

Deposition Testimony of:

Mark Alberty

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Page 354:18 to 355:19

00354:18 about it yesterday. But how long were you
19 the SETA for BP?
20 A. I don't remember the exact date,
21 but I think the SETAs were created around
22 2006.
23 Q. Uh-huh.
24 A. And I had that role from the
25 beginning of the creation.
00355:01 Q. Okay. SETA is Segment
02 Engineering Technical Authority?
03 A. That's correct.
04 Q. And so from 2000 --
05 approximately 2006 until you left in 2011,
06 you were the SETA for PPFPG prediction and
07 detection; is that right?
08 A. That's correct.
09 Q. Okay. Prior to becoming the
10 SETA, what was your role at BP?
11 A. I was a pore pressure prediction
12 and detection -- working R&D project and pore
13 pressure prediction and detection in Sunbury
14 originally starting in '97 as full-time pore
15 pressure prediction, and in 2002 returned to
16 Houston to do it full time from EPT, the
17 engineering production tech- -- the
18 exploration, production, and technology
19 group.

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00359:17 Q. Sure. It's my understanding
18 that from Mr. Albertin's testimony that he
19 essentially maintains a PPFPG spreadsheet
20 that's based off the prediction that's done
21 pre-well, and then as the well is drilled, he
22 updates that spreadsheet based on his
23 analysis of the different data that comes in.
24 Did you -- did you ever perform
25 that role?
00360:01 A. So -- so the Tiger team had a
02 PPFPG spreadsheet that Marty had created
03 and written and -- and I would have done
04 similar roles, but never used Marty's
05 spreadsheet, the one that Tiger team had. So
06 I would have done similar type roles for --
07 for different assets, not -- not the Gulf of
08 Mexico.
09 Q. Okay. And where -- where was
10 that located, then, if it was not the Gulf of
11 Mexico?
12 A. I did work onshore Louisiana. I
13 did work in overseas, Egypt, Azerbaijan.
14 Q. Any -- any other work in the

15 United States?

16 A. I did work in the United States
17 in the Gulf of Mexico before I went overseas
18 in '97. So I -- in '97 I was in essentially
19 the same role as the Tiger team, although we
20 didn't have Tiger teams at that time.

21 Q. Okay. And was that offshore
22 Gulf of Mexico?

23 A. Yes.

24 Q. Did you do any deepwater then?

25 A. Yes.

00361:01 Q. How many deepwater wells did you
02 work on in the Gulf of Mexico?

03 A. Doing pore pressure work?

04 Q. Sure.

05 A. I -- I'd have to make a rough
06 guess. I think we were drilling maybe four
07 or five a year. I probably would have worked
08 on all of the exploration wells. So maybe
09 something on the order of 20, 25, 30 wells.

Page 363:13 to 363:20

00363:13 Well, I believe yesterday you testified that
14 if a margin is zero, that would raise a red
15 flag to you.

16 A. If -- if the margin was zero.
17 If -- if the difference between pore pressure
18 and frac gradient was defined as margin and
19 that was zero, it doesn't leave any room to
20 operate, yes.

Page 365:18 to 365:23

00365:18 Q. Look at this binder, please.
19 Let's turn to tab 16 in the binder. This is
20 a Bobby Bodek e-mail from April 13th that we
21 looked at yesterday. It has Bates No.
22 BP-HZN-MBI 00126338. It's previously been
23 marked as an exhibit.

Page 366:01 to 366:16

00366:01 Q. (BY MR. THIBODEAUX) Now, I
02 believe yesterday Mr. Spiro with the DOJ had
03 you read through this -- this document, and
04 there were various ECD and ESD
05 representations made and various
06 representations about there being little, if
07 any, drilling margin. Do you recall that?

08 A. I remember looking at this memo
09 yesterday.

10 Q. Okay. And what I want to know

11 is assuming that the information in this
12 e-mail is correct, that those were the
13 conditions that the Macondo well was under at
14 the time, if you would have received this
15 e-mail, what would you have done with it,
16 with that information?

Page 366:18 to 366:23

00366:18 A. If -- if the e-mail had been
19 addressed to me and asking me what to do; is
20 that what you're asking?
21 Q. (BY MR. THIBODEAUX) Yes.
22 A. I would have -- you know,
23 typ- --

Page 366:25 to 368:04

00366:25 A. (Continuing) Typically, if I
00367:01 would have had a concern about something
02 happening in an asset that -- that needed
03 more attention, I would have first contacted
04 the technical authority in the asset and
05 asked him if he'd seen it and if he's dealing
06 with it.
07 Q. (BY MR. THIBODEAUX) I'm sorry,
08 the technical forwarding asset?
09 A. The technical authority.
10 Q. Okay. And who would that have
11 been?
12 A. Pinky Vinson.
13 Q. And why would you want to have
14 known if he would have seen it?
15 A. Because typically this is
16 supposed to work within that -- that SPU
17 before it comes out for help at my level
18 and -- and so there is a technical authority
19 who works with the engineering authority
20 within the assets.
21 Q. Okay. There is a statement in
22 this e-mail. "It appeared as if we had
23 minimal, if initiation drilling margin."
24 Then at the bottom, there is a
25 statement that says, "We had simply run out
00368:01 of drilling margin."
02 Such statements would raise
03 flags to you because a zero drilling margin
04 raises a red flag to you, correct?

Page 368:06 to 368:17

00368:06 A. For me if -- if -- if I had
07 received this e-mail with that statement,

08 I -- I would have wanted to know the facts
09 and whether or not he has the facts right and
10 what needs to be handled here, but -- but,
11 again, if -- if I'd seen that myself, I would
12 have kicked it back to the technical
13 authority in the asset.

14 Q. (BY MR. THIBODEAUX) Well, you
15 understand that MMS regulations at least
16 require there to be some safe drilling
17 margin, right?

Page 368:19 to 369:05

00368:19 A. Again, because the MMS
20 regulations are local regulations and I work
21 on a global basis, I'm typically not aware of
22 all the local regulations.

23 Q. (BY MR. THIBODEAUX) I
24 understand that, but you do understand that
25 they do require there to be some safe
00369:01 drilling margin, right?

02 A. I -- I would expect that the MMS
03 wants to have some safe drilling margin, yes.

04 Q. And a zero drilling margin would
05 be no safe drilling margin, correct?

Page 369:07 to 369:11

00369:07 A. If -- depending upon how he
08 determined that, there may or may not be, but
09 if there was no drilling margin, yes, that
10 would be a -- a point that -- that there is
11 no space to operate.

Page 380:16 to 380:24

00380:16 Q. Okay. I believe you testified
17 yesterday that if you induce fractures in the
18 open hole, you have, in fact, done an open
19 hole PIT test; is that right?

20 A. You -- if -- if you have open
21 fractures, you have reached a point on the
22 PIT test that you would have reached that
23 departure from linearity, if you have no
24 permeability present.

