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IN THE MATTER OF AN ARBITRATION NORTH AMERICAN FREE TRADE CONVENT	AGREEMENT AND THE ICSID
	-x
	:
In the Matter of Arbitration	:
Between:	:
	:
MOBIL INVESTMENTS CANADA, INC.,	
Claimant,	: ICSID Case No. : ARB/15/6
Claimailt,	· ARD/15/0
and	:
	:
GOVERNMENT OF CANADA,	:
	:
Respondent.	:
	:
	- x Volume 3
HEARING ON JURISDICTION	, MERITS AND QUANTUM
Wednesday, J	July 26, 2017
The World Ba	ank
1818 H Stree	et, N.W.
Conference H	
Washington,	D.C.
The hearing in the abo	ove-entitled matter
came on at 9:30 a.m. before:	
PROF. CHRISTOPHER GREE	ENWOOD, Q.C., President
DR. GAVAN GRIFFITH, Co	o-Arbitrator
MR. J. WILLIAM ROWLEY,	, Q.C., Co-Arbitrator
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ALSO PRESENT:

MS. LINDSAY GASTRELL Secretary to the Tribunal

MR. ALEX KAPLAN Legal Counsel

Court Reporter:

MR. DAVID A. KASDAN
 Registered Diplomate Reporter (RDR)
 Certified Realtime Reporter (CRR)
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529 14th Street, S.E.
Washington, D.C. 20003
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Public Version Page | 681 APPEARANCES: (Continued) On behalf of the Respondent: MR. MARK LUZ Senior Counsel MR. ADAM DOUGLAS MS. HEATHER SOUIRES MS. MICHELLE HOFFMANN Department of Foreign Affairs and International Trade, Canada Trade Law Bureau (JLT) Lester B. Pearson Building 125 Sussex Drive Ottawa, Ontario K1A 0G2 Canada MS. JULIE BOISVERT Global Affairs Canada, Government of Canada MS. LISA MULLINS Department of Natural Resources, Government of Canada MS. MEAGHAN McCONNELL Department of Justice & Public Safety, Government of Newfoundland & Labrador MR. GERARD COLLINS Department of Natural Resources, Government of Newfoundland & Labrador MR. RAYMOND FROKLAGE Global Affairs Canada, Government of Canada Confidential Information,

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1	<u>PROCEEDINGS</u>
2	KRISHNASWAMY SAMPATH, CLAIMANT'S WITNESS, RESUMED
3	PRESIDENT GREENWOOD: Very well, Ms. Squires.
4	Your witness is with you.
5	Mr. Sampath, I hope you had a pleasant
6	evening with your wife.
7	And just to remind you that the Declaration,
8	of course, is still applicable.
9	THE WITNESS: Thank you.
10	MS. SQUIRES: I have one very minor
11	housekeeping issue.
12	Yesterday, Mr. President, you asked that we
13	don't repeat the exhibit numbers when we're referring
14	to the tab numbers, but I'm told that Chris, our
15	trial graphics person, uses the exhibit numbers, so
16	it's difficult for him to haul them up if I don't
17	state them.
18	PRESIDENT GREENWOOD: I quite understand.
19	Yes, of course, in that case, I had no idea that that
20	was a problem.
21	MS. SQUIRES: I believe I possibly left him
22	quite confused yesterday as I was going through the
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1	tabs.
2	PRESIDENT GREENWOOD: Let me pay him a
3	compliment that it certainly didn't appear confusing.
4	We had all the exhibits when we needed them.
5	Also, today, I remembered to bring both sets
6	of glasses.
7	MS. SQUIRES: We're set, then.
8	CONTINUED CROSS-EXAMINATION
9	BY MS. SQUIRES:
10	Q. Good morning, again, Mr. Sampath.
11	A. Good morning.
12	Q. I'm going to pick up where we left off
13	yesterday in running through some of the different
14	R&D expenditures.
15	A. Before we start, may I make one correction?
16	Q. Absolutely.
17	A. I misspoke yesterday on the first Project
18	that you showed, I took the M to be the Roman
19	Numeral M for a thousand, and I mentioned
20	think that was the original application for
21	•
22	Q. Okay. Thank you for that correction.
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1	Let's discuss the R&D Applications of iceberg
2	profiling expenditure, and that's at Paragraph 113 of
3	your First Witness Statement and 124 of your Second.
4	A. Okay.
5	Q. Now, this R&D activity built on a 2012
б	Project that collected data on icebergs; is that
7	right?
8	A. That's correct.
9	Q. And that 2012 Project was part of a
10	\$10 million legacy fund obligation that ExxonMobil
11	had to the Province?
12	A. That the HSE Project had.
13	Q. And so, that original 2012 spending was not
14	as a result of the Guidelines?
15	A. No. It was a separate agreement.
16	Q. And, as a result, it's notit doesn't form
17	part of damages in this arbitration?
18	A. That is correct.
19	Q. Now, this phase, then, takes that data that
20	came out of the 2012 Project and uses it to enhance
21	current simulation modeling with respect to icebergs?
22	A. Amongst other things. I think there was five
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1	or six projects that were part of the proposal. A
2	couple of them were relevant to modifying the
3	software. A couple of them had different objectives.
4	Q. Okay. You characterized this in your Witness
5	Statement, then, as academic research?
6	A. Pretty much.
7	Q. And, in the ordinary course of business,
8	ExxonMobil does spend a portion, albeit maybe a small
9	one, of its overall R&D budget on research undertaken
10	at academic institutions?
11	A. Yes, that's correct.
12	Q. So, is it fair to say that it's not merely
13	the academic nature of this R&D activity that makes
14	it incremental, there is more than just that?
15	A. Again, let's keep ExxonMobil separate from
16	HMDC.
17	Q. Okay.
18	A. HMDC may give occasionally \$3-5,000 to the
19	University to fund a certain Project, but nothing on
20	this scale. Even within ExxonMobil, most funding to
21	universities, academic institutions tend to be in the
22	10,000 to \$30,000 range.
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1	Q. So, they do do some funding toboth
2	ExxonMobil and HMDC would do some funding to academic
3	institutions, but it would be at a very small
4	quantity?
5	A. More so ExxonMobil than HMDC.
6	Q. Let's turn to Tab 22 of your binder, which is
7	Exhibit C-283. This is the Pre-Approval Application
8	that you would have submitted for this expenditure.
9	A. Yeah.
10	Q. And this one is signed, I see. And we're
11	going to turn to the second page of the Project
12	aspect, and look at the heading entitled
13	"technological uncertainties." It's Section F.
14	And it notes there that: "This is a
15	necessary and high value wrap-up of the 2012 iceberg
16	survey, already approved by CNLOPB. There is low
17	risk in all eight projects."
18	Do you see where I am there?
19	A. Is that Section G?
20	Q. Section F, "technological uncertainties."
21	A. Okay.
22	Q. So, based on this sentence, then, HMDC saw
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this R&D expenditure as a necessary continuance of 1 the 2012 study? 2 Α. I'm not sure we saw it as a necessity. 3 Again, as I mentioned, these are the words of 4 5 the principal investigators, and I was not in the habit of editing them before I submitted them. б Would you disagree with that statement, then? 7 0. Necessary? Yes, I would definitely disagree Α. 8 with that. 9 Okay. Let's turn back a page, then, and look 10 0. at heading C: "Applicability." It notes there that: 11 "All tools, data and studies are of direct 12 13 applicability to iceberg design and management operations of offshore facilities on the Grand 14 Banks." 15 So, if successful, this R&D activity then 16 would have applicability in the Newfoundland area? 17 Α. Possibly. 18 19 0. And we established yesterday that ExxonMobil has interest in other projects aside from Hibernia 20 and Terra Nova in that area; correct? 21 22 Α. I know we have some exploration acreage. Confidential Information, Unauthorized Disclosure B&B Reporters

