

# Deposition Testimony of:

## **Xuemei Liu**

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Page 6:14 to 6:16

00006:14 XUEMEI LIU,  
15 having been first duly sworn, testified as  
16 follows:

Page 6:21 to 7:03

00006:21 Q. My name is William Large. I am  
22 a lawyer for the Plaintiffs' Steering  
23 Committee in the MDL 2179 DEEPWATER HORIZON  
24 explosion litigation. So you're  
25 understanding that's why you're appearing  
00007:01 here today, to testify about matters related  
02 to that?  
03 A. Yes.

Page 7:07 to 7:19

00007:07 Q. Yes. Just to begin with, if we  
08 can mark as an exhibit the 30(b)(6) notice.  
09 (Exhibit No. 2369 was marked.)  
10 Q. (BY MR. LARGE) I'm handing you  
11 Exhibit No. 2369. Have you seen this  
12 document before?  
13 A. Yes.  
14 Q. Is it your understanding that  
15 you are here today to testify about Topic  
16 No. 2, which is: Potential income revenue  
17 and/or profit anticipated or expected to be  
18 realized from the Macondo prospect?  
19 A. Yes.

Page 7:24 to 8:04

00007:24 Q. Do you understand that the  
25 testimony that you give here today is on  
00008:01 behalf of BP entities, you in a sense are  
02 standing in the shoes of BP to answer  
03 questions for BP?  
04 A. Yes, I understand that.

Page 8:22 to 8:22

00008:22 Q. There is nothing wrong with

Page 8:24 to 9:01

00008:24 May I ask you what you have done  
25 to prepare for testifying today?  
00009:01 A. I met with my lawyers.

Page 9:08 to 9:20

00009:08 Q. (BY MR. LARGE) For how long did  
09 you meet with them?  
10 A. About four -- roughly about four  
11 hours on Thursday. Six, seven hours on  
12 Friday. And two hours yesterday.  
13 Q. During that time did you review  
14 any documents?  
15 A. I reviewed material Chad had  
16 prepared for me.  
17 Q. Approximately how many documents  
18 did you review?  
19 A. It's a lot of them, I don't  
20 remember. It's a binder.

Page 10:06 to 10:06

00010:06 Q. How long have you worked for --

Page 10:11 to 10:14

00010:11 For which BP entity do you  
12 currently work?  
13 A. I currently work for BP's Gulf  
14 Coast Restoration Organization.

Page 10:21 to 11:04

00010:21 Q. The -- do you use the acronym  
22 GCRO?  
23 A. That's correct.  
24 Q. And for how long have you worked  
25 for the GCRO?  
00011:01 A. I started at August 2010.  
02 Q. What is your -- what is the name  
03 of your title at the GCRO?  
04 A. Economics manager.

Page 11:16 to 11:18

00011:16 Q. As part of your duties and  
17 activities for GCRO as economics manager, do  
18 you perform financial analysis?

Page 12:05 to 12:12

00012:05 A. Not internal financial analysis.  
06 The more collecting/analyzing data on Gulf  
07 Coast economy.  
08 Q. (BY MR. LARGE) Prior to your  
09 job as the economics manager for the GCRO,

10 what was your position and with what entity?  
11 A. My title was -- I was head of  
12 finance for Gulf of Mexico exploration.

Page 13:13 to 14:16

00013:13 Q. The finance group which you  
14 headed up, what was the primary  
15 responsibility of that group?  
16 A. The primary responsibility of  
17 that group is working with the business  
18 setup. I help them set up their budget,  
19 track their spending, make sure we had a --  
20 we have appropriate approval for the --  
21 spending money. It's a finance and  
22 accounting process. I also make sure all the  
23 spending was categorized in the appropriate  
24 bucket.  
25 Q. Would you consider part of your  
00014:01 work to conduct project finance analysis for  
02 prospective capital investments?  
03 A. Yes, the economic evaluation was  
04 part of my team's responsibility.  
05 Q. You mentioned that part of your  
06 responsibilities was to secure the  
07 appropriate approval. Could you please  
08 explain for me what you meant by that term?  
09 A. For me is more financial. There  
10 is BP standard, you have to get a financial  
11 memorandum. It's -- whatever the capital  
12 investment, the capital we needed, we need to  
13 make sure the document in place and document  
14 approved, then, before start the operation.  
15 So that's -- we call that a governance  
16 process.