Page 385:23 to 386:05

00385:23 Q. Okay. I'd like to direct your
24 attention to the -- to the e-mail in the
25 middle of the page from Randall Sant from
00386:01 April 5th.

02 A. Do you need -- do you need to

03 identify the number?
04 Q. Yeah, it's
05 BP-HZN-2179MDL00007611 --

Page 386:21 to 386:24

00386:21 Q. Okay. At -- at any point in
22 April of 2010, did you notify the MMS that
23 the fracture gradient in the Macondo
24 production interval was 14.3 ppg?

Page 387:01 to 387:06

00387:01 A. I -- I would not have been doing
02 any of the reporting requirements for the MMS
03 on Macondo.
04 Q. (BY MR. THIBODEAUX) Okay. Are
05 you aware of anyone at BP that did report
06 that figure?

Page 387:08 to 387:18

00387:08 A. I wouldn't know if anybody did
09 or did not.
10 Q. (BY MR. THIBODEAUX) Okay.
11 Assuming your drilling margin definition as
12 being the difference between the max pore
13 pressure in the open hole and the minimum
14 fracture gradient in the open hole, if the
15 max pore pressure in the open hole is
16 14.15 ppg and the minimum fracture gradient
17 is 14.3 ppg, the drilling margin is .15 ppg;
18 is that right?

Page 387:20 to 387:24

00387:20 A. The -- the difference between
21 those two numbers would be .15, yes.
22 In this e-mail, Randall is -- is
23 work -- looking at what that sand frac
24 gradient can be strengthened to.

Page 389:07 to 390:11

00389:07 Q. Okay. Turn to tab 24, please,
08 dated May 1993, 2010, "Open Hole Mud Loss
09 Event Summary" with Bates
10 No. BP-HZN-2179MDL00765364 through 367. Mark
11 this as Exhibit 4540. If you don't mind,
12 stick that on, please.
13 A. Sure.
14 Q. Thank you. Okay. You're

15 familiar with this report, right?
16 A. I have seen this report before.
17 Q. Mr. LeBleu --
18 A. Uh-huh.
19 Q. -- with the BP drilling
20 excellence group prepared it?
21 A. Yes.
22 Q. And sent it to you?
23 A. Yes.
24 Q. Okay.
25 A. Cop- -- copied it to me, yes.
00390:01 Q. Okay. This is a summary of the
02 open hole mud loss event in the
03 8.5-by-9.875-inch hole interval, right?
04 A. Yes.
05 Q. That's the production interval
06 of the Macondo well, correct?
07 A. I think so.
08 Q. Okay. This is a summary of the
09 loss of -- loss events that occurred in April
10 2010 from approximately April 3rd through
11 April 9th, right?

Page 390:13 to 390:15

00390:13 A. I -- I don't know the dates, but
14 it's a summary of the loss events in that
15 interval, yes.

Page 393:11 to 394:03

00393:11 Q. (BY MR. THIBODEAUX) And when --
12 you were on vacation from April 2nd to the
13 13th; is that what you said?
14 A. I think that's the correct date.
15 I think I was gone ten days, 11 days, left on
16 a Friday, returned on a Sunday.
17 Q. Did anybody -- during that time
18 you were on vacation, anybody from BP call
19 you about issues on the Macondo well?
20 A. I -- I don't remember if they
21 did or didn't.
22 Q. Were you checking e-mails during
23 that time you were on vacation?
24 A. I was periodically checking
25 e-mails, and we did look at one I sent back
00394:01 on the 5th yesterday. But it would have been
02 sporadic because I was in an area where
03 telephone reception can be sporadic.

Page 394:18 to 395:01

00394:18 Okay. This is "Group Practice 10-16," right?

19 A. Correct.
20 Q. I believe you testified
21 yesterday that you -- you wrote this
22 document?
23 A. Drafted it and saw it through
24 approval processes and -- and took all
25 feedback from the community and incorporated
00395:01 it, yes.

Page 395:05 to 395:19

00395:05 Q. (BY MR. THIBODEAUX) If you look
06 at Page 10 of 16 in Group Practice 10-16 in
07 the section "Minimum Requirements."
08 A. Uh-huh. For --
09 Q. I'm sorry, 7.1.
10 A. Okay.
11 Q. Yeah. It says, "The real-time
12 analysis of pressure for a BP well shall be
13 prepared by a qualified individual who has
14 been trained on BP practices, workflows, and
15 relevant tools and applications to be used at
16 the wellsite."
17 The qualified individuals on the
18 Macondo well were Kate Paine and Stuart Lacy,
19 correct?

Page 395:21 to 395:22

00395:21 A. I know about Kate. I don't know
22 about Stuart.

Page 396:04 to 396:20

00396:04 Q. Section B or Point B of that
05 same section says, All individuals preparing
06 real-time pressure analysis -- analysis for
07 BP wells shall have been appropriately
08 trained on the use of the particular software
09 used for pressure detection on the well.
10 A. Yes.
11 Q. Okay. What was that particular
12 software?
13 A. I'm -- I'm not a hundred percent
14 certain, but I think Kate was using Presgraf.
15 Q. That's the landmark version of
16 Presgraf?
17 A. Yes.
18 Q. Okay. BP does not train or did
19 not train any Transocean rig employees on the
20 landmark version of Presgraf, right?

Page 396:22 to 397:04

00396:22 A. I would not know, but I -- I
23 would not have thought that the landmark
24 employees would have Presgraf -- I mean, the
25 Transocean employees would have Presgraf.

00397:01 Q. (BY MR. THIBODEAUX) And why is
02 that?

03 A. It was primarily used by BP
04 employees on BP computers.

Page 397:15 to 397:19

00397:15 Mr. Alberty, on the Macondo well you're not
16 aware of any role that Transocean personnel
17 played in PPFG prediction or detection,
18 correct?

19 A. Not that I'm aware of.

Page 398:18 to 398:24

00398:18 to tab 4, please. This is an April 2nd
19 e-mail from Mr. Albertin to you and others at
20 BP, with Bates No. BP-HZN-2179MDL002612
21 through -- I believe you looked at the --
22 this April 2nd e-mail from Mr. Albertin
23 yesterday, correct?

24 A. I -- I think we -- I think so.

Page 399:01 to 399:11

00399:01 Q. (BY MR. THIBODEAUX) Okay. Do
02 you see where it says, "I think it is safe to
03 say that this test is not indicative of the
04 true fracture strength of the average shale
05 that we are about to drill"?

06 A. Yes.

07 Q. Okay. At any point after
08 receiving this e-mail did you notify the MMS
09 that BP did not consider the FIT result to be
10 an accurate indication of the formation
11 fracture strength?

Page 399:13 to 399:19

00399:13 A. I would -- I would not have done
14 any exchange of information directly with
15 MMS.

