

Deposition Testimony of:

John LeBleu

Date: April 5, 2011

Created by:



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Page 359:11 to 359:11

00359:11 BY MR. DART:

Page 359:14 to 359:21

00359:14 Q. Yesterday you were telling me
15 that the only written procedures or -- or
16 manual regarding drilling fluids was
17 contained in the DWOP; is that right?
18 A. You asked about BP procedures.
19 Q. Yes.
20 A. And the only ones I knew of were
21 in the DWOP.

Page 359:24 to 362:10

00359:24 Q. For drilling fluids. Okay. I'm
25 going to show you the DWOP, which is
00360:01 Exhibit 93 and the drilling fluid section
02 is Section 9, Bates number
03 BP-HZN-2179MDL00057291. Ask you to take a
04 look at that. Is that the drilling fluids
05 management plan for BP?
06 A. That's the -- the -- as it -- as
07 it stood at the time of the incident,
08 that's what was the drilling fluids policy.
09 Q. Five sentences long?
10 A. Well, that's -- there's three --
11 Q. I counted them.
12 A. -- points there.
13 Q. It's five sentences.
14 A. Well, it looks, yeah --
15 Q. And -- and to your understanding
16 at the time of the incident, that was the
17 full extent of BP's written policies and
18 procedures regarding drilling fluids; is
19 that right?
20 A. Yes. Yes.
21 Q. Okay. Thanks. I wanted to ask
22 you now about the displacement of drilling
23 fluid by seawater which was the process we
24 were talking about extensively yesterday.
25 I didn't quite understand what your answer
00361:01 was or what your understanding is as to why
02 spacer is needed at all between
03 synthetic-oil-based mud and seawater.
04 A. If you -- the -- if you have a
05 thicker and/or heavier fluid that's being
06 displaced by a lighter fluid, you can leave
07 some of the thicker or heavier fluid in the
08 wellbore, normally near the walls of the
09 well and possibly against the drill pipe.
10 So the -- the thinner fluid can -- doesn't

11 do a very effective job of the pushing the
12 thicker fluid out.

13 And I'm speaking about the
14 displacement from drilling fluid to
15 seawater. The opposite of displacement
16 is -- is different because the thicker
17 heavier fluid is pushing something thinner
18 and lighter, so it's an easier
19 displacement. But either way there are
20 spacers used.

21 Q. Okay. But you have seawater
22 pushing an even heavier spacer, so the
23 problem that you mentioned of leaving stuff
24 on the wall would be even more pronounced
25 with the spacer, correct?

00362:01 A. You would think so, but
02 experience has shown that at first -- my
03 understanding at first, spacers were thick
04 and they were of the same weight. And as
05 we got off into deeper water, they didn't
06 seem to be as effective. So one of the
07 solutions applied was having the spacer a
08 heavier weight than the fluid it was
09 pushing out and gave us much more efficient
10 displacements. It did a much better job.

Page 363:08 to 363:14

00363:08 A. Can I interrupt you a second?
09 The -- another -- another impact of not
10 having a spacer there would be a lot
11 of -- of mixed oil and water, which is
12 not -- which can be pretty ugly, pretty
13 thick and pretty ugly and pretty hard to
14 remove.

Page 373:01 to 374:03

00373:01 BY MS. FLEMING:

02 Q. Mr. LeBleu, my name is Margaret
03 Fleming and I'm an assistant attorney
04 general from the State of Alabama and we
05 serve as coordinating counsel for the State
06 in this litigation. I want to ask you some
07 questions about the slide show that you
08 discussed yesterday, Exhibit 690. I
09 believe you testified that this was
10 something that was already in progress when
11 you joined BP in March of 2009; is that
12 correct?

13 A. That's correct. It was -- it
14 was -- it was -- I have no direct knowledge
15 of when exactly it started, but my
16 assumption is the -- the presentation

17 was -- was done as an introduction to the,
18 maybe the BP leadership team for Gulf of
19 Mexico.
20 I -- I don't know the specific
21 group that was addressed, but about
22 the -- it was presenting the idea of having
23 new drilling fluid engineers hired at the
24 Gulf of Mexico. It started as a slide
25 presentation for that, so it contained some
00374:01 of the slides the final document contained,
02 but like the diagram of work flow and
03 whatnot, those were changed so --

Page 374:21 to 376:25

00374:21 Q. One of the reasons for this
22 presentation had to do with defining your
23 role --
24 A. That's correct.
25 Q. -- for the company; is that
00375:01 correct?
02 A. Uh-huh.
03 Q. And within this document
04 there -- there are two slides. One is
05 labeled Drilling Fluids Engineer R&R. What
06 does R&R stand for?
07 A. Roles and responsibilities, is
08 my understanding. Roles and
09 responsibilities is my understanding.
10 Q. So this is defining what your
11 roles and responsibilities for the company
12 would be?
13 A. At that point, yes, at that
14 point in time.
15 Q. Now, I noticed that under
16 Planning -- there are responsibilities that
17 are listed under Planning and Execution.
18 And the responsibilities under Planning
19 include the -- this statement, "The
20 engineer will work closely with the
21 Drilling Engineer through all stages of
22 planning and execution."
23 Now, with respect to the
24 HORIZON, who was that indicating you were
25 going to work closely with?
00376:01 A. With Mark Hafle and Brian Morel.
02 Q. Brian Morel?
03 A. Uh-huh.
04 Q. Through all stages of planning
05 and execution, what's your understanding of
06 what that means?
07 A. Planning the drilling fluids
08 program; helping in reviewing the drilling
09 fluids program; assisting where the
10 drilling engineers have concerns about

11 losses, for instance; and -- and working on
12 what would be the joint group decision on
13 what a best -- best course forward would be
14 for the well concerning losses, for
15 instance.

16 Q. And it the says execution. You
17 would assume that meant through all stages
18 of the well; is that correct?

19 A. That's correct. As concerning
20 the execution, we -- we have different rigs
21 assigned to us. We have several rigs
22 assigned to us. So in execution we would
23 try to follow execution as close as we
24 could and as priority dictated and as the
25 demand -- as the need arose.

Page 377:13 to 379:02

00377:13 Q. You were part of the drilling
14 excellence group; is that correct?

15 A. That's correct.

16 Q. And who else was in that
17 excellence group?

18 A. There are a number of people in
19 that excellence group with different
20 special skills. The other drilling fluid
21 engineer is in that group. There were
22 people with special knowledge of liner
23 hangers, special knowledge of BOPs, special
24 knowledge of risers for -- for spars, for
25 instance, and just different disciplines.

00378:01 Q. Now, who was your immediate
02 supervisor?

03 A. The immediate supervisor or
04 manager of the drilling excellence group at
05 the time of the incident was Doug Chester.
06 When this document was generated it was a
07 different gentleman.

08 Q. Who was it then?

09 A. Greg Walz.

10 Q. Now, your chain of command went
11 up how within the organization?

12 A. I'm responsible to my manager,
13 Doug Chester; and above Doug Chester was
14 John Sprague.

15 Q. Was your -- I believe that
16 you've testified that your role was -- you
17 saw your role as advisory in nature?

18 A. Correct.

19 Q. Is that correct?

20 A. That's correct.

21 Q. And that it was your
22 responsibility as you understood it to
23 provide advice and counsel to people who
24 were actually on the rig, the members of

25 the drilling team?
00379:01 A. Advice and counsel to the
02 drilling team in the office.

Page 379:07 to 379:17

00379:07 Q. Not on the rig?
08 A. Not on the rig.
09 Q. I'm -- and where was Brian Morel
10 stationed?
11 A. Brian Morel was office based.
12 Q. Okay. The -- yesterday we
13 talked a little bit -- you were shown
14 Exhibit 105 which was the beginning of an
15 e-mail chain that had to do with some data
16 that you had requested on April 1st of
17 2010.

Page 381:06 to 384:23

00381:06 In this e-mail, you -- this says
07 that -- this is an e-mail from Jose Ortiz
08 to Joseph Keith and says "The drilling
09 fluids engineer, John LeBleu, is requesting
10 an ASCII export file every morning for the
11 remaining of Macondo well." It's asking
12 for data that needs to be time based, he
13 says, all caps, "time based and include
14 every data point. I think data is
15 available every five seconds." And then he
16 lists several variables that you had
17 requested be exported.
18 A. Uh-huh.
19 Q. And those included time and
20 date, whole depth, TVD. What is that?
21 A. True vertical depth.
22 Q. ROP average, what's that?
23 A. That's the rate of penetration
24 average.
25 Q. Uh-huh. WOB average?
00382:01 A. The average weight of -- weight
02 on bit.
03 Q. Rpm surface average?
04 A. Average rotary speed.
05 Q. Torque abs average, what's that?
06 A. I suppose that's torque absolute
07 average.
08 Q. Flow-in and flow-out, riser
09 flow?
10 A. Yes.
11 Q. Stem pipe pressure?
12 A. Yes.
13 Q. Pump one rate, pump two rate,
14 pump three rate, pump four rate and cum.

15 strokes?
16 A. Yes, cumulative strokes.
17 Q. All right. Why did you ask for
18 that data?
19 A. The technology we -- as I
20 explained yesterday, we had a major loss
21 event earlier in the well and we had the
22 well previous to Macondo had a loss event,
23 and each time I interfaced with the
24 technology people in Houston, they wanted
25 this type of data to do a post analysis of
00383:01 what happened or an analysis as quick as
02 possible while we were having losses and
03 trying to mitigate the losses, try to see
04 what -- try to characterize what type of
05 losses they were so we could try,
06 hopefully, figure out what mitigation
07 solution to apply to effect a solution as
08 quick as possible.
09 Q. What sort of things could cause
10 losses?
11 A. The main thing that causes
12 losses is exceeding the frac. gradient.
13 Q. Okay. And anything else?
14 A. Not -- nothing that comes to
15 mind right now. It's exceeding the
16 frac. gradient in some form or fashion.
17 Q. Now, was it an ordinary thing
18 for you to request this sort of data from a
19 rig?
20 A. It was -- this was the first
21 time I asked for it proactively in -- on a
22 daily basis. Now, it's real-time, but it's
23 a snapshot once a day I would get and send
24 to the technology guys. And I decided
25 that -- I discussed it with the technology
00384:01 guys and the technology guys thought it was
02 a good idea; that it would help them to try
03 to proactively keep an eye on things while
04 we're drilling to try to help us avoid
05 losses. And so I --
06 Q. And I believe you said it might
07 also be helpful in retrospect in trying to
08 look at --
09 A. It can be.
10 Q. -- a loss and determine what had
11 happened?
12 A. Yes.
13 Q. So did you ever receive the
14 data?
15 A. Yes, I did.
16 Q. You did?
17 A. Yes.
18 Q. Okay. Now, you saw the e-mail
19 yesterday from Brian Morel in response to

20 your request. Do you remember seeing that?
21 A. Yes, I do.
22 Q. Exhibit 106. It's Bates Number
23 00039500.

Page 385:02 to 386:13

00385:02 Q. It says it was sent Sunday,
03 April 11, 2010 to a Mark Hafle from Brian
04 Morel. Do you recall Brian Morel's
05 response to your request for data?
06 A. I recall seeing the e-mail after
07 the fact.
08 Q. And what Mr. Morel said to
09 Mr. Hafle was "Overstepping boundaries
10 again. Why does he need this?"
11 A. Mr. Morel didn't know -- he
12 didn't know why I needed it. He didn't
13 know the technology guys asked for it, is
14 my assumption.
15 Q. Now, Mr. -- Mr. --
16 A. Once I explained to Mr. Hafle
17 what my reasoning was, Mr. Hafle seemed
18 fine with it. Mr. Hafle asked
19 me -- follow -- followed up, I suppose, on
20 Brian's concern and asked me why, and once
21 I explained it to him, he seemed fine with
22 it.
23 Q. Now, Mr. Morel is the drilling
24 engineer?
25 A. He's one -- one of two.
00386:01 Q. One of two.
02 A. Mr. Hafle and Mr. Morel were the
03 two drilling engineers for Macondo.
04 Q. And on the roles and
05 responsibilities chart that we just looked
06 at, one of your primary responsibilities
07 was to work closely with Mr. Hafle and
08 Mr. Morel, wasn't it?
09 A. That's correct. That's correct.
10 Q. Okay. Work closely with the
11 drilling engineer through all stages of
12 planning and execution.
13 A. That's correct.

Page 386:23 to 388:12

00386:23 Q. How often did you meet face to
24 face with Mr. Morel?
25 A. We -- I would attend the morning
00387:01 meetings and I sat near him, so I saw him
02 almost every day.
03 Q. And how many people were in that
04 group meeting?

05 A. The number varied, but the
06 morning meetings were a rig call, morning
07 rig calls. And I didn't make every morning
08 rig call for the HORIZON, depending on what
09 else was going on, but I made most of them.
10 Q. How many people were in the
11 meetings?
12 A. I -- it differs.
13 Q. On -- on average? Just a small
14 gathering of three or four people?
15 A. No.
16 Q. How many people would be in that
17 meeting?
18 A. Ten, 12, maybe more.
19 Q. Other than the morning meeting,
20 how often did you meet with Mr. Morel?
21 A. The only time I would meet with
22 Mr. Morel is when we had a specific issue
23 to discuss and that was after the planning
24 that was -- wasn't very often. Most --
25 most of our meetings, meetings where we
00388:01 would get together and discuss things, were
02 in the planning phase.
03 Other than that, we sat near
04 each other and -- and were easily
05 accessible and didn't have to have a
06 meeting. It was just a matter of walking
07 up and talking.
08 Q. You understood that your role,
09 your primary role was to serve as an
10 advisor or consultant to Mr. Morel and --
11 and others like him; is that correct?
12 A. Concerning drilling fluids, yes.

Page 394:12 to 395:22

00394:12 Q. Now, based on the e-mail chain
13 that we just reviewed, you wrote and
14 requested the data on April 1st, and there
15 was an e-mail on April 11th from Mr. Morel
16 saying that you had overstepped boundaries.
17 There was an e-mail -- let's
18 document -- Exhibit 1007, I believe, from
19 John Guide saying don't send the data on
20 Monday, April the 12th. So you said you
21 eventually got some data. I assume from
22 that e-mail chain you didn't get all the
23 data that you requested.
24 A. My recollection is I got all the
25 data for every drilling day, which is the
00395:01 only days I needed it and the technology
02 people needed it. So my -- my remembrance
03 and my recollection -- we could visit -- we
04 could review what I have on my hard
05 drive -- but I got all the data.

06 And my recollection is that this
 07 -- this request, as we discussed yesterday,
 08 this request seemed to have come when the
 09 mud logger supervisor changed out on the
 10 rig and he realized what was going on and
 11 then he -- because it was not proper
 12 protocol for the data to be sent, for a
 13 tight-hole exploration well to be sent via
 14 e-mail or to be sent via e-mail to someone
 15 who wasn't on an approved list, which was
 16 me, that he raised a red flag.
 17 And that's when John Guide said
 18 don't send the data. But that's when it
 19 seems from the e-mail we're talking about
 20 John Guide said don't send the data, but it
 21 was like closing the gate after the cows
 22 are out.

Page 400:12 to 402:05

00400:12 Q. Did you see your role as dealing
 13 primarily with concerns that were cost
 14 based?
 15 A. No.
 16 Q. You did not?
 17 A. I did not.
 18 Q. How did you see your role?
 19 A. I saw my role as largely
 20 technical advice and assistance on drilling
 21 fluids and -- and as they pertained to
 22 drilling wells.
 23 Q. Well, can you -- can you tell me
 24 where that falls in that slide there on
 25 your roles and responsibilities, the
 00401:01 drilling fluids engineer roles and
 02 responsibilities?
 03 A. No, I can't -- I don't see it.
 04 Q. You do not see it?
 05 A. What I see is "As priority
 06 dictates, reviews all daily reports, make
 07 recommendations as required" -- "makes
 08 recommendations as required." That's --
 09 that's where I see it, but I know what my
 10 job is and I do my job and that's -- that's
 11 what -- that's what I felt my job -- my
 12 main role is is an advisor for fluids.
 13 Q. Well, would -- if that's the
 14 case, would you agree with me that -- that
 15 Exhibit 690, the slideshow that you helped
 16 prepare and present, does not accurately
 17 reflect your job roles and responsibilities
 18 as you understood them?
 19 A. My roles and responsibilities,
 20 our roles and responsibilities are
 21 something that are dynamic. They change

22 over time. We -- we were due for another
 23 review of roles and responsibilities and
 24 refreshing them and we -- we react to what
 25 the need is, what the need is from the
 00402:01 drilling and operations teams. And my main
 02 role and responsibility as dictated or as
 03 told to me by my manager is to support
 04 operations and that's support operations
 05 from a advisory fluids capacity.

Page 412:13 to 412:18

00412:13 Q. Was it your understanding that
 14 breaching safety could -- could cause you
 15 not to receive a bonus?
 16 A. Yes, that's my understanding,
 17 that a breach at whatever level -- it has
 18 to rise to a certain level.

Page 414:22 to 414:23

00414:22 Q. Mr. LeBleu, my name is Ben
 23 Alexander. I represent Transocean. How

Page 415:01 to 420:13

00415:01 Q. Okay. Did M-I SWACO have
 02 complete autonomy to develop and implement
 03 displacement procedures for the Macondo
 04 well?
 05 A. They worked as a -- you know, in
 06 concert with the other rig personnel is my
 07 understanding.
 08 Q. But --
 09 MS. KUCHLER:
 10 I'm sorry. I can't hear
 11 the witness at all. Could you speak up,
 12 Mr. LeBleu? And is there anything we can
 13 do with the microphone? I didn't hear that
 14 last answer.
 15 BY MR. ALEXANDER:
 16 Q. But BP would have the authority
 17 to review and either approve or veto the
 18 procedures as developed by M-I SWACO; is
 19 that right?
 20 A. Yes, I would think so.
 21 Q. Okay. And these procedures
 22 would include specifying the type and
 23 volume of spacer to be used for
 24 displacement operations, correct?
 25 A. Yes, they -- they normally do.
 00416:01 Q. Okay. So with M-I recommending
 02 using the lost-circulation material spacer

03 and BP approving it, it's fair to say that
04 this was a joint decision made by M-I and
05 BP, would you agree?
06 A. I don't have direct knowledge
07 about how it took place.
08 Q. Okay. But I'm just -- you know,
09 you testified that BP would have the right
10 to either veto or approve the procedures.
11 And so if they approved of the procedure,
12 is it fair to characterize a decision to
13 use the LCM pill as a spacer is a joint
14 decision by BP and M-I?
15 MS. KUCHLER:
16 Object to the form.
17 BY MR. ALEXANDER:
18 Q. You can answer.
19 A. I don't know if they approved
20 the decision or not. I don't know what
21 happened on the rig.
22 Q. But you are aware that the LCM
23 pills were used as spacer for displacement
24 operations, are you not?
25 A. I am aware.
00417:01 Q. Okay. Now, would you consider a
02 displacement procedure a drilling and
03 completions operation?
04 A. It could be either. It could be
05 drilling. It could be completions. It
06 could be from drillings to completions --
07 Q. But as --
08 A. -- depending on the situation.
09 Q. As that phrase is used in the BP
10 organization, drilling and completions,
11 would you consider displacement operations
12 to fall into that category?
13 A. Yes.
14 Q. Okay. Now, as we just
15 discussed, part of developing the procedure
16 would be discussing the mixture and volume
17 of spacer to be used during the operation,
18 right?
19 A. Rephrase the question. I was
20 thinking -- I was thinking about something
21 else. I'm sorry.
22 Q. Well, I was -- I was just
23 saying that --
24 A. Or restate the question, please.
25 Q. Part of displacement procedures
00418:01 include making up a certain slurry and
02 volume of spacer to use between -- to pump
03 between the synthetic-oil-based mud and the
04 seawater taking its place, right?
05 A. Correct.
06 Q. Okay. Now, with regard to the
07 Macondo well, do you know whether the

08 decision to use the LCM's pill as spacer
09 was ever vetted through any sort of
10 documented and auditable risk management
11 process?
12 A. I don't know.
13 Q. Now, the spacer that was used
14 was made up of two LCM pills; is that
15 right? Is that your understanding?
16 A. That's my understanding.
17 Q. Okay. One of the pills was
18 Form-A-Squeeze and the other was
19 Form-A-Set. They weren't mixed before
20 displacement operations began; is that
21 right?
22 A. I don't know.
23 Q. Let me back up. You testified
24 earlier that you understood they were mixed
25 some two weeks or ten days earlier for a
00419:01 lost-circulation event, right?
02 A. That's my understanding, yes.
03 Q. Okay. Do you know if the two
04 separate LCM material pills were mixed
05 together at that time or if they were mixed
06 separately?
07 A. I don't know. For -- for
08 certain, I don't know.
09 Q. What's your understanding?
10 A. Well, I have an assumption, but
11 I don't have an understanding.
12 Q. What's your assumption?
13 A. My assumption is they were mixed
14 separately.
15 Q. Okay. Do you know what the
16 volume of each pill was on the rig?
17 A. No.
18 Q. Do you know whether either pill
19 was more than 200 barrels?
20 A. No, I don't know.
21 Q. Do you have an assumption or
22 understanding of the volume of each pill?
23 A. I have an assumption, but I
24 really don't know.
25 Q. What's your assumption?
00420:01 A. My assumption is that they built
02 the pills the same size as the pill that --
03 the pills that worked.
04 Q. Okay. And what volume
05 pills -- what were the volume of the pills
06 that worked?
07 A. My understanding is that it was
08 300 barrels from -- from reports.
09 Q. What's a typical volume for a
10 Form-A-Set LCM pill?
11 A. It varies depending on the
12 situation, on the severity of the losses

13 and the hole size and whatnot.

