
20 would create a risk of the Form-A-Squeeze  
21 setting up if you used this pill in the final  
22 displacement?  
23 A. That would be BP's decision or  
24 -- yeah, their --  
25 Q. Responsibility?  
00321:01 A. -- responsibility is what I  
02 meant to say.

Page 322:08 to 322:14

00322:08 Q. And other than talking to those  
09 four individuals and raising the question  
10 with the people at BP on this e-mail, do we  
11 know of anything else that Mr. Maxie did to  
12 identify all the risks that might be created  
13 by the use of these pills as final the  
14 displacement spacer?

Page 322:16 to 322:17

00322:16 THE WITNESS: I don't know. No, I  
17 don't.

Page 324:07 to 326:01

00324:07 Q. I don't have multiple copies of  
08 that, so I will ask your counsel to look over  
09 your shoulder. We'll mark that as  
10 Exhibit 2813. On the disc the Bates number  
11 would be MI 00015962. Stick that on there.

12 (Exhibit 2813 marked for the record.)  
 13 THE WITNESS: Oh, I'm sorry.  
 14 MS. SCOFIELD: Take your time.  
 15 BY MR. DOYEN:  
 16 Q. Have you seen that document  
 17 before?  
 18 A. Yes. Yes. Yes. Okay.  
 19 Q. Do you see question No. 3 there,  
 20 an account from M-I SWACO as to the  
 21 communication leading to the decision to use  
 22 LCM pills as spacer, and then there's a  
 23 narrative answer. For the moment I'm going  
 24 to skip over, if you will excuse me.  
 25 A. Okay.  
 00325:01 Q. And then on the next page after  
 02 giving the narrative answer, it says, "See  
 03 e-mail correspondence attached for  
 04 confirmation." Then behind that is a bunch  
 05 of e-mails and other relevant materials.  
 06 A. Okay.  
 07 Q. Do you have some recollection of  
 08 this material being pulled together?  
 09 A. Yes, I do. I think I do now.  
 10 Q. As were you a part of the -- was  
 11 it just you or some team at M-I SWACO  
 12 pulling this stuff together?  
 13 A. I think there was a team of  
 14 people was involved, our legal department  
 15 pulling it together.  
 16 Q. I didn't mean to interrupt. Did  
 17 you help gather some of the e-mails?  
 18 A. Yes, I believe I did.  
 19 Q. And Doyle Maxie sent you some  
 20 e-mails that he exchanged with the folks at  
 21 BP, correct?  
 22 A. Yes.  
 23 Q. Including Mr. Cocales?  
 24 A. Yeah.  
 25 Q. Mr. Morel, Mr. Hafle?  
 00326:01 A. Yes.

Page 327:14 to 329:02

00327:14 Q. Okay. Do you recall Mr. Maxie  
 15 sending you a single e-mail on this subject  
 16 between M-I SWACO and anybody at Transocean?  
 17 A. No, I don't.  
 18 Q. Have you ever seen an e-mail  
 19 between Mr. Maxie and anyone at Transocean on  
 20 the question whether the LCM pills could be  
 21 used as a spacer?  
 22 A. No, I don't recall.  
 23 Q. Have you seen an e-mail to or  
 24 from anybody at Transocean on the question  
 25 whether the LCM pills would be used as a

00328:01 spacer?  
 02 A. No, I can't say that I have.  
 03 Q. Now, you are aware, aren't you,  
 04 that Mr. Lindner raised this issue with Don  
 05 Bidrine. Do you know who Mr. Bidrine is?  
 06 A. Yeah, I know who he is. Yes.  
 07 Q. Okay.  
 08 MS. SCOFIELD: Objection to form.  
 09 BY MR. DOYEN:  
 10 Q. Who is Mr. Bidrine?  
 11 A. He is one of the well site  
 12 leaders on the Deepwater Horizon.  
 13 Q. Okay. You, at one point,  
 14 referred to Mr. Lindner talking to the  
 15 drilling foreman.  
 16 A. Yeah. Well site leader, that's  
 17 --  
 18 Q. That's who you meant, the well  
 19 site leader?  
 20 A. Yes.  
 21 Q. Because I don't think there's  
 22 anybody out there with that formal title.  
 23 A. Right.  
 24 Q. Let me ask you to look at an  
 25 exhibit that was marked as 1039. We have  
 00329:01 another copy of that. Is that on the disc?  
 02 A. Okay.

Page 329:08 to 329:13

00329:08 Q. Do you see at the top there an  
 09 e-mail from Mr. Bidrine to Mr. Lindner?  
 10 A. Yes.  
 11 Q. Saying, "Discussed with Brian  
 12 Morel..."  
 13 A. Yes.

Page 329:25 to 330:06

00329:25 Q. Okay. Have you seen anything  
 00330:01 indicating when the well site leader learned  
 02 of this question, he told the people at M-I  
 03 SWACO, "You've really got to talk to the  
 04 Transocean rig crew?" Have you seen anything  
 05 like that?  
 06 A. No, never.