16 Q. (BY MR. THIBODEAUX) Are you
17 aware of anyone at BP that made -- that
18 notified MMS of that?

19 A. I -- yeah, I --

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00399:21 A. (Continuing) I'm not aware of
22 what communications happened at that time,
23 and on that day I was totally out of
24 communication and would not have gotten this
25 e-mail.
00400:01 Q. (BY MR. THIBODEAUX) At any
02 point in April of 2010 did you direct anyone
03 at BP to perform another FIT or LOT test of
04 the production interval?
05 A. I did not.

Page 400:12 to 400:15

00400:12 Q. (BY MR. THIBODEAUX) You're not
13 aware of any discussions regarding an
14 additional FIT or LOT test?
15 A. Correct.

Page 405:17 to 405:21

00405:17 Q. (BY MR. BOWMAN) No, actually,
18 the question is simpler than that. If you're
19 using the 14.17 weight mud and the frac
20 gradient is 14.3, that seems like a very
21 close number to me. Doesn't it to you?

Page 405:23 to 405:24

00405:23 A. I do not -- I do not know what
24 would be considered close and not close.

Page 406:24 to 407:01

00406:24 Q. You've certainly been involved
25 in discussions with people about that very
00407:01 point, haven't you?

Page 407:03 to 407:08

00407:03 A. I haven't --
04 Q. (BY MR. BOWMAN) Then just answer
05 that question, you have been involved in
06 discussions with people talking about that
07 very form, tolerances between frac gradients
08 and pore pressure?

Page 408:12 to 408:15

00408:12 A. So -- so what do you mean by
13 "tolerances"? Do you mean differences?

14 Q. (BY MR. BOWMAN) Differences,
15 sure.

Page 408:17 to 408:23

00408:17 A. Sure, I've been in discussions
18 about what the difference is between pore
19 pressure and frac gradient.
20 Q. (BY MR. BOWMAN) And have you
21 been in discussions with people also taken
22 into account about what differences that
23 makes?

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00409:10 Q. (BY MR. BOWMAN) And you talked
11 about the importance between the differences
12 of those two numbers, haven't you?

Page 409:14 to 409:23

00409:14 A. I -- I -- I certainly recognize
15 the importance.
16 Q. (BY MR. BOWMAN) Sure, sure.
17 And then people go to you and have gone to
18 you for your expertise on these numbers?
19 A. On -- on the difference between
20 the two uncertainties, yes.
21 Q. Yes. And they're doing it for
22 reasons besides just curiosity on what those
23 numbers are, don't you think?

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00409:25 A. I would agree that what we do
00410:01 feeds other processes, in the company.
02 Q. (BY MR. BOWMAN) Okay. Now,
03 having said all that, do you still not have
04 any opinion one way or the other about
05 whether a mud weight of 14.17 being used in
06 the Macondo in this last production string is
07 too heavy in connection with a frac gradient
08 of 14.3?
09 A. Yeah, I do not have an opinion
10 on that.

Page 419:16 to 420:13

00419:16 Q. (BY MR. BOWMAN) Okay. Okay.
17 So after '88 what do you do?
18 A. Go to work for Sohio.
19 Q. Okay. Doing what?

20 A. As a petrophysicist.
21 Q. Yeah, I heard that a minute ago.
22 And petrophysicist, what are you doing?
23 A. Looking at properties of rocks
24 and fluids and their interaction, I think is
25 the way Gus Archie defined it.
00420:01 Q. What are you trying to determine
02 there?
03 A. All kinds of properties about
04 the formation. Porosity, water saturation,
05 lithology type permeability, young's modulus,
06 Poisson's ratio, pore pressure, effect of
07 stress, overburden.
08 Q. Just about everything?
09 A. Yeah, just about everything.
10 Q. And does some of that have to do
11 with trying to find where the actual
12 production zones will be?
13 A. Yes.

Page 420:22 to 421:01

00420:22 Q. I understand. Okay. So how
23 long are you doing that for?
24 A. Well, I virtually have done that
25 petrophysics from '88 until today. I still
00421:01 do petrophysics.

Page 423:14 to 423:17

00423:14 Q. And what -- just if you know,
15 who from BP actually came up with the
16 calculations of pore pressure on the Macondo
17 well?

Page 423:19 to 425:06

00423:19 A. I don't really know who
20 ultimately did what calculations or produced
21 one -- what numbers. But there was somebody
22 defined as a single point of accountability,
23 and I actually -- as I said yesterday, I
24 don't know who that individual was. I do
25 know who the single point of accountability
00424:01 was for the prediction, because in my review
02 I asked that question.
03 Q. (BY MR. BOWMAN) That was
04 Mr. Albertin?
05 A. That was Mr. Albertin.
06 Q. So you asked who the predictor
07 was, but you did not ask who it was that
08 would calculate after the prediction?
09 A. My -- my review was conducted a

10 long time before the well spudded.

11 Q. Okay. Oh, okay, you're asking
12 for -- you're talking about a review that was
13 done when, 2008, 2009, something like that?

14 A. Something. It was back when the
15 well was trying to go through stage gate.

16 Q. Okay.

17 A. Design stage.

18 Q. As opposed to you're reviewing,
19 getting ready for your deposition?

20 A. Correct.

21 Q. Okay. So, anyway, sitting
22 there -- here today, you don't know who it
23 was from BP that was the point person in
24 calculating the pore pressures, during the
25 drilling?

00425:01 A. The single point of
02 accountability for detection, I don't know
03 who that was.

04 Q. Do you have some names that it
05 could be?

06 A. Probably Marty Albertin.

Page 428:14 to 428:19

00428:14 Q. Okay. Now, then, let me ask you
15 something that's a little bit -- if you have
16 higher pore pressure, pore pressure, 14.15
17 and another pore pressure 10, is one or more
18 likely to possibly cause a flow than the
19 other?

Page 428:21 to 429:08

00428:21 A. That would depend upon the
22 properties of the formations.

23 Q. (BY MR. BOWMAN) Right.

24 A. Permeability.

25 Q. And --

00429:01 A. Position of the well.

02 Q. And I'm sure it would depend on
03 how it's being controlled but let's assume
04 that you have the same properties or same
05 type sands. And in that situation would it
06 be more likely for a heavier -- higher pore
07 pressure to flow before a lower pore
08 pressure?

Page 429:10 to 429:12

00429:10 A. That -- I think that might
11 depend yet upon a few of the parameters
12 and --

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00429:18 Q. So everything else being equal
19 would a higher pore pressure be more likely
20 to flow than a lower pore pressure?

Page 429:22 to 430:05

00429:22 A. I think that the -- that if --
23 if the -- if both are underbalanced, both --
24 Q. (BY MR. BOWMAN) Yes, sir.
25 A. Both will flow. I don't think
00430:01 there is going to be one flow and the other
02 does not, if they're equal, but it would be a
03 difference in the rate of flow.
04 Q. So the higher pore pressure
05 would flow higher or what?