Page 420:23 to 426:15

00420:23 Q. Who made up the pills on the
24 rig?
25 A. I don't know exactly. I --
00421:01 I --
02 Q. What company?
03 A. I would think it was supervised
04 by M-I SWACO, but I don't know for sure.
05 Q. Now, you've testified that the
06 only discussions that you were involved in
07 about using the pills for spacer were in
08 the e-mail exchanges that we talked about,
09 that you talked about earlier; is that
10 right?
11 A. The e-mail that I received
12 is -- you know, there's an e-mail chain.
13 There's e-mail I received. I have no
14 knowledge of what other conversations took
15 place, e-mail or otherwise.
16 Q. Your only involvement in the
17 discussion was via e-mail; is that right?
18 A. That's my -- that's my
19 recollection, yes.
20 Q. Okay. Within that e-mail
21 discussion, do you know if anyone raised
22 any concerns with using the pills as spacer
23 aside from the way in which it could be
24 disposed?
25 A. No.
00422:01 Q. And the opinion you offered
02 within the confines of that discussion was
03 that use of the pills was doable from an
04 environmental perspective?
05 A. Yes.
06 Q. Okay. But -- but you didn't
07 testify -- I'm sorry. You didn't specify
08 in your e-mail that you were limiting your
09 opinion to the environmental issue.
10 A. I could have been clearer, but I
11 did defer to the environmental specialist
12 for the final word on it. So it seems like
13 it would be understood that I'm talking
14 about the environmental context.
15 Q. And I understand. But my
16 question was: In your e-mail you did not
17 specify that you were only referring to the
18 environmental issue, did you?
19 A. No. It's not clear.
20 Q. But in any event, at that point
21 in time as you have testified, you had no
22 concern with using the pills as spacer from
23 an operational standpoint?

24 A. I had no concerns.
25 Q. At that time when you sent your
00423:01 e-mail, had you ever been involved in a
02 displacement operation where
03 lost-circulation material was used as a
04 spacer and interfaced with seawater and
05 synthetic-oil-based mud?
06 A. I cannot say that I have not.
07 Q. You don't know one way or the
08 other?
09 A. I -- you know, my experience is
10 pretty extensive. I spent almost, you
11 know, 20 years on the rigs and I cannot say
12 that I have never used LCM -- some LCM pill
13 as a spacer.
14 Q. Can you say that you have
15 used --
16 A. I can't -- can't with assurance
17 say that either.
18 Q. Okay. Have you heard of anyone
19 else using LCM material in this type of
20 application?
21 A. I can't say that I have.
22 Q. At the time you sent your e-mail
23 that -- that use was doable, were you aware
24 of any literature or written industry
25 practices recognizing use of
00424:01 lost-circulation material as a spacer to
02 displacement operations?
03 A. No.
04 Q. Had you reviewed the description
05 of the characteristics of Form-A-Squeeze
06 and Form-A-Set that were set forth in the
07 drilling fluids program for the well?
08 A. I -- I did look at the
09 procedure.
10 Q. Did you notice whether those
11 descriptions recognize spacer use as a
12 potential application for those compounds?
13 A. No.
14 Q. Do you know whether any
15 compatibility testing had ever been
16 conducted to determine whether either of
17 those compounds were compatible with
18 seawater and synthetic-oil-based mud at
19 their interface?
20 A. No. I have no direct knowledge
21 of that.
22 Q. Do you know whether any other
23 form of testing was done to determine
24 whether these pills could be used as spacer
25 from an operational standpoint?
00425:01 A. Prior to the incident? No.
02 Q. Okay. Now, you testified
03 earlier that -- that sometimes, you know,

04 drilling fluid will be used for a purpose
05 other than its intended -- its intended
06 use, right?
07 A. It's quite common to build pills
08 and spacers and -- and they quite -- often
09 the products have multiple functions and
10 multiple uses. It's quite common.
11 Q. Would you agree with me that
12 testing should be conducted when you are
13 making such decisions to confirm safety of
14 the proposed operation?
15 A. No.
16 Q. Do you think testing is not
17 important before you use drilling fluid?
18 A. I didn't -- I didn't say that.
19 Q. Okay. Why -- why do you
20 disagree that testing should be conducted?
21 A. Because quite often a person's
22 experience with the product can --
23 extensive experience with different
24 products and different products that make
25 up a certain pill or -- will give them
00426:01 enough knowledge to know whether it can
02 work in a certain situation or not.
03 Q. Okay. But you don't recall ever
04 being involved in circumstances where you
05 used LCM and spacer for displacement
06 operations, do you?
07 A. No. I have already
08 testified -- I have already answered that
09 question.
10 Q. Okay. Can you look, please,
11 sir, at Exhibit 52. It's the displacement
12 procedure prepared by Mr. Leo Lindner.
13 It's Bates number BP-HZN-BLY-00094818. It
14 would be the second page.
15 A. Thank you.

Page 426:25 to 427:22

00426:25 Q. Okay. Now, if you go to item
00427:01 five where Mr. Lindner indicates building a
02 425-barrel spacer, again, would this be a
03 standard volume spacer to be used in
04 displacement operations?
05 A. Well, I am aware of
06 different -- many different sizes. There's
07 a broad range in sizes of spacers used, all
08 the way up to over 900 barrels of spacer to
09 be used when you are cleaning a riser for a
10 completion operation. So and --
11 Q. Well, in this instance --
12 A. And I see the gentleman on the
13 rig with the rig-based experience in
14 planning and executing these spacers as

15 the -- the people qualified.
16 Q. So you would defer to them on
17 the volume spacer -- volume of spacer
18 needed?
19 A. Yes.
20 Q. And that would include the mud
21 engineers for M-I SWACO?
22 A. Yes.

Page 428:02 to 435:01

00428:02 Q. Do you know what weight the
03 pills were to be weighted up to to be
04 circulated for use as a spacer?
05 A. Not at the time, no.
06 Q. Do you have an understanding
07 now?
08 A. I have no direct knowledge of
09 it.
10 Q. If I told you that they was
11 supposed to be weighted up to 16 pounds per
12 gallon, would you have any reason to
13 dispute that?
14 A. No.
15 Q. Whenever you sent your e-mail
16 that -- that use of the LCM material as
17 spacer was doable, were you aware that
18 weighting up Form-A-Set with barite and
19 DUO-VIS compound as set forth in
20 Mr. Lindner's procedure as a final
21 concentration would end up with a heavier
22 weight than 16 pounds per gallon?
23 A. No, not aware of that.
24 Q. Do you know whether anyone
25 involved in the decision to use the LCM
00429:01 pills as spacer analyzed the time in which
02 it should be mixed relative to when it
03 would be pumped?
04 A. No. I don't know.
05 Q. Were you aware that the spacer
06 was not pumped until approximately 11.5
07 hours after it was mixed?
08 A. No, I'm not aware of that.
09 Q. Do you know whether -- whether
10 anyone conducted an analysis of the effects
11 of the lost-circulation material spacer on
12 pressure testing considering the length of
13 time it would be sitting in the wellbore
14 during the negative test?
15 A. No, I don't. I don't.
16 Q. Do you know whether anyone
17 considered the pill's potential impact on
18 transmitting or isolating pressure in the
19 choke and kill lines?
20 A. No.

21 Q. Do you know whether anyone
22 considered the pill's -- pill's potential
23 impact on circulation?
24 A. No.
25 Q. Do you know whether -- do you
00430:01 know how the negative test was lined up?
02 A. No.
03 Q. Do you know whether the spacer
04 remained across the BOP while the crew was
05 monitoring pressure during the negative
06 test?
07 A. Let -- let me rephrase the
08 answer to the last question, how the lines
09 were lined up by -- I am never involved in
10 that, so no.
11 Q. So you wouldn't know?
12 A. Right.
13 Q. Okay. Do you know if the spacer
14 had remained across the BOP stack when the
15 crew was conducting the negative test?
16 A. I don't know.
17 Q. Do you know whether the volume
18 in the kill line during the negative test
19 dropped while the crew had the drill pipe
20 open and was bleeding pressure off of the
21 drill pipe?
22 A. I don't know.
23 Q. Do you know whether this caused
24 seawater to drop from the kill line into
25 the BOP and mix with the LCM spacer?
00431:01 A. I don't know that.
02 Q. Do you know whether the crew
03 then closed the drill pipe allowing
04 pressure to build up inside of it during
05 the negative test?
06 A. I have no knowledge of that.
07 Q. Do you know whether the increase
08 in drill pipe pressure then forced a mix of
09 LCM spacer and seawater back up into the
10 kill line when the crew was bleeding
11 pressure off the kill line?
12 A. All -- all of these questions
13 you are asking about --
14 Q. The negative test.
15 A. -- about the event, not what
16 anybody has learned since the event,
17 correct? So my answers are about the
18 event --
19 Q. About the event.
20 A. Right before the event.
21 Q. Okay.
22 A. Please restate your question.
23 Q. Well, no, I'm asking you right
24 now if you know that that occurred.
25 A. I don't know.

00432:01 Q. Okay.
02 A. I don't know for a fact any of
03 these things.
04 Q. Well, given this lack of
05 knowledge because, I mean, you weren't out
06 there -- you are typically not involved in
07 negative tests; is that right?
08 A. That's correct.
09 Q. Do you feel you have any -- any
10 evidence or basis to refute the findings in
11 the Bly report that the spacer may have
12 clogged the kill line during the negative
13 test?
14 A. No. I just have an opinion and
15 from experience.
16 Q. Okay. Now, if you look back on
17 Exhibit 52, the Displacement Procedures,
18 under the section displacement paragraph 4,
19 it says, "Pump 775 barrels or 6150 stacks.
20 Spacer should be above the upper annular."
21 Do you take that to mean that as
22 a displace, they should have displaced the
23 spacer all the way above the BOP stack?
24 A. Yes, that seems to be what it's
25 saying.

00433:01 Q. Do you know whether a pump
02 schedule with anticipated pump pressures
03 was ever created to show when the spacer
04 was expected to clear the stack?
05 A. No, I don't know. That -- well,
06 the pump special -- schedule as far as
07 strokes would have been, in my opinion
08 would have been appropriate. I don't know
09 if pressure would have been involved in
10 that.
11 Q. Okay. But your opinion was a
12 pump schedule --
13 A. I don't know.
14 Q. -- as you say with -- with the
15 number of strokes would have been
16 appropriate?
17 A. Would have been appropriate.
18 Q. Okay. If you could turn to tab
19 10 in your binder. It's Bates number M-I
20 00024237. I'm going to mark it as Exhibit
21 1029.
22 (Exhibit 1029 was marked
23 for identification.)
24 If you would, look at the first
25 e-mail in the chain which is on the second

00434:01 page, second page of the document. It's an
02 e-mail from Doyle Maxie to several people
03 including you dated April 20th, 2010,
04 10:34 a.m. You see that?
05 A. Yeah.

06 Q. Can you review the e-mail and
07 tell me what is being discussed by
08 Mr. Maxie?

09 A. He's just -- well, let me review
10 the e-mail first. He's discussing the --
11 the date, I don't remember, you know -- I
12 don't remember this instance clearly, but
13 he's discussing the Virtual Hydraulics
14 modeling of the pump pressure for
15 circulating the casing, circulating the
16 drilling fluid around the casing when the
17 casing is near bottom.

18 Q. And so -- I'm sorry. What does
19 VH means?

20 A. Virtual Hydraulics.

21 Q. Virtual Hydraulics.

22 A. M-I SWACO's hydraulics program.

23 Q. Would that be a -- a model to
24 anticipate circulating pressure?

25 A. Yes. It -- it tries to predict
00435:01 pump pressure.

Page 435:24 to 436:06

00435:24 Q. Okay. Do you remember if you
25 ran calculations and -- and discovered that
00436:01 the actual circulation pressure after the
02 floats were allegedly converted was lower
03 than 30 percent of the anticipated
04 pressure?

05 A. I was told that there was a
06 hundred percent difference.

Page 436:15 to 438:20

00436:15 Q. Okay. Do you recall ever
16 figuring out why the actual pump pressure
17 was so much lower than the anticipated
18 pressure?

19 A. We never could determine why
20 that -- why that was, with what the
21 situation was, but before -- well, the day
22 after the cement job, which was before the
23 incident, the morning before the incident,
24 Mr. John Guide asked us to review the
25 models. He asked me to help with that,
00437:01 with Mr. Doyle Maxie.

02 He also asked me to help with
03 Jesse Gagliano the cementing model, but I
04 have no expertise on the cementing model,
05 so -- and Mr. Gagliano and Mr. Maxie sit
06 close to each other in the same cube area,
07 and I visited with Mr. Gagliano and found
08 out that his model also -- and I don't know

09 if that was the first time I found that
10 out.

11 Maybe the drilling engineers had
12 it for me before. I can't recall exactly.
13 But his model was -- there was a similar
14 difference in his model and the Virtual
15 Hydraulics model.

16 Q. So -- so what you're saying
17 there is there was a similar difference in
18 circulation pressure and cementing
19 pressure?

20 A. No. Well, that's a good
21 question because Mr. Gagliano's model, I'm
22 not sure if it -- if it models drilling
23 fluid circulation pressure. It -- I think
24 it models cementing circulating pressure.

25 Q. Well, what did -- I'm sorry.

00438:01 A. But from what I remember, what I
02 recall, Mr. Gagliano seemed to be saying
03 that his model and the M-I model were
04 agreeing about a higher potential pressure.

05 Q. Than what was being experienced?

06 A. Than what was being -- what had
07 been experienced the night before or the
08 evening before.

09 Q. And that would have been during
10 the cement job?

11 A. It would have been --

12 Q. Or right before the
13 circulation -- right before the cement job?

14 A. For the Virtual Hydraulics
15 model, it models before, right before
16 cementing.

17 Q. Right.

18 A. For the cementing model, I'm not
19 sure which it does. It could do both. I'm
20 not sure.

Page 439:14 to 439:15

00439:14 Q. Good. My name is Don Godwin and
15 I represent Halliburton. We have not met

Page 439:23 to 440:18

00439:23 Sir, you have -- you have told
24 us yesterday that you are a drilling fluids
25 engineer with BP; is that correct?

00440:01 A. That's correct.

02 Q. What -- no one has asked you
03 yet, but what is your educational
04 background that qualifies you to be a
05 drilling fluids engineer with BP?

06 A. I have -- the main part that

07 qualifies me as being a drilling fluid
08 engineer is Magcobar mud school, M-I
09 advanced mud schools. I think I -- I made
10 two of those.
11 Q. Okay, sir.
12 A. Completion schools,
13 different -- different industry schools.
14 Q. Right.
15 A. Many and varied and several. I
16 have -- I also had the training for
17 integrated fluids engineering with M-I
18 SWACO.

Page 440:23 to 441:21

00440:23 Q. Okay, sir. And how long have
24 you been a drilling fluids engineer with
25 BP?
00441:01 A. A little over two years.
02 Q. Okay, sir. And prior to that
03 you were with M-I SWACO?
04 A. That's correct.
05 Q. Okay. How long were you with
06 M-I SWACO?
07 A. My employment with M-I SWACO
08 ranged from 1980 to 1986.
09 Q. Okay.
10 A. Then picked back up in a little
11 over a year, maybe a year and a half
12 later --
13 Q. All right.
14 A. -- as a consultant --
15 Q. Okay, sir.
16 A. -- as -- working as a drilling
17 fluid engineer on the rigs, consultant
18 drilling fluid engineer on the rigs. And
19 then M-I SWACO hired me on -- I don't
20 exactly recall -- a year or two later, year
21 and a half later or something like that.

Page 448:19 to 449:24

00448:19 Q. Okay. Do you -- in terms
20 of -- in terms of the circulation of mud,
21 drilling fluid, if you will, do you agree
22 that drilling fluids generally provide the
23 primary well control barrier in a well?
24 A. Yes.
25 Q. Okay, sir. And -- and that
00449:01 drilling fluid would be mud?
02 A. I agree that that is stated in
03 the BP policy and I agree that drilling
04 fluids are primary and under most
05 conditions are the primary barrier.

06 Q. Okay, sir.
 07 A. I can't speak to every
 08 situation --
 09 Q. Right.
 10 A. -- whether that would be the
 11 primary barrier or not, but --
 12 Q. Right.
 13 A. -- I generally agree with that
 14 statement.
 15 Q. Do -- and that comes from the BP
 16 practice manual, does it not, sir?
 17 A. It comes from the DWOP.
 18 Q. Okay, sir. And you agree with
 19 that statement, that drilling fluids
 20 generally provide the primary well control
 21 barrier in a well, do you not?
 22 A. I agree that in most cases that
 23 is the case. I can't think of an example
 24 where it's not.

Page 450:22 to 451:16

00450:22 Q. Okay. So do you agree then that
 23 prior to displacement of the mud on the
 24 afternoon of -- of April 20, do you believe
 25 that the mud was the primary well control
 00451:01 barrier?
 02 A. I'm rethinking what I last said
 03 because it's -- it's beyond my area -- it's
 04 beyond -- you know, what -- what barriers
 05 you need in these kinds of situations is
 06 not my area of specialty.
 07 Q. Okay.
 08 A. I know it's the primary barrier
 09 when you are drilling.
 10 Q. Okay, sir.
 11 A. When you're logging.
 12 Q. All right.
 13 A. When you're -- when you're in
 14 the drilling process. When you get into
 15 the process at the end of the well, that's
 16 not my area of specialty.

Page 452:13 to 452:18

00452:13 Do you believe that it was
 14 important for BP to do all that it could to
 15 contribute to the success of the cement job
 16 that was poured by my client on the 19th
 17 and 20th of April?
 18 A. Yes.

Page 453:01 to 453:08

00453:01 Q. Yeah. Have you learned from
02 anyone as to the volumes of mud that were
03 circulated prior to the start of the cement
04 job on April 19?
05 A. No.
06 Q. Okay, sir.
07 A. I have no direct knowledge of
08 that.

Page 454:16 to 455:07

00454:16 Q. Okay, sir. Now, were you
17 involved with a lost-circulation event on
18 the well on February 17, 2010?
19 A. Well, I was involved in several
20 lost circulation events.
21 Q. Okay.
22 A. I can't remember the exact
23 dates. But somewhere in February there was
24 a major loss -- lost event.
25 Q. And -- and when you say a major
00455:01 lost-circulation event, what do you mean by
02 major?
03 A. Well, it was the -- the largest
04 one for the well.
05 Q. Okay.
06 A. The highest amount of -- of
07 drilling fluid lost.