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1	Beyond that, I'm not aware of any actual operations
2	that HMDC has.
3	Q. Well, ExxonMobil, though, would have other
4	operations?
5	A. No.
6	Q. Okay.
7	A. Not in the Grand Banks area.
8	Q. In the Newfoundland offshore?
9	A. No.
10	Q. The Hebron Project?
11	A. Hebron, yes.
12	Q. And if we continue to read there, it says:
13	"Furthermore, with these unparalleled studies and
14	tools, they are applicable worldwide, for example in
15	the
16	- " -
17	Again, if this R&D activity is successful, it
18	would be useful for ExxonMobil in other parts of the
19	world?
20	A. I'm not sure because when you look at the
21	there is less concern about icebergs
22	and more about floating ice. The nature of the
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1	is very different from the nature of
2	the Arctic in Canada.
3	Q. So, not certain but a possibility, if
4	successful?
5	A. I think it's a remote possibility.
б	Q. We spoke yesterday that ExxonMobil enters
7	into Joint Industry Projects, or "JIPs," in the
8	ordinary course of business; right?
9	A. Yes, they do.
10	Q. And you would agree with me that, just
11	because an R&D activity forms part of a Joint
12	Industry Project, that doesn't necessarily make it an
13	incremental activity?
14	A. ExxonMobilI'm sorry, I'm a little confused:
15	Again, I think you're confusing between ExxonMobil
16	and HMDC. ExxonMobil does enter into joint industry
17	partnerships, but it's usually on a very different
18	scale of agreement: The partners usually contribute
19	equal amounts to get equal rights to the results of
20	the JIP, whereas whatever is being funded here
21	because of the nature of the obligations in the Joint
22	Operating Agreement, even with a
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1	interest has the same rights as ExxonMobil with a
2	33.125 percent interest in the Projects.
3	So, a JIP is not a JIP is not a JIP.
4	Q. Okay. So, on that point then of the
5	Operator's agreement and the relative percentages of
6	the different Owners or interest holders, that
7	arrangement, the fact that the IP rights, then, are
8	sharedeverybody gets equal rights but they're not
9	paying equal amounts, that's not as a result of the
10	Guidelines; correct?
11	A. No, that's the result of the Joint Operating
12	Agreement.
13	Q. I would like to look at two of the JIPs that
14	were entered into by HMDC, and I want to turn to the
15	Dual Polarized Radar and the Ice Radar Enhancement
16	Projects.
17	PRESIDENT GREENWOOD: I'm sorry to interrupt
18	you but you're going rather fast. Could you slow
19	down a bit, please.
20	MS. SQUIRES: Absolutely.
21	PRESIDENT GREENWOOD: They're quite difficult
22	questions and you if speak a little bit more slowly I
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1	think it will be easier for Mr. Sampath to follow
2	you.
3	MS. SQUIRES: Not a problem.
4	BY MS. SQUIRES:
5	Q. We're going to look at the Dual Polarized
6	Radar and the Ice Radar Enhancement Project.
7	A. Okay.
8	Q. And they are at Paragraph 26 of your First
9	Witness Statement and 46 of your Second.
10	A. Yeah.
11	Q. Now, both of these JIPs are between HMDC,
12	other operators, and Rutter, which is the St.
13	John's-based Contractor; is that right?
14	A. Yes.
15	Q. And, at the end of the day, Rutter retains
16	the right to the technology in each of these R&D
17	expenditures?
18	A. I would think so, yes.
19	Q. Well, in your First Witness Statement, you
20	raised concerns about having to fund an R&D activity
21	with ExxonMobil's competitors for new radar
22	technologies that at the end of the day ExxonMobil
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1	would not own; is that right?
2	A. Yes, from an ExxonMobil standpoint.
3	Q. Andbut the Guidelines themselves did not
4	require HMDC to fund this particular R&D activity; is
5	that right?
6	A. That is correct.
7	Q. And if ExxonMobil or HMDCif HMDC wanted to
8	avoid such situation, it could fund R&D activities
9	that didn't involve proprietary issues; is that
10	right?
11	A. I'm sorry, I don't understand.
12	Q. If HMDC has concerns about sharing
13	proprietary information or losing possiblemoney
14	they could make off Intellectual Property, instead of
15	funding those R&D activities, they could choose other
16	ones to fund, like a community contribution, for
17	example?
18	A. To my knowledge, HMDC was not interested in
19	capturing Intellectual Properties. They're in the
20	business of producing oil and making money for the
21	entity. I don't think IP issues were ever a concern
22	for HMDC.
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Public Version Page | 694 Q. It would be a concern for ExxonMobil? 1 It would be a concern for ExxonMobil. Α. 2 Q. Let's turn to Tab 23 of your binder. This is 3 Exhibit C-229. And this is the Contribution 4 Agreement between HMDC, Husky Oil, Suncor, ExxonMobil 5 6 as Operator of the Hebron Project, and Petroleum Research Atlantic Canada, which is also known as 7 "PRAC" at the time. 8 And I want to turn to Appendix B, and at the 9 bottom right-hand corner of the pages there you'll 10 see there's a bunch of numbers, and I am going to 11 Page 4444. 12 13 Α. Okay. And under the introduction there, it notes in 14 0. the second line that 15 16 17 18 19 20 Do you see where I am there? 21 22 Α. Yes.

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1	Q. So, ExxonMobil has operations in areas or is
2	exploring in areas that would have multi-year ice or
3	first-year ice; is that's right?
4	A. Probably.
5	And I say probably because two years ago or
6	three years ago I would have said yes, but now with
7	the oil price where it is, I'm not sure where the
8	Arctic program is currently.
9	Q. Okay. If successful, then, and if that
10	exploration was to continue, would you agree that
11	this R&D activity would be useful to ExxonMobil?
12	A. Possibly, but I must add, I had the
13	opportunity to look at the Final Report from this
14	project which came out a couple of months ago, and
15	the Project was unsuccessful, as some R&D Projects
16	tend to be.
17	Q. Give me one minute, Mr. Sampath.
18	A. Sure.
19	(Pause.)
20	MS. SQUIRES: I don't have any more questions
21	for you, Mr. Sampath, so thank you very much for your
22	time.
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Public Version Page | 696 PRESIDENT GREENWOOD: Mr. Sampath, just stay 1 2 where you are for a minute. Any questions on redirect? 3 MR. NICHOLS: Yes, very briefly. 4 5 PRESIDENT GREENWOOD: Please go ahead, б Mr. Nichols. 7 MR. NICHOLS: Thank you. REDIRECT EXAMINATION 8 BY MR. NICHOLS: 9 Mr. Sampath, we were just talking about the 10 0. Dual Polarized Radar Project, and I believe I heard 11 you say that you received a final report of the 12 results of that Project? 13 14 Α. Yes. And what were the conclusions contained in 15 Ο. 16 that report? 17 Α. 18 19 Can you hear me? I'm sorry, I'm speaking too 20 softly. 21 22 Q. Mr. Sampath, I'd like to turn back to--Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

1	PRESIDENT GREENWOOD: Mr. Nichols, sorry,
2	before we go on, if much is going to be made of that,
3	then we're going to need to see the results of this
4	R&D. But, in any event, I would have thought what
5	was going on at the time that the research was
6	commissioned rather than the final outcome of the
7	research, which is important.
8	MR. NICHOLS: I believe Mobil would agree
9	with that.
10	BY MR. NICHOLS:
11	Q. Mr. Sampath, have you inquired into the
12	results of other R&D Projects contained in your First
13	and Second Witness Statements?
14	A. Yes, I did.
15	Q. And how did you go about that, sir?
16	A. I contacted Kamran Gul who replaced me as R&D
17	Manager in HMDC.
18	Q. And what wereuponwell, first of all, did
19	you complete your review of the R&D Projects
20	contained in your First and Second Witness
21	Statements?
22	A. Could you repeat the question, please?
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1	Q. Sure. Actually, I will rephrase it.
2	Mr. Sampath, which R&D Projects covered in
3	your First and Second Witness Statements did you look
4	into?
5	A. I looked at wherever they had reports, I
6	looked at the Executive Summaries. I looked at a
7	total of 32 projects.
8	Q. Okay. And, in having looked at those 32
9	projects, which, if any, of those were determined to
10	be successful?
11	A. I think the NMR
12	MR. DOUGLAS: Judge Greenwood, I do apologize
13	for interrupting. I just don't see, first of all,
14	how this is relevant and, two, if there have been
15	results, we certainly haven't seen any documents
16	associated with those results.
17	PRESIDENT GREENWOOD: I think that's a fair
18	objection.
19	We cannot now open up a totally different
20	line of inquiry. Redirect questioning has to be
21	based on what was put in cross-examination, and the
22	outcome of the research was not put in
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1 cross-examination.