Page 430:07 to 430:17

00430:07 A. The laws of the Darcy equation
08 would say that if the Delta P, the difference
09 in pressure, is greater, the flow rate's
10 greater.
11 Q. (BY MR. BOWMAN) Okay. Okay. I
12 understand. Now, I think you just answered
13 another question I was going to have. If you
14 have various pay zones, two, three, four, if
15 one zone starts flowing before the other
16 zones, will that effectively cause somehow
17 the other zones to flow, too?

Page 430:19 to 430:20

00430:19 Q. (BY MR. BOWMAN) Or could it
20 possibly?

Page 430:22 to 431:20

00430:22 A. A lot of variables that are in
23 there.
24 Q. (BY MR. BOWMAN) Right?
25 A. I'd have to know the variables.
00431:01 You'd have to know the pressure in the
02 wellbore relative to the pressure in the
03 formation to figure out and --
04 Q. Right.
05 A. If -- if the zone that's flowing
06 is altering the pressure in the wellbore,
07 then that dynamic has to be brought into the
08 problem, but you can certainly create cases
09 where one zone may be uncovered and, you

10 know, not have pressure greater than the
11 formation pressure still start flowing and
12 alter the wellbore pressure so another zone
13 starts flowing. That is a possibility.
14 Q. Thank you. Because that's where
15 I was wondering about. If you have a zone --
16 you know, like, three or four zones, it seems
17 like if one of them starts flowing, that
18 would change the pressures in the rest of the
19 formation possibly and could affect the other
20 zones, alright were I'm just beyond that?

Page 431:22 to 432:02

00431:22 A. Not really -- not really change
23 the pressure in the formations, but --
24 Q. (BY MR. BOWMAN) What, does it
25 change in the wellbore?
00432:01 A. In the well -- might change the
02 pressure in the wellbore.

Page 432:04 to 432:05

00432:04 A. (Continuing) Assuming they're
05 all in the same well.

Page 433:01 to 433:09

00433:01 Q. The -- actually, do the people
02 doing the Bly report consult with you?
03 A. No.
04 Q. Not at all?
05 A. No.
06 Q. And you were available to be
07 consulted with. You weren't on some lengthy
08 vacation that summer or anything, were you?
09 A. No, I was available.

Page 433:18 to 435:07

00433:18 Q. And have you talked to any --
19 well, have you talked to anyone about -- that
20 was actually involved in producing the Bly
21 report, Mr. Bly or Mr. Corser or anybody like
22 that?
23 A. Kent Corser, Warren Winters,
24 some of the others are personal friends. I
25 do see them.
00434:01 Q. Have you had any discussions
02 with them about anything contained in the Bly
03 report?
04 A. I had discussions with Warren
05 about the Bly report after it was published,

06 just to understand comments made in it.
07 Q. Any discussions with Mr. Corser?
08 A. Not about the Bly report.
09 Q. Okay. Anything about the
10 Macondo well with Mr. Corser?
11 A. I don't think so.
12 Q. Okay. Do you remember what
13 topics you talked about with Mr. Winter?
14 A. Not really.
15 Q. Did you talk about the
16 imbalancing of the well after the negative
17 test?
18 A. He -- he talked about that -- I
19 think he showed me that PowerPoint that -- in
20 that Bly report and explained what it was
21 trying to show.
22 Q. Did you understand it?
23 A. Not really.
24 Q. Not really. Did you understand
25 it enough to know that -- well, you didn't --
00435:01 do you even know what a negative test is?
02 A. I -- I've got a concept of what
03 the negative test is, yes.
04 Q. Do you have a concept that if a
05 negative test is not successful, that it --
06 if it's not successful, what do you think it
07 indicates?

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00435:09 A. At some place there was a leak
10 in the system.
11 Q. (BY MR. BOWMAN) Right. And if
12 there's a leak in the system, it's not wise
13 to under balance a well; do you understand
14 that?
15 A. Now we're -- you're getting to
16 where I don't really have --
17 Q. I'm getting ready to stop. But
18 don't you have that understanding that if you
19 have a leak in the system, it's not wise to
20 under balance a well?

Page 435:22 to 436:11

00435:22 A. I -- I would have thought, but I
23 don't know procedures and there may be other
24 reasons to that, so I don't know. I'll back
25 up.
00436:01 I think that if you have an
02 underbalanced -- a negative result of the
03 negative test, there is probably a need to do
04 further diagnostics to try to figure out,
05 which may mean you probably need to do other

06 remedial fluids and something.
07 Q. (BY MR. BOWMAN) You need to do
08 something?
09 A. Yes.
10 Q. As opposed to nothing?
11 A. Yes.

Page 437:08 to 437:09

00437:08 Tab 30 has been previously marked as
09 Exhibit 3741; do you see that?

Page 437:11 to 442:02

00437:11 Q. (BY MR. BOWMAN) Have you seen
12 this document before?
13 A. I think we looked at it or parts
14 of it yesterday.
15 Q. Yeah. If we -- actually I have
16 one that has part color here.
17 A. That's all right, I'll survive.
18 Q. But let's go to the back page.
19 And --
20 A. To the what? Oh.
21 Q. The one with the little -- yes,
22 yes, sir. And we have -- well, when it says
23 at the far left top, it says MD, do you
24 understand what that means?
25 A. Measured depth.
00438:01 Q. Okay. And what's the next
02 column, base measured depth?
03 A. So they're giving the picked top
04 in the first column of the sand and the
05 picked in the bottom of the sand in the
06 second column.
07 Q. And what do the third and
08 fourths do?
09 A. So the third and fourth of the
10 picked top, instead of being a measured
11 depth, they're in true vertical depth subsea.
12 And the fourth is the base of the sand and
13 true vertical depth subsea.
14 Q. Okay. And then it's something
15 that says interpreted fluid top. Do you see
16 that?
17 A. Yes.
18 Q. Now, let's see, the date of this
19 is -- let's go back to the first page, if you
20 would. I'm going to come back to that. It
21 looks like it's from Paul Johnson. Do you
22 see that?
23 A. Right, so that's the date at
24 which he sent it. I don't know that it tells
25 us the date it was generated but yes.

