

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 inconjunction 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"?

02 A. Well, on some rigs, there's not
03 enough surface capacity to hold the volume of
04 the riser, you know, the volume of
05 synthetic-based mud in the riser. So as you
06 displace, you're going to have to move some
07 mud to the boat, you know, or somewhere.
08 Q. In fact, is that what occurred?
09 Did they pump the excess volume to the
10 BANKSTON, or did they, if fact, just bypass
11 the pits and go straight to the BANKSTON?
12 A. From what I -- from what I
13 understand, they pumped it out of the pits to
14 the BANKSTON. That's what -- from what I --
15 from what I've seen.
16 Q. It wasn't excess, it was in and
17 out?
18 A. What do you mean?
19 Q. In other words, as the material
20 went into the pits, it went straight to the
21 BANKSTON?
22 A. I don't know that.
23 Q. Well, am I reading this --
24 A. There's --
25 Q. -- correct -- I'm sorry. I
00115:01 didn't mean to interrupt you.

02 A. No, no. I was just -- I was
03 explaining myself a little bit. There are
04 many pits on these rigs. They're what we
05 call active pits and then the reserve pits.
06 I'm not sure whether they displaced into the
07 active pits, and then as the fluid moved down
08 into the reserve pits, then it was pumped to
09 the boat.
10 Q. Right. And that's exactly what
11 I was trying to learn, because I wanted to
12 know whether or not they -- that this
13 directive, at least -- let's forget about
14 what occurred.
15 A. Yeah.
16 Q. What this directive says is that
17 once you fill up the pits, then you start
18 pumping your excess volume to the BANKSTON.
19 A. That's what -- that's the way I
20 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 the
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.

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

PURSUANT TO CONFIDENTIALITY ORDER