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MR. NICHOLS: 2 Okay. MR. O'GORMAN: Mr. President, the Respondent 3 is claiming that both Hibernia as well as ExxonMobil 4 have received some ultimate benefits from these 5 Projects. They put that squarely at issue. And I б think it is fair to allow us to ask Mr. Sampath if 7 he's looked into whether any of these Projects have 8 actually resulted in any benefits. That's a direct 9 defense that has been raised by the Respondent, and 10 it was implicit, if not express, in the line of 11 questioning that was raised by Ms. Squires, 12 13 implicating that there was some motivation or some benefit that ExxonMobil or Hibernia itself, which was 14 the direct party that was making these expenditures, 15 derived from these Projects, and I think it's under 16 those circumstances, I think the issue, it's entirely 17 18 fairly to be joined by Mr. Sampath at this point through the questions of Mr. Nichols. 19 All right. We will PRESIDENT GREENWOOD: 20 take a moment's pause, and I will consult my 21 22 colleagues. Confidential Information, Unauthorized Disclosure B&B Reporters

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1	(Tribunal conferring.)	
2	PRESIDENT GREENWOOD: Thank you. We've	
3	conferred about that, and the ruling I made a moment	
4	ago stands. It wasn't put in cross-examination, and	
5	we will not allow questions on the outcome of the	
6	research relating to papers that have not been	
7	disclosed in the proceedings.	
8	MR. O'GORMAN: Thank you, Mr. President.	
9	MR. NICHOLS: Understood.	
10	No further redirect.	
11	PRESIDENT GREENWOOD: Thank you.	
12	Mr. Sampath, you can now stand down. Thank you very	
13	much for your assistance.	
14	(Witness steps down.)	
15	PRESIDENT GREENWOOD: I'm afraid I have	
16	forgotten who the next witness is. Mr. Durdle?	
17	Mr. Dunphy.	
18	ROBERT DUNPHY, CLAIMANT'S WITNESS, CALLED	
19	PRESIDENT GREENWOOD: Ms. Hoffmann, I see	
20	you're going to be doing the cross-examination.	
21	I realize it's difficult to predict how long	
22	you will need, but are youis it likely to be the	
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1	case that we can break for coffee after Mr. Dunphy?
2	MS. HOFFMANN: Yes.
3	PRESIDENT GREENWOOD: Thank you. I think
4	that would probably be beneficial to the Court
5	Reporter as well as to the Tribunal and, indeed to
6	counsel.
7	(Pause.)
8	PRESIDENT GREENWOOD: Good morning,
9	Mr. Dunphy. Please help yourself to a glass of
10	water, if you would like one.
11	Now, on the laminated sheet in front of you
12	is the Witness Declaration, if you would be kind
13	enough to read that out.
14	(Pause.)
15	PRESIDENT GREENWOOD: I suggest you leave
16	that switched on throughout the Hearing. I don't
17	think that will interfere with counsel's microphones.
18	THE WITNESS: Okay. Thank you.
19	I solemnly declare upon my honor and
20	conscience that I shall speak the truth, the whole
21	truth, and nothing but the truth.
22	PRESIDENT GREENWOOD: Thank you very much.
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1	Mr. Nichols, are you going to be opening?
2	MR. NICHOLS: I will.
3	PRESIDENT GREENWOOD: Please, go ahead.
4	MR. NICHOLS: Thank you.
5	With the Tribunal's permission, may I put his
6	two Witness Statements in front of Mr. Dunphy?
7	PRESIDENT GREENWOOD: Certainly.
8	MR. NICHOLS: Thank you.
9	DIRECT EXAMINATION
10	BY MR. NICHOLS:
11	Q. Good morning, Mr. Dunphy. Could you
12	introduce yourself and your relationship to the
13	Hibernia and Terra Nova Projects.
14	A. Good morning. My name is Robert Dunphy. I
15	work with Hibernia Management Development Company for
16	approximately 13 years as the Environment Lead,
17	Environment Advisor there.
18	COURT REPORTER: Keep your voice up.
19	PRESIDENT GREENWOOD: I'm so sorry. If you
20	could speak a bit louder. I should have explained,
21	Mr. Dunphy, that the Court Reporter is sitting behind
22	you, and he has to be able to hear everything you say
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for the transcript. 1 THE WITNESS: Okay. 2 PRESIDENT GREENWOOD: And I also should have 3 said at the beginning it's very important not to 4 5 speak too quickly because we need an accurate record of everything that's said. б Sorry, please, do continue. 7 THE WITNESS: Okay. I will repeat myself. 8 Hopefully this will be better. 9 My name is Robert Dunphy. I was seconded 10 into the Hibernia Management Development Company in 11 2002. I worked there for approximately 13 years as 12 the Environmental Advisor. 13 I also participated through the industry 14 association in various meetings and issues with the 15 16 Terra Nova operation, through my interactions with my counterparts there. 17 18 0. Mr. Dunphy, you have submitted two Witness Statements in this proceeding; isn't that correct? 19 Yes, I have. 20 Α. Do you have them in front of you? 21 Ο. 22 Α. Yes, I do. Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

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1	Q.	All right.
2	A.	Witness Statement one, and the Second Witness
3	Stateme	ent.
4	Q.	Your First Witness Statement of March 1st,
5	2016, 0	CW-8, that is in front of you?
6	A.	Yes, it is.
7	Q.	Do you reaffirm the contents of that
8	stateme	ent, sir?
9	A.	I do.
10	Q.	Do you wish to make any corrections to that
11	stateme	ent, sir?
12	Α.	No, I do not.
13	Q.	Do you also have your Second Witness
14	Stateme	ent of September 9th, 2016, which has been
15	marked	CW-13?
16	Α.	Yes, I do.
17	Q.	Do you reaffirm the contents of that
18	stateme	ent, sir?
19	Α.	Yes, I do.
20	Q.	Do you wish to make any corrections to that
21	stateme	ent?
22	Α.	No, I don't.
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Public Version Page | 705 MR. NICHOLS: Mobil passes the witness. 1 PRESIDENT GREENWOOD: Thank you. 2 Ms. Hoffmann. 3 4 CROSS-EXAMINATION BY MS. HOFFMANN: 5 Good morning, Mr. Dunphy. My name is б 0. Michelle Hoffmann and I--7 MR. NICHOLS: I'm sorry to interrupt, but we 8 are just receiving now the Cross-Examination Bundle, 9 if you could please hold on. 10 PRESIDENT GREENWOOD: Thank you, if you could 11 just hold on for a moment, please, Ms. Hoffmann, we 12 13 will get the bundle of documents out. And Mr. Dunphy, you have in front of you a 14 lever arch file or ring binder, that those are the 15 documents you will need to refer to while counsel is 16 17 cross-examining you. 18 BY MS. HOFFMANN: Good morning, Mr. Dunphy. My name is 19 0. Michelle Hoffmann, and I'm counsel for the Government 20 of Canada in these proceedings. 21 22 Α. Good morning. Confidential Information, Unauthorized Disclosure **B&B** Reporters Prohibited 001 202-544-1903

I'm going to ask you a few questions so that 1 Q. I can understand the Witness Statement you have 2 3 submitted--I'm terribly sorry. 4 PRESIDENT GREENWOOD: 5 You're going to have to speak up a bit as well, Ms. Hoffmann. Thank you. б BY MS. HOFFMANN: 7 I'm going to ask you a few questions so that 8 Ο. I can understand the Witness Statements that you 9 provided on behalf of the Claimant in this 10 arbitration. If you find my question unclear, just 11 let me know, and I will repeat or rephrase it. 12 Ιf 13 the answer to my question is a yes or a no, I would appreciate if you can start your response that way so 14 that we have a clear record. 15 I will also be referring to the binder in 16 front of you, which contains numerous documents. 17 The 18 documents are each identified by a tab number, so you 19 can locate them easily. 20 Α. Okay. So, you began your career at HMDC in 2002? 21 Q. 22 Α. That's correct. Confidential Information, Unauthorized Disclosure **B&B** Reporters Prohibited 001 202-544-1903