Page 15:13 to 16:07

00015:13 Q. Were you personally responsible  
14 for preparing the financial memorandum?  
15 A. We have a standard template. We  
16 send it to whoever the expert working on  
17 those particular sections, that they describe  
18 it and send it back to us.  
19 Q. When you say the expert for that  
20 project, in this case would that be Mark  
21 Hafle?  
22 A. For financial memorandum it was  
23 related or was describing the subsurface,  
24 what is the structure looks like and all  
25 that. That's going into exploration  
00016:01 managers, exploration team leaders. They  
02 would describe. So it's depend what section.  
03 If it's drilling section, drilling section go

04 to the drilling engineers. If it's  
05 subsurface or geology, geophysicist, that  
06 goes to exploration manager. They put those  
07 together, send it back to us.

Page 16:13 to 16:18

00016:13 Q. (BY MR. LARGE) Yes. You  
14 mentioned that you worked with some experts  
15 on preparing the financial memorandum for the  
16 Macondo prospect. Is that fair?  
17 A. My -- one of my team members,  
18 Semina Sewani, she worked on this.

Page 16:20 to 16:25

00016:20 Do you know with whom she  
21 worked, the experts with whom she worked?  
22 A. I believe she sent the request  
23 to exploration managers and she worked with  
24 getting data, information, work with Mark  
25 Hafle and also the reservoir engineers.

Page 19:11 to 19:17

00019:11 Q. (BY MR. LARGE) Ma'am, I've  
12 asked you to look at what is Exhibit 2370 --  
13 A. Uh-huh.  
14 Q. -- with a final Bates number on  
15 the bottom ending 256297. It is an e-mail  
16 from you to Mr. Peter Zwart dated May 1st?  
17 A. Yes.

Page 20:08 to 21:06

00020:08 Q. Is this exhibit the financial  
09 memorandum -- or one of the financial  
10 memoranda of which we spoke earlier?  
11 A. Yes, this is the first one.  
12 Q. And this first financial  
13 memorandum, was this the one that you sent to  
14 Mr. Illingworth?  
15 A. That's correct.  
16 Q. If I can ask you specifically,  
17 who asked you to prepare this memorandum?  
18 A. It is VP of Gulf of Mexico  
19 exploration.  
20 Q. And who is that?  
21 A. Dave Rainey.  
22 Q. And if we turn to the next page.  
23 I think we see Mr. Rainey's signature there  
24 dated September 30th, '09?  
25 A. Yes.

00021:01 Q. We have a signature above that  
 02 which says it's supported by Andy Inglis?  
 03 A. Uh-huh.  
 04 Q. And above that the project SPA,  
 05 Michael Daly?  
 06 A. Yes.

Page 21:10 to 21:10

00021:10 Q. Okay. At the top there are two

Page 21:13 to 22:16

00021:13 there is titled Sanction Request (NTE). And  
 14 does "NTE" stand for net total expenditure?  
 15 A. NTE stands for not to exceed.  
 16 Q. Not to exceed. And Performance  
 17 target (PT). Can you explain to me what a  
 18 performance target is?  
 19 A. Performance target here is the  
 20 main forecast or main estimate of the well  
 21 spending, the cost will be.  
 22 Q. When this financial memorandum  
 23 was approved, did that mean, therefore, that  
 24 the project could spend a total of  
 25 \$139,500,000 without seeking additional  
 00022:01 approval?  
 02 A. No, what this means is it is a  
 03 estimate, is a dispu- -- distribution. There  
 04 is a range. The performance target is the  
 05 mean. Not to exceed is the 90, P90 we call  
 06 that. Basically 90 percent of a chance our  
 07 cost will be under this limit, is the 139,  
 08 but a 10 percent chance it could go over.  
 09 Q. And so when we look at what  
 10 would be called a distribution curve of  
 11 potential costs, out where you have the 90  
 12 percent level is what you're saying, that  
 13 there's a 90 percent chance of staying within  
 14 roughly \$140 million?  
 15 A. Should be. This came from the  
 16 drilling engineers.