Page 455:11 to 459:10

00455:11 Q. Okay. Do you believe that the
12 Macondo well was a problem well in terms of
13 kicks, instances of lost circulation and
14 things of that nature?
15 A. There were some difficulties.
16 In exploration you have wells like this
17 that come along.
18 Q. Okay. Do you recall that in
19 connection with the February 17
20 lost-circulation event, that there was a
21 complete loss of mud returns at that time?
22 A. At that time, yes, there was a
23 complete loss of returns.
24 Q. Okay. And was it determined
25 where in the formation mud was being lost?
00456:01 A. Opinions differ, but there
02 was -- the subsurface personnel sent out
03 some documentation of -- and then there was
04 a, I think, a log pass done that identified
05 where the losses were.
06 Q. What was your role with respect
07 to handling the event, investigating that

08 lost-circulation event?
09 A. Well, I worked with the -- I
10 interfaced between the drilling engineers
11 and the -- and the technology group to try
12 to identify and -- and we also had
13 resources from the pore pressure team and
14 whatnot.
15 Q. Okay, sir.
16 A. To try to identify where the
17 losses occurred and what type of formation
18 is there and why the losses occurred and
19 whatnot.
20 Q. What was done to handle that
21 event, to correct that problem?
22 A. We pumped multiple pills.
23 Q. Okay, sir. And were you
24 involved in the preparation of those pills?
25 A. I was involved in the
00457:01 preparation of some of the procedures, yes,
02 reviewing procedures.
03 Q. Okay. Are you aware or do you
04 recall that that lost-circulation event on
05 February 17 stopped drilling for about five
06 days?
07 A. Sounds right. I'm -- I'm not
08 sure, but it sounds reasonable.
09 Q. Several days?
10 A. Several days.
11 Q. Okay. Of lost production, lost
12 time, if you will?
13 A. Yes.
14 Q. Okay. Are you aware also that
15 that February 17 lost-circulation event
16 cost BP in excess of \$5 million?
17 A. I saw a document generated by me
18 that had that number on there.
19 Q. Was there a due date that you
20 were supposed to have completed your
21 investigation and report of May 5, 2010, if
22 you recall, with regard to the event?
23 A. My -- my understanding was that
24 I was supposed to have the report done or
25 the -- I don't remember whether it was a
00458:01 report done or the first pass at it --
02 Q. Okay.
03 A. -- to David Sims in May
04 sometime.
05 Q. Did you report to Mr. David Sims
06 with regard to your findings about the
07 February 17 lost-circulation event?
08 A. No, I didn't -- I didn't follow
09 up on that NPT investigation, nonproductive
10 time investigation that Mr. Sims asked me
11 to do. I -- you know, I worked it to a
12 certain degree and then the event happened

13 and -- and we had other priorities.
 14 Q. So did you ever report back to
 15 Mr. Sims or anybody there at BP as to what
 16 you believe caused the lost-circulation
 17 event on February 17?
 18 A. No, because we didn't -- we
 19 didn't finish that work.
 20 Q. You didn't follow up on it?
 21 A. We weren't clear.
 22 Q. Okay. You weren't clear.
 23 A. We still weren't clear what the
 24 cause was.
 25 Q. Okay. Prior to the incident on
 00459:01 -- on April the 20th, did anyone at BP,
 02 including yourself, ever determine what
 03 caused the lost-circulation event, the
 04 major event on February 17?
 05 A. Not to my knowledge. I mean, we
 06 didn't agree on what caused it.
 07 Q. Thank you, sir. And were you
 08 also involved in a kick on the well on
 09 March 18th, 2010?
 10 A. No.

Page 460:08 to 460:11

00460:08 Q. Let me hand you what has -- it's
 09 under tab number 18, guys, tab 18. Let's
 10 mark that one if we can. Let me -- it's
 11 already been marked as Exhibit 1030.

Page 460:21 to 461:07

00460:21 Q. What I'm trying to do is -- is
 22 find out what recollection, if any, you
 23 have of the loss-circulation event on
 24 March 17, 2010. And I -- to help you
 25 there, we're not going through all of it.
 00461:01 You are looking at the page that I think
 02 references your name in the -- about eight
 03 or ten lines down. And up in the top line
 04 there it talks about, On March 17 we lost
 05 returns on the DEEPWATER HORIZON drilling
 06 for BP. You see that?
 07 A. Yes.

Page 462:06 to 462:15

00462:06 A. To me, I recall there being a
 07 lost-circulation event in late February.
 08 Q. We show there was one in
 09 February we talked about. There appears to
 10 be another one in March here. And my

11 question is: Are you familiar -- do you
12 recall a lost-circulation event which is
13 referenced here in this Exhibit 1030 which
14 you have there before you?
15 A. No.

Page 464:04 to 464:16

00464:04 Q. All right. What exhibit are you
05 referring to to try to refresh your memory
06 about the question I just asked?
07 A. Well, it was -- it's not -- it's
08 not legally described.
09 Q. Okay. Well, tell us what
10 document you are looking at there.
11 A. And it's behind tab number 9 --
12 Q. Okay, sir.
13 A. -- in the original book --
14 Q. All right.
15 A. -- we used on the first day.
16 And this is the document I generated.

Page 464:20 to 467:05

00464:20 Q. Does it show whether or not
21 there was a lost-circulation event in mid
22 March of 2010 there on the Macondo well?
23 A. Let me look on March 17.
24 Q. Yes, sir.
25 A. No, there's -- there's
00465:01 no -- according to my work, looking at the
02 mud reports, referring to the mud reports
03 and referring to the DIMS reports, there
04 was no lost-circulation event at that time.
05 Q. Okay. Was there a
06 lost-circulation event -- and of course,
07 you see where Mr. Doyle Maxie with M-I
08 SWACO says there was a lost-circulation
09 event on March 17? You see that, don't
10 you?
11 A. I do see it.
12 Q. And are you telling us that you
13 believe he was in error when he makes that
14 statement in his memo?
15 A. Well, I know what my work was
16 and I know where I -- where I got my work
17 and the only -- you know, I think it's an
18 error.
19 Q. Okay.
20 A. I think -- I think it's a -- a
21 misquote of the date of an event.
22 Q. All right. Do you find
23 that -- do you find there on the document
24 you say you prepared that there was a

25 lost-circulation event at any time in March
00466:01 of 2010 --
02 A. Well --
03 Q. -- if not the 17th?
04 A. There seems to be a 16-inch shoe
05 event, yes, in between -- I have
06 February 28th -- well, that was running
07 casing. No, that's 16 -- I'm sorry.
08 16-inch shoe event -- well, no. Let
09 me -- let me -- let me restate that. Let
10 me re -- I thought there were three events,
11 but looking at the document now, I see
12 there was an event that happened when the
13 MARIANIS was on and I see that there is a
14 -- the most significant event of -- of the
15 events that happened in February, mid
16 February.
17 Q. That we have talked about.
18 A. That we have talked about. And
19 then there seems to be a March 2nd to March
20 5th 16-inch shoe event, is what I have
21 titled.
22 Q. Okay. I see that.
23 A. Which I -- which had slipped my
24 mind when I was testifying yesterday. I
25 didn't realize -- my recollection was there
00467:01 were three events and it looks like from
02 closer scrutiny of my own document there
03 were four events.
04 Q. Four events?
05 A. Seems so.

Page 468:12 to 468:20

00468:12 Q. Just a minute. Let me ask the
13 question, please. Do you recall, sir, from
14 looking there at the report you have in
15 front of you as to whether you reached a
16 conclusion about what caused the March 2010
17 lost-circulation event?
18 A. The answer is no, because I have
19 very little recollection of the event at
20 this point.

Page 469:03 to 470:16

00469:03 Q. All right. Okay. All right.
04 Although you have it there on the document
05 there in front of you?
06 A. It is documented here. Whether
07 it was a drilling event or whether it was a
08 shoe event --
09 Q. Okay, sir.
10 A. -- it happened after cementing,

11 so it didn't rise to the level of drilling
12 event that needed to be studied or not, I'm
13 not sure what the case is.

14 Q. All right. Whenever there's a
15 lost-circulation event in a well, is it
16 part of your job as the drilling fluids
17 engineer to be involved in
18 investigation -- investigating what caused
19 the event?

20 A. It's at my discretion and the
21 drilling engineer's discretion whether we
22 will follow up with an event or not.

23 Q. Okay. So what -- what I hear
24 you saying is we had a major event in
25 February that you investigated, but did not
00470:01 report back to Mr. Sims, although he asked
02 you to do so; you've already said that,
03 correct?

04 A. That's correct.

05 Q. We now have another event in
06 March of 2010, a lost-circulation event,
07 and you're not saying that you didn't
08 investigate it, but you are saying you
09 don't recall having done so, are we -- are
10 we together on that?

11 A. I don't know what I did or did
12 not do concerning that event.

13 Q. All right.

14 A. At this point I do not know what
15 I did or did not do. I would have to
16 review.

Page 470:24 to 471:13

00470:24 Q. Yeah. In terms of the March
25 event, as I understand it, you're not able
00471:01 to say what caused that event because you
02 don't recall having investigated it as the
03 drilling fluids engineer?

04 A. I don't -- I don't -- didn't
05 recall the event until I looked at this
06 document today.

07 Q. Thank you, sir. And I'm going
08 to hand you what is formerly marked as
09 deposition Exhibit Number 25. I want to
10 ask you briefly some things. This is a
11 part of the Bly report, part of the Bly
12 report. And I'm going to ask you to turn
13 over to page 93.

Page 471:22 to 471:24

00471:22 Not Bly, National
23 Commission, excuse me. Thanks, Walter.

24 National Commission Report.

Page 472:12 to 474:05

00472:12 Q. Yes, sir. If you will, look
13 at -- look at the bottom of page 93 over in
14 the right-hand corner there where it says,
15 "Lost-circulation event at the pay zone and
16 a revised plan for the well." Do you see
17 that, sir?
18 A. Uh-huh.
19 Q. And that's there on page 93.
20 See where it says, "On April 9 they
21 suffered a setback at 18,193 feet below sea
22 level. The pressure exerted by the
23 drilling mud exceeded the strength of the
24 formation. Mud began flowing into cracks
25 in the formation instead of returning to
00473:01 the rig. The rig had to stop drilling
02 until the crew could seal the fracture and
03 restore mud circulation." Did I read that
04 correctly?
05 A. You did read it correctly.
06 Q. Okay, sir. Now, do you recall
07 this event that -- that occurred on
08 April 9, 2010?
09 A. Vaguely.
10 Q. Okay. Look at the report that
11 you say you prepared there. You have it in
12 front of you. And does it show that there
13 was a -- another lost-circulation event on
14 April 9, 2010?
15 A. Well, it seems we lost 51
16 barrels.
17 Q. Okay, sir. And would that be
18 considered a lost-circulation event is my
19 question?
20 A. That's --
21 Q. It would be, would it not, sir?
22 A. It -- it could be. That's a
23 matter of opinion --
24 Q. Okay. Now, if you will --
25 A. -- whether 51 barrels is
00474:01 considered, termed a lost-circulation event
02 or not.
03 Q. All right.
04 A. Some people would -- some people
05 would say that's a non-issue.

Page 475:04 to 476:23

00475:04 Q. Okay. All right. Do you recall
05 during your job duties there on the Macondo
06 well that in fact as the decision was made

07 by BP to stop drilling at 18,350 feet
08 rather than going on down to the planned
09 20,200 feet?

10 A. I wasn't involved in that
11 decision.

12 Q. All right, sir. So based on
13 what we now have seen from your -- and
14 heard from your testimony, we know there
15 were three lost-circulation events, one in
16 February, another one in March and now we
17 have one on your report there in April, do
18 we not, sir?

19 A. There were several
20 lost-circulation events.

21 Q. Several. Okay. And do you
22 believe that the fact that as you say there
23 were several lost-circulation events up to
24 and -- up to the time of the incident on
25 April 20, do you believe that that was of a
00476:01 serious concern to you in terms of
02 the -- in terms of the Macondo well as a
03 drilling fluids engineer?

04 A. It's a -- it's -- it's a concern
05 because you have to mitigate the losses and
06 you have to, you know -- you have
07 to -- it's a concern because the losses
08 need to be mitigated.

09 Q. Do you recall doing any
10 investigation as the drilling fluids
11 engineer in connection with the
12 lost-circulation event on April 9, 2010?

13 A. I -- I think I did a report
14 for -- well, let me look at the date.

15 Q. Okay, sir. You say you had it
16 there on that document in front of you.

17 A. Oh, no. Well, I mentioned it in
18 the -- in a report I did for the previous
19 event right -- right before it. So it's --
20 it's documented in a -- in a report, yes.

21 Q. Okay.

22 A. To the best of my recollection,
23 it's documented.

Page 477:09 to 477:15

00477:09 Q. -- as to -- just a moment, if I
10 can. Do you recall, Mr. LeBleu, if you
11 reached a conclusion as a drilling fluids
12 engineer as to what caused the
13 lost-circulation event on April 9? Do you
14 recall, sir?

15 A. I don't recall.

Page 479:02 to 479:02

00479:02 been marked as Exhibit -- Exhibit 1031.

Page 479:05 to 479:08

00479:05 And I'm really just going to
06 ask you to look there at the first page of
07 it, Mr. LeBleu, as that's what relates to
08 you, has your name on it. That's an e-mail

Page 480:11 to 481:10

00480:11 Q. Thank you, sir. I figured that.
12 Now, my point here is, you wrote this
13 e-mail to Bob Palmer and copied two of the
14 drilling engineers, Cicales and Hafle, on
15 this e-mail, didn't you, on April 18?
16 A. That's correct.
17 Q. And -- and does it appear to you
18 here that you had asked that the Brandt
19 shakers on the rig be replaced and that
20 John Guide had denied that request?
21 A. I had raised it as a discussion
22 point --
23 Q. Okay.
24 A. -- with -- with these two
25 engineers.
00481:01 Q. Okay, sir.
02 A. And these two engineers
03 were -- were leaning favorably.
04 Q. That is Cicales and Hafle?
05 A. Yes. And it's something that
06 would have taken a lot of time to
07 accomplish.
08 Q. Okay.
09 A. It would have been a future
10 modification to the rig.

Page 482:12 to 483:03

00482:12 Q. What would they have done then?
13 You were recommending they be replaced.
14 What would they have done?
15 A. They would have allowed the --
16 the recovery of some of the LCM that goes
17 over -- with the cuttings overboard.
18 Q. Okay.
19 A. They would allow the recovery of
20 some of that material so that it would be
21 easier to keep certain concentration of LCM
22 in the drilling fluid.
23 Q. Okay. Would -- would the --
24 would the Brandt shakers have had
25 any -- would they have played any role in

00483:01 terms of the -- of the quality of the
 02 circulation of the mud prior to the cement
 03 job?

Page 483:09 to 483:10

00483:09 Q. So far as you know?
 10 A. As far as I know, no.

Page 485:05 to 486:12

00485:05 Q. Okay. Let me hand you what's
 06 been marked as Exhibit 1026. And is this a
 07 M-I SWACO drilling fluids program?
 08 A. Yes, it is.
 09 Q. Okay, sir. And you're familiar
 10 with this document?
 11 A. Yes, I am.
 12 Q. Okay. Turn over, if you will,
 13 please, to page number, Bates number BP,
 14 this is under tab 6, turn over to
 15 BP-HZN-2179MDL00016204.
 16 A. I have got it.
 17 Q. Where it shows here, minimum
 18 time to circulate prior to pulling out of
 19 hole. And -- and it refers there to -- it
 20 is essential that sufficient bottoms-up are
 21 circulated prior to tripping. And it says,
 22 quote, a single bottoms-up is never enough,
 23 exclamation point. I read that correctly,
 24 didn't I?
 25 A. You did.
 00486:01 Q. Okay. Now, in terms of -- of --
 02 of the bottoms-up you just referred to that
 03 you are familiar with at M-I SWACO, did M-I
 04 SWACO have a recommended bottoms-up volume
 05 that it recommended prior to a cement job?
 06 A. Not that I know of, not a stated
 07 volume.
 08 Q. Okay. What does it refer to
 09 here in this document, if you know, Exhibit
 10 1026, where it says "a single bottoms-up is
 11 never enough"?
 12 A. It's referring to hole cleaning.

Page 487:10 to 488:02

00487:10 And where it says here a single
 11 bottoms-up is never enough, while you were
 12 with M-I SWACO, did you come to understand
 13 what M-I SWACO meant by that statement?
 14 A. MI-SWACO is trying to assure
 15 hole cleaning --

16 Q. Okay.
 17 A. -- before pulling out of the
 18 hole.
 19 Q. All right. And --
 20 A. And so that's what this table is
 21 about.
 22 Q. Okay. And you know as well
 23 while even at BP that cleaning out the hole
 24 is also important, do you not?
 25 A. Generally speaking it is
 00488:01 important and generally speaking the hole
 02 is never absolutely clean either.

Page 489:07 to 489:19

00489:07 Q. Well, one of the reasons for
 08 cleaning the hole would be to rid the hole
 09 of any -- of any gas that is leaked over
 10 into the annulus?
 11 A. That's one of the -- one of the
 12 reasons for circulating out.
 13 Q. Okay, sir. Now --
 14 A. Or getting the gas up -- up to a
 15 certain point in the wellbore.
 16 Q. Yes, sir. You have there in
 17 front of you -- what exhibit number --
 18 yeah, okay. I'm going to hand you what's
 19 been marked as Exhibit 1032.

Page 489:24 to 490:03

00489:24 Q. I'm sorry, sir. You have it?
 25 This is an M-I SWACO document for the
 00490:01 DEEPWATER HORIZON Rheliant Displacement
 02 Procedure, is it not? I believe that's the
 03 style of it there on the first page there.

Page 490:17 to 490:25

00490:17 Q. And it says there in the first
 18 numbered line there, does it not, "before
 19 displacing to seawater, conduct a," all
 20 caps, "THINK DRILL with all," does it not?
 21 A. It does.
 22 Q. Okay, sir. Now, this document
 23 appears to be attached to an e-mail that is
 24 right in front of it --
 25 A. Yes.

Page 491:06 to 491:11

00491:06 Q. This is an e-mail from Doyle
 07 Maxie of M-I SWACO of April 23 to you --

08 to, excuse me, to Mr. Mark Hafle with a
09 copy to John LeBleu and Tim Armand, is it
10 not, sir?
11 A. That's correct.

Page 491:20 to 491:24

00491:20 Q. Okay, sir. Was this procedure
21 used there on the Macondo well?
22 A. I can't say for sure. I have no
23 direct knowledge, but that's my
24 understanding.

Page 492:05 to 492:13

00492:05 Q. Do you know what Think Drill
06 means in the context of the use of it in --
07 in Exhibit 1032?
08 A. I think it means that the
09 individuals, all the individuals involved
10 will consider the operation that's getting
11 ready to take place. And if anyone has any
12 problems with it, they will voice their
13 concern.

Page 492:18 to 493:07

00492:18 Q. Okay. And it says there,
19 "before displacing to seawater," why was
20 seawater used rather than mud as -- in that
21 procedure you have there in 1032?
22 A. Well, you're getting ready to
23 get off the well and it's common to have
24 seawater from a certain point up. You got
25 to -- you have to have seawater to clear
00493:01 the riser --
02 Q. Okay.
03 A. -- before you can pull the
04 riser due to environmental regulations.
05 Q. Mud could clean it as well as
06 water, though, could it not?
07 A. Yes.

Page 494:01 to 494:10

00494:01 Q. We're going to get a copy of it
02 here. My question to you, sir, is: Is the
03 decision to use seawater prior to the
04 displacement rather than mud, is that
05 because the disposal is considered a
06 miscellaneous discharge of uncontaminated
07 water? And I am reading from a document.
08 A. It is a -- it's a common

09 practice to -- it's very common practice in
10 the oil field to displace with seawater.

Page 494:13 to 494:15

00494:13 A. I have never questioned it. I
14 have never thought about why, you know, why
15 exactly beyond that.

Page 494:20 to 494:23

00494:20 A. Common practice before you --
21 before you remove the riser --
22 Q. All right.
23 A. -- to put seawater in the riser.

Page 498:13 to 499:01

00498:13 Q. My -- my question now, sir, is:
14 The decision that was made to displace the
15 mud with seawater, did that put the well in
16 an under balanced condition or position?
17 A. Well, I -- you know, it's not my
18 area of specialty, but I would say yes.
19 Q. Okay. And can you tell us what
20 risk, if any, you're aware of that putting
21 the well in an under balanced condition or
22 position causes?
23 A. Putting the well in a -- well, I
24 can't -- I mean --
25 Q. Based as a --
00499:01 A. Well control would be concern.

Page 499:22 to 500:17

00499:22 Q. Okay. My question sir, is:
23 When you put the well -- excuse me. When
24 the well goes into a well control
25 situation, as you said, that was a concern
00500:01 to you, what did you mean by well control
02 situation in the context of that answer?
03 A. Well, putting the well under
04 balance makes well control a possible
05 consideration.
06 Q. What do you mean by well
07 control?
08 A. I can't say. I mean --
09 Q. The chance of gas escaping,
10 going up through the riser to the rig
11 floor?
12 A. That's one of the possibilities,
13 yes.
14 Q. Resulting in the possibility

15 going further of a blowout if the gas were
 16 to be ignited?
 17 A. That's a possibility.

Page 500:24 to 500:24

00500:24 It's very common --

Page 501:02 to 501:04

00501:02 A. -- to under balance the well
 03 with seawater. That's the only way I know
 04 it's ever done.