1	Q.	And you were then seconded to ExxonMobil in
2	2003?	
3	Α.	That's correct.
4	Q.	And while at HMDC, you suggested
5	enviror	nmental-related projects that HMDC could
б	underta	ake?
7	Α.	Yes, I did, yeah.
8	Q.	And you suggested projects to Bill Swett.
9	Α.	Yes, I did.
10	Q.	And he's Mr. Sampath's predecessor?
11	Α.	Yes, he is.
12	Q.	You are currently employed as the Safety,
13	Securit	ty, Health and Environmental Lead at Hebron; is
14	that correct?	
15	Α.	No, I have since moved on to another role.
16	Q.	Okay.
17	А.	I'm now back seconded with HMDC.
18	Q.	Okay.
19	А.	As the Offshore Services Supervisor.
20	Q.	Okay.
21	А.	For about six-eight months now.
22	Q.	Okay. Have you ever worked for Suncor?
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1	A. Not directly.
2	Q. Okay. Let's discuss your responsibilities as
3	Environmental Lead at HMDC.
4	In 2003, HMDC adopted ExxonMobil's corporate
5	environmental policy; is that correct?
6	A. That is correct.
7	Q. And part of Exxon's corporate environmental
8	policy includes the "Protect Tomorrow, Today"
9	initiative; is that right?
10	A. That is correct. It's a global initiative
11	that's communicated to all assets.
12	Q. Okay. And part of the "Protect Tomorrow,
13	Today" initiative involves risk mitigation and
14	monitoring?
15	A. Certainly, yes.
16	Q. So, basically, the point is to be a diligent
17	Operator with respect to the environment?
18	A. That is correct.
19	Q. Okay. Let's discuss Environmental Effects
20	Monitoring in the Newfoundland Offshore.
21	As the Environmental Lead, your
22	responsibilities also included the Environmental
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1	Effects Monitoring programs; is that right?	
2	A. That is correct.	
3	Q. So, Environmental Effects Monitoring, or	
4	"EEM," is the monitoring of the environment to	
5	determine the effects of an industrial activity,	
б	basically?	
7	A. That is correct.	
8	Q. And HMDC has an obligation to do EEM under	
9	the Benefits Plans; is that right?	
10	A. Not under the Benefits Plan, I do not think.	
11	It's actually required under the Petroleum	
12	Regulations section, I think it's Section 9 of the	
13	Q. Okay.	
14	Aof the regulations require an Environmental	
15	Protection Plan; and, under that plan, there are a	
16	number of additional requirements, one of which is	
17	the Environmental Effects Monitoring plan.	
18	Q. Okay. Under the Benefits Plan, the	
19	requirement is that the Proponent submits its plans	
20	for environmental compliance and effects monitoring	
21	programs, so just generally; is that right? Like the	
22	Benefits Plans are more general and, as you said, the	
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1	regulations are more specific? Is that accurate?
2	A. I cannot comment on that. I'm not familiar
3	with that terminology in the Benefits Plan.
4	Q. Okay. We can turn to it, if you would like.
5	A. Sure.
6	Q. It's at Tab 2 of your binder, Exhibit C-37.
7	A. Yes.
8	Q. This is the Hibernia Benefits and Development
9	Plan, so we have an excerpt there of Page 81.
10	A. Okay.
11	Q. I will just wait for the screen to kick in.
12	Okay. If we look at Condition 12, it says:
13	"It is a condition of the approval of the Hibernia
14	Development Plan that prior to production, the
15	Proponent submit, for the Board's approval, its plans
16	for environmental compliance and Effects Monitoring
17	Programs."
18	A. That was a condition of the approval of the
19	Development Plan, that is correct.
20	Q. Okay.
21	PRESIDENT GREENWOOD: I'm terribly sorry to
22	interrupt you.
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1	Mr. Dunphy, you're turning away from the
2	microphone, and it's making it difficult for us to
3	pick up what you're saying. I realize this it's
4	awkward because you inevitably look at the person who
5	is asking the questions but I think you need to look
б	to us on the Tribunal and speak directly into the
7	microphone.
8	THE WITNESS: Okay.
9	So, what I'm seeing here, then, as
10	Condition 12, this one I see here, this is one of the
11	numerous conditions that was attached to the Decision
12	by the CNLOPB at the time with the approved Hibernia
13	Development Plan.
14	BY MS. HOFFMANN:
15	Q. Okay. Thank you.
16	So, the EEM programs are conducted every two
17	years?
18	A. Yes.
19	Initially, they're conducted every year for
20	three consecutive years, and thereafter it's every
21	two years.
22	Q. Okay. Generally, the EEM programs sample
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1	marine sediments and one or more fishery species both
2	near the installations and at more distant control
3	sites?
4	A. Sediment samples and one fish is sampled,
5	it's known as flatfish, American plaice.
б	The species is known as American plaice,
7	P-L-A-I-C-E.
8	Q. Thank you. So, in general, with these EEM
9	programs, monitoring tools are well developed for
10	fish?
11	A. Reasonably well for fish for that fish in
12	particular. It was not originally part of the EEM
13	design for Hibernia, it was added on in 2004 and
14	thereafter.
15	And it's still somewhat emerging in terms of,
16	you know, the technique and understanding the data.
17	Originally, Hibernia was reluctant to add
18	Q. Sorry?
19	A. Originally, Hibernia was reluctant to add
20	that component to our EEM program because of
21	thethere wasn't a solid understanding of thebased
22	on the information that was out there, and the
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1	concern was there would benatural variation would
2	be misinterpreted to as an effect. Eventually, we
3	were encouraged by the regulator to add it, which we
4	did in 2004.
5	Q. Okay. But for invertebrates and other marine
6	species, the monitoring tools are not well developed?
7	A. We have no invertebrate species included in
8	the Environmental Monitoring Effects Program right
9	now.
10	Q. So, HMDC generates detailed reports from
11	these EEM programs. These results are sent to the
12	Board?
13	A. That is correct.
14	Q. Okay. And a potential issue with the EEM
15	program is that the results can lead to false
16	positives because of lack of information on natural
17	variation? Did I understand that from your
18	statement?
19	A. The original concern about utilizing American
20	plaice was the absence of a long-term baseline and to
21	really understand what happened happens naturally.
22	Some of the Bioindicators that are examined, they
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1	vary naturally
2	The natural variation occursarises from
3	differences in the sexes, a difference in age, a
4	difference in the type of habitat and feed that the
5	animal is utilizing. So, there is this naturally
6	occurring variation that is uncomfortable from an
7	Operator's perspective when it can be confused with
8	an effect.
9	Q. Sure.
10	A. Fortunately, since 2004, we've developed a
11	reasonably good baseline, and the natural variation
12	is slowly coming through in the data.
13	Q. A baseline of American plaice?
14	A. Correct.
15	Q. Okay. In your Second Witness Statement, at
16	Paragraph 13I will give you a chance to turn to
17	thatyou mentioned the Oil Spill EEM?
18	A. Right.
19	Q. So, to be clear, the Oil Spill EEM has not
20	started yet. It will begin once a spill actually
21	occurs?
22	A. Yes. That was intended as a general guide,
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and what we would do to monitor the marine 1 environment after a substantial, very large oil 2 spill. 3 Okay. And the Oil Spill EEM will focus on 4 Ο. fish health; is that right? 5 Α. The Oil Spill EEM will include the same б species that we just spoke of, and the Bioindicators, 7 that are already utilized because there is existing 8 dataset, as well as sediment sampling, and my 9 recollection is water sampling as well. 10 Okay. Thank you. 11 Ο. So, let's talk about the Bioindicators Joint 12 13 Industry Project, or JIP, which you discuss at Paragraphs 19 and 20 of your First Witness Statement 14 and Paragraphs 12 to 16 of your Second Witness 15 16 Statement. The R&D Application that you submitted to the 17 Board is at Tab 6 of your binder. That's Exhibit 18 C-322, for the record. 19 I'm not sure that this document 20 MR. NICHOLS: reflects that Mr. Dunphy submitted this to the Board. 21 22 MS. HOFFMANN: Oh, sorry. It's the document Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