Page 24:05 to 24:23

00024: [REDACTED]

[REDACTED]

Page 24:25 to 25:03

00024: [REDACTED]  
00025: [REDACTED]

Page 26:02 to 26:02

00026:02 Q. (BY MR. LARGE) Let me ask a

Page 26:09 to 26:15

00026: [REDACTED]

Page 27:03 to 27:12

00027: [REDACTED]

Page 27:15 to 27:22

00027: [REDACTED]

Page 28:11 to 28:11

00028:11 Q. Okay. You mentioned hurdle

Page 28:15 to 29:10

00028:15 Can you tell me where you  
16 received your undergraduate degree and in  
17 what discipline?  
18 A. I received my undergraduate  
19 degree from Beijing University in China. My  
20 degree was bachelor of science in psychology.  
21 Q. As part of your undergraduate  
22 studies, did you take any courses in  
23 economics or finance?  
24 A. No.  
25 Q. Did you -- what year was -- did  
00029:01 you receive your bachelor of science?  
02 A. 1991.  
03 Q. After that point did you attend  
04 graduate school?  
05 A. Yes, I did.  
06 Q. And what school did you attend?  
07 A. Rice University.  
08 Q. What kind of degree did you  
09 receive and in what discipline?  
10 A. MBA in finance.

Page 31:23 to 32:13

00031:23 Q. What year did you start at BP?  
24 A. I started with Amoco in '97  
25 after my -- finish my MBA.  
00032:01 Q. What was --  
02 A. Then the merger.  
03 Q. What was your first position  
04 with Amoco?  
05 A. The economist.  
06 Q. As part of your work as an  
07 economist with Amoco, did you do what you  
08 referred to as project economics?  
09 A. That's correct.  
10 Q. After the merger with BP, did  
11 your position and your duties remain the  
12 same?  
13 A. Immediately after, yes.

Page 35:17 to 35:23



00035:17 Q. Do you recall what the chance of  
18 a dry hole was determined to be in the  
19 Macondo case?  
20 A. In this FM, chance of discovery,  
21 chance of success is 67. So is a dry hole  
22 chance of 33.  
23 Q. In your experience is that a

Page 35:25 to 36:22

00035:25 Macondo was considered a wildcat  
00036:01 well, correct?  
02 A. I believe so.  
03 Q. Okay. Is a 67 per chance --  
04 percent chance of success in your experience  
05 a high percent or low compared to the mean?  
06 A. Compared to the other  
07 exploration wells I saw, I did not run  
08 distribution, and this is relatively high  
09 chance of success.  
10 Q. And relative, like you said, to  
11 other projects who either analyzed or saw, is  
12 the success IRR lower than what you normally  
13 observed?  
14 A. I believe this is higher end of  
15 it.  
16 Q. Higher?  
17 A. I did not really run comparison  
18 with others. This is higher.  
19 Q. And in general from a  
20 profitability standpoint, is it fair to say  
21 that Macondo was a relatively highly  
22 profitable, relatively low-risk prospect?

Page 36:24 to 37:05

00036:24 A. It's look at different -- the  
25 matrix, the return is reasonably good. But  
00037:01 on the success NPV, it is a relatively small  
02 project within BP. So is -- return is  
03 relatively good but PV is reasonable -- there  
04 are a lot of larger projects have higher  
05 NPVs.

Page 45:10 to 45:25

00045:10 Q. Let me ask you a general  
11 question here, more of a qualitative sense  
12 with regard to Macondo. If the costs  
13 exceeded the amounts originally projected,  
14 the performance target of roughly 96 million,  
15 how would that affect the internal rate of  
16 return?

17 A. Our internal -- economics for  
18 exploration, it assumed \$139 million in the  
19 economics. It is not using 96. It use 139.  
20 Q. Thank you. That was helpful.  
21 Do you recall what ultimately  
22 was spent in a gross amount on the Macondo  
23 project?  
24 A. I remember roughly about  
25 150 million on April 20.

Page 46:07 to 46:14

00046:07 MR. MORRISS: Exhibit No. 2372. Bates  
08 range ends in 6206?  
09 MR. LARGE: That's correct.  
10 Q. (BY MR. LARGE) Exhibit 2372 is  
11 an e-mail from you, I believe, to Mr. Zwart  
12 dated May 1st, 2010. Do you recall sending  
13 this e-mail to Mr. Zwart?  
14 A. Yes, I do.

Page 47:03 to 47:05

00047:03 Q. Okay. And just for ease of  
04 proceeding, let's look at Exhibit 2372, Bates  
05 range number at the bottom 6207?

Page 47:07 to 47:10

00047:07 Q. If we look two-thirds of the way  
08 down the page on the right-hand side there is  
09 something called Estimated Gross Cost?  
10 A. Yes.

Page 47:13 to 48:04

00047:13 Q. And it lists a total project  
14 cost of \$96,100,000. Do you see that?  
15 A. Yes, I do.  
16 Q. And was that the -- that's the  
17 project target cost?  
18 A. That's is a mean forecast.  
19 Q. Mean forecast. If the Macondo  
20 project requires expenditures of more than  
21 \$96,100,000, is a subsequent authorization  
22 for expenditure required?  
23 A. The rule is that if it's 10  
24 percent over, then there need to be a  
25 supplemental AFE, but that supplemental AFE  
00048:01 have within the approved FM capital number.  
02 If is more than the FM approved, we need a  
03 supplemental FM. So there is a process in  
04 place we follow.