Page 501:08 to 503:06

00501:08 Let me ask you this: On
 09 April the 20th were you aware that the slug
 10 was being prepared there on the HORIZON to
 11 be put down the Macondo well?
 12 A. It doesn't -- I -- I don't
 13 recall.
 14 Q. Well, if -- if a slug were going
 15 to be prepared there --
 16 A. I wouldn't necessarily be
 17 informed about it.
 18 Q. You would not be informed about
 19 it?
 20 A. Not necessarily.
 21 Q. You would not be involved in the
 22 preparation of it?
 23 A. No.
 24 Q. Who would be?
 25 A. The -- to my knowledge, the
 00502:01 drilling fluid engineers on the --
 02 Q. Okay, sir.
 03 A. -- on the well.
 04 Q. The drilling fluid engineers on
 05 the well. I thought you said you were the
 06 only drilling fluid engineer that worked on
 07 the Macondo well?
 08 A. It's common to call those guys
 09 drilling fluid engineers.
 10 Q. Who?
 11 A. It's common to call the M-I
 12 SWACO, whatever M-I SWACO calls them,
 13 drilling fluid engineers.
 14 Q. What -- what -- on the -- with
 15 respect to the preparation of a slug --
 16 A. The M-I SWACO personnel on the
 17 rig.
 18 Q. With regard to the preparation
 19 of a slug, would any BP employee be

20 involved in the preparation of a slug --
21 A. No.
22 Q. -- if one were prepared on
23 April 20th?
24 A. It depends what type of slug
25 you're talking about, but not normally.
00503:01 Q. Okay. Who -- who would have
02 made the decision as to whether a slug
03 would have been placed in the well on
04 April 20th, if in fact that occurred; would
05 that have been BP?
06 A. Generally speaking, yes.

Page 505:14 to 505:16

00505:14 Q. All right. Sir, I'm going to
15 hand you what's been marked as Exhibit
16 1034.

Page 506:01 to 506:11

00506:01 Q. Sir, Exhibit 1034 starts with an
02 e-mail at the top from Brian Morel and it
03 lists a number of people including yourself
04 which was written on April 5. You see
05 that?
06 A. Yes, I -- please give me a
07 little time to review it.
08 Q. I -- no, if you will just turn
09 over it, I'm just identifying the document
10 first.
11 A. Okay.

Page 506:18 to 508:25

00506:18 Q. And we just located it so it's
19 not in our volume of materials. It shows
20 -- it first is an e-mail from Brian Morel
21 to Randall Sant, Martin Albertin, with a
22 copy to you as well as a number of others
23 regarding Macondo sand pressure, is it not?
24 That's on the first page.
25 A. Well, I would like to review the
00507:01 e-mail first from the beginning.
02 Q. Okay. I'm asking you first just
03 for identification, make sure. You see
04 there the e-mail that I referred to up at
05 the top there, sir?
06 A. Yeah.
07 Q. Okay. Now look at the bottom
08 part of the first page. There's an e-mail
09 there from Brian Morel dated April 5 to
10 Randall Sant, S-A-N-T, Martin Albertin and

11 a copy going to you as well as a number of
12 other people regarding Macondo sand
13 pressure, is it not?
14 A. Yes.
15 Q. Okay. Does it show there in
16 that e-mail at the bottom of the first page
17 of Exhibit 1034 being
18 BP-HZN-2179MDL00015918, does it show there
19 that as a result of lost -- of a
20 lost-circulation event that there were
21 total losses of 1159 barrels on April 5?
22 A. That's what it says.
23 Q. Okay. You remember the
24 testimony you gave here just a little while
25 ago when I asked you about that April 5
00508:01 lost-circulation event and you said there
02 were 51 barrels?
03 A. Yes.
04 Q. Okay. Where did you get the 51
05 barrels from that you testified to here
06 this morning with regard to the
07 lost-circulation event on April 5?
08 A. I got that information from the
09 drilling fluid reports and the DIMS
10 reports, the drilling report.
11 Q. Okay. And you are looking there
12 at a report you prepared; whereas Mr. Brian
13 Morel, the drilling engineer there on the
14 well, he said that the lost-circulation
15 event on April the 5th had 1159 barrels of
16 lost circulation, did he not?
17 A. He's referring to a different
18 event.
19 Q. Okay. On April the 5th?
20 A. Yes.
21 Q. Do you show an event there on
22 the -- on the document you prepared? Which
23 I am going to have marked as Exhibit 1035
24 so we don't keep talking about that
25 document.

Page 509:03 to 509:20

00509:03 That's the one. That is a
04 copy of what you have been looking at this
05 morning.
06 Now, I want to ask you, sir, do
07 you show on the document you prepared a
08 lost-circulation event in early April of
09 2010 where there were 1159 barrels of mud
10 lost?
11 A. Well --
12 Q. Do you show it, sir?
13 A. There's different days. There's
14 a day of April 3rd, 214; April 4, 639;

15 April 5th, 1283 and so on and so forth.
16 Q. Well, but earlier today, though,
17 I asked you about that lost-circulation
18 event on April 5 and you said there were 51
19 barrels. Now, again, my question is: Can
20 you point me --

Page 509:22 to 511:23

00509:22 Q. Just a moment. Can you point me
23 on the exhibit that you prepared which is
24 marked as Exhibit 1035, can you show me
25 where it references 51 barrels on April 5,
00510:01 2010?
02 A. No, I cannot.
03 Q. Okay. Where did you come up
04 with the 51 barrels then that you testified
05 about here earlier this morning?
06 A. Well, if I said April 10th I
07 was --
08 Q. April 5th.
09 A. 5th or whatever the date was I
10 was confused because -- or I was
11 misunderstanding what you said to me, the
12 question as you stated it to me, but it's
13 clear right here on the document I prepared
14 that 51 barrels happened on April 9th.
15 Q. On April 9.
16 A. And that's as per the
17 information I gleaned from the mud report.
18 Q. And what does it show on April 5
19 for the total losses there in the report?
20 A. On April 5 it seems to show 1263
21 barrels.
22 Q. Okay. And April 4?
23 A. April 4 shows --
24 Q. If any.
25 A. 639.
00511:01 Q. Okay. So we're now up to 1902
02 barrels that were lost on April 4 and April
03 5. I have added those two numbers. Were
04 there any losses also on April the 3rd?
05 A. Yes. It shows 214 barrels.
06 Q. So now we're up to 2116 barrels
07 over a three-day period being April 3, 4,
08 and 5. Were there any other losses on
09 April 1159 and 2?
10 A. Not that I seem to find. I
11 mean, there's none listed here on -- on
12 this document that I prepared.
13 Q. And I'm just asking you to look
14 at the document you prepared, sir. Would
15 you agree with me that the loss of 2116
16 barrels over a three-day period, being
17 April 3, 4 and 5, were significant losses

18 there in the well, in the Macondo well on
19 those three days?
20 A. It's a loss event. I can't say,
21 you know -- it's hard to characterize as
22 significant or not. It's a -- it's a loss
23 event that required remediation.

Page 512:01 to 512:06

00512:01 Were you charged with the
02 responsibility of investigating the cause
03 of those three loss events on April 3, 4
04 and 5?
05 A. No one that I know of
06 specifically asked me to investigate those.

Page 512:13 to 512:25

00512:13 Q. Yes, sir. Are you aware of
14 anyone at BP who investigated the cause of
15 the lost-circulation events on April 3, 4
16 and 5 where it is shown according to your
17 report that 2116 -- 2116 barrels were lost?
18 A. The technology people would have
19 been working on it. The people who were
20 getting the -- the daily data.
21 Q. Do you know of anybody who
22 investigated is my question at BP?
23 A. I know that Mark Alberty and
24 Jianguo Zhang were receiving this
25 information.

Page 513:06 to 513:19

00513:06 Q. Right. So do you know as you
07 sit here today from any source what was the
08 cause of the lost-circulation events on
09 April 3, 4 and 5 of 2116 barrels on those
10 days?
11 A. I don't remember.
12 Q. Okay, sir. Have you seen
13 anything in writing at any time -- at any
14 time that set forth --
15 A. I think I --
16 Q. -- the cause of the
17 lost-circulation events on those three
18 days?
19 A. I think I have.

Page 514:19 to 515:11

00514:19 Q. Okay. And do you believe that
20 the fact that within about 15 days of the

21 event on April 20 there was a three-day
 22 period there of over 2100 barrels lost, do
 23 you believe that that should have given BP
 24 reason for heightened concern about what
 25 was happening downhole?
 00515:01 A. Well, I mean, when mud losses
 02 happen, there's always a concern.
 03 Q. And the answer would be yes?
 04 A. Well, when mud losses happen,
 05 there's always a concern.
 06 Q. And it certainly would be a
 07 concern to you as a drilling fluids
 08 engineer on this well, would it not, sir?
 09 A. Yes.
 10 Q. Thank you.
 11 A. It's a concern about fixing it.

Page 522:13 to 523:23

00522:13 Q. Thank you, sir. Let's look at
 14 tab number 30 and I am going to mark this
 15 as Exhibit 1037.
 16 (Exhibit 1037 was marked
 17 for identification.)
 18 This is -- you spoke yesterday
 19 of an interview that you gave to Matt
 20 Lucas. Do you remember that?
 21 A. I couldn't remember Matt's name,
 22 but that sounds somewhat familiar.
 23 Q. And also was a Mr. Warren
 24 Winters involved in an interview with you
 25 and Mr. Lucas?
 00523:01 A. Yes, I think that's correct.
 02 Q. Both BP personnel?
 03 A. Yes, I think that's correct.
 04 Q. Okay. It shows here that you
 05 were interviewed on April 29, 2010, just
 06 nine days after the event, does it not?
 07 A. That's what it shows.
 08 Q. It shows that "John is the
 09 drilling fluid engineer. There were
 10 challenges due to mud losses and
 11 pressures."
 12 Did you tell Mr. Winters
 13 and Mr. Lucas that in your opinion that
 14 there were challenges in the well due to
 15 mud losses and pressures?
 16 A. I'm not sure.
 17 Q. Okay. You have no reason to
 18 believe these men would write anything down
 19 that would be untrue, do you, as a result
 20 of your interview?
 21 A. Well, they are writing
 22 down -- you know, I don't know what words I
 23 spoke.

Page 523:25 to 527:03

00523:25 A. I don't remember.
00524:01 Q. Okay. Go down to the bottom
02 part of that Exhibit 1037 where it says,
03 "After cement, not sure about model."
04 Did you make that statement to
05 Mr. Lucas or Mr. Winters on April 29?
06 A. I -- I could have. I spoke
07 about the model.
08 Q. What model?
09 A. I spoke about the Virtual
10 Hydraulics model.
11 Q. Okay. Not the Halliburton model
12 though, you were not talking about the
13 Halliburton model when you made that
14 statement?
15 A. Well, not specifically, no.
16 Q. Because you said you had no
17 familiarity with it?
18 A. Right.
19 Q. Okay.
20 A. And when you compare the two
21 models they seem to -- to agree in a manner
22 that they normally agree.
23 Q. Okay. It goes on to say,
24 "Couldn't understand why pressure was so
25 low." What pressure were you referring to
00525:01 there?
02 A. The pressure was during the
03 circulation of the casing.
04 Q. Okay, sir.
05 A. After getting casing on bottom.
06 Q. Okay. And that was just prior
07 to the cement job?
08 A. Correct.
09 Q. Okay. Do you believe that that
10 pressure was low because there was a -- a
11 lost-circulation event occurring?
12 A. I have no idea.
13 Q. You don't know.
14 A. I have --
15 Q. Have you heard that from any
16 source?
17 A. No, I have not.
18 Q. Okay. Has anybody opined to you
19 at any time, not a lawyer, of course, as to
20 what -- what he or she or they believed
21 caused the pressure to be so low during
22 that circulation period prior to the cement
23 job by my client?
24 A. I -- I can -- I don't know. My
25 memory is vague, but there's been a number
00526:01 of conversations and I can't really speak

02 specifically about what -- what was said by
 03 different people except for possibly Mr. --
 04 Mr. Gregg Walz asking me --
 05 Q. Yes, sir.
 06 A. -- if we -- if we modeled or if
 07 we had modeled after the fact that casing
 08 may have been parted or something.
 09 Q. Casing was parted?
 10 A. He -- he asked about that and I
 11 said no, we haven't modeled that.
 12 Q. So do we understand here that
 13 Mr. Gregg Walz, one of the drilling
 14 engineers there on the well, said to you
 15 after the event or he asked about whether
 16 or not it appeared that the casing had
 17 parted downhole?
 18 A. He -- he asked me if any
 19 modeling was done that would -- would show
 20 that or not.
 21 Q. And -- and do we understand as
 22 you sit here today that to your knowledge,
 23 no modeling was ever done to ascertain if
 24 in fact the casing was parted downhole?
 25 A. Not on the front end for sure,
 00527:01 not before the incident because we
 02 weren't -- I -- you know, people -- Doyle
 03 Maxie and I never considered that.

Page 528:06 to 529:23

00528:06 Q. Did he ask you or say to you
 07 during that conversation when he thought or
 08 suspected at what level the casing could
 09 have parted, did he say that to you?
 10 A. No. The only -- the only
 11 concerns I have heard from people about the
 12 possibility of cement job at the shoe track
 13 not being correct or -- and -- and the flow
 14 coming through that path.
 15 Q. Okay, sir. And on the next page
 16 of Exhibit Number 30 -- 1037, going through
 17 this very quickly here, it shows -- said --
 18 where you said, "The negative test was
 19 unusual."
 20 Did you say that to Mr. Winters
 21 and Mr. -- Mr. Lucas in your interview on
 22 April 29?
 23 A. Yes, that's -- I was repeating
 24 what someone else had -- had -- had stated
 25 to me.
 00529:01 Q. And somebody -- who was it that
 02 told you that the negative test appeared to
 03 be unusual?
 04 A. That's not my exact words. It
 05 was -- I -- before leaving one afternoon I

06 asked Mr. Hafle how things were going.
07 Q. Okay, sir.
08 A. And he said -- well, he
09 said -- he -- I don't remember his exact
10 words, but he said there was a -- a
11 difficulty with a negative test, but
12 another one was being done.
13 Q. Okay. And then if you look down
14 there just a little bit further on that
15 second page of 1037 it shows there, does it
16 not, "Trip tank lined up improperly, but
17 not the case. He thought there might have
18 been possible collapse of casing, but
19 couldn't justify."
20 Did you tell Mr. Lucas and
21 Mr. Winters that you thought that there
22 might be a possible collapse of the casing?
23 A. No.

Page 530:04 to 530:14

00530:04 Q. Okay. Well, when it says "he
05 thought there might have been a possible
06 collapse of casing," were they not talking
07 about you? You were the one they were
08 interviewing.
09 A. No, they weren't talking about
10 me.
11 Q. Well, who were they talking
12 about?
13 A. They were talking about Mr. Mark
14 Hafle.

Page 530:17 to 531:04

00530:17 Q. Did Mr. Mark Hafle think that
18 there was a parting of the casing or a
19 collapse of the casing?
20 A. After the -- after the event --
21 Q. Yes, sir.
22 A. -- and Mr. Mark Hafle mentioned
23 that to me, that he -- that was his -- that
24 was his -- he just made that statement.
25 Q. Mr. Mark Hafle told you after
00531:01 the event he thought the casing had
02 collapsed?
03 A. That's what he said.
04 Q. And -- and that -- and that

Page 532:15 to 532:19

00532:15 Let's go back and clear it up this way.
16 After the event you were approached by

17 Mr. Gregg Walz the supervisor of Mr. Hafle
18 and Mr. Cocalles?
19 A. Yes.

Page 533:01 to 533:14

00533:01 Q. Mr. Gregg Walz asked you after
02 the event if any modeling was done to
03 determine if the casing had parted,
04 correct?
05 A. Yes.
06 Q. After the event -- after the
07 event on April 20, Mr. Mark Hafle
08 approached you and told you he thought the
09 casing had collapsed?
10 A. Oh, yeah, after the event on --
11 you said April 20. So --
12 Q. After the event.
13 A. Confused me and made me focus on
14 the day --

Page 533:19 to 533:23

00533:19 Q. -- at some point Mr. Hafle told
20 you he thought the casing had collapsed,
21 correct?
22 A. That's correct. That's my
23 recollection.

Page 534:10 to 534:13

00534:10 A. Please restate your question.
11 Q. Isn't it a fact, sir, that after
12 the event on April 20, Mr. Gregg Walz told
13 you he thought the casing had parted?

Page 534:17 to 535:03

00534:17 Q. Or asked about that, if any
18 modeling had been done?
19 A. He asked if modeling had been
20 done.
21 Q. To determine that the casing had
22 parted?
23 A. That's what I recall.
24 Q. After the event that occurred on
25 April 20, Mr. Mark Hafle told you he
00535:01 thought the casing had collapsed. Do you
02 recall that also, do you not?
03 A. That's what I recall.

Page 535:12 to 538:04

00535:12 Look at Exhibit 220. I have
13 just got a couple of places I want to ask
14 you about. This is a transcription of John
15 LeBleu interview notes per Warren Winters
16 conducted April 29, 2010, and it shows
17 panel was Matt Lucas and Warren Winters,
18 does it not?
19 A. Yes, it does.
20 Q. You go down, if you will,
21 please, about two-thirds of the way down
22 where it says, "Uncomfortable discussing
23 negative test. Described as problematic,
24 quote, acting strange, close quote.
25 Planning to do or had done second negative
00536:01 test."
02 Did you tell Mr. Winters and
03 Mr. --
04 A. I have to find that location.
05 Okay. I think I have found it.
06 Q. "Uncomfortable discussing
07 negative test. Described as problematic."
08 Did you tell those gentlemen that in the
09 interview on April 29?
10 A. What -- the best I recall, what
11 I mentioned, that the test was described as
12 problematic in some way or uncertain in
13 some way. I don't remember the exact
14 words. It is the same thing I told you
15 before.
16 Q. Okay. And you learned that from
17 whom, sir?
18 A. I learned that from Mr. Mark
19 Hafle.
20 Q. Mr. Mark Hafle. Next sentence
21 says, "Post incident gathered data and
22 tried to understand mud transfers." Were
23 you having difficulty post event
24 understanding the transfers between the
25 pits there on the -- on the DEEPWATER
00537:01 HORIZON?
02 A. Definitely.
03 Q. You definitely were?
04 A. Yes.
05 Q. And do you believe that those
06 transfers, the mud transfers to you
07 indicated that there was a lot of activity
08 going on there just prior to the incident
09 on April 20?
10 A. I have -- the -- my
11 problem -- my main problem was
12 unfamiliarity -- unfamiliarity with the --
13 with the documents we were reviewing.
14 Q. Were you able -- ever able to
15 determine and understand what was going on
16 regarding the mud transfers there on the

17 evening of April 20?
18 A. Not clearly, no.
19 Q. Not clearly. Okay. And even as
20 we sit here today, are you telling the jury
21 should one be empaneled in this case or
22 cases and The Court that as you sit here
23 today, you still don't know all of the
24 details of the mud transfers on the evening
25 of April 20, do you?
00538:01 A. That's correct.
02 Q. Thank you.
03 A. I haven't tried further to
04 understand them.

Page 539:16 to 541:06

00539:16 Q. And here's the next sentence, I
17 want you to go with me, read very
18 carefully. "Getting ready for NILE
19 completion. Moving mud off rig in
20 aggressive fashion."
21 A. Okay.
22 Q. What did you mean by that when
23 you told the BP investigators?
24 A. I -- I didn't -- I don't recall
25 using the word "aggressive fashion." This
00540:01 -- these words are not exactly my words. I
02 don't recall that. I just mentioned that
03 we were getting ready for -- we were
04 getting ready for NILE completion and that
05 the tanks were being cleaned and -- and,
06 you know, the Bly commission is trying to
07 figure out what happened, so I'm trying to
08 give them the most information I can on
09 what could have possibly happened.
10 Q. Last point on this page, go down
11 about four lines where it says,
12 "Surprised." You see that? "Surprised
13 about negative testing at same time as
14 displacing riser."
15 Did you tell these BP
16 investigators that?
17 A. Yes, I did.
18 Q. Why were you surprised about
19 negative testing occurring at the same time
20 as displacing the riser?
21 A. Because my general understanding
22 of the process on the HORIZON was that you
23 would do a positive and negative test and
24 then you would go to putting the top cement
25 plug and then the last thing you did was
00541:01 displace the riser --
02 Q. Do you believe that --
03 A. -- that's my understanding.
04 Q. I'm sorry, sir, for stepping

05 over you. Had you finished?
 06 A. Yes.