00439:01 Q. Yes, kind of hard to say,
02 because he says, "What I've included here is
03 the predrill on Macondo, which is spreadsheet
04 dated" something. What does that say?
05 A. That's September 18th, 2009.
06 Q. Hmm, okay. So, now, if you go
07 back -- in fact, let me just show you my
08 color copy.
09 A. Okay.
10 Q. Because when we look down there
11 for the interpreted fluid types, you see
12 that?
13 A. Uh-huh.
14 Q. There are -- how many colors are
15 there?
16 A. They've got three.
17 Q. Three colors, okay. And where
18 it says Brian, what color is that?
19 A. Blue.
20 Q. Blue. Where it says gas, what
21 color is that?
22 A. Red.
23 Q. Red, okay. And what's the third
24 color?
25 A. Green, I think.
00440:01 Q. And where is green?
02 A. For oil.
03 Q. For oil, okay. And so if we
04 look at this particular sheet, there would be
05 three colored green, right?
06 A. Correct.
07 Q. That's the bottom three?
08 A. Correct.
09 Q. Starting at what height?
10 A. The bottom --
11 Q. Yes.
12 A. -- in measured depth or --
13 Q. Yes, sir.
14 A. The bottom of the deepest oil
15 zone listed here is 18239.
16 Q. 18239, okay, that's the bottom
17 one?
18 A. Correct.
19 Q. And the -- and the top -- what's
20 the top of the oil?
21 A. Here it's listed as 18067.
22 Q. 18067, okay. Then directly
23 above that you have, what, gas?
24 A. Correct.
25 Q. And that one's -- that one's
00441:01 listed in red, huh?
02 A. Correct.
03 Q. And what's the depth on that?
04 A. 17806 for the deepest.
05 Q. Okay. Two, what's --

06 A. That's going to be intermixed
07 brines and gases. So you just want that
08 single zone before brine.
09 Q. Okay. Yeah, there is the gas
10 and then right above it there is something
11 that says brine, right?
12 A. Correct.
13 Q. And that's at what level?
14 A. The bottom of that is 17708.
15 Q. Yeah. To what? To 17,
16 basically 600, 599?
17 A. 699.
18 Q. Oh, 699, sorry. And that's
19 brine. Now, what is brine?
20 A. That should be salt water, not
21 free gas or free oil.
22 Q. And then above that there is
23 gas, and that's in red, too, huh?
24 A. Yes.
25 Q. 17468 to?
00442:01 A. Upper -- both the two gas
02 together is 17056.

Page 444:01 to 444:04

00444:01 Q. (BY MR. BOWMAN) How do you
02 actually make a determination -- or how does
03 somebody make a determination as to call
04 these zones oil versus gas?

Page 444:06 to 444:15

00444:06 A. Yeah, I don't know the criteria
07 that was used.
08 Q. (BY MR. BOWMAN) Okay. Well, in
09 your logging days how -- how did you do it,
10 or did you?
11 A. Well, I normally record with my
12 gas to oil ratios for products.
13 Q. Okay. And what someone's trying
14 to produce is, what, oil and gas or -- you're
15 not trying to produce brine, right?

Page 444:17 to 445:08

00444:17 A. There can be a need to produce
18 brine, but -- but typically there's not much
19 value in producing brine -- brine.
20 Q. (BY MR. BOWMAN) Value is in the
21 oil or the gas or both?
22 A. Typically.
23 Q. Now, let me ask you this one:
24 There is -- there is -- right down here at

25 the bottom again it looks like the -- there
00445:01 is a gas zone that starts at, what is it,
02 16956? You see you have a gas zone, you got
03 a gas, you got a brine, and you got a gas.
04 A. Yes.
05 Q. In a formation is it that
06 clearly distinguished that you can know for
07 sure that that brine has does not have gas in
08 it?

Page 445:10 to 445:10

00445:10 A. Most brines do have gas in them.

Page 445:17 to 446:11

00445:17 Q. (BY MR. BOWMAN) Okay. And
18 figuring out whether you have oil or gas or
19 brine, is that done by looking at logs?
20 A. There -- there are different
21 ways to do that, and I don't know what method
22 was used here.
23 Q. Okay. If you look at logs, can
24 you make a determination as to whether you
25 have a pay zone or not?
00446:01 A. You -- you can make a rough --
02 you can -- you can use logs -- we do use logs
03 to identify where we think pay is, and we
04 do -- can use types of logs to estimate what
05 type of hydrocarbons are present.
06 Q. Okay.
07 A. Although one of these sands is
08 very thin. 2 feet is very difficult to do
09 that with logs.
10 Q. I may -- we ought to mark these
11 so I don't get too confused.

Page 447:10 to 448:14

00447:10 Q. (BY MR. BOWMAN) First of all, I
11 think I marked mine wrong because I have two
12 marked as 4542. The one that is the highest,
13 such as the one that has, you know, 17460,
14 what is that marked?
15 A. This -- this one right here?
16 Q. Yes, sir.
17 A. That is 4542.
18 Q. And what's the other one marked,
19 43?
20 A. 43.
21 Q. Okay. Now, then have you seen
22 these logs before?
23 A. I have seen logs in the well

24 that included these recordings, but I haven't
25 seen these particular plots.

00448:01 Q. Okay. So you have seen wire --
02 well, you have seen open hole logs of the
03 Macondo well, may have actually seen this,
04 but haven't seen these particular blow ups so
05 to speak, right?

06 A. Right, I use logs from the wells
07 in -- in my work on preparing relief wells.

08 Q. In preparing what?

09 A. The relief wells, my work on the
10 relief wells.

11 Q. Relief well, okay. And if you
12 look at -- first of all, if you look at 4543,
13 do you see an area that would indicate a pay
14 zone?

Page 448:16 to 449:11

00448:16 A. I see an area that -- that is
17 potentially a pay zone, but that would depend
18 upon the water resistivity that was going to
19 be used in interpreting whether there was
20 pay. You could -- you could produce that log
21 response with -- with freshwater, but I --
22 you know, I would -- I would have thought
23 that looked like a pay.

24 Q. (BY MR. BOWMAN) Okay. And
25 where is that? Do you want to circle that?

00449:01 A. Circle it?

02 Q. Just, do you have a pen?

03 A. Yeah.

04 Q. Okay.

05 A. So it's right in here.

06 Q. Right in there, okay. What
07 about on the right side where you have these
08 intersects?

09 A. The proxy logs.

10 Q. Yes, sir, what does that
11 indicate to you?

Page 449:13 to 449:20

00449:13 A. That's going to depend upon what
14 kind of scales are being used here, and I
15 can't tell from this what -- what matrix it's
16 been computed on. So some people want to
17 look at that crossover as gas, but that would
18 depend upon whether or not the log recordings
19 on the appropriate matrix. You can misstate
20 that.

Page 449:24 to 450:08

00449:24 THE WITNESS: He's at 17805.06 on --
25 and the depth scale is not measured, so I
00450:01 don't know if it's measured depth or true
02 vertical depth or true vertical depth subsea.
03 MR. THIBODEAUX: Thanks.
04 Q. (BY MR. BOWMAN) And then if you
05 look on 4542, you'll see a crossover,
06 correct?
07 A. Right, but that -- again, that
08 crossover --

Page 450:10 to 450:15

00450:10 A. (Continuing) -- is not
11 necessarily an indication of -- of what
12 hydrocarbon type is without getting the
13 appropriate matrix put on them.
14 Q. (BY MR. BOWMAN) So it could be
15 hydrocarbon as gas or oil?