1	that HMDC submitted to the Board.	
2	THE WITNESS: Yes, it appears to be the	
3	document submitted by Bill Swett, the R&D Coordinator	
4	at the time.	
5	BY MS. HOFFMANN:	
6	Q. Right. Thank you.	
7	This is a approximate expenditure;	
8	is that right?	
9	A. It's been a while. I don't recall the exact	
10	dollar value.	
11	Q. Okay. And it's a Joint Industry Project that	
12	both Hibernia and Terra Nova are participating in?	
13	A. Yes.	
14	Q. And the Claimant, Mobil Investments Canada,	
15	has a 33.125 percent ownership interest in Hibernia	
16	and 19 percent in Terra Nova. Does that sound about	
17	right to you?	
18	A. That sounds about right.	
19	Q. So, the net for ExxonMobil Canadasorry, for	
20	Mobil Investments Canada, IncI'll rephrase my	
21	question.	
22	So, the net claimed for Mobil Investment Canada,	
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1	Inc. would be about ? It's okay if you
2	can't
3	A. I lost the line of sight on the precise
4	dollar values of these a long time ago, and I can't
5	comment.
б	Q. All right, that's fine.
7	So, the Project takes place over a five-year
8	period from 2012 to 2016?
9	A. Yes, that sounds about right.
10	Q. Okay. And the Bioindicators Project is not
11	part of the Hibernia EEM program?
12	A. No, it's not.
13	Q. Okay. So, the Bioindicators Project is about
14	collecting and studying samples of seven different
15	marine species found in the Grand Banks?
16	A. I think that was the original intent. I
17	think the number may have decreased since it was
18	implemented.
19	Q. Okay. In the initial application that we
20	have on the record, it says the species are
21	zooplankton, snow crab, scallop, shrimp, sea star,
22	sand lance and cod; does that sound right?
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1	A. Originally that's the case.
2	Q. Okay. And these species were chosen because
3	they are either commercially important or they're
4	part of the food chain for commercially important
5	fish?
6	A. That's correct.
7	Q. And sampling in this Project occurs twice a
8	year, in the summer and in the fall?
9	A. That was the intent to get seasonal sampling
10	conducted, that's correct.
11	Q. Okay. So, the Bioindicators Project looks at
12	the baseline health of various marine ecosystem
13	components; is that right? That's the baseline?
14	A. It looked at the fishthe health of various
15	marine organisms, yes.
16	Q. Okay. And then the baseline
17	PRESIDENT GREENWOOD: Sorry, Mr. Dunphy,
18	you're dropping your voice again. It's very
19	difficult for us to hear you. I realize it's in a
20	room of this kind one tends to speak softly, but you
21	need to keep your voice up and remember that you're
22	projecting it not only forwards but backwards to the
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1 Court Reporter.

2	THE WITNESS: Thank you. Will do.	
3	Could you repeat the question, please?	
4	BY MS. HOFFMANN:	
5	Q. Yes. I was on to my next question.	
6	(Whereupon, the Court Reporter read back the	
7	previous question.)	
8	THE WITNESS: I heard that. The various	
9	ecosystem components, I guess, to more accurately	
10	state it, is assessed based on health of various	
11	marine organisms, the seven that you mentioned	
12	earlier.	
13	BY MS. HOFFMANN:	
14	Q. Okay. And then this baseline can help to	
15	compare natural conditions versus the effects of an	
16	oil spill?	
17	A. That was the intent.	
18	Q. Let's turn to Page 3 of the R&D Application	
19	for this expenditure. It's still at Tab 6 that you	
20	have there. It's Bates Number 5739 at the bottom.	
21	A. B-3? Is that correct?	
22	Q. It's Bates Number 5739, at the bottom right	
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1	of the page. The little number at the bottom.
2	So, this should be the Annex B Project
3	description?
4	A. Yes, I have it.
5	Q. Okay. About halfway down the page, the
6	benefits of this project are listed. The first
7	bullet point says:
8	
9	
10	
11	
12	
13	
14	Do you see where I am?
15	A. Yes, I do.
16	Q. Okay. So, , is that the oil
17	spill on the
18	A. Yes.
19	Q. On the platform?
20	A. Yes.
21	Q. Okay. So, at the time the Bioindicators
22	Project was proposed in 2012, the was
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on people's mind industry-wide? 1 Yes, it was. Α. 2 In fact, we sit on an organization known as 3 One Ocean with the fishing industry and a small group 4 from that organization, representatives of both the 5 oil and gas and fishing industry, took a trip to the б to understand some of the lessons 7 learned that we could take back. That's how these 8 came to our attention. 9 Okay. Thank you. 10 0. I want to take you to a few documents related to 11 the Bioindicators Project. 12 13 Α. Okay. First, let's look at Tab 4 of your binder, 14 Q. that's R-106 for the record. 15 Α. Yes, I have it. 16 Okay. This is an e-mail exchange between 17 0. yourself and Bill Swett. 18 Yes, it is. 19 Α. Dated July 16, 2011, about 11 months before 20 Ο. the R&D Application for this expenditure was 21 22 submitted to the Board? Confidential Information, Unauthorized Disclosure **B&B** Reporters Prohibited 001 202-544-1903

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1	A. Mm-hmm, yes, it is.	
2	Q. Okay. The attachment to your e-mail at Bates	
3	Number 5340I think it's a couple of pages in.	
4	A. I have it. It's an document.	
5	Q. Okay. The second paragraph states:	
6		
7		
8		
9		
10		
11		
12		
13		
14	Do you see where I am?	
15	A. Yes, I do.	
16	Q. Okay. If we turn to Tab 9 of your binder,	
17	that's R-107 for the record. This is e-mailthis is	3
18	an e-mail about a month later dated August 24th,	
19	2011, between yourself and Terry Hubele from	
20	ExxonMobil Canada?	
21	A. Yes, is it. Terry Hubele, yes.	
22	Q. Oh, sorry. Can you please read aloud for the	
	Confidential Information,B&B ReportersUnauthorized DisclosureB&D ReportersProhibited001 202-544-1903	