Page 541:18 to 543:08

00541:18 Q. You said you were surprised
 19 about it. Why were you surprised that the
 20 negative test was being conducted at the
 21 same time as the riser was being displaced?
 22 A. I was surprised because it
 23 wasn't the way I envisioned things had been
 24 going on. It wasn't my general
 25 understanding of how we were doing things.
 00542:01 Q. Well, when you say you were
 02 surprised by it, were you concerned by it,
 03 that a decision had been made to conduct a
 04 negative at the same time as the riser was
 05 displaced? Did that concern you when you
 06 first learned it?
 07 A. My only concern was that
 08 normally displacements, you want to -- you
 09 don't want to stop in the middle of a
 10 displacement. But I didn't understand the
 11 full -- you know, this is beyond my area of
 12 specialty, how they do the negative test
 13 and how they were doing the negative test.
 14 So that's why it surprised me. I wasn't,
 15 you know, I wasn't familiar or I had a
 16 general knowledge of what I thought was --
 17 they -- they would do at the end of the
 18 well.
 19 Q. Last question, sir.
 20 A. Go ahead.
 21 Q. Why is it, when you say you
 22 don't want to normally just stop a
 23 displacement in the middle of it --
 24 A. Because --
 25 Q. -- why is it -- why is it your
 00543:01 understanding -- what understanding do you
 02 have as to why you do not want to stop a
 03 displacement once it is started?
 04 A. Well, because the fluids that
 05 are heavier, above in this particular
 06 displacement, the fluids that are heavier
 07 can migrate into the fluids below and
 08 increase the interface.

Page 545:01 to 546:03

00545:01 Q. My name is Deb Kuchler and this
 02 is my colleague David Hardwicke.
 03 A. Hi.
 04 Q. Together we represent Anadarko
 05 and MOEX.

06 Before the incident, did you
07 ever communicate with anybody from Anadarko
08 about the spacer that would be used during
09 the temporary abandonment procedure on the
10 Macondo?

11 A. Not to my knowledge.

12 Q. And before the incident, did you
13 ever communicate with anyone at MOEX
14 Offshore 2007, LLC about the spacer to be
15 used during the temporary abandonment
16 procedure for the Macondo well?

17 A. Not to my knowledge.

18 Q. Are you aware of anyone else
19 communicating with Anadarko or MOEX about
20 the LCM spacer that was to be used on the
21 Macondo?

22 A. No.

23 Q. So I take it then that you
24 have no -- you know of no evidence of any
25 involvement by either Anadarko or MOEX in
00546:01 the decision to use the combined LCM pill
02 as a spacer during temporary abandonment?

03 A. I know of none.

Page 547:19 to 549:05

00547:19 Q. Now, your general understanding
20 that you told us about before lunch was
21 that you thought that they would do the
22 positive and negative test, then put the
23 top cement plug and then displace the riser
24 and I wanted to follow up on that.

25 When you were giving your input
00548:01 on the potential use of the combined LCM
02 pills as a spacer for this final operation,
03 you didn't anticipate that the displacement
04 in the negative test would occur together,
05 did you?

06 A. I -- I didn't provide input on
07 the combined pills as a spacer. I provided
08 input or provided my -- my input concerning
09 the environmental aspects of what to do
10 with the spacers, what to do with the pills
11 --

12 Q. And when --

13 A. -- what could be done with the
14 pills.

15 Q. When you provided that input on
16 the environmental aspects, you didn't
17 anticipate that the displacement and the
18 negative test would occur together, did
19 you?

20 A. No, I did not.

21 Q. As far as you know, no
22 consideration was given to using these two

23 combined LCM pills together where the
24 negative test and the displacement would be
25 done at the same time; is that right?
00549:01 A. I can't say.
02 Q. You're not aware of anyone who
03 considered that, are you?
04 A. I am not aware of whether it was
05 considered or not.

Page 549:14 to 550:08

00549:14 BY MS. KUCHLER:
15 Q. Let me back up a little bit. I
16 was a little confused yesterday when you
17 were discussing who the operator was. So I
18 just want to make sure we're clear on that.
19 For the Macondo well you do
20 understand that BP was the operator of that
21 well; is that right?
22 A. That's my understanding, and
23 Anadarko and MOEX were partners.
24 Q. Okay. So Anadarko and MOEX to
25 your understanding were non-operating
00550:01 co-owners of the lease for the Macondo
02 well; is that right?
03 A. My understanding.
04 Q. Okay. And BP was the one who
05 was actually operating the drilling and
06 exploration of the well; is that right?
07 A. That's my understanding. That's
08 my limited understanding.

Page 550:21 to 553:21

00550:21 Q. Sure. As the operator of the
22 well, wouldn't the BP wells team have the
23 responsibility to make sure that whatever
24 was pumped down that well, including the
25 combined LCM pills as a spacer, was
00551:01 appropriate and safe?
02 A. I think it would be incumbent on
03 everyone who is on the rig site who -- you
04 know, who has anything to do with the
05 operations part of it would do that.
06 Q. Okay. I understand that
07 everyone plays a part in safety. We have
08 heard many witnesses testify about that.
09 But my question specifically is that:
10 Isn't it the BP wells team and BP as the
11 operator that have the ultimate
12 responsibility to make sure that everything
13 pumped down that hole --
14 A. I --
15 Q. Let me finish. -- is

16 appropriate and safe?
17 MR. LANCASTER:
18 Objection to form.
19 THE WITNESS:
20 I can't make a judgment
21 call on ultimate responsibility.
22 BY MS. KUCHLER:
23 Q. Well, who besides BP would have
24 the responsibility -- the final call on
25 what goes down that well?
00552:01 A. I don't know.
02 Q. Okay. And would you agree that
03 the operator of the well would be in the
04 best position to have the complete picture
05 of what's going on with the well in order
06 to make decisions about what's safe and
07 appropriate to pump into the well?
08 MR. LANCASTER:
09 Objection to form.
10 THE WITNESS:
11 I can't say with certainty.
12 BY MS. KUCHLER:
13 Q. Who would be in a better
14 position than the well's operator to have
15 the most complete picture of what's going
16 on with the well in order to make those
17 decisions?
18 A. I don't know.
19 Q. You don't know who would be in
20 the best -- in the better position?
21 A. No.
22 Q. In your experience in the
23 industry, isn't it the operator of the well
24 who makes the final calls as to how the
25 well is to be drilled?
00553:01 A. In my experience, yes.
02 Q. And in order to make those final
03 calls, in your experience haven't you known
04 that operators generally evaluate risks and
05 make sure that well site personnel are
06 aware of those risks in order to safely
07 drill a well?
08 A. Rephrase the question.
09 Q. Sure. In your experience
10 haven't you seen that it is the operator
11 who is charged with evaluating the risks in
12 drilling the well? Let's stop there.
13 Correct?
14 A. Yes, in my experience.
15 Q. And it's the operator's
16 responsibility to make sure that well site
17 personnel understand those risks. Would
18 you agree with that?
19 A. I think it's everybody's
20 responsibility that they make sure they

21 understand the risk.

Page 554:01 to 554:17

00554:01 Q. So is the answer yes, it was the
 02 responsibility of the BP well site leaders
 03 on the rig?
 04 A. No. The answer is not yes. The
 05 answer is no. The answer is it's
 06 everybody's responsibility to understand
 07 the risk.
 08 Q. No, my question wasn't to
 09 understand the risks. My question is:
 10 Isn't it the responsibility of the BP well
 11 site leaders on the rig to be sure that
 12 well site personnel understand the risks of
 13 operations undertaken in drilling the well?
 14 A. In my opinion that
 15 responsibility is shared by the leaders on
 16 the rig, and the leadership on the rig
 17 encompasses more than just BP.

Page 556:04 to 557:05

00556:04 BY MS. KUCHLER:
 05 Q. Do the well team leader and the
 06 well team members onshore also have a
 07 responsibility to make sure that risks
 08 associated with drilling the well are
 09 communicated to the well site personnel on
 10 the rig?
 11 A. I think that's fair to say.
 12 Q. Now, lost-circulation materials
 13 are not typically used to separate drilling
 14 mud from seawater, are they?
 15 A. That's true, they are not
 16 typically used as a spacer.
 17 Q. So use of LCM pills, and in
 18 particular a combined mixture of Form-A-Set
 19 and Form-A-Squeeze to displace mud, is not
 20 standard industry practice, is it?
 21 A. Not to my knowledge.
 22 Q. And it's not standard industry
 23 practice to use that combined Form-A-Set
 24 and Form-A-Squeeze LCM as a spacer to do a
 25 displacement and a negative test together
 00557:01 as they did on the Macondo, is it?
 02 A. I -- I guess if the answer to
 03 the other question is not to my knowledge,
 04 then, I mean, it's not normally used as a
 05 spacer.

Page 557:17 to 558:09

00557:17 Q. Well, based on your experience,
18 have you ever seen a displacement and a
19 negative test done together using LCM as a
20 spacer?

21 A. I had no knowledge that that was
22 a possibility until I learned of it after
23 the event.

24 Q. Now, once the Form-A-Set and
25 Form-A-Squeeze were combined, we ended up
00558:01 with a water-based 16 PPG blend, didn't we?

02 A. I don't know. I'm not sure.

03 Q. Okay. What do you think that
04 the weight of the combination was?

05 A. Well, I -- I don't know. I
06 really don't -- I don't know with
07 certainty. It wouldn't be -- it wouldn't
08 be prudent for me to try to say because I
09 don't know with certainty.

Page 558:25 to 559:10

00558:25 Q. As you sit here today, you can't
00559:01 tell us or confirm for us that the weight
02 of the LCM was 16 PPG?

03 A. As I sit here today, I cannot
04 say with certainty it was.

05 Q. Now, aside from the two LCM
06 pills, the combined spacer also contained
07 Barite and DUO-VIS, right?

08 A. It contained Barite and some
09 type of bio polymer. It may have well been
10 DUO-VIS.

Page 560:04 to 562:02

00560:04 Q. Okay. I would like you to
05 assume rather than take your time to dig
06 through the documents and find the 16 PPG,
07 I would like you to assume for me that the
08 LCM spacer weighed 16 PPG. At 16 PPG
09 wouldn't that be denser than the more
10 typical spacer?

11 A. I don't think so.

12 Q. Okay. Why do you say you don't
13 think so?

14 A. Because I haven't been directly
15 involved in the spacers that were used on
16 Macondo to the best of my knowledge.
17 The -- and I -- and I have some knowledge
18 from asking Mr. Tab Haygood somewhere along
19 in my experience when I was with M-I SWACO
20 how they were doing the displacement
21 spacer.

22 And in that conversation with
23 him I think I may have even talked to him
24 two different times to refresh my memory
25 about how they were doing it in case I
00561:01 would be asked by BP how it was being done.
02 And he mentioned that they would weight the
03 spacer up. It was common for them to
04 weight the spacer up higher than the mud
05 weight.
06 Q. Well, when you weight the spacer
07 up higher than the mud weight -- and it's
08 also significantly higher than the
09 seawater, right?
10 A. Correct.
11 Q. Now you're introducing three
12 different weights into the displacement
13 system, aren't you?
14 A. There's a mud weight. There's
15 the weight of the spacer and then there's
16 the weight of the seawater. Those are
17 three different weights.
18 Q. Now, while a dense spacer might
19 help displace the mud from the drill pipe,
20 the seawater has to be able to push that
21 spacer up through the wellbore and into the
22 riser, doesn't it?
23 A. That's correct.
24 Q. And by using a spacer that's
25 denser than the seawater, didn't that
00562:01 increase the risk that the spacer would in
02 instead flow downward through the seawater?

Page 562:05 to 563:14

00562:05 THE WITNESS:
06 I can't say. I -- I know
07 that that was -- I -- as I stated
08 previously, that was one of the learnings
09 when we went further and further out into
10 deep water. My understanding, concerning
11 spacers for risers from talking to a number
12 of people who worked the rigs, worked the
13 deep water rigs and had to do displacements
14 in deep water, several, several people that
15 weighing up the spacer caused it to work
16 better as a spacer. It caused there to be
17 less mixing between spacer and the mud and
18 less mixing with the seawater. I can't
19 explain why that is, but that was the
20 experience, the practical experience in the
21 field. And that was the lesson learned,
22 that weighting the spacer up helps.
23 BY MS. KUCHLER:
24 Q. So in your experience and based
25 on your knowledge you're telling this --

00563:01 this Court that using a spacer that's
02 denser than the seawater would not increase
03 the risk that the spacer would flow
04 downward through the seawater?
05 A. Apparently not. In experience,
06 apparently not.
07 Q. And so you don't think that
08 there's a potential of that spacer ending
09 up beneath the BOP because of its extra
10 weight?
11 A. I don't think so. I don't know
12 for sure, but I don't think so. I think
13 the spacer would have been fairly true to
14 the strokes.

Page 564:19 to 565:03

00564:19 Q. Okay. Your understanding is
20 that they closed the annular preventer when
21 to mitigate that concern?
22 A. My -- my understanding from post
23 incident, from -- I don't know -- different
24 sources was that they tried to pump --
25 their intent was to pump the spacer above
00565:01 the BOPs, above the annular preventer and
02 then close the annular preventer to inhibit
03 the spacer from falling.

Page 566:05 to 566:24

00566:05 Q. What was the operational reason
06 for raising the weight to 16 PPG?
07 A. Well, you know, we just
08 discussed that a heavier -- I would have to
09 assume. I don't know. I don't know what
10 the operational reason was.
11 Q. Well, don't you usually want to
12 split the difference between the seawater
13 and the mud weight and pick a spacer that's
14 in between those two mud weights?
15 A. Some people do that approach for
16 a completions displacements and for other,
17 possible other types of displacers, maybe
18 cementing. I don't know. But for deep
19 water riser displacements, what I know is
20 this is the standard practice.
21 Q. The standard practice is to have
22 the L -- the spacer weighed more than the
23 drilling mud?
24 A. Yes.

Page 568:21 to 569:09

00568:21 Q. So you don't find it odd that
 22 the spacer for the Macondo application was
 23 2 PPG heavier than the mud weight?
 24 A. No, I don't. I trusted the
 25 individuals who normally did the spacer
 00569:01 design and execution and -- and to the best
 02 of my knowledge did it well.
 03 Q. Would you have any pause for
 04 concern that the spacer was almost double
 05 the weight of the seawater and therefore it
 06 might have made it harder for the seawater
 07 to displace evenly?
 08 A. No, I had no concern. I would
 09 not have had a concern.

Page 569:23 to 570:06

00569:23 Q. No, I'm not discussing it as a
 24 weighting agent. My question is that by
 25 having the LCM heavier than the drilling
 00570:01 mud and almost twice as heavy as the
 02 seawater to where we have three different
 03 weights in play at one time, if this third
 04 fluid is left below the BOP, can't it
 05 confound or confuse the interpretation of
 06 the negative test?

Page 570:09 to 570:16

00570:09 THE WITNESS:
 10 I think it would be more
 11 accurate to call it a spacer than to call
 12 it LCM because by that time it was
 13 redesigned as a spacer. It was
 14 reconfigured to be used as a spacer from
 15 what I have learned after the fact. So
 16 what's the second part of your question?

Page 573:01 to 573:07

00573:01 BY MS. KUCHLER:
 02 Q. Well, the wells team was
 03 ultimately in charge of what kind of
 04 negative test was performed and how it
 05 should be interpreted, would you agree with
 06 that?
 07 A. I think that's fair.

Page 573:13 to 573:23

00573:13 Q. -- isn't it?
 14 Would you agree with me that 50
 15 to 100 barrels of spacer typically provides

16 an adequate buffer between mud and
17 seawater?
18 A. No.
19 Q. Okay. Why not?
20 A. It sounds like not enough to me,
21 just -- just from experience I
22 wouldn't -- you know, the riser is big and
23 I would think you need more than that.

Page 574:23 to 575:06

00574:23 Q. Well, didn't BP select this
24 volume in order to use those LCM pills that
25 were already on the rig? I mean, isn't
00575:01 that the bottom line?
02 A. Well, it was a recommendation by
03 M-I SWACO and I -- I'm not sure who all was
04 involved from the BP side in -- in saying
05 that's acceptable or what's acceptable or
06 not.

Page 575:22 to 576:17

00575:22 Q. Well, you have said several
23 times that M-I SWACO recommended the use of
24 this LCM as a spacer. But as operator, BP
25 had the ultimate decision as to whether to
00576:01 follow that recommendation or not, didn't
02 it?
03 A. I think so. I would say that's
04 accurate.
05 Q. The decision to use the LCM
06 pills as a spacer saved BP money by not
07 having to dispose of those LCM materials
08 onshore as hazardous waste, right?
09 A. There's some -- you would have
10 to balance it out -- I don't know what the
11 cost would have been for disposal. You
12 would have to balance it out with the cost
13 of building another spacer. And the cost
14 of building another spacer would have --
15 would have subtracted from the -- the
16 cost -- if the cost was higher to send for
17 disposal, it could have been cheaper.

Page 577:08 to 578:21

00577:08 Q. And didn't BP avoid having to
09 send the LCM materials onshore because once
10 they were circulated down the well they
11 could be discarded overboard?
12 A. M-I made a recommendation that
13 they thought the pills were acceptable for

14 use as a spacer and I saw no environmental
15 reason as far as I knew and I let the
16 environmental person make the final
17 decision, but I saw no environmental reason
18 why they could not be used --
19 Q. Because --
20 A. -- used as a spacer or -- if
21 used as a spacer be dumped overboard.
22 Q. Okay. So just to make sure that
23 I understand correctly, once they were used
24 as a spacer, the LCM materials could be
25 dumped overboard, is that what you said?
00578:01 A. Yes. And -- and there's nothing
02 special about the products that were in the
03 spacers that disallowed them from being
04 dumped overboard. The only thing that
05 disallowed them from being dumped overboard
06 was the government regulation that says you
07 can't dump anything that hasn't been
08 through the wellbore.
09 Q. Right.
10 A. So if the spacers would have
11 been used in the well for some other
12 purpose, for lost circulation, and if they
13 would have stayed in the wellbore and been
14 circulated back out, they could have been
15 dumped overboard. So it wasn't, you
16 know -- the material -- the inherent nature
17 of the material to the best of my
18 knowledge, the inherent nature of the
19 material doesn't disallow -- doesn't --
20 doesn't make them waste except for they
21 hadn't been in the wellbore.

Page 579:08 to 579:21

00579:08 Q. They could take -- BP could take
09 advantage of the hazardous waste exception
10 by running the LCL -- LCM pill down the
11 hole as a spacer?
12 A. We could prudently try to
13 minimize waste overall by using the
14 space -- using the material that's
15 available rather than having to build extra
16 material and creating extra waste.
17 Q. And by doing that, BP was able
18 to take advantage of the hazardous waste
19 exception which would allow you to dispose
20 of it overboard, correct?
21 A. We followed the regulations.

Page 581:05 to 585:15

00581:05 followed the regulations. I'm asking if,

06 because the LCM pills were pumped down that
07 wellbore as a spacer, you were able to take
08 advantage of an exception in the
09 regulations and dispose of them overboard?
10 A. I don't -- I don't have
11 enough -- I don't -- you know, your wording
12 about taking advantage of exception in the
13 regulations, I don't have enough knowledge
14 about the environmental regulations to --
15 to accept that characterization. I don't
16 have enough knowledge to accept that. So I
17 have to say we followed the environmental
18 regulations because I'm not an
19 environmental -- my area of specialty is
20 not environmental. I can't -- I can't say
21 yes or no to your characterization.
22 Q. Well, you were the one that
23 folks were consulting about the
24 environmental aspect of using this LCM pill
25 as a spacer --
00582:01 A. I was one --
02 Q. -- right?
03 A. I was one of the people, that's
04 correct.
05 Q. Okay.
06 A. But my specialty is not
07 environmental.
08 Q. All right. If the LCM pill was
09 run down the wellbore as a spacer, it could
10 be discarded overboard, correct?
11 A. That's correct.
12 Q. And if it was not pumped down
13 the wellbore and used as a spacer, it would
14 have had to be transported onshore and
15 disposed of as hazardous waste, correct?
16 A. Or used in some way in the
17 wellbore.
18 Q. Now, you have mentioned that you
19 can pump Form-A-Set or Form-A-Squeeze each
20 by itself, right, you can use one or the
21 other?
22 A. That's correct.
23 Q. Or you can pump them in tandem
24 one behind the other; is that right?
25 A. That's not exactly correct,
00583:01 tandem. You have some of the
02 Form-A-Squeeze in front and you have some
03 of the Form-A-Squeeze in back with the
04 Form-A-Set in the middle.
05 Q. Okay. But the products are not
06 designed by M-I SWACO to mix together and
07 pump them as a combined material, are they?
08 A. I haven't seen any documentation
09 that says that. The documentation seems to
10 say -- the documentation doesn't -- I have

11 seen no documentation that that can be
12 done.

13 Q. Okay.

14 A. But M-I SWACO recommended and
15 M-I SWACO -- I don't know what M-I SWACO
16 did. Maybe that was the case. I'm not
17 sure. I have no direct knowledge of that.

18 Q. All right. But in the M-I SWACO
19 materials that you have seen, you have not
20 seen any discussion that would suggest that
21 Form-A-Set and Form-A-Squeeze were intended
22 to be combined and used as one material?

23 A. No, I haven't seen that.

24 Q. And had you ever heard of the
25 two being mixed together and pumped as one
00584:01 like they were on the Macondo?