Page 450:17 to 451:19

00450:17 A. It could be hydrocarbon as gas
18 or oil, or it could be water, depending upon
19 the formation fluid resistivity.
20 Q. (BY MR. BOWMAN) Well, while
21 you're looking at that, why don't you -- do
22 you still have tab 30, which was 3741? Do
23 you have that little chart? Yeah. And why
24 don't you look at that same depth on the
25 chart, see what the chart shows.
00451:01 A. I don't know if I can do the
02 same depth, as this depth scale is not
03 labeled.
04 Q. Well, when there is crossover on
05 4542 you can see it's somewhere a little bit
06 below 17470, don't you? See the 17470 right
07 here in the middle?
08 A. I can see 17 -- so this 17468 or
09 something.
10 Q. Something like that. It --
11 let's go to Exhibits 3741 and find that same
12 depth, and what does it indicate?
13 A. Well, if this is a measured
14 depth, that would indicate that's the one
15 that they've labeled as gas.
16 Q. As gas, okay. And do you know
17 if the BP team told anyone from Halliburton,
18 Transocean, or anyone that this depth of
19 17468 indicates gas?

Page 451:21 to 451:24

00451:21 A. I do not know what has been
22 communicated between the two, nor do I know
23 if this is the ultimate interpretation of
24 what was in that zone.

Page 455:16 to 456:05

00455:16 Q. (BY MR. BOWMAN) Okay.
17 Mr. Alberty, my assistants have pointed out I
18 need to clarify something. So what we had
19 been talking about earlier as 3741, that's --
20 that was a e-mail from Mr. Johnson, dated
21 April 21st, along with an attachment. I have
22 re-marked as Exhibit 4544.
23 A. Okay.
24 Q. And is -- can you just say that
25 is what we were looking at?
00456:01 A. Yes, that is what we were
02 looking at.
03 Q. Okay. Now, I'm going to hand
04 you what has previously been marked as
05 Exhibit 3336. Okay?

Page 456:08 to 457:05

00456:08 Q. (BY MR. BOWMAN) Now, you can
09 see this is a BP document. You can tell that
10 from the bottom where it says "BP Horizon."
11 Do you see all that? The line -- see the
12 Bates?
13 A. Yes.
14 Q. Okay. Have you ever seen this
15 document before?
16 A. I have not.
17 Q. Have not. Okay. Why don't we
18 go over to Page 9, and do you see a table
19 called "Formation Depths"?
20 A. Yes.
21 Q. Okay. Now, starts out the
22 13.01 ppg sand was the shallowest hydrocarbon
23 sand provided to the drilling engineering
24 team prior to the cement job. Do you see
25 that?
00457:01 A. I see that.
02 Q. Then it says the 14.15 ppg sand
03 at 17451 was identified post well operations.
04 Do you see that?
05 A. I see that right there.

Page 459:20 to 460:15

00459:20 Q. Well, let's look at the criteria
21 being used by the BP investigation team as

22 shown on this particular Exhibit 336. They
 23 go on down and they have a chart and you have
 24 an M57B sand. Do you see that?
 25 A. Yes.
 00460:01 Q. That's the very first one they
 02 list, isn't it?
 03 A. Yes.
 04 Q. And it's the top -- the top is
 05 17467; do you see that?
 06 A. The measured depth, yes.
 07 Q. Measured depth.
 08 A. By wireline log.
 09 Q. Yeah, yeah. And doesn't that
 10 sound conveniently very close to the major
 11 depth on Exhibit -- the one we just marked --
 12 4544, where it shows gas at approximately
 13 that same depth?
 14 A. Yes.
 15 Q. Yeah.

Page 460:17 to 461:12

00460:17 Q. (BY MR. BOWMAN) Okay. So then
 18 it goes on to say, "identified as hydrocarbon
 19 June 2010, not a measured pressure."
 20 Now, June 2010 is certainly
 21 after the blowout; is it not?
 22 A. Yes.
 23 Q. Okay. There is something at the
 24 bottom, I'm not sure where the note goes, but
 25 at the bottom it says, Note, all data comes
 00461:01 from BP petrophysical review done on
 02 May 25th, 2010.
 03 Do you see that?
 04 A. I see that.
 05 Q. Okay. Have you talked to anyone
 06 about any BP petrophysical review that was
 07 done after the Macondo well?
 08 A. No.
 09 Q. No. Have you talked to anyone,
 10 or has anyone mentioned to you the fact that
 11 after the event, BP discovered that they had
 12 missed a hydrocarbon zone?

Page 461:14 to 461:25

00461:14 A. No.
 15 Q. (BY MR. BOWMAN) No.
 16 I just have one copy. Let's
 17 mark this. I just have one copy of this
 18 document that's been marked 4545, but it's a
 19 page out of the Bly Report. And that
 20 particular page, what -- what page number is
 21 it? One at the bottom.

22 A. 54.
23 Q. 54. And 54 on the far-right
24 side seeks to portray the various pay zones;
25 does it not?

Page 462:02 to 462:10

00462:02 A. It -- it's got sands identified.
03 It's got one of them labeled as "brine." It
04 doesn't have a label what the -- what --
05 where hydrocarbons are, but it does have a
06 label of "Primary Reservoir Sands."
07 Q. (BY MR. BOWMAN) Okay. And do
08 you see on that page anywhere the reference
09 to the M57B sand at approximately
10 17,467 feet?

Page 462:12 to 463:02

00462:12 A. I do not see a reference to that
13 on that page.
14 Q. (BY MR. BOWMAN) No. And the
15 Bly Report was done, what, sometime in
16 September of 2010?
17 A. I -- I don't know the time.
18 Q. Do you know if it was done after
19 the May 25th, 2010 petrophysical review done
20 by BP? Just don't know?
21 A. That's just an issue I don't
22 know the timing of. I'm sorry.
23 Q. If, in fact, the Bly Report came
24 out in June -- I'm sorry, in September of
25 2010, and BP knew about this different zone,
00463:01 do you have any explanation as to why it was
02 not included in the Bly Report?

Page 463:04 to 463:06

00463:04 A. No, I -- I wouldn't know
05 anything about this particular topic. I
06 wouldn't have been involved in it.

Page 485:11 to 485:21

00485:11 Q. Okay. Did you ever deal with or
12 know Jesse Gagliano?
13 A. I think he was involved in the
14 relief well team, wasn't he?
15 Q. I think he may have been for a
16 while.
17 A. Yeah, I think he was.
18 Q. Yeah. Which is another point.
19 Halliburton was doing the cementing in the

20 relief wells; were they not?
21 A. I -- I --

Page 485:23 to 486:04

00485:23 A. I think that's correct.
24 Q. (BY MR. BOWMAN) Yeah.
25 A. But I'm not a hundred percent
00486:01 certain.
02 Q. As far as you know, did you hear
03 any complaints about the cementing in the
04 relief wells?