Page 49:03 to 49:13

00049:03 Q. That's right? And if we look --  
04 that amount now and the authorization for  
05 expenditure is 124 million; is that correct?  
06 A. That's correct.  
07 Q. Right above that there are a  
08 calculation of 9 -- 96.1 million. That was  
09 the original AFE amount; is that correct?  
10 A. Uh-huh. That's correct.  
11 Q. And the next is the total  
12 supplemental amount of 27,900,000?  
13 A. Yes.

Page 52:23 to 53:10

00052:23 Q. And in this AFE we see that the  
24 authorization is for an additional  
25 \$27 million; is that correct?  
00053:01 A. That's right.  
02 Q. So now the total project cost  
03 that's authorized is \$151 million as of late  
04 March; is that correct?  
05 A. That's correct.  
06 Q. And does this correspond with  
07 your recollection you told me earlier that  
08 the total cost for this project ended up  
09 being about \$150 million?  
10 A. Yes.

Page 54:25 to 55:10

00054:25 Q. And I guess really what I'm  
00055:01 getting at is, is there an instance in which  
02 unexpectedly costs rise so much that a  
03 project is canceled?  
04 A. No, not I know of.  
05 Q. In your ten years, even 13 years  
06 going back to Amoco, can you recall an  
07 instance where a well was spudded and drilled  
08 partially where because of the economics  
09 later, the project was not completed?  
10 A. No.

Page 90:13 to 90:13

00090:13 (Exhibit No. 2376 was marked.)

Page 90:24 to 92:21

00090:24 Q. If you look at the total project

25 costs for this AFE dated June 18th, 2009?

00091:01 A. Yes.

02 Q. The project costs, at least

03 indicated there, is \$120 million --

04 \$120,580,000. Do you see that?

05 A. Yes, I do.

06 Q. Do you have any idea where that

07 number came from?

08 A. Yes. That came from Mark Hafle.

09 Q. Okay. Just a stab in the dark,

10 would Mark Hafle have used the TAM process to

11 develop that number to your knowledge?

12 A. No, this is -- the TAM is a --

13 he could have used this for TAM, so, I mean,

14 but you do not use the TAM for this.

15 Q. Okay. Do you recall why the

16 number of roughly 120 million eventually

17 decreased to around 96 million in the AFE

18 that was eventually executed?

19 A. Yes. If you read this middle

20 page, it is -- specifically says in the text

21 box, it says: AFE also include additional

22 18 days and 21.4 million for the suspension

23 of the well prior to peak of hurricane season

24 and a restart of the well following the end

25 of the peak of hurricane season.

00092:01 So what this saying, my

02 understanding was, we will start the well.

03 Before we finish the well, we'll stop

04 drilling, we'll move away during the

05 hurricane season. There will be no activity.

06 There is two months of no drilling activity.

07 Then it will come back. So there is actual

08 20-something million because of moving in,

09 moving out.

10 Later on in the new FM, it is

11 assuming we are -- it is past the six -- or

12 60 days already over.

13 Q. Was it originally anticipated

14 that the well was going to be spudded earlier

15 than it originally was?

16 A. There was a discussion about it.

17 Q. And if it was earlier, then this

18 would have been roughly the AFE, the

19 \$120 million that you would be accounting

20 for; is that correct?

21 A. Could be. Could be, yeah.

Page 94:25 to 95:01

00094:25 Q. Okay. Let me ask you to turn to

00095:01 Tab 12 which will be Exhibit 2378?

Page 95:04 to 95:04

00095:04 (Exhibit No. 2378 was marked.)

Page 96:15 to 97:01

00096:15 Q. And what I'd like to ask you is  
16 about a third of the way down there is a line  
17 called Resource Potential?  
18 A. Yes.  
19 Q. And it says: Gross risked  
20 P90-mean-P10 is 44-64-86.  
21 Do you see that?  
22 A. Yes, I see. It is a gross  
23 unrisked P90-mean-P10 is 44-64-86.  
24 Q. And so the 44, I assume that's  
25 44 million barrels?  
00097:01 A. Barrel of oil equivalent.