			Public Version Page 723
1	record	what you stated at Bates Numb	per 5343 in the
2	fourth	paragraph at Page 2?	
3	A.	Fourth paragraph?	
4	Q.	The fourth paragraph, please	
5	Α.	That starts with "one of the	
6	recomme	endations"?	
7	Q.	Yes.	
8	Α.		
9			
10			
11			
12			
13			
14			
15	Q.	Thank you. Now, let's turn t	to Tab 5 of your
16	binder		
17	Α.	Okay, I'm there.	
18	Q.	This is Exhibit R-108 for the	e record.
19		This is an e-mail exchange da	ated August 24,
20	2011 be	etween yourself, Andre Cerquie	era from Exxon
21	Canada	, and Bill Swett; is that righ	ıt?
22	Α.	Yes, it is.	
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1	Q. In the attachment of Page 3 the PDF, Bates	
2	Number 5346?	
3	A. Yes, I have it.	
4	Q. It's a PowerPoint presentation. If we look	
5	on the left-hand side under "technical	
6	uncertainties," in the third bullet point there, it	
7	says "lesson learned from spill was lack of data	
8	on normal health on various marine organisms."	
9	A. Yes, I see it. That's correct.	
10	Q. And then if we look underon the right-hand	
11	side on the bottom under "Project drivers"?	
12	A. Mm-hmm.	
13	Q. We have "potential to reduce regulatory drive	
14	towards more stringent requirements."	
15	Do you see where I am?	
16	A. Mm-hmm, I do.	
17	Q. Okay. If we go to Page 8 of the same	
18	document, same tab, it's Bates Number 5351.	
19	A. 5351?	
20	Q. Yes.	
21	A. Okay.	
22	Q. If we look under Section B, "Project	
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		Public Version Page 725
1	Object	ives," it says: "To develop a background
2	databa	se that could be
3		
4		And under Section D, "applicability."
5	А.	Yes, I see.
6	Q.	We have: "In the event of a large oil spill,
7	a broa	der assessment of the health of the marine
8	enviro	nment is required."
9	Α.	I see that, yes.
10	Q.	And again, under "applicability," the next
11	point,	
12		
13		
14		
15		Do you see where I am there?
16	Α.	Yes.
17	Q.	So, these e-mail exchanges were all in 2011
18	prior	to HMDC submitting its R&D Application to the
19	Board.	You will agree with me, then, that the
20	-	was a driving factor in Mobil
21	Invest	ments Canada or HMDC creating the Bioindicators
22	Joint	Industry Project?
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1	A. The main driving factor to do this study, as
2	well as the others, was to satisfy spending
3	requirements under R&D Guidelines.
4	Q. I understand that's the position that you
5	stated in your Witness Statement, but if we turn to
б	Tab 8 of your binder at R-101 for the record.
7	A. Yes, I have it.
8	Q. If we look on Bates Number 2099, on the first
9	page there, under "Purpose or Objective," it says:
10	
11	
12	
13	
14	
15	Do you see where I am?
16	A. Yes.
17	Q. Following Macondo, operators in the Gulf had
18	to pay compensation. Are you aware of that?
19	A. Generally through media reports.
20	Q. Yeah, me too.
21	PRESIDENT GREENWOOD: I'm sorry, can I just
22	ask the Witness a question. What was this PowerPoint
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1	presentation used for, Mr. Dunphy?	
2	THE WITNESS: My recollection is that was	
3	part of the presentation that we presented at the	
4	2012 HSE Workshop organized by PRNL, whereby all the	
5	Operators came together, reviewed the various R&D	
б	proposals that we were interested in doing, and	
7	discussed, evaluated, and rated various the projects,	
8	and those that were accepted were then passed on to	
9	PRNL to proceed with conducting the R&D.	
10	PRESIDENT GREENWOOD: Thank you very much.	
11	BY MS. HOFFMANN:	
12	Q. So, you will agree with me that the	
13	spill was a driver, at least a stated driver,	
14	for this R&D?	
15	A. It brought to our general attention thatin	
16	the event of a very large spill; there was going to	
17	be, likely, a great deal of scientific work done.	
18	And while we have an Oil Spill EEM, that would cover	
19	our obligations as determined by the regulator,	
20	undoubtedly, there will be additional research done	
21	from various sources in the event of a very large	
22	spill.	
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1	And to address the chance of false positives
2	due to misinterpreting natural variation, it was
3	deemed to be an appropriate R&D Project that we could
4	be qualified under the Guidelines. It was deemed to
5	be an appropriate study to do.
б	Q. Thank you.
7	If we turn back to the R&D Application at
8	Tab 6 of your binder, that's Exhibit C-322 for the
9	record we see here on the first page that HMDC made
10	the application to the Board on June 13, 2012?
11	A. That is correct.
12	Q. So, on Page 3 of the PDF, Bates 5739, we have
13	a Project description which we went to earlier, I
14	think.
15	A. Yes.
16	Q. We discussed the first point already.
17	If we turn to the fourth bullet at the end of
18	that list, it says
19	
20	
21	
22	Do you see that there?
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1	A. Yes, I see that.
2	Q. If we turn to the next page, Bates Number
3	5740, at the top there.
4	A. Okay.
5	Q. It says:
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	Do you see where I am with that?
21	A. Yes, I do.
22	Q. So, from these documents we know that one of
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1	the recommendations arising out of the
2	was to develop a better knowledge base of the
3	baseline condition of the marine ecosystem, focusing
4	on a wide range of species; is that right?
5	A. That's correct.
6	Q. Okay. And as you mentioned earlier, the
7	bioindicators model underway in the Gulf is
8	similaror, sorryunderway in the Grand Banks
9	COURT REPORTER: Slow down, please.
10	BY MS. HOFFMANN:
11	Q. As you mentioned earlier, the bioindicators
12	model underway in the Grand Banks is similar to that
13	in the right? You mentioned that you had
14	visited?
15	A. The Bioindicators Study done under the
16	Guidelines was intended to address that
17	recommendation out of the that they
18	Q. Okay.
19	A. What we learned from the One Ocean trip there
20	was that data was being collected, and there wasn't a
21	long-term historical baseline database available.
22	And, therefore, natural variation issues were arising
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1	and confounding the interpretation of data.
2	Q. Okay. Thank you.
3	Let's turn to Tab 10 of your binder. That's
4	R-102, for the record. This is a Contribution
5	Agreement between HMDC, ExxonMobil
6	Canada Properties, and
7	
8	A. Mm-hmm.
9	Q. If we turn to Bates Number 2084, about 20
10	pages in20, 21 pages in.
11	A. Okay, I'm there.
12	Q. There is a project description, which looks
13	similar to the one that we already looked at. It
14	essentially duplicates the first two points that we
15	discussed from the R&D Application; first, about
16	having thethe importance of having a baseline
17	understanding of marine health post- and to
18	reduce exposure to liabilities. Do you see that?
19	A. Mm-hmm, I do.
20	Q. So, these benefits were part of the reason
21	other industry players participated in the Joint
22	Industry Project?
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1	A. I would describe these as the, I guess, the
2	technical objectives of the study.
3	Q. Okay.
4	A. The overall objective, really, and the way
5	theit was presented to us. Within HMDC, we had a
б	significant challenge ahead of us with the recent
7	interpretation of the spendingthe R&D spending
8	requirements. And that was, you know, put out to all
9	employees as an opportunity to recommend and
10	proposepropose R&D Projects.
11	Q. Okay. Thank you.
12	The strategy for oil-spill response includes
13	sharing technology and results; is that right?
14	A. Yes.
15	Q. So, you would agree with me, then, that Mobil
16	Investments Canada, and the industry in general, is
17	essentially being diligent in collecting this data in
18	advance of a spill?
19	A. Yes. We're acting above and beyond what's
20	required. We had an Oil Spill EEM in place that was
21	approved by the regulator, using a proven toolthat
22	being, for this particular discussion, the American
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1 plaice.

_	
2	American plaice was selected as the optimum
3	species to utilize for such a study. You know, its
4	utilization of habitat was ideal. It lived on and
5	within sediments, it fed on organisms that lived
6	within sediments. It had some reasonable degree of
7	historical data, and it was the ideal candidate to
8	utilize.
9	Q. Thank you.
10	Now, I would like to discuss the marine
11	dredge disposal JIP, which you discuss at
12	Paragraph 17 and 18 of your First Witness Statement,
13	and paragraphs 7 to 11 of your Second Witness
14	Statement.
15	A. I'm there, yes.
16	Q. Thank you. This is about a
17	expenditure, which if it's okay if you don't know.
18	A. Okay.
19	Q. And it's a Joint Industry Project, which both
20	Hibernia and Terra Nova are participating in?
21	A. Yes, that's correct.
22	Q. Okay. And Mobil Investments Canada is
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1	claiming as damages for its 33.125 percent interest
2	in Hibernia, or in HMDC, and its 19 percent in Terra
2	
3	Nova; does that sound about right?
4	A. It does sound about right.
5	Q. If you'll trust my math, that's about
6	net for Mobil Investments Canada in this
7	arbitration.
8	Before getting into the expenditure itself,
9	I'd like to discuss some of the statements that you
10	made in your Witness Statement regarding the
11	Fisheries Act, and some background information on
12	dredging.
13	A. Okay.
14	Q. For us non-environmental people.
15	A. Okay.
16	Q. Can you explain briefly what dredging is, in
17	layman's terms, for everyone in the room.
18	A. So, at HiberniaHibernia is a gravity-based
19	structure, it's a chunk of concrete upon which we
20	have all of our equipment and personnel.
21	At some point in time it was determined that
22	there was Hibernia South Pool that we could develop,
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1	but the only way to develop it was do a subsea
2	development, which means wells are put on the
3	seafloor. And to prevent and mitigate the risk of
4	icebergs hitting those wells, the seafloor is
5	excavated to a required depthI think it was
6	10 meters; and, therefore, if any icebergs come down
7	through the area and are in touch with the seafloor
8	causing scouring, the wellhead equipment and whatever
9	is in there would be protected from potential damage.
10	Q. Okay.
11	A. So, prior to commencing any type of equipment
12	installation, a very large dredging vessel basically
13	scrapes and sucks up from the seafloor the seabed
14	sediments, and then disposes them, disposes of them
15	at a site where we've obtained a permit or an
16	approval for disposal. And that is what we refer to
17	as a dredge disposal site.
18	Q. Okay. Thank you.
19	You can continue, if you want. That's it?
20	A. I'm good.
21	Q. So, basically, it's scooping out sediments
22	and debris at the bottom of a water body and putting
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1 it elsewhere?

2 A. Exactly.

Q. So, the Marine Dredge Disposal JIP is a study
of biological productivity at those offshore dredge
disposal sites where you put the--

A. Yeah, at the disposal site where the original
seafloor sediments were deposited. The intent was to
measure the biological activity immediately after,
and for a number of years thereafter at that site.
Q. Okay. And Phase I was intended to be a
three-year Project, from June 2012 to October 2015?

12 A. I think so, yes.

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Q. Let's discuss some of the statements you madein your Witness Statement.