Page 486:06 to 486:15

00486:06 A. I -- I did not hear any
07 complaints.
08 Q. (BY MR. BOWMAN) Okay, that's
09 fine.
10 Have you ever met Mr. Gagliano
11 personally?
12 A. Yes.
13 Q. Okay. How did you find him?
14 Decent enough guy?
15 A. Yeah.

Page 486:17 to 486:19

00486:17 Q. (BY MR. BOWMAN) Seemed to know
18 what he was doing?
19 A. Seemed to.

Page 490:16 to 491:01

00490:16 A. During the well, Hafle sought my
17 advice on lost circulation. I -- he did
18 not -- I don't recall him seeking my advice
19 on kicks, and so we would have talked and
20 exchanged e-mails about decision trees and
21 treating lost circulation events.
22 Q. About decision trees?
23 A. Lost circulation decision trees,
24 you know, the -- the -- the path you follow
25 to treat those. I think we had those in here
00491:01 yesterday, didn't we?

Page 492:10 to 493:04

00492:10 Q. Okay. And have you been
11 involved with wells that have had this much
12 in the way of lost circulation?
13 A. Yes.

14 Q. Where were those?
 15 A. One in Brazil, and -- and I --
 16 and I get called for ones in -- in the Gulf.
 17 I mean, anybody that -- in recent years that
 18 would be having lost circulation might
 19 consult me within BP. I'm available to help
 20 them.

21 Q. Okay. And how about the
 22 combination of lost circulation in kicks?

23 A. Frequently we have lost
 24 circulation that can lead to a kick.

25 Q. Kick.

00493:01 A. You have a kick lead to lost
 02 circulation. So the two -- I always like to
 03 treat those as if one happens, you are at
 04 risk of the other.

Page 495:21 to 496:01

00495:21 Q. Let's go back to -- somewhere
 22 out in front of you, you've been asked about
 23 this for a couple days. Why not me? It's --
 24 it's Exhibit 4530. If it's not in front of
 25 you, I can find another one and give it to
 00496:01 you.

Page 496:14 to 496:23

00496:14 Q. (BY MR. BOWMAN) Okay. This is
 15 the same thing from Mr. Bodek. And Mr. Bodek
 16 is pretty high up in the Tiger team? How
 17 would you call that?

18 A. I -- I think Bobby's relatively
 19 new to the Tiger team.

20 Q. Oh, he was relatively new. I
 21 did not know that.

22 A. When I say "relatively," within
 23 the past year or two.

Page 498:19 to 499:23

00498:19 Q. (BY MR. BOWMAN) Okay. The
 20 next-to-last sentence, "Having a
 21 14.15 ppg" -- "ppg" means what there?

22 A. I'm -- I'm trying to catch you.

23 Q. Very last -- very next-to-last
 24 sentence at the bottom of the page. If we
 25 have the same form, maybe we don't.

00499:01 A. It's not.

02 Q. Okay. It says, "Having a 14" --

03 A. Oh, I see it. It's on the next
 04 page for me.

05 Q. "Having a 14.15 ppg" -- and

06 what's "ppg" mean?
07 A. Pounds per gallon.
08 Q. Yeah.
09 -- "exposed sand," and what's
10 that 15. -- 14.15 talking about?
11 A. That's the same number we've
12 seen for that --
13 Q. Pore pressure?
14 A. -- geo pressure above the --
15 Geotap pore pressure.
16 Q. Right.
17 -- "exposed sand, and taking
18 losses in a 12.6 ppg reservoir in the same
19 hole-section has forced our hand."
20 Does that make any sense to you,
21 what he's saying there?
22 A. No, I -- I don't know his point
23 he's trying to get to.

Page 499:25 to 500:04

00499:25 Q. (BY MR. BOWMAN) "We had simply
00500:01 run out of drilling margin. At this point it
02 became a well integrity and safety issue."
03 Now, then, can drilling margin
04 become a well integrity and safety issue?

Page 500:06 to 500:11

00500:06 A. Yeah, that -- that -- again,
07 drilling mar- -- I mean, drilling margin is
08 about safety.
09 Q. (BY MR. BOWMAN) Right. And can
10 it get so small that it's no longer safe?
11 A. Presumably so, yes.

Page 519:20 to 520:08

00519:20 Q. Good afternoon, Mr. Alberty, my
21 name is Philip Chen. I'm here on behalf of
22 BP. Do you remember questioning yesterday
23 about a meeting that you had with the GoM SPU
24 folks about what the MMS wanted reported in
25 terms of formation pressure tests?
00520:01 A. Right, I remember those
02 discussions.
03 Q. And as part of those
04 discussions, do you recall anyone mentioning
05 that they would take what the group had
06 concluded and go run it by the MMS to see
07 whether that was what they wanted?
08 A. Right.

Page 520:10 to 521:10

00520:10 A. (Continuing) This was -- this
11 was the -- I remember this discussion about
12 had it been taken to them and then was a
13 slide pack prepared for that and had it gone
14 and what were the results, if they did.
15 Q. (BY MR. CHEN) So what do you
16 remember about in the actual meetings being
17 said about taking it to the MMS?
18 A. Of these meetings of the 20, 25
19 people -- yeah. I really don't remember what
20 was decided. I just remember the discussion
21 was around what did the MMS really want and
22 looking at the regulations. And then I
23 wanted to recall -- but -- but I -- but my
24 memory was vague, as I said yesterday, that
25 Terry told me he was going and we had some
00521:01 discussion either about whether I should go,
02 whether I shouldn't go. I just don't
03 remember what was taking place, but I know I
04 did not go.
05 Q. Okay. I'm going to hand you a
06 document that I've marked as Exhibit 4550,
07 and if you could take a look at that and let
08 me know when you're ready to answer
09 questions.
10 A. All right.

Page 522:04 to 523:13

00522:04 Q. What is the subject line of the
05 e-mail?
06 A. It's about the MMS meeting.
07 Q. Okay. And can you read the
08 first sentence into the record, please?
09 A. Yes. Yesterday Scherie Douglas
10 and I, that being Terry Jordan, met with the
11 MMS, and he state the names of the MMS people
12 he met with, Mike Saucier David Trocquet, and
13 engineer trainee, to discuss BP's standard
14 Gulf of Mexico formation pressure integrity
15 procedure.
16 Q. So who does Mr. Jordan report
17 going to meet with the MMS?
18 A. He and Scherie Douglas.
19 Q. And who from the MMS did he meet
20 with?
21 A. Mike Saucier Dave Trocquet, and
22 an engineer trainee.
23 Q. And when he says BP's standard
24 GoM formation pressure integrity procedure,
25 what do you understand that to be?
00523:01 A. That's the project we had been
02 working on to -- to build the workbook and

03 standard procedures and reporting --
04 reporting requirements.
05 Q. So that was the workbook that we
06 looked at yesterday that was marked as an
07 exhibit?
08 A. The workbook forms part of the
09 procedure, but the procedure is -- is the way
10 we're going to conduct the test, report it,
11 the workbook is the way we execute it, and
12 those procedures are also contained within
13 the workbook.