02 A. No, I haven't.

03 Q. And when you're pumping them in
04 tandem, shouldn't they be separated by a
05 spacer?

06 A. No. That's not true.

07 Q. Okay. So is the use of one in
08 the middle with the end of the other, is
09 that intended to be a spacer to separate
10 Form-A-Set from Form-A-Squeeze?

11 A. If you -- the intent is not to
12 separate Form-A-Set from Form-A-Squeeze
13 because they are together when pumped in
14 the tandem. They do touch each other.
15 They are -- you pump the Form-A-Squeeze
16 first and the Form-A-Squeeze is intended to
17 be an LCM squeeze solution and it's also
18 intended to separate the Form-A-Set from
19 the drilling fluid, as I testified
20 yesterday. Because the Form-A-Set is a
21 water-based product and it -- it won't work
22 if it touches the drilling fluid. It will
23 dilute its effectiveness and it won't work
24 as a -- as a LCM material. That's my
25 understanding.

00585:01 So on the back end, you put the
02 Form-A-Squeeze on the back end for the same
03 purpose, to keep the drilling fluid on the
04 back end from touching the Form-A-Set.

05 Q. So what would you expect to
06 happen when the pills are combined together
07 and pumping stops such that the fluid is
08 stagnant in the well?

09 A. If -- if seawater is below it,
10 it would not be surprising that some of it
11 would drift down.

12 Q. And let's take a look at the M-I
13 procedure that you looked at just a minute
14 ago with Mr. Godwin, Exhibit 1032. Do you
15 have that there in front of you?

Page 585:24 to 586:06

00585:24 Q. Okay. Would you take a look
 25 under displacement to number 5 -- well,
 00586:01 let's start with number 4. The M-I
 02 procedure for the displacement at number 4
 03 says, "Continue displacement up casing
 04 until spacer is 500 feet past BOP stack."
 05 You see that?
 06 A. Yes.

Page 587:25 to 588:12

00587:25 Q. But the displacement procedure
 00588:01 by M-I SWACO required that the displacement
 02 continue until the spacer was 500 feet past
 03 the BOP stack, right?
 04 A. This says 500 feet past, but I
 05 don't know when exactly that was.
 06 Q. And it goes on to say under
 07 number 5, "Do not shut down until
 08 displacement is complete." Is that -- is
 09 that -- isn't that what it says?
 10 A. That's an interesting statement.
 11 Q. Right?
 12 A. Yes, that's what it says.

Page 588:20 to 588:23

00588:20 Q. Because if you shut down the
 21 pumps and leave the pill stagnant while
 22 it's in the drill pipe, it might set up and
 23 plug the pipe; isn't that right?

Page 589:01 to 589:02

00589:01 THE WITNESS:
 02 No, that's not correct.

Page 590:21 to 592:06

00590:21 Q. Well, before you read the whole
 22 thing, let me ask you this: The M-I
 23 procedure does not address the situation
 24 where the negative test is being done at
 25 the same time as the displacement, does it?
 00591:01 A. I'm sorry. Despite your
 02 instructions I was reading. Please repeat.
 03 Q. The M-I SWACO procedure for
 04 displacement does not take into account
 05 that the negative test was being done at
 06 the same time as the displacement, does it?

07 A. It -- I can't say whether it
08 does or not. It -- the line 4 seems to
09 possibly lean in that direction. Well, I
10 don't know. Let me see. It's an
11 interesting question. It would -- it would
12 require me to read the document. So I need
13 to take time to read the document. Please
14 remember your question because I will
15 forget it after I'm finished reading.

16 This -- after reading it this
17 does not seem to mention anything about
18 a -- I don't see a mention of a -- of a
19 negative test.

20 Q. Right. It's a -- it's a
21 procedure for a straight displacement with
22 no pump stoppage until the displacement is
23 complete, isn't that what it appears to be?

24 A. That's what it appears to be
25 after reading it carefully.

00592:01 Q. All right. So if the pill or
02 the spacer made up of the LCM pills is left
03 stagnant during the course of the negative
04 test, couldn't that cause the material to
05 gel and get even thicker than it already
06 was?

Page 592:10 to 592:10

00592:10 No.

Page 592:12 to 593:04

00592:12 Q. Why do you say that?

13 A. Because the -- it's not going to
14 gel. It's going to get thinner when it --
15 if it -- if it falls, you know, if it
16 falls or the -- okay. If it stays above
17 the annular, then it's going to keep the
18 same viscosity because it has no -- it has
19 no mechanism to get thicker. It has
20 no -- you know, from what I understand of
21 what they were trying to accomplish and
22 what they were doing, they didn't have the
23 cross-linker in it, so there's no reason
24 for it to get thicker.

25 Now, if it -- if the annular
00593:01 wouldn't have been closed and they stopped
02 the displacement, then the pill would have
03 started to want to fall back through the
04 seawater.

Page 593:09 to 595:03

00593:09 Q. The -- okay. So the solids
10 could drop out, right?
11 A. The solids could start moving
12 down.
13 Q. Especially in the interface mix
14 area of the water and the pill or the mud
15 and the pill?
16 A. I've -- in the water and the
17 pill. The mud and the pill, I don't see
18 nothing -- you know, the mud is lighter
19 than the pill, so I can't see anything
20 happening there.
21 Q. So would the seawater spacer
22 interface likely be unstable in that
23 situation?
24 A. If you stop the displacement
25 that's the -- that's the reason there is a
00594:01 cardinal rule that once you start a
02 displacement, it's the basic foundational
03 rule, once you start a spacer -- or a
04 displacement, you don't stop. And that's
05 the reason for it. That's as I understand.
06 Q. Now, do you understand that
07 during the negative test the pill was
08 allowed to sit stagnant while the pump was
09 turned off?
10 A. I don't know.
11 Q. Do you know whether BP ever
12 studied the impact of mixing those pills
13 for use as a spacer during a negative test?
14 A. I don't know.
15 Q. Do you know whether M-I SWACO
16 ever studied the impact of mixing the pills
17 for use as a spacer during the negative
18 test?
19 A. I heard Mr. Leo Lindner testify
20 about something he did on the rig and I
21 don't know what M-I SWACO did otherwise.
22 Q. So you haven't seen any test
23 results that would indicate that the
24 combined LCM pills as a spacer for this
25 situation had ever been tested by either
00595:01 company; is that right?
02 A. I haven't seen any results where
03 that was done on the front end.

Page 596:05 to 598:24

00596:05 Q. I think you mentioned yesterday
06 that you thought gravity would keep the LCM
07 spacer from going up to clog the kill line.
08 I would like to follow up on that.
09 A. Well, what I was -- what I meant
10 was gravity would make the -- the particles
11 want to fall through the seawater as I

12 mentioned several times today.

13 Q. Right.

14 A. And there's nothing that would

15 make those particles want to stop at any

16 point or make a right angle turn to go into

17 the choke or kill line at any point. They

18 would just keep on going down the wellbore.

19 Q. Okay. But what if BP bled fluid

20 off the kill line? If you bleed -- if you

21 bleed off through the top of the kill line,

22 wouldn't the pill enter the kill line from

23 below?

24 A. It's possible that that mixed

25 area could go into the kill line, but I

00597:01 wouldn't expect the mix area to be -- be of

02 much -- you know, I would expect it to be

03 partial seawater, partial spacer and

04 not -- not be any of this -- you know, not

05 very viscous and not have very many

06 particles in it and it would be diluted.

07 Q. Well, how could we know that if

08 no testing was done on this combined pill

09 as a spacer?

10 A. On the front end?

11 Q. Right.

12 A. No testing before?

13 Q. Right.

14 A. I don't know.

15 Q. So we can't be sure, can we,

16 that that pill couldn't have entered and

17 clogged the kill line when BP bled fluid

18 off the kill line?

19 A. Well, you know, some people -- I

20 don't know whether the -- the tests were

21 done. I don't know what tests were done or

22 what considerations were made. I can't

23 say.

24 Q. So that is -- that is a -- a

25 potential effect that should have been

00598:01 evaluated before using this kind of

02 material for a spacer for a negative test,

03 wouldn't you agree?

04 A. It should be a consideration.

05 Should be one of the many considerations

06 you -- you think of.

07 Q. And it should be -- it should

08 have been a consideration by the BP well

09 team who planned the negative test, would

10 you agree with that?

11 A. Yeah, whoever planned the

12 negative test, it should have been one of

13 the considerations.

14 Q. Now, we have talked about the

15 possibility that the kill line might have

16 been clogged with this spacer material.

17 But there's also the potential that the
18 drill pipe annulus could have been clogged
19 by this material, isn't there?
20 A. I think that that's an extremely
21 remote possibility --
22 Q. Well, the --
23 A. -- because it's a much bigger
24 space.

Page 600:06 to 600:18

00600:06 Q. Not sure. Okay. So you just
07 really couldn't tell me if the seven inch
08 OD tool joint was a likely place for a
09 bridge to form?
10 A. The material wouldn't have
11 formed a bridge. My -- in my opinion --
12 Q. And what do you base that?
13 A. In my opinion, in my experience
14 the material wouldn't have formed a bridge.
15 Q. Why not?
16 A. Because the space is too big and
17 it would have just gone around and kept on
18 down, kept on falling.

Page 601:13 to 602:03

00601:13 Q. Can you point me to any
14 documentation pre-incident of compatibility
15 testing of the spacer with the drilling
16 mud?
17 A. No.
18 Q. Was any consideration given to
19 your knowledge to long-term -- the
20 long-term stability of the interface
21 between the spacer and seawater?
22 A. No, I have no -- no
23 documentation.
24 Q. Are you aware of any testing
25 being conducted prior to the incident for
00602:01 the use of the LCM materials as a spacer in
02 this application?
03 A. I'm not aware.

Page 605:09 to 608:05

00605:09 Q. Now, we talked about -- I think
10 you said you did not know who ultimately
11 approved use of the spacer in this
12 instance; is that right?
13 A. I don't know who ultimately
14 approved these -- the pills as a spacer.
15 Q. All right. I would like to look

16 at what's behind tab 50 here in the binder,
17 and we have copies here that we'll just
18 hand you. This is an e-mail from Don
19 Vidrine to Leo Lindner. There are several
20 copies. Dated April 16th. Starting with
21 BP-HZN-BLY00069239.
22 This looks to me as if
23 Mr. -- the folks at M-I SWACO were
24 discussing the use of this spacer and
25 Mr. Vidrine's answer to Leo Lindner was to
00606:01 discuss with Brian Morel. Do you see that
02 there?
03 A. Yes, I do.
04 Q. Okay. And Brian Morel is one of
05 the BP drilling engineers onshore; is that
06 right?
07 A. Yes, that is correct.
08 Q. He was assigned to work on the
09 DEEPWATER HORIZON issues, wasn't he?
10 A. Brian Morel was one of the two
11 drilling engineers to my knowledge assigned
12 to the Macondo.
13 Q. So he would have been considered
14 part of the wells team onshore for the
15 Macondo well?
16 A. That's my understanding, yes.
17 Q. Okay. Let's attach that as
18 Exhibit 1039.
19 (Exhibit 1039 was marked
20 for identification.)
21 And then I would like to turn to
22 tab 51 in the binder. And here are some
23 copies of the next document which is
24 Mr. Lindner's response to this e-mail
25 string dated April 17, 2010 bearing Bates
00607:01 number M-I 00016425. And what does
02 Mr. Lindner report to Doyle Maxie? Can you
03 read that sentence for us there?
04 A. "Doyle, talked to Brian Morel
05 about the issue, and he is for using it as
06 a spacer. Regards, Leo."
07 Q. So that indicates that Mr. Maxie
08 is reporting that Brian Morel supports the
09 use of this material as a spacer, is that
10 how you would interpret that?
11 A. It says Maxie at the top.
12 Q. Oh, I'm sorry. You're right.
13 A. From Leo Lindner.
14 Q. Okay. So Mr. Lindner talked to
15 Brian Morel and Brian Morel was for using
16 it as a spacer, is that how you would
17 interpret that?
18 A. That's -- that's how it reads.
19 MS. KUCHLER:
20 Those are all of my

21 questions.
22 MR. HARDWICKE:
23 Do you want to mark that as
24 an exhibit, the next exhibit?
25 MS. KUCHLER:
00608:01 Yes.
02 MR. HARDWICKE:
03 10 -- 1040?
04 (Exhibit 1040 was marked
05 for identification.)

Page 608:17 to 608:19

00608:17 Q. Mr. LeBleu, my name is Denise
18 Scofield and I represent M-I along with my
19 colleague John Funderburk. The first

Page 609:08 to 609:15

00609:08 Q. Okay. You have testified a lot
09 and asked a lot -- been asked a lot of
10 questions about Form-A-Set in connection
11 with your deposition. When you have been
12 answering questions about Form-A-Set, you
13 have really been referring to Form-A-Set
14 AK; is that correct?
15 A. That's correct.

Page 609:20 to 610:02

00609:20 Q. Okay. To refresh your
21 recollection, tell me if I'm correct,
22 Form-A-Set does not include -- does include
23 the cross-linker. Form-A-Set AK requires
24 the addition of a cross-linker in order for
25 product to set; is that correct?
00610:01 A. Form-A-Set AK I know requires
02 the addition of a cross-linker.

Page 611:08 to 613:18

00611:08 Q. Okay. Well, as you understand
09 it and based on all of that experience, you
10 understand that Form-A-Set AK is in an
11 inert state unless a cross-linking agent is
12 added to it, correct?
13 A. That's my understanding.
14 Q. Okay. And even when this
15 cross-linker is added, you have to follow
16 strict instructions to try to get the
17 Form-A-Set AK to set up and seal fractures,
18 correct?
19 A. Yes.

20 Q. Okay. And you have to maintain
21 certain downhole pressures for a certain
22 length of time to try to ensure that the
23 Form-A-Set AK does its job --
24 A. That's a very good point, yes.
25 Q. Okay. And that also is
00612:01 dependent on the downhole temperature,
02 correct?
03 A. Yes, it is.
04 Q. Okay. And even when you were
05 following all of those instructions to a T,
06 after the addition of the cross-linker,
07 it's still not a hundred percent certain
08 that that's going to set up and cure the
09 losses, correct?
10 A. That's absolutely correct.
11 Q. Have you ever had an instance of
12 which you're aware where the Form-A-Set AK
13 activated without the use of the
14 cross-linker?
15 A. No.
16 Q. Okay. And you understand the
17 cross-linker to be a proprietary M-I
18 product, correct?
19 A. Yes.
20 Q. You don't know the exact
21 formulation of it?
22 A. No, I don't.
23 Q. Okay. Regardless of that
24 formulation, you know that it's
25 specifically designed to activate the
00613:01 Form-A-Set AK pill which causes it to take
02 on the characteristics of an LCM? It won't
03 set up without the --
04 A. It won't set up without the
05 cross-linker.
06 Q. Okay. To your knowledge, one
07 can't just add drilling mud and expect
08 Form-A-Set AK to set up, correct?
09 A. To my knowledge, that's -- you
10 know, that can't happen, to my knowledge.
11 Q. Okay. I would like you to look
12 at what was marked yesterday as Exhibit
13 698. And I have marked for today as
14 Exhibit 1041 what I believe to be a cover
15 e-mail that -- and actually let me switch
16 with you.
17 (Exhibit 1041 was marked
18 for identification.)

Page 615:01 to 616:22

00615:01 Q. We are. You will note at the
02 bottom of the page there's an e-mail from
03 you to John Guide dated Monday,

04 February 22nd at 5:25 p.m. in which you
05 state: John, we are in agreement on the
06 mixing procedure and wanted to forward it
07 to the rig so that the rig can start
08 mixing. We are still working on the
09 pumping procedure and will send it on when
10 finalized."

11 When you make the statement,
12 "John, we are in agreement on the mixing
13 procedure," who was in agreement? To whom
14 are you referring?

15 A. I would think that -- I don't
16 know for sure whether it included Doyle
17 Maxie or not, but I would think it -- I
18 think it, as I recall, included Mark Hafle,
19 Brian Morel and I and possibly Doyle Maxie.

20 Doyle Maxie initiated the
21 procedure as I recall, initiated the
22 procedure as I recall. We always worked it
23 with Doyle so -- but -- but from the BP
24 side, Mark Hafle and Brian Morel wanted to
25 assure John Guide that we had looked it
00616:01 over from the BP side.

02 Q. Okay. So it would be fair to
03 say that when you would receive a
04 recommendation like this from M-I, you
05 would then take it and vet it with the
06 other drilling fluid engineers on the rig;
07 is that correct?

08 A. Well, that's -- I think Doyle
09 Maxie would do that because these two
10 people mentioned aren't drilling fluid
11 engineers. They are drilling engineers.

12 Q. And I'm sorry. I misspoke. You
13 would then vet it with the drilling
14 engineers, correct?

15 A. In -- in most cases, yes. In
16 most cases -- in most cases -- from what I
17 recall, Doyle Maxie would send it to myself
18 and one or other of the drilling engineers
19 and we would -- I know we worked it
20 different this time. We worked it more
21 robustly this time than we did in the
22 previous instances --

Page 616:24 to 618:15

00616:24 A. -- is -- is my recollection.

25 Q. Okay. Looking at the next
00617:01 e-mail, which was dated Monday,
02 February 22nd, 2010, at 6:18 p.m., less
03 than an hour later, you'll see that there's
04 an e-mail from Brian Morel to Ronald
05 Sepulvado and Don Vidrine: Don/Ronnie,
06 attached is a mixing procedure for the

07 Form-A-Squeeze and Form-A-Set pill. The
08 pumping procedure will follow shortly.
09 Still ironing out final details. John
10 Guide has approved it.

11 Now, where Brian Morel is
12 stating that John Guide has approved it,
13 were you involved in that approval process?

14 A. No. The -- the e-mail below,
15 after we worked it to where -- to the point
16 that Mr. Mark Hafle, Brian Morel and I from
17 the BP side -- again, it probably included
18 Doyle Maxie. But from the BP side when we
19 worked it to -- to where the two drilling
20 engineers and myself were satisfied, then
21 the suggestion from Mark Hafle I think was
22 to forward it on to John Guide, for me to
23 forward it to John Guide.

24 And I did and that's what the
25 bottom e-mail says. And then the upper
00618:01 e-mail -- I forgot your question. I'm
02 sorry.

03 Q. That's okay. What I'm trying to
04 understand is how would Brian Morel have
05 known that John Guide had approved it?

06 A. I -- it -- I don't know. Let's
07 see what time we're talking about here. I
08 don't know. Perhaps a phone conversation.
09 Perhaps they were working late in the
10 office together. I don't -- I'm not sure.

11 Q. Okay. You have no reason to
12 believe, however, that that is inaccurate,
13 that John Guide had not approved it,
14 correct?

15 A. No.

Page 619:15 to 622:17

00619:15 Q. We're at the statement where it
16 says, "Any synthetic fluid would
17 contaminate the Form-A-Set AK pill."

18 A. 1041, document 1041. I'll find
19 it. It's on the first page of the
20 procedure or the second?

21 Q. It's on the first page of the
22 procedure. It's right above the -- the
23 slurry.

24 A. Oh, yeah. I got it. "Ensure
25 mixing hoppers does not contain synthetic
00620:01 fluid. Any synthetic fluid would
02 contaminate the Form-A-Set AK pill."

03 Q. Okay. Now, there it doesn't
04 caution that any mixture with the synthetic
05 fluid would cause any cross-linking with
06 the Form-A-Set AK, correct?

07 A. That's correct.

08 Q. Okay.

09 A. My understanding, the concern

10 here is that it would just keep the

11 Form-A-Set AK from --

12 Q. From working?

13 A. From working, from solidifying,

14 from cross-linking.

15 Q. Okay. And if cross-linking had

16 been a concern in this entire document,

17 that's likely where it would be noted,

18 correct?

19 A. If cross-linking would occur by

20 mixing with drilling fluid, it should occur

21 there.

22 Q. Okay. So then if you go to

23 page 3 of this procedure, it talks about

24 adding the cross-linker. Do you see that?

25 A. I'm sorry. I can't find where

00621:01 it says add the cross-linking product.

02 Q. Well, if you go to number 11.

03 A. Okay. Okay.

04 Q. Do you see where it refers to

05 the XL?

06 A. Yes, right before pumping it

07 downhole. That's the correct operation as

08 far as I know.

09 Q. Okay. Nowhere in this procedure

10 does it talk about adding drilling mud to

11 aid in the cross-linking process, correct?

12 A. Correct.

13 Q. Okay. With the cross-linker

14 added, the pill is not supposed to start

15 setting until two hours and 29 minutes

16 later, correct?

17 A. It depends how much -- depends

18 how it was designed, how much retarder, if

19 any retarder was added and -- and what the

20 design was for, the specific design, but

21 it -- perhaps it does say that in this

22 document.