Page 97:15 to 98:06

00097:15 Q. Does the 44 million and the 64  
16 and the 86 represent recoverable oil -- oil  
17 and oil equivalents?  
18 A. What this says, resource  
19 potential for the structure. BP does not own  
20 a hundred percent of the structure, the  
21 block, MC252. Does not own a hundred  
22 percent. Own 80 percent. So what's here is  
23 describing the total resource in the  
24 structure. So the BP's 80 -- the other 20  
25 percent may never get produced or recovered.  
00098:01 Q. I understand. Okay. Over time,  
02 from the time this project was analyzed in  
03 earlier 2009 in kind of the May/June/July  
04 time frame, did the estimate of the resource  
05 potential increase, to your knowledge?  
06 A. Not I know of.

Page 101:18 to 101:21

00101:18 (Exhibit No. 2380 was marked.)  
19 Q. (BY MR. LARGE) The first e-mail  
20 in the middle is from you to David Rainey and  
21 dated March 24th, 2010?

Page 101:23 to 102:18

00101:23 Q. And I think -- does this  
24 represent what you just described to me about  
25 Mr. Rainey -- or Mr. Daly, excuse me, having  
00102:01 authority to approve a project that is under  
02 \$100 million net?  
03 A. That's correct.

04 Q. And is Mr. Daly the MCD  
 05 referenced?  
 06 A. Yes.  
 07 Q. In this time period of roughly  
 08 March 22nd, so when the AFE was authorized on  
 09 March 26th, was the process moving along  
 10 faster than what you were normally used to?  
 11 A. Yes, because the operation. And  
 12 when the operation happened we need to move  
 13 the paperwork fast, yes.  
 14 Q. Faster than usual; is that  
 15 correct?  
 16 A. That's right.  
 17 Q. Was it fairly frantic getting  
 18 all this stuff together?

Page 102:20 to 103:13

00102:20 A. It was not really. We were  
 21 okay. That's why we -- the document is not  
 22 ready so I give everybody the heads-up, it's  
 23 coming, we're putting it together and that's  
 24 why I talked to Martin, so get everybody in  
 25 line. The paper -- once the paperwork, send  
 00103:01 it over and so they can sign it all right and  
 02 quickly.  
 03 Q. (BY MR. LARGE) Were you told by  
 04 anyone, such as Mr. Rainey, that this needed  
 05 to be done quickly?  
 06 A. I told. And our land negotiator  
 07 told me they wanted it done quickly so he can  
 08 send it out quickly.  
 09 Q. And who is the name of the  
 10 London negotiator?  
 11 A. Michael Beirne is the -- he is  
 12 the --  
 13 MR. MORRISS: Land.

Page 103:19 to 104:03

00103:19 mean, Mr. Beirne is a land man?  
 20 A. Yes, he is a land man. That's  
 21 why he want it -- you can go back and see he  
 22 want ASAP.  
 23 Q. He needs to get -- excuse me --  
 24 that's because he needs to get approval from  
 25 the working interest owners?  
 00104:01 A. Uh-huh.  
 02 Q. Is that correct?  
 03 A. That's right.

Page 105:20 to 105:21

00105:20 Q. Good morning. My name is Bruce  
21 Bowman.

Page 105:23 to 105:23

00105:23 Q. And I represent Halliburton. A

Page 116:25 to 117:01

00116:25 Q. Okay. What was the calculation  
00117:01 of potential income from the Macondo well?

Page 117:05 to 117:17

00117:05 A. You mean, potential  
06 profitability?




Page 118:04 to 118:11

00118:04 Q. (BY MR. BOWMAN) I understand.  
05 But the topic you actually were produced on  
06 is: Potential income revenue and profit  
07 anticipated or expected to be realized from  
08 the Macondo well.  
09 So can you tell me, sitting here  
10 today, what the anticipated profit on the  
11 Macondo well was?

Page 118:14 to 118:17

00118:



Page 118:19 to 118:24

00118:19 A. That's correct. Of course is  
20 this exploration well, the outcome, you know,  
21 is could be dry hole, could be negative value  
22 to the group and it could be positive. This

23 is just one base-case scenario in case of  
24 success.

Page 124:11 to 124:21

00124:11 Q. Okay. I'm sorry. Where is the  
12 drilling part?  
13 A. That would be Readiness to  
14 Execute. If you look at the third bullet:  
15 The Macondo well will be drilled by Marianas  
16 rig.  
17 Q. Take 77 days to drill?  
18 A. To drill, yeah.  
19 Q. Okay. That comes from the  
20 drilling people?  
21 A. Yeah.