In your Second Witness Statement at 15 Paragraph 11--you could open it up if you like--you 16 state that because of the 2012 amendments to the 17 18 Fisheries Act, operators no longer need to compensate for loss of habitat; is that right? 19 Could you refer me to the page again, please? 20 Α. It's Paragraph 11 of your Second Witness 21 Ο. 22 Statement. Confidential Information, Unauthorized Disclosure B&B Reporters

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Α. Okay, I'm there. Go ahead, please. 1 Can you read the bottom, like, starting about 2 0. halfway down the paragraph, starting from "as a 3 result." 4 Okay. "As a result, DFO's focus has shifted 5 Α. away from habitat protection to fisheries protection, б and no longer imposes a habitat compensation 7 requirement for dredging associated with the Hibernia 8 subsea development. 9 "In view of this regulatory change, which had 10 nothing to do with the marine dredge disposal JIP, it 11 is even less likely that the Hibernia or Terra Nova 12 13 operations would ever see a need to fund a study like this." That is correct. 14 Thank you. So, in your view, the focus of Ο. 15 Section 35 has shifted from fish habitat to fisheries 16 protection. 17 Α. Yes. The Department of Fisheries and Oceans 18 19 Regional Director, prior to these amendments being made, undertook some consultation with our industry 20 through our Canadian Association of Petroleum 21 22 Producers, our industry association. Through those Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

1	discussionsand I think there were two, maybe three
2	meetings on this, and that's the way it was expressed
3	and shared with us long before the texts materialized
4	that they were moving away from habitat quality
5	towards fisheries protection. In fact, the Regional
6	Director described what had happened over the years
7	as "mandate creep"; that they had evolved away from
8	the original purpose and intent within DFO, which was
9	to manage fisheries, and they moved towards, in this
10	particular case, more of a habitat protection, which,
11	in the Federal Government, usually is a function of
12	Environment Canada. They monitor and establish
13	guidelines and standards for environmental quality,
14	whether it be water, sediments, what have you, air.
15	And that's how it was presented to us.
16	Q. Okay. And this formed part of your opinion
17	of why it would not have been funded by Mobil
18	Investments Canada?
19	A. Well, with theit would not have been
20	funded, after the changes to the Guidelines because
21	we were successful in making an application to DFO to
22	have the original Fisheries Act authorization
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1	rescinded. The amendmentthe amendments that were
2	made included provision of a review of existing
3	authorizations, so we applied for that, and we were
4	successful in obtaining that removal of the
5	requirement to have an authorization and the
б	associated compensation.
7	Q. Okay. So, your understanding came from a
8	talk with regional representatives, as you mentioned
9	earlier?
10	A. Yes.
11	Q. Okay. Thank you.
12	Let's look at Tab 14 of your binder, which is
13	C-361, for the record.
14	A. Tab 14 of the binder?
15	Q. It should be Tab 14, yeah.
16	And if we look at Section 35, can you please
17	read it out loud for us.
18	A. "Serious harm to fish: No person shall carry
19	on any work, undertaking, or activity that results in
20	serious harm to fish that are part of a commercial,
21	recreational or aboriginal fishery, or to fish that
22	support such a fishery."
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1	Q. Thank you.
2	Let's turn to Tab 18 of your binder, that's
3	R-264, for the record.
4	This is a documentthis is an excerpt from
5	the Department of Fisheries and Oceans Canada web
б	site, entitled "Fisheries Productivity Investment
7	Policy: A Proponent's Guide to Offsetting."
8	A. Mm-hmm.
9	Q. If we turn to Page 5 of the documentsorry,
10	these ones aren't numbered with Bates numbers, but
11	it's Page 5 of the document.
12	A. Okay.
13	Q. About halfway down the page, under
14	Section 1.1?
15	A. Yes, I'm there, yeah.
16	Q. We have the definition that you just read
17	aloud.
18	And it notes that underit notes that serious
19	harm to fish is defined in Section 2 of the Fisheries
20	Act as the death of fish, or permanent alteration to
21	or destruction fish habitat."
22	A. That's correct.
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ARBITRATOR GRIFFITH: Counsel, excuse 1 me--there is an exception, back to the previous Tab 2 14 in Subsection 2. Do any of those exceptions apply 3 here? 4 MS. HOFFMANN: No, they do not. 5 Okay. ARBITRATOR GRIFFITH: Thank you. 6 MS. HOFFMANN: It should be excerpted in 7 full, but we could --8 ARBITRATOR GRIFFITH: Well, you can take that 9 on notice. Don't divert. 10 BY MS. HOFFMANN: 11 So, you would agree with me, then, that both 0. 12 13 before and after the 2012-2013 amendments that the Fisheries Act was concerned with fish habitat? 14 In both cases, that is correct. In the Α. 15 amendments, there were some significant changes made. 16 First of all, fish were--are really defined as 17 commercial, recreational, aboriginal, and the habitat 18 19 alteration, the word "permanent" was added, which is a substantial change to what existed previously. 20 The permanent alteration or destruction of fish habitat, 21 22 those fish being commercial, recreational, or Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

aboriginal, that was a significant change from 1 previously. That was the basis of us being 2 successful. 3 In our application to have our previous 4 5 authorization reviewed and ultimately decided to be no longer required under the amendments--new б amendments. 7 My question, sorry, I will rephrase. Both--8 0. MR. O'GORMAN: Mr. President, I'm sorry, just 9 a transcription question, I think you said in both 10 cases I was correct, Mr. Dunphy? At the beginning of 11 your answer? I think it was taken down as that is 12 13 correct. MS. HOFFMANN: I can rephrase my question. 14 Thank you. MR. O'GORMAN: 15 THE WITNESS: I don't recall exactly what I 16 said. 17 MS. HOFFMANN: Me neither. 18 BY MS. HOFFMANN: 19 So, you would agree with me, then, that both 20 0. before and after the 2012-2013 amendments the 21 22 Fisheries Act was concerned with fish habitat. Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

Α. There was still some retention and focus on 1 habitat. However, the significant change that was 2 entirely relevant was that a habitat had to be 3 associated with commercial, recreational, aboriginal 4 5 fisheries and any alteration had to be permanent. So, that, in my interpretation, that was б completely aligned with the information we were given 7 by the Regional Director in consultations prior to 8 the amendments that there was a general shift from 9 solely habitat harm toward fisheries. Now the 10 habitat had to be impacted permanently, and that 11 habitat had to be -- habitat for those three 12 fisheries: recreational, commercial, and aboriginal. 13 That was a significant shift from a focus on habitat 14 to fisheries. 15 Okay. So, basically, any water that is 16 Ο. fished from is captured under Section 35? 17 Α. Could you repeat that, please? 18 19 Ο. Any water that is fished from is captured under Section 35? 20 Any water that is fished from--21 Α. 22 Q. Either commercially, recreationally or from Confidential Information, **B&B** Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

an aboriginal fishery. 1 If those fisheries exist in that water, this Α. 2 would apply. 3 4 0. Thank you. So, this statement that you made at Paragraph 5 11 of your Second Witness Statement is factually б incorrect? 7 A. Could you direct me to the location again, 8 9 please? Q. Yes. It's Paragraph 11 of your Second 10 Witness Statement. 11 And could you direct me to the particular 12 Α. 13 sentence that you're referring to, please? Yes. It's the one we read aloud earlier. 14 Q. Α. Okay. 15 0. Starting with "as a result." 16 Α. I cannot agree that it's factually incorrect. 17 18 I'll read it again: "As a result, DFO's focus has 19 shifted away from habitat protection to fisheries protection and it no longer imposes a habitat 20 compensation requirement for dredging associated to 21 Hibernia subsea development." That is accurate and 22 Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