Page 330:13 to 331:22

00330:13 Q. At the bottom of the page there  
 14 there is a narrative answer to the request  
 15 for an account of communications leading to  
 16 the decision to use the LCM pills as a

17 spacer. Do you see that?  
 18 A. Yes.  
 19 Q. Okay. I'm just going to read  
 20 that and ask you if you agree with that based  
 21 on your review of the facts and  
 22 circumstances. "Leo stated that the idea of  
 23 using the LCM pills as spacer for the riser  
 24 displacement was discussed several days prior  
 25 to the actual displacement. The discussion  
 00331:01 involved the mud engineers as well as several  
 02 members of the BP drilling team, including  
 03 the BP fluid specialist John LeBleu, the  
 04 drilling engineer Brian Morel, the BP company  
 05 man and the BP environmental and waste  
 06 specialist, James Hoggan?  
 07 A. I think he says Hoggan.  
 08 Q. Hoggan, and Tracy Dyer.  
 09 A. Right.  
 10 Q. Is that a true statement as far  
 11 as you know?  
 12 A. Yes.  
 13 Q. And other than the people that  
 14 are identified in this statement as being  
 15 contacted or as having been participating in  
 16 discussions, other than the people at M-I  
 17 SWACO that we've also identified, do you know  
 18 of anybody else that was involved in these  
 19 discussions whether to use the LCM pills as a  
 20 spacer?  
 21 A. No, I don't.  
 22 Q. Okay. One second.

Page 332:07 to 332:15

00332:07 Q. Same one we saw two minutes ago.  
 08 You indicated, I thought earlier, that Mr.  
 09 Maxie had told you the reason for using this  
 10 was the beneficial reuse.  
 11 A. Yes, that's what he told me.  
 12 Q. Isn't it a fact, sir, that the  
 13 issue first arose, the issue that first arose  
 14 was not whether this material could be reused  
 15 but whether it could be dumped into the Gulf?

Page 332:17 to 333:13

00332:17 THE WITNESS: I don't remember what the  
 18 context was. I mean, you know, or the timing  
 19 of the comments.  
 20 BY MR. DOYEN:  
 21 Q. Well, let's look at this e-mail  
 22 for --  
 23 A. I've got it. You're looking at  
 24 the same one. I'm with you.

25 Q. Okay. I'm looking at the bottom  
 00333:01 of the page on exhibit -- again?  
 02 A. 2814.  
 03 Q. -- 2814?  
 04 A. Yeah.  
 05 Q. And Mr. Maxie is saying,  
 06 "Gentlemen, BP will not let us dump the  
 07 water-based version of FSA AK?"  
 08 A. Right.  
 09 Q. He's asked them, the first  
 10 inquiry that you see, that you've ever seen  
 11 on this subject, is Mr. Doyle asking BP, "Can  
 12 we dump this overboard like we've done in the  
 13 past?" Isn't that true?

Page 333:15 to 333:20

00333:15 THE WITNESS: Yes, I agree.  
 16 BY MR. DOYEN:  
 17 Q. And BP said initially, "No, you  
 18 can't dump it overboard because it's not been  
 19 in the wellbore," correct?  
 20 A. I believe that's true, yes.

Page 336:16 to 336:19

00336:16 Q. I believe you indicated that M-I  
 17 SWACO did no analysis or testing of the  
 18 impact of exposing the LCM spacer to the BOP?  
 19 A. That is correct.

Page 336:22 to 337:04

00336:22 Q. Likewise, and just to make  
 23 certain that something isn't falling through  
 24 the cracks here or too small restriction,  
 25 likewise M-I SWACO has done no analysis or  
 00337:01 testing of the impact of having this LCM  
 02 spacer in the kill line, correct?  
 03 MS. SCOFIELD: Objection to form.  
 04 THE WITNESS: That is correct.

1	CORRECTION PAGE			
2	WITNESS NAME: BRAD BILLON DATE: 06/23/11			
3	PAGE	LINE	CHANGE	REASON
4	17	9-10	"so it's just same" to "goes as planned"	Reporter error
5	23	5	"plan" to "planned"	Reporter error
6	40	9	"product" to "project"	Reporter error
7	55	23	"off" to "offset"	Reporter error
8	75	15	"readings" to "re-use"	Reporter error
9	80	3	"naught for naught" to "knock-for-knock"	Reporter error
10	113	15	"doesn't" to "don't"	Reporter error
11	174	2	"missing" to "mixing"	Reporter error
12	176	18-19	"whole" to "hole"	Reporter error
13	176	19	"it's the" to "active pit"	Reporter error
14	214	1-2	"viscus spacer, a it" to "viscous spacer, as it"	Reporter error
15	235	20-21	"^gelling^?" to "gelling"	Reporter error
16	238	7	"aren't pages" to "pages aren't"	Reporter error
17	239	10	"poor" to "pore"	Reporter error
18	241	4-5	"that's good indication ^(unintelligible) the rheology" to	
19			"that's a good indication of the rheology"	Reporter error
20	241	7	"just ^ (unintelligible) solids" to "amount of solids"	Reporter error
21	241	15-16	"^whole" and "^whole^?" to "whole"	Reporter error
22	244	24-25	"heating" to "heaving"	Reporter error
23	246	7	"shell" to "shale"	Reporter error
24	285	5	"waited" to "weighted"	Reporter error
25				

**PURSUANT TO CONFIDENTIALITY ORDER**