Page 523:20 to 524:15

00523:20 Q. Let me ask it another way.
21 Since we don't have realtime. What -- what
22 did you understand to be the standard GoM
23 formation pressure integrity procedure? What
24 was it contained in?
25 A. Right, it was contained in the
00524:01 workbook that I built. It was written on one
02 of the pages in the workbook.
03 Q. Okay. Can you read the next two
04 sentences?
05 A. It says, It was a great meeting
06 with a lot of discussion. They understood
07 our views on the procedure. They understood
08 our method of pumping both down the drill
09 pipe and casing side no greater than one half
10 barrel per minute to make friction pressure
11 negligible.
12 Q. Okay. And when -- when
13 Mr. Jordan writes, "they understand our views
14 on the procedure," what did you understand
15 the procedure to be referring to?

Page 524:17 to 525:19

00524:17 A. This would be the plan BP had
18 for conducting and reporting leak offs on
19 deepwater Gulf of Mexico wells.
20 Q. (BY MR. CHEN) And is that the
21 procedure that is reported in the preceding
22 sentence -- or the preceding paragraph, the
23 standard GoM formation pressure integrity
24 procedure?
25 A. I -- I would believe that to be
00525:01 true.
02 Q. Okay. And when he writes, They
03 understood our method of pumping down both
04 the drill pipe and casing side no greater
05 than half a barrel per minute to make
06 friction pressure negligible, is that a --
07 is -- is that part of the procedure that's

08 set forth within your -- the formation
09 pressure integrity procedure that we've been
10 discussing?
11 A. In -- in the standard procedures
12 we were developing there have been some
13 people who pumped down the drill pipe and
14 some people who pumped down both the drill
15 pipe and the choke and kill line and we were
16 trying to standardize that and so we had
17 proposed to do both and so he apparently had
18 discussed that with the MMS and they agreed
19 to our reasoning.

Page 525:25 to 527:08

00525:25 Q. Okay. Now, at the -- let's read
00526:01 the next paragraph, if you could.

02 A. "They understood taking a leak
03 off test to the point where the pressure
04 curve clearly breaks over and to report the
05 maximum pressure."

06 Q. Okay. So let's take the first
07 clause. Now, yesterday we were talking about
08 what point constitutes the leak off -- the
09 leak off value is, correct?

10 A. Right, so the leak off value
11 would be the point at which we depart from
12 linearity.

13 Q. And is that what is being
14 addressed here in that first clause, first
15 part of the sentence?

16 A. I think in this case he's
17 talking about leak off test in the generic
18 sense, meaning a pressure integrity test; and
19 he's talking about taking a pressure
20 integrity test to the point where we've gone
21 well past departure from linearity. And when
22 the curve goes up, breaks over, and either
23 turns flat or comes back.

24 Q. I see. So you're making the
25 distinction between breaks and clearly breaks
00527:01 over?

02 A. Right.

03 Q. So clear --

04 A. So he's meaning -- when we say
05 breakover, because this is the term we use in
06 discussions, the instruction said you pump
07 until the subsequent pressure is equal to or
08 less than the previous pressure.

Page 527:16 to 528:20

00527:16 Q. Okay. So -- so that indicates
17 that the use of surface mud weights is fine,

18 right?
19 A. And it also indicates that they
20 agreed to report the maximum pressure on the
21 IADC report that that's what they want.
22 Q. Right. Okay. So I want to go
23 back to the previous paragraph where they
24 said -- it says, "They understand taking a
25 leak off test to the point where the pressure
00528:01 curve clearly breaks over and to report the
02 maximum pressure."
03 Do you see that sentence?
04 A. Yes.
05 Q. Now, what do you understand that
06 sentence to mean?
07 A. That would mean that we're going
08 to put on the IADC report the maximum
09 pressure we see during the leak off test
10 while the pumps are pumping.
11 Q. And was that what you had
12 discussed in the meetings and conferences
13 that you had sat in on?
14 A. Yes.
15 Q. Okay. And --
16 A. And that's also what I designed
17 the software to do.
18 Q. Okay. And the software does
19 that?
20 A. Yes.

Page 530:24 to 531:02

00530:24 for you. First of all, was there any other
25 company aside from BP that was involved in
00531:01 pore pressure frac gradient prediction and/or
02 detection for the Macondo well?

Page 531:04 to 532:07

00531:04 A. There would have -- I don't know
05 about prediction. I don't recall any other
06 company being involved for prediction, but
07 for detection as part of that there should
08 have been a mud logging company, there would
09 have been an LWD company that would have at
10 least been recording LWD data that was used.
11 Sometimes there are vendors who also provide
12 the service of converting that. I don't know
13 if that company did that. And then the LWD
14 company also had the Geotap, which makes it
15 Halliburton. So they have the Geotap
16 pressures that were taken that would be used
17 in it.
18 And then the cementing company
19 would have recorded the pressures that were

20 used for the pressure integrity tests that
21 would normally be from a cementing unit for
22 that pressure gauge, although I can't say in
23 this case that's where it came from.

24 And then I think that Kate and
25 whoever other guy that switched with her or
00532:01 worked for the consultants or they worked for
02 some company, and I don't know who that is.
03 Q. (BY MR. SUMMY) Okay. And when
04 you say "LWD," what does that mean?
05 A. Logging while drilling.
06 Q. Okay. And do you know -- do you
07 know what company that was?

Page 532:09 to 532:15

00532:09 A. I -- you know, I'm not positive,
10 but I think it was Sperry Sun, because Geotap
11 was a Sperry Sun product.
12 Q. (BY MR. SUMMY) Okay. And who
13 was the cement company? Who is your
14 understanding of who the cement company was?
15 A. Halliburton.

Page 535:21 to 535:24

00535:21 Q. (BY MR. SUMMY) So as you sit
22 here today, it's your testimony you have no
23 idea what a safe drilling margin is or an
24 unsafe drilling margin is?

Page 536:01 to 536:02

00536:01 A. I'm not qualified to make that
02 judgment.

Page 537:10 to 537:14

00537:10 Q. (BY MR. SUMMY) But you
11 understand that when you have an extremely
12 narrow drilling margin between pore pressure
13 and fracture gradient you have a potentially
14 unsafe situation, correct?

Page 537:16 to 537:18

00537:16 A. When you have a narrow margin --
17 you -- you have a narrow margin, right.
18 You're close to the edge, right.