23 Q. And if you look towards the

24 middle of the page --

25 A. Oh, yes, I see it: "Note:

00622:01 According to lab results the pill should

02 start setting after 2 hours and 29

03 minutes."

04 Q. Okay. And that's with the

05 material added to cause it to set, correct?

06 A. That's correct.

07 Q. How long does this procedure

08 instruct to leave the Form-A-Set in the

09 loss zone under pressure?

10 A. Let me find that.

11 Q. And it's under number 15.

12 A. Six hours.

13 Q. Okay. So even with the
14 cross-linker added, it takes quite a bit of
15 time for the material to set up, correct?
16 A. Even with the cross-linker added
17 and -- yes, that's correct.

Page 623:08 to 626:12

00623:08 Q. But you don't agree with the
09 interpretation that a drilling mud could
10 cause the Form-A-Set AK to set up, correct?
11 A. No, I don't. I have never heard
12 of that happening. And I have -- the only
13 concerns I have ever heard is the opposite,
14 that it would keep it from working, keep it
15 from cross-linking.
16 Q. That the drilling mud would
17 contaminate it such that the gelling
18 process would not -- the setting process
19 would not occur, correct?
20 A. Yes. Yes.
21 Q. Now, in connection with the
22 spacer itself, you testified yesterday that
23 you do have extensive experience with
24 drilling fluids, correct?
25 A. Yes.
00624:01 Q. With mixing pills?
02 A. That's correct.
03 Q. With mixing spacers?
04 A. Yes.
05 Q. And you had no safety concerns
06 about using the two pills, the Form-A-Set
07 AK and the Form-A-Squeeze as a spacer in
08 the Macondo well, correct?
09 A. I had no concerns.
10 Q. In fact, you had run background
11 LCM throughout the well during the entire
12 time, correct?
13 A. That's correct.
14 Q. Okay. So you had had LCM
15 particles circulating through the wellbore
16 during the drilling procedures?
17 A. That's correct.
18 Q. And through the drill bit?
19 A. That's correct.
20 Q. So is that one reason why you
21 didn't have a concern about the LCM
22 materials being in the spacer, because it
23 wasn't anything new to the well?
24 A. LCM, we run background LCM all
25 the time on -- on all our wells and it goes
00625:01 down the drill pipe. It goes back up the
02 hole. It goes by the BOPs, by the choke
03 and kill line, goes out the well and round
04 and round for days at a time.

05 Q. Tell us, again, what normal
 06 spacers are comprised of.
 07 A. Normal spacers?
 08 Q. Right. Water, bio polymer,
 09 barite?
 10 A. It depends on what you are using
 11 the spacer for.
 12 Q. Is it correct that water, bio
 13 polymers and barite would be typical
 14 components?
 15 A. That's base -- that's basic
 16 ingredients for a lot of spacers.
 17 Q. Okay. How did the LCM pills
 18 that were used in the Macondo well compare
 19 to the formulation of spacers you had used
 20 in the past?
 21 A. The Form-A-Set AK, my
 22 understanding is very -- had the similar
 23 products. It had water. It had barite.
 24 It had bio polymer to suspend the barite.
 25 It had LCM, I -- I think it has LCM in it.
 00626:01 I know the Form-A-Squeeze has LCM in it.
 02 I'm not sure if the Form-A-Set AK has LCM
 03 in it or not or what type of LCM it is
 04 exactly, but it's similar.
 05 Q. And so is that why you weren't
 06 concerned about any safety considerations
 07 with this spacer, because it really was
 08 simply the same materials plus LCM
 09 materials that had already been circulated
 10 through the wellbore during the life of the
 11 well anyway?
 12 A. Well --

Page 626:15 to 628:15

00626:15 THE WITNESS:
 16 Well, LCM was in the -- you
 17 know, we -- we use LCM, all types of LCM
 18 routinely. We pumped a number of different
 19 LCM pills. The 84-pound per barrel pills
 20 have fibrous materials, fine fibrous
 21 materials, long, large fibrous materials,
 22 relatively large. It has calcium
 23 carbonate. It has malleable,
 24 graphitic-type materials. And those have
 25 all been in the well, but we have a lot of
 00627:01 experience with those types of things and
 02 -- and so I -- I didn't have a concern.
 03 BY MS. SCOFIELD:
 04 Q. Okay. And you considered in
 05 connection with Doyle Maxie's inquiry about
 06 the three and a half inch stinger, whether
 07 that would create any issues and you
 08 concluded that there was no cause for

09 concern, correct?
10 A. Yes.
11 Q. No cross-linker to your
12 knowledge was added to this spacer,
13 correct?
14 A. Not to my knowledge.
15 Q. Is there any standard size for a
16 spacer for all wells? Is it one size fits
17 all?
18 A. No, there's no standard size.
19 And quite often different drilling fluid
20 engineer will build a spacer different size
21 and -- than another drilling fluid
22 engineers working the same rig.
23 Q. And you weren't concerned --
24 A. For -- and for the same purpose,
25 for displacing the riser, one drilling
00628:01 fluid engineer could build a 200-barrel
02 spacer, another one could build a 250,
03 another one could build 150 or 190 or 180.
04 It's common that drilling fluid engineers
05 on rigs don't do exactly the same thing.
06 Q. And you weren't concerned about
07 the size of the spacer used on the Macondo
08 well, correct?
09 A. I didn't know what -- what size
10 it was, but I wasn't concerned.
11 Q. Looking back on it does
12 it give --
13 A. Look -- looking back on it I --
14 I'm not concerned about the size of the
15 spacers.

Page 628:17 to 629:14

00628:17 A. The size of the spacer in my
18 opinion just helps it be more effective as
19 a spacer.
20 Q. Okay. Now, BP sometimes has to
21 send materials back to shore for hazardous
22 material disposal, correct?
23 A. Yes.
24 Q. This wouldn't have been the
25 first time if you had decided to send an
00629:01 LCM pill back to shore for disposal, this
02 isn't your first rodeo, you have done that
03 before, correct?
04 A. Yes, we have done it before.
05 Q. Okay. If you thought that this
06 was not suitable material for use of the
07 spacer, you wouldn't have approved its use,
08 correct?
09 A. That's absolutely correct.
10 Q. Okay. And you would have just
11 used the disposal option, correct?

12 A. That's absolutely correct. If
13 anyone would have had a concern, we would
14 have sent it in for disposal.

Page 630:02 to 630:02

00630:02 BY MR. BRUNO:

Page 630:18 to 634:14

00630:18 Q. Okay. All right. Now, are you
19 an expert on Form-A-Squeeze?
20 A. I'm not an expert.
21 Q. Well, what familiarity do you
22 have with that product in particular?
23 A. I have familiarity in using the
24 product --
25 Q. Okay. All right.
00631:01 A. From -- from the office
02 standpoint.
03 Q. Sure. Does it need a
04 cross-linker to be added to it for it to
05 work?
06 A. No.
07 Q. Tell us how it works.
08 A. Form-A-Squeeze is a
09 de-fluidizing type pill --
10 Q. Uh-huh.
11 A. -- category of pills. There are
12 many different ones, but they all work
13 basically the same in that they have fine
14 particles --
15 Q. Right.
16 A. -- that try to start to stack up
17 against their fine matrix-like sand.
18 Q. Right.
19 A. The pore space is in between
20 sand grains. They try to stack up and form
21 a cake.
22 Q. How do they attach themselves to
23 the sand?
24 A. They -- they don't attach to the
25 sand. They just -- it's just -- my
00632:01 understanding, it's just inert particles
02 that just --
03 Q. They just --
04 A. -- stack up.
05 Q. They just pile up on top of each
06 other?
07 A. Yes.
08 Q. Okay. And then when they --
09 enough of them pile up on top of each
10 other, they turn into something that you've
11 described as a cake?

12 A. Yeah.
 13 Q. Okay. All right.
 14 A. Like a -- well --
 15 Q. Like a what, like a plug?
 16 A. Like a cake.
 17 Q. Like a cake. Cake.
 18 A. Like a -- not like a cake like
 19 you eat.
 20 Q. Well, right.
 21 A. Little bit more --
 22 Q. Little bit more substance to it?
 23 A. That's what I was going to --
 24 Q. Something that might stop fluid,
 25 right?
 00633:01 A. Stop --
 02 Q. After all, the purpose of
 03 Form-A-Squeeze is to stop fluid, right?
 04 A. Yes.
 05 Q. Okay.
 06 A. It takes some fluid going
 07 through the material to create the cake,
 08 yes.
 09 Q. Now, I tell you, I'm a
 10 little -- I'm just confused. I need to
 11 understand a little bit about your
 12 understanding of how things were supposed
 13 to be done on this rig, this HORIZON rig
 14 that BP was -- was operating its well on.
 15 You told us yesterday that John
 16 Guide is the man in charge, correct? Did I
 17 get that wrong?
 18 A. John Guide is the -- is the
 19 person who's head of operations and yes,
 20 he's -- concerning the HORIZON, he's pretty
 21 much the guy that calls the shots.
 22 Q. He's the guy that calls the
 23 shots. In fact, he vetoed a couple of
 24 things that you wanted to do, right?
 25 A. I think that's correct. I can't
 00634:01 name them right now, but I think that's
 02 correct.
 03 Q. Well, we don't need -- you
 04 remember that you wanted to do something,
 05 he said don't do it, you remember that?
 06 A. Oh, I -- I remember the two
 07 specific instances now, one was the --
 08 Q. Thought you might.
 09 A. -- one was the, that I recall
 10 was the shale shakers --
 11 Q. All right.
 12 A. And one I recall is the --
 13 Q. So --
 14 A. -- data.

00634:21 Q. Okay. Now, you told us
22 yesterday that you are really there in an
23 advisory capacity. You're there to serve
24 the BP folks on the rig, that's your job,
25 right?

00635:01 A. Serve the BP folks in the
02 office.

03 Q. Okay. So explain to me why the
04 SWACO personnel are communicating with you
05 as opposed to communicating with BP
06 personnel either on the rig or on the
07 beach.

08 A. Well, his e-mail has at least
09 one drilling engineer on it. So drilling
10 engineers are included -- I think in the
11 original request, drilling engineers are
12 included.

13 Q. Right. But the only one who
14 responded was you?

15 A. Yes, I responded because it's
16 not in the -- the question he was asking
17 was more in -- in a fluids area --

18 Q. Sure.

19 A. -- than an engineer, drilling
20 engineering area.

21 Q. Okay. But -- but you were
22 responding to a question about what to do
23 with these fluids, right?

24 A. The environmental question, yes,
25 he asked if they could be dumped and -- and

00636:01 then I followed up to try to answer that
02 question and copied everybody he had --

03 Q. Right.

04 A. -- to my knowledge copied
05 everybody that he had on the e-mail.

06 Q. I get all that. What I'm trying
07 to figure out is who at BP had the
08 authority to make the decision one way or
09 another?

10 A. Quite often -- quite often
11 decisions are made by a group discussing
12 and, you know --

13 Q. Well, all right. That's a
14 little vague, now, Mr. LeBleu. I got to
15 tell you.

16 A. I understand.

Page 637:14 to 646:02

00637:14 Q. Okay. So we have got so far is
15 on this HORIZON over this well that is
16 miles deep, we know that there are a couple
17 of people who are making those decisions.
18 We got that far. Now, who are those

19 people?
20 A. I don't know.
21 Q. You don't know. Okay. So
22 question comes from you -- from SWACO, I'm
23 sorry, to you about what to do with the
24 Form-A-Set/Form-A-Squeeze. You see it as
25 an environmental issue and you direct the
00638:01 question to the environmental people,
02 right?
03 A. Yes, I needed --
04 Q. Okay.
05 A. I -- you know, yes.
06 Q. Yes?
07 A. Yes.
08 Q. And regardless of the cost
09 benefit of whether to run the material
10 through the well or dispose it, a decision
11 was made, agreed?
12 A. Well, I -- you know, I made a
13 recommendation, yes.
14 Q. Understood. A decision was
15 made? That's all I'm trying to get you to
16 agree to, yes or no, a decision was made?
17 A. I made a recommendation.
18 Q. All right.
19 A. I'm not -- I'm not the final
20 person.
21 Q. Okay. Now you know where I'm
22 going. Who made the final determination as
23 to what to do with the Form-A-Set and
24 Form-A-Squeeze that was on that rig? Tell
25 me who it was.
00639:01 A. I don't know.
02 Q. Let me ask you this: Should you
03 know?
04 A. I quite -- no, I don't think I
05 should know.
06 Q. Okay.
07 A. I don't need to have -- I don't
08 have a -- I don't think it's necessary that
09 I know.
10 Q. All right. How about this:
11 Should the SWACO person know?
12 A. Well, they -- the -- the M-I
13 SWACO personnel who are working the rig
14 take their direction from the
15 drilling -- the well site leader. So as
16 long as the well site leaders instruct
17 them, you know, there's --
18 Q. With all due respect, that's not
19 responsive to my question. Here's the
20 question one more time.
21 A. I'm trying.
22 Q. Should they know who to ask in
23 order to get an answer to the question?

24 All right. Who has the authority to decide
25 what to do with this
00640:01 Form-A-Squeeze/Form-A-Set?
02 A. They -- they know who to talk
03 to. They know the different people who are
04 the decision-makers.
05 Q. They -- all right. Your
06 testimony is that they know who to talk to,
07 but you don't know who to talk to, right?
08 A. I know who to talk to if I want
09 a final decision.
10 Q. I thought you just testified a
11 few seconds ago you didn't know. Now you
12 know?
13 MR. LANCASTER:
14 Object to form.
15 THE WITNESS:
16 No, you asked a different
17 question.
18 BY MR. BRUNO:
19 Q. I said --
20 A. You asked who is in charge.
21 Q. Well, we can read it back.
22 A. You asked who's in charge.
23 Who's in charge about a certain situation
24 and I -- or a certain specific situation
25 and I --
00641:01 Q. All right. This is a very
02 specific situation. This is the situation.
03 We have got some Form-A-Set and
04 Form-A-Squeeze that we want to get rid of.
05 Who has the authority to decide whether to
06 run it through the well or to send it to
07 the beach for disposal?
08 A. The two drilling engineers, John
09 Guide and the well site leader.
10 Q. Okay. Fair enough. And the two
11 drilling engineers are Cocalles and Morel,
12 right?
13 A. Yes.
14 Q. And John Guide?
15 A. Yes.
16 Q. Okay. Now, did you see any
17 e-mails in this string from John Guide
18 saying the -- the request is approved?
19 A. No, I didn't see any e-mails
20 from John Guide concerning --
21 Q. Did you see any e-mails from
22 Mr. Morel approving this request to run the
23 Form-A-Squeeze/Form-A-Set through --
24 through the drill bore?
25 A. I saw an e-mail where Mr. Morel
00642:01 said that the stinger -- in -- in Mr. Doyle
02 Maxie's first request --
03 Q. Uh-huh.

04 A. -- a recommendation that it be
05 used as a -- that it can be used as the
06 spacer for the displacement. Doyle Maxie
07 had a question about what kind of bottom
08 hole assembly to be pumped through.
09 Q. Right.
10 A. I knew that Mr. Morel was on the
11 rig at the time. And he copied Mr. Morel
12 and Mr. Morel responded with him. So two
13 decision-makers are on the rig. Two of the
14 what I consider decision-makers are on the
15 rig. Three actually, there's two drilling
16 foremen and Mr. Morel. And they quite
17 often interface with Mr. Guide, so --
18 Q. Right. Okay. So you're hoping
19 that Mr. Guide and Mr. Morel and
20 Mr. Coteles had a conversation about this,
21 right, that's what you are telling me?
22 A. They routinely have
23 conversations and make decisions.
24 Q. Your expectation would be that
25 they would have a conversation, right?
00643:01 A. Yes.
02 Q. Or is it your expectation that
03 Leo Lindner would go off on his own without
04 authority, is that your expectation?
05 A. No.
06 Q. Okay. So we know that SWACO
07 cannot act on their own, can we agree with
08 that?
09 A. Generally speaking --
10 Q. Okay.
11 A. -- they don't.
12 Q. We know we need somebody at
13 BP --
14 A. They can --
15 Q. -- with authority?
16 A. You say cannot.
17 Q. Tell me I'm wrong.
18 A. Well, you said they cannot
19 and --
20 Q. Can they?
21 A. Can assumes what they -- what
22 they can -- they're an independent person
23 and they can do many things.
24 Q. Fair enough.
25 A. But normally they take their
00644:01 direction from BP.
02 Q. All right. But let's -- let's
03 explore that. You're suggesting that
04 because they are people they can -- they
05 can act on their own if they so choose?
06 A. Sometimes those things happen.
07 Q. That happens. And a prudent
08 well operator certainly will endeavor not

09 to let that happen, wouldn't you agree?
 10 A. That's correct.
 11 Q. Because you don't want
 12 yourselves running off, making decisions,
 13 doing things without the operator knowing
 14 about it, right?
 15 A. That's correct.
 16 Q. Okay. So that's not a good
 17 thing. The prudent thing is for BP as the
 18 operator to know what's going on on its
 19 rig, right?
 20 A. That's correct.
 21 Q. Okay. So the prudent thing is
 22 for the operator to make sure certain that
 23 its subs are communicating with them about
 24 what they propose to do, particularly with
 25 regard to disposal of things like
 00645:01 Form-A-Squeeze and Form-A-Set, right?
 02 A. Well, the disposal decision,
 03 because it's not an operational
 04 downhole-type decision, I would -- I would
 05 think that -- I would think they would be
 06 involved, but they would not contradict
 07 sending something in for disposal if BP
 08 environmental said that's what we needed to
 09 do.
 10 Q. All right. There was a lot of
 11 discussion throughout the day about, you
 12 know, we were going to save money, we're
 13 not going to save money. The bottom line
 14 I, as I understood it from you, was there
 15 perhaps was a cost benefit analysis
 16 approach to this problem. Is that what you
 17 were suggesting?
 18 A. To what are you referring?
 19 Q. That is whether to take the
 20 Form-A-Squeeze/Form-A-Set, put it on a
 21 boat, take it onshore --
 22 A. To my knowledge --
 23 Q. -- and try to cut cost?
 24 A. To my knowledge, there was no
 25 cost benefit --
 00646:01 Q. No --
 02 A. -- consideration whatsoever.

Page 646:19 to 646:25

00646:19 Q. Should there have been a cost
 20 benefit analysis?
 21 A. No.
 22 Q. Why not?
 23 A. Because it's a -- it's a
 24 decision concerning what's the correct
 25 thing to do.

Page 650:13 to 650:20

00650:13 Q. Let's approach it from this
14 perspective, Mr. LeBleu. We know, do we
15 not, that Mr. Lindner thought, maybe
16 incorrectly, that he was getting approval
17 from you to use these materials as a
18 spacer, correct?
19 A. I -- I only know that from
20 test -- from his testimony.

Page 651:07 to 651:09

00651:07 Mr. Lindner, I don't think
08 Mr. Lindner considered me the final
09 decision-maker concerning this decision.

Page 651:13 to 654:18

00651:13 A. He testified that way in one --
14 in one part of the testimony and then
15 further in the testimony he wasn't sure.
16 Q. All right. Okay. The point is,
17 Mr. LeBleu, would you not agree that if an
18 operator is going to have control of his
19 well, the operator needs to know not only
20 the fact that they are going to use
21 Form-A-Squeeze and Form-A-Set as a spacer,
22 the operator also needs to know that they
23 are going to use the spacer in conjunction
24 with a negative pressure test in order for
25 him to determine whether this is a good
00652:01 thing or a bad thing for the well?
02 A. This is well beyond my role as a
03 fluids engineer. These decisions -- these
04 questions are well beyond my role. I
05 advise and how the advice is taken or how
06 it's acted on is well beyond what I can
07 say, what I can testify to or answer yes or
08 no.
09 Q. Because it's well beyond your
10 authority, then you would have told
11 Mr. Lindner, you know what, you better go
12 talk to Mr. Cocalles or you better go talk
13 to Mr. Morel or you better go talk to
14 somebody in authority before you do this.
15 Did you tell them that?
16 A. I didn't -- I didn't realize
17 Mr. Lindner thought I was the authority on
18 the decision.
19 Q. Well, you were on the e-mail
20 stream where the questions were being
21 posed, right?

22 A. Yes.

23 Q. And you were also on the e-mail

24 stream and you saw that Mr. Cocalles and

25 Mr. Morel and Mr. --

00653:01 A. Many people were copied --

02 Q. -- were not responding?

03 A. Many people were copied and I

04 didn't know what conversations were going

05 on by the people who make decisions,

06 both -- and there's many people that -- you

07 know, those people I named on land and some

08 of them offshore.

09 Q. In fairness, Mr. LeBleu, you did

10 know what was going on, because you did

11 know that the disposal folks or the experts

12 at BP that dealt with hazardous waste, they

13 were responding and you even commented on

14 it, right?

15 A. The environmental people were

16 responding, yes.

17 Q. You stated -- you are not the

18 kind of guy to just get involved and back

19 off. You're the kind of guy that sees a

20 problem, gets involved with the problem and

21 helps to the extent that he can. That's

22 how you are, right?

23 A. To the -- great statement, to

24 the extent that I can and to the extent

25 that I think my role goes to.

00654:01 Q. Exactly. And what I'm -- what

02 I'm trying to understand is whether or not

03 that role includes making certain that the

04 proper authorization is obtained.

05 A. No.

06 Q. That's where it stops, right?

07 A. Other people on the e-mail who

08 are in authority, and they can ask if they

09 have questions of me and what they are

10 doing. As far as the decisions of whether

11 go, no go, sometimes I'm included in that,

12 sometimes I'm not. It's at their

13 discretion.

14 Q. Okay. So SWACO wrote to you

15 because of why again now? I'm still not

16 sure why you were included on the e-mail.

17 A. You would have to ask Mr. Doyle

18 Maxie that question.

Page 654:25 to 655:03

00654:25 Q. But not having any clue as to

00655:01 why he e-mailed you, you nevertheless

02 responded?

03 A. Yes.

Page 655:13 to 656:21

00655:13 Q. Okay. So you responded which
 14 would indicate to the person sending the
 15 request that maybe you were the right guy
 16 to talk to?
 17 A. I assumed he was looking for
 18 some help.
 19 Q. Right. And because you helped,
 20 he might get the mistaken impression that
 21 you were a guy with authority?
 22 A. He was looking for advice and he
 23 received it.
 24 Q. Okay. All right. He got
 25 advice. But bottom line is, we don't know
 00656:01 who at BP authorized the use of this
 02 material as a spacer?
 03 A. I don't know.
 04 Q. Okay. But we do know somebody
 05 at BP had to authorize the use of this
 06 material as a spacer, correct?
 07 A. I don't know whether it -- I
 08 don't know whether it happened, I don't
 09 know who did it and I don't know whether it
 10 happened.
 11 Q. I didn't ask that. I said we
 12 know someone had to authorize it. Didn't
 13 suggest for a moment that you know who it
 14 was but someone was supposed to authorize
 15 it --
 16 A. Well --
 17 Q. -- right?
 18 A. Some person in charge.
 19 Q. For BP?
 20 A. Normally, normally some person
 21 in charge makes the decision.

Page 657:02 to 657:04

00657:02 from you. It's dated Tuesday, March the
 03 4th, 2010. It's Bates number 129240. I'm
 04 going to mark it as Exhibit 1043.

Page 658:01 to 658:13

00658:01 Q. Good. All right. Here we're
 02 talking about displacing the mud, it says,
 03 "Historically the mud engineers design and
 04 supervise the riser displacements." So
 05 would there be a need for a spacer during
 06 the process of riser displacement?
 07 A. Yes.
 08 Q. Yes?

09 A. Yes.
 10 Q. Always?
 11 A. Yes.
 12 Q. Or sometimes?
 13 A. I think always.

Page 661:16 to 662:15

00661:16 Q. Okay. All right. Well, the
 17 first sentence that you wrote in this
 18 report says, "Historically the mud
 19 engineers designed and supervise the riser
 20 displacements without input from the M-I
 21 SWACO project engineer (Doyle Maxie in this
 22 case)."
 23 That seems a little bit
 24 contradictory to what you just told me. Am
 25 I missing something?
 00662:01 A. No. No. I was, you know, I was
 02 un -- in the area of speculation somewhat,
 03 but --
 04 Q. Okay.
 05 A. But I know from when I was
 06 working for M-I SWACO in Doyle Maxie's
 07 position, that the mud engineers would
 08 design and supervise -- design, supervise
 09 and execute the riser displacements with
 10 the rest of the rig team --
 11 Q. Okay.
 12 A. -- with Transocean's input and
 13 with --
 14 Q. Sure.
 15 A. -- well site leader's input.

Page 664:23 to 665:06

00664:23 Q. All right. Well, okay, but the
 24 first thing you said was, "Historically the
 25 mud engineers" -- by the way, the mud
 00665:01 engineers that you are -- to which you are
 02 referring, are those BP mud engineers?
 03 A. No.
 04 Q. Who are they?
 05 A. They are M-I SWACO mud engineers
 06 on the rig.

Page 665:19 to 666:09

00665:19 Q. I know. But why would you say
 20 that M-I SWACO mud engineers are designing
 21 and supervising the displacement without
 22 the input of their own project engineer?
 23 Why would -- I mean, I -- help me

24 understand. What were you were trying to
 25 convey?
 00666:01 A. The truth.
 02 Q. The truth?
 03 A. As I knew it.
 04 Q. Okay. And so historically -- so
 05 you felt it important to tell this person,
 06 this investigator person that the mud
 07 engineer normally does this without any
 08 input from his own supervisor, right?
 09 A. Correct.

Page 666:13 to 669:02

00666:13 Q. Okay. Then you say, "This is
 14 done in consultation with well site
 15 leaders." Now, who are you referring to
 16 there?
 17 A. Well, the BP well site leaders.
 18 But that's where I'm speculating. You
 19 know, I'm assuming that it -- you know, but
 20 I think it's a good assumption that the
 21 well site leaders are involved and I think
 22 it's borne out in Mr. Lindner's testimony
 23 that well site leaders, they have a think
 24 drill --
 25 Q. Uh-huh.
 00667:01 A. -- and well site leaders are
 02 included in the decision and Transocean is
 03 also where -- what I didn't mention in this
 04 e-mail is that my -- my assumption also is
 05 that Transocean's involved because
 06 Transocean knows the -- the valving, piping
 07 and the way to handle the choke and --
 08 Q. This sentence has got two parts
 09 to it.
 10 A. Okay.
 11 Q. "This is done in consultation
 12 with the well site leaders."
 13 A. Uh-huh.
 14 Q. And you are referring to the way
 15 things are normally done.
 16 A. My understanding is.
 17 Q. All right. Which is consistent
 18 with what you told me just a few moments
 19 ago, that you need to have the authority
 20 and the approval of BP Oil before you do
 21 things like this, right?
 22 A. Uh-huh.
 23 Q. Yes?
 24 A. It's consistent with that, yes.
 25 Q. Sure. Now, and then you went on
 00668:01 to opine about what happened on Macondo in
 02 the second part of the sentence, right?
 03 A. This sentence we are talking

04 about?
 05 Q. Yes, sir. We haven't left it
 06 yet.
 07 A. Okay. So --
 08 Q. It says, "and my assumption
 09 is" --
 10 A. Yes.
 11 Q. -- "that is what occurred in
 12 this case," right?
 13 A. Right.
 14 Q. So you are telling these
 15 investigators that it is your assumption
 16 that BP well site leaders approved of this
 17 design, right?
 18 A. It's my assumption that the BP
 19 well site leaders were involved in the
 20 decision.
 21 Q. Now, you said that because it's
 22 your expectation that they would approve
 23 such a design, right?
 24 A. It's my expectation that someone
 25 would.
 00669:01 Q. Someone at BP?
 02 A. Right.

Page 671:02 to 671:16

00671:02 Q. Now, you say, "My only
 03 involvement was e-mail conversations
 04 concerning whether we could dump" --
 05 A. -- "the Form-A-Squeeze and
 06 theForm-A-Set lost-circulation pills.
 07 Q. Yeah. That's your only
 08 involvement?
 09 A. Well, that whole e-mail chain is
 10 all about --
 11 Q. Right.
 12 A. Starts off, Can we dump it? And
 13 then it progresses to -- and then I go to
 14 explain what -- what the e-mail chain --
 15 you know, I go to summarize what the e-mail
 16 chain said.

Page 671:22 to 673:14

00671:22 You said that knowing that you
 23 didn't have the authority or even the
 24 expertise to address environmental
 25 questions --
 00672:01 A. The -- you know, as I have
 02 testified yesterday, the environmental
 03 questions, Doyle Maxie didn't know who the
 04 environmental people are.
 05 Q. Right.

06 A. So he contacted me. So I
07 involved the environmental people.
08 Q. Right.
09 A. And the environmental people
10 quite often need the drilling fluid
11 engineer's assistance in -- in
12 characterizing the type of waste, whether
13 that -- whether the products that make up
14 whatever the -- the item in question is,
15 whether the products individually, whether
16 any of those products would disallow
17 discharge.
18 Q. Why didn't you just tell
19 Mr. Maxie, look, this is not my area? I'm
20 going to put you in touch with the guy and
21 lady at BP who knows about this
22 environmental stuff and you two, you-all
23 work it out?
24 A. That's basically what I did.
25 Q. Well, except that you wrote an
00673:01 e-mail the next day where you said it's
02 okay.
03 A. Well, that's because Mr. Maxie
04 kept coming back to --
05 Q. To?
06 A. Me and others and asking, you
07 know. We came back with a recommendation.
08 Q. So you felt compelled to say
09 it's okay because he was badgering you?
10 A. No.
11 Q. Okay.
12 A. I felt it was okay because I
13 thought environmentally it was okay and I
14 had no other concerns.

Page 675:07 to 675:24

00675:07 As you are sitting here today,
08 when you were responding to those e-mails,
09 okay, when you said it was okay, were you
10 saying it's okay solely from an
11 environmental perspective or were you also
12 saying it's okay to use these two materials
13 as a spacer?
14 A. I was saying it only from an
15 environmental perspective.
16 Q. All right. Even though you're
17 not the environmental guy and even though
18 you are frankly the guy who would be --
19 A. I divert --
20 Q. -- the go-to guy to answer the
21 question as to whether or not it would be
22 appropriate to use this as a spacer?
23 A. I deferred to the environmental
24 guy for the final decision.

Page 676:21 to 677:13

00676:21 Q. You are a BP fluids engineer.
22 So, to be clear for this record, if
23 Mr. -- if you understood Mr. Lindner's
24 question to be, can I mix Form-A-Squeeze
25 and Form-A-Set together and use it as a
00677:01 spacer, what would your answer have been?
02 A. I -- I would have said --
03 Mr. Lindner didn't ask me the question.
04 Q. I know that.
05 A. And Mr. Doyle made the
06 recommendation --
07 Q. I understand that.
08 A. -- I consulted with many people
09 at M-I SWACO -- --
10 Q. Okay.
11 A. -- so we have to have --
12 Q. We got all that.
13 A. -- as to the situation.

Page 677:20 to 678:18

00677:20 Q. Do it one more time so it's
21 clean. If Doyle Maxie, if Leo Lindner had
22 asked you this question: Mr. LeBleu, you
23 are the fluids expert at BP that I have
24 been told is the guy to talk to. Can I mix
25 Form-A-Squeeze and Form-A-Set together to
00678:01 use it as a spacer?
02 A. I would --
03 Q. What would your answer be?
04 A. My answer would have been you
05 guys are the experts. I cannot make that
06 decision. What is your recommendation? I
07 would have asked them for their
08 recommendation.
09 Q. You would have gone back to
10 them?
11 A. Yes. I mean, they -- it's their
12 pills. It's their -- I would have had to
13 depend on them.
14 Q. So there's really no one who is
15 stepping up to the plate here and saying to
16 us on this record there is a person out
17 there who can answer the question, right?
18 We don't know who that person is?

Page 678:22 to 678:23

00678:22 I have been as helpful as I
23 can be, and truthful as I can be.

Page 683:02 to 683:21

00683:02 Q. What knowledge do you have
03 that -- that Cocalles knew this was
04 occurring?
05 A. Typical way that -- oh, that it
06 was occurring?
07 Q. Yeah.
08 A. Well, Cocalles was on some of
09 that e-mail --
10 Q. Right.
11 A. -- train. And so -- and
12 Mr. Hafle and Mr. Morel were on the e-mail
13 chain. At one point Mr. Maxie included
14 Mr. Leo Lindner in the e-mail chain. So --
15 and Mr. Morel was on the rig so it was, you
16 know, it was safe for me to assume that
17 drilling foremen were involved in -- in --
18 and possibly John Guide.
19 Q. All right.
20 A. I was comfortable that many
21 people were involved.

Page 684:23 to 685:24

00684:23 Q. It should be documented,
24 shouldn't it? Should be a document that
25 says we mixed this spacer using Form-A-Set
00685:01 and Form-A-Squeeze, right?
02 A. It probably -- it may have made
03 it into the DIMS report had the rig
04 survived, I don't know.
05 Q. Right. What do you know about
06 how the materials are --
07 A. And it may have made it in the
08 drilling fluid report had the rig survived.
09 Q. What do you know about how they
10 proposed to mix the two materials?
11 A. I don't.
12 Q. You had no idea?
13 A. I had no idea.
14 Q. Did you know they were going to
15 add this cross -- what did you call it,
16 cross?
17 A. Cross-linker.
18 Q. Cross-linker. Did you -- did
19 you know before the casualty that they were
20 going to add it or not add it?
21 A. I didn't know with certainty
22 whether they would or not.
23 Q. Didn't even know that?
24 A. No, I couldn't --

Page 686:11 to 688:09

00686:11 Q. Does it make good sense to add
 12 Form-A-Squeeze and Form-A-Set together in
 13 the first place?
 14 A. I -- I can't say.
 15 Q. No? Well, you can't say.
 16 A. I can't say. I don't know.
 17 Q. All right. Let's just look at
 18 one more document. If you look at the last
 19 document before tab 9, it's 38424.
 20 A. Okay.
 21 Q. It's the -- this is the -- part
 22 of the Bly report. And if we go to page
 23 19. And I don't know if this is your
 24 expertise or not. But I ask you to read
 25 under 6.0.

00687:01 A. "The recorded circulation
 02 pressure pumping the spacer, freshwater and
 03 then seawater into place ahead of the
 04 in-flow test are recorded as normal. On
 05 completion of the in-flow test, surface
 06 pressure was increased to 2700 psi and
 07 flow-out did not occur immediately,
 08 potentially indicating some gelation of
 09 fluids in the well."
 10 Q. Do you agree with the conclusion
 11 that because flow doesn't occur
 12 immediately, that there is the potential of
 13 gelation of fluids in the well?
 14 A. I don't know what's going on
 15 there.
 16 Q. I didn't ask that. I asked if
 17 you agree or disagree --
 18 A. I --
 19 Q. That there -- that there is a
 20 potential when you -- when you --
 21 A. Do I agree that there's a
 22 potential?
 23 Q. Increase the pressure -- yes,
 24 that's all I'm asking for. Okay. They
 25 increase the pressure all the way to 2700

00688:01 psi and with that the flow didn't happen
 02 immediately. They -- they were
 03 anticipating that it would happen more
 04 quickly. It was slow.
 05 A. No, I don't agree.
 06 Q. All right. You don't agree that
 07 because it didn't come out immediately that
 08 that is an indication of gelation?
 09 A. Yes, I don't agree.

Page 689:14 to 690:01

00689:14 Q. Oh. All right. And you are

15 still of the opinion that if you had known
16 that this spacer material was going to sit
17 in the kill line or sit in the discharge
18 line or any other lines going to the
19 blowout preventer, you would have advised
20 against that, you have the same opinion
21 today that you had yesterday?
22 A. That's, you know, especially
23 in -- in pure form, yes. Or in -- or in --
24 well, let's just say I don't think that's
25 a -- it's not normally something that you
00690:01 would want to do.

Page 690:05 to 690:14

00690:05 Q. I said this material meaning the
06 spacer as you're now calling it.
07 A. Yes.
08 Q. Your opinion is the same today
09 as it was yesterday?
10 A. I think the spacer could have
11 made it through the kill and choke line
12 without a problem because it made it
13 through the three and a half inch stinger
14 without a problem.

Page 690:20 to 690:24

00690:20 Q. I'll read it to you verbatim.
21 If -- I'm asking you is your answer today
22 the same as it was yesterday?
23 A. I don't know if it's the same as
24 yesterday.

Page 691:04 to 691:17

00691:04 Q. Good. Here it is. "If you had
05 known that this material was going to sit
06 in the kill line or sit in the discharge
07 line or any of the lines going to the
08 blowout preventer, would you have advised
09 against doing that?"
10 Answer: "If I would have known
11 it would have been sitting in those lines,
12 yes."
13 That was your answer. Now, is
14 your -- is your testimony the same today?
15 A. Yes, I would have advised that
16 it not stay in there but I'm not certain
17 it's a problem.. it would be a problem.

Page 692:05 to 693:07

00692:05 Q. Hello, Mr. LeBleu. Two days, so
06 I want to get through this. You were asked
07 some questions from plaintiff's counsel
08 just recently about Form-A-Squeeze and
09 whether or not Form-A-Squeeze required a
10 cross-linking agent to be activated to do
11 what it does and you indicated it didn't.
12 But is there some step or
13 something that is required in order to get
14 Form-A-Squeeze to do what it's intended to
15 do in a downhole application, cake or set
16 up to prevent losses?
17 A. My understanding is you have to
18 spot it in place and you have to apply some
19 pressure to it and hold that pressure for a
20 certain period of time.
21 Q. Right. So hence the name
22 squeeze, you have to both apply pressure
23 which exerts a force on the Form-A-Squeeze
24 and squeezes out the fluids and you have to
25 do it for a sufficient amount of time in
00693:01 order for it to set up, correct?
02 A. Well, you -- I -- I
03 misunderstood your question at first. I
04 thought you were talking about Form-A-Set.
05 But Form-A-Squeeze, yes, you have to
06 de-water it and it does take some time for
07 it to -- for it to de-fluidize.

Page 693:11 to 694:09

00693:11 Q. Okay. And let me, because I may
12 have asked this incorrectly the first time.
13 Just so we're clear. You were asked some
14 questions about Form-A-Squeeze and the fact
15 that it didn't require a cross-linking
16 agent. But Form-A-Squeeze does require
17 some step or activity in order for it to
18 cake or set up, correct?
19 A. That's correct.
20 Q. All right. And that is the
21 application of sufficient pressure to
22 de-fluidize it and to hold it in place for
23 a sufficient time for that to occur,
24 correct?
25 A. Yes. And it also has to have a
00694:01 matrix, a fine porous matrix for it to
02 de-fluidize against. If the -- you know,
03 it doesn't de-fluidize through bit jets and
04 bit jets are some 30 seconds of an inch,
05 you know, they are very -- they are fairly
06 small holes. It goes through those without
07 problems or difficulties and doesn't
08 de-fluidize until it gets to a -- a fairly
09 fine porous matrix.

Page 694:16 to 695:24

00694:16 Q. Now, you weren't present on the
 17 rig at the time that they mixed the spacer
 18 and put it into the hole, correct?
 19 A. Correct.
 20 Q. And do you know for a fact which
 21 procedure, if any, that the mud engineers
 22 used that day on April 20th for -- to
 23 follow in terms of mixing the spacer and
 24 putting it in the hole?
 25 A. No, I don't know, no.
 00695:01 Q. You were shown Exhibit 1032
 02 earlier. And as you sit here today, can
 03 you say as a matter of fact that that was
 04 the procedure that was used on the rig on
 05 April 20th by the mud engineers?
 06 A. No, I cannot.
 07 Q. Okay. Now, you were asked over
 08 the course of two days a number of
 09 questions that asked you to speculate,
 10 conjecture, you were asked hypothetical
 11 questions. Attorneys on the other side
 12 expressed dismay, raised their voice, did
 13 all kinds of histrionics, waving their
 14 arms, rolling their eyes and you sat
 15 through it very patiently.
 16 My question to you is: In all
 17 of that questioning that all those lawyers
 18 did, including the counsel for the
 19 plaintiffs, did anyone of them ever sit in
 20 front of you a single test and the test
 21 results that they had run that showed if
 22 you put Form-A-Squeeze and Form-A-Set
 23 together it's going to gel up and plug the
 24 kill line?

Page 696:12 to 697:07

00696:12 THE WITNESS:
 13 I haven't seen any
 14 documentation from anyone that says that
 15 it's a problem. Any -- there has been
 16 testing and I haven't seen any that says
 17 it's a problem.
 18 BY MR. LANCASTER:
 19 Q. Right. And my question
 20 specifically was, as to this gallery of
 21 attorneys that have paraded in through the
 22 past two days --
 23 A. They have not.
 24 Q. -- asking all these hypothetical
 25 and -- let me get my question out. -- and

00697:01 speculative questions, did any one of them
02 put in front of you a test that they had
03 done or that any of their experts had done
04 that showed that if you put Form-A-Set and
05 Form-A-Squeeze together, it gels up and
06 clogs the kill line? Did any of them do
07 that?

Page 697:17 to 697:18

00697:17 THE WITNESS:
18 No.