1	correct.
2	Q. You agreed with me a moment ago that any
3	water that is fished from for a commercial,
4	recreational or aboriginal fishery that impacts fish
5	habitat is protected.
6	A. Could you repeat that, please?
7	Q. You agreed with me a moment ago that any
8	water that is fished from for a commercial,
9	recreational, or aboriginal fishery is protected.
10	A. This section would apply to it.
11	Q. Yes, okay. Thank you.
12	Let's turn to the compensation requirements
13	under the Fisheries Act.
14	You mentioned this in your Second Witness
15	Statement at Paragraph 10.
16	A. Okay.
17	Q. So, the Department of Fisheries and Oceans,
18	the DFO, requires that dredgers compensate for a
19	possible loss of habitat resulting from dredging
20	activities; is that correct?
21	A. I'm lost. Could you
22	(Overlapping speakers.)
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		Public Version Page 746
1	Q.	Yes
2	Α.	Second Witness Statement? Paragraph 10?
3	Q.	Where is it?
4	Α.	That's on the same page we were on a moment
5	ago?	
6	Q.	Yes. I
7	A.	It starts with the Hibernia
8	Q.	I'm sorry, it's Paragraph 9. I apologize.
9	А.	Okay. Go ahead, please.
10	Q.	About halfway down the paragraph, it says:
11	"DFO ha	ad a policy of requiring underwater dredgers to
12	address possible loss of habitat due to dredging	
13	activit	ties." It's kind of in the middle.
14	A.	It starts with: "DFO had a policy." Is that
15	correct?	
16	Q.	Yes.
17	A.	Okay. I'm still looking for it.
18		Pursuant to this former version of the
19	Fisheries Act	
20	Q.	Yes.
21	A.	Okay. It became Department of Fisheries and
22	Oceans	had a policy requiring Underwater dredgers
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1	PRESIDENT GREENWOOD: Sorry. I think if you		
2	are going to read it out, Mr. Dunphy, you'll have to		
3	speak up and read it out properly, although I think		
4	we've all now read it, so there is probably no need.		
5	I think counsel is asking you whether you stand by		
6	that statement.		
7	THE WITNESS: Just give me a moment; I'll		
8	review.		
9	BY MS. HOFFMANN:		
10	Q. Oh, I'm just askingI just want to discuss		
11	this statement		
12	A. Okay.		
13	Qdiscuss the compensation requirements more		
14	generally.		
15	ARBITRATOR ROWLEY: Why don't you ask your		
16	questions. Everybody has read it.		
17	MS. HOFFMANN: Okay, thank you.		
18	BY MS. HOFFMANN:		
19	Q. So, in the DFO's view, there are two areas of		
20	lost habitat due to dredging. There is the area from		
21	which the dredged material was taken and the area to		
22	which dredge material is deposited.		
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1	A. That is correct.		
2	Q. So, under the Fisheries Act, operators must		
3	comply with the compensation requirement for both of		
4	those areas?		
5	A. In the original act, yes.		
6	Q. And the effort and costs associated with		
7	these compensation requirements are considerable?		
8	A. Not "considerable," relative to the overall		
9	cost of a subsea development.		
10	Q. Okay. In your First Witness Statement, you		
11	mentioned that it's costly, and in your second you		
12	say it's manageable, so it falls somewhere between		
13	costly and manageable?		
14	A. Yeah, I guess it's a relative thing.		
15	Q. Okay.		
16	A. The prevailing opinion within the industry		
17	about the application of this policy to the offshore		
18	environment is that it was inappropriate application,		
19	that the policy really evolved from land-based		
20	alterations to habitat, and, you know, the offshore		
21	oil-and-gas industry is fairly new. The first one is		
22	off the East Coast of Newfoundland, and they rolled		
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that policy and applied it. It was a general--a 1 difficult issue between industry and DFO in the 2 application of that policy. It didn't fit, and it 3 was seen to be exceptionally onerous. The inherent 4 assumption of harm to a dredged disposal site, the 5 inherent assumption was not considered to be valid by 6 industry. However, you know, we didn't have--excuse 7 8 me. 9 DFO applied the precautionary approach, and they assumed harm where it was not proven otherwise, 10

and we saw that as being overly conservative, and the--from a cost perspective, any costs associated with doing something of that nature when you truly believe that is an inappropriate application of a policy, any cost is painful and considerable. I guess that's the context of that remark.

17 Q. Okay. Thank you.

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So, you mentioned that it's not--so, sorry,let me rephrase.

20 Mobil, or HMDC as you mentioned, has reason 21 to believe that actually the areas to which dredged 22 material is deposited are even more biologically 23 Confidential Information, 24 Unauthorized Disclosure B&B Reporters

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1	productive than DFO thinks; right? DFOmy
2	understanding is that DFO thinks it's worse off, but
3	Mobil or HMDC has reason to believe that it's
4	actually more productive.
5	A. I guess that was the theory and hypothesis
6	and the basis of the study.
7	Q. Okay. Thank you.
8	A. And that was based on anecdotal information
9	from fishers who are aware of dredging activities
10	near shore. Many harbors are dredged and materials
11	are disposed of in the near shore. Anecdotally, it's
12	not uncommon to hear of the fishermen who would
13	intentionally focus on that area subsequently because
14	there was more materialmore species there, to catch
15	more. They can dobe more successful in their
16	fishing efforts by focusing on those areas.
17	Anecdotally, that was generally known.
18	Q. Okay.
19	ARBITRATOR ROWLEY: Sorry, help me there. Is
20	it focusing on the areas where the disposal had been
21	made or where it's been dredged?
22	THE WITNESS: Where disposals were made.
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1	ARBITRATOR ROWLEY: Thank you.
2	BY MS. HOFFMANN:
3	Q. So, the marine dredged disposal expenditure
4	is aimed at testing DFO's assumption that dredge
5	disposal sites are less productive. That's the
б	purpose of this expenditure.
7	A. Yes, yes.
8	Q. Okay. Let's turn to Tab 15 of your binder.
9	A. TheI mean the overall purpose, as mentioned
10	earlier, was to satisfy the spending requirements
11	under R&D Guidelines. I mean that'snone of these
12	projects that I am associated with would ever have
13	materialized or been proposed were it not for the
14	Guidelines thatand the challenge that was put forth
15	by our management team.
16	The technical objectives I would agree
17	fromwith your question. It was a technical
18	objective to demonstrate productivity there
19	Q. Okay. Thank you.
20	Aabove and beyond what DFO had assumed in
21	its policy.
22	Q. Thank you.
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1	So, if we turn to Tab 15 of your
2	binderthat's R-188 for the recordthis is another
3	PRNL Contribution Agreement for the Marine Dredge
4	Disposal Expenditure.
5	If we turn to Bates Number 3851, that's the
6	Annex B Project description.
7	A. 3851?
8	Q. Yes, I think so.
9	If we look at the end of the second
10	paragraph, it says: "There is a dearth of knowledge
11	about the tolerance of offshore marine life to
12	sediment loading and the rate at which these
13	ecosystems recover from impacts caused by disposal
14	operations. As a result of this knowledge gap, the
15	Canadian Department of Fisheries and Oceans'
16	precautionary approach to fish and fish habitat
17	management may have resulted in an overestimation of
18	the environmental impacts resulting from offshore
19	disposal activities. Correspondingly, the
20	compensation requirements to offset disposal at sea
21	operations conducted by Newfoundland and Labrador's
22	offshore operators may also be excessive."
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1	So, this is essentially what you were saying
2	a couple of moments ago that they kind of
3	overestimated and are requiring compensation, but
4	operators are of the view that, and as you mentioned,
5	fisheries are of the view that DFO is overestimating;
6	is that accurate? Is this statementsorry, let me
7	rephrase.
8	A. Please do.
9	Q. A couple of moments ago, you mentioned an
10	overestimation or that they took a precautionary
11	approach, the DFO.
12	A. They tookthey made an assumption
13	Q. Okay.
14	Aa scientific assumption.
15	Q. Okay.
16	Athat the disposal of clean seafloor
17	sediments resulted in a harmful effect that had to be
18	compensated for.
19	Q. And that isdo you agree that this is
20	essentially what this paragraph is saying as well?
21	Does it reflect what you said earlier?
22	A. Resulted in an overestimateyes.
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Q. Yes. Okay, thank you. 1 PRESIDENT GREENWOOD: Can I just clarify this 2 because I think we got a little bit lost at one or 3 two points? 4 Your evidence is that the view you held and 5 other people in the offshore oil industry held was б 7 that the DFO was being unduly pessimistic about the effect on fish at the disposal of dredge waste. 8 THE WITNESS: That is correct. 9 If not punitive. 10 PRESIDENT GREENWOOD: Right. And that this 11 project was designed to test whether the DFO's 12 13 assumptions were right or not. THE WITNESS: That is correct. 14 PRESIDENT GREENWOOD: 15 Thank you. So, the benefit that you hoped to get from it 16 was a report which would convince DFO to lay off you. 17 18 THE WITNESS: That is correct. 19 PRESIDENT GREENWOOD: All right. Would you have--do you think that would have been a worthwhile 20 research project, given the penalties that DFO could 21 22 levy? Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

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1	THE WITNESS: Definitely not.
2	PRESIDENT GREENWOOD: "Definitely not." Why?
3	THE WITNESS: It's relative to the cost of a
4	subsea development project. I think the cost
5	estimate forthe cost for Hibernia South is
б	. The potential savings in the reduction
7	in the habitat that you had to install would have
8	been .
9	The other challenging issue for us as
10	operators with environmental personnel was that
11	thewithin a timethe tight timeframe of a project,
12	there is very little tolerance by the Project
13	Managers to entertain a regulatory challenge of that
14	nature. The costs are manageable in that scenario.
15	It's not worth pursuing a challenge. It's not worth
16	pursuing research within the timeframe of a project
17	for installation of a subsea development.
18	In addition, the Project is funded by a
19	certain source of funding. The monitoring of the
20	compensationof the habitat waswould be
21	compensatedwould come from the operation budget
22	years down the road because that would have to
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1	beproceed three and five years later. So, there
2	was no driver from cost perspective nor time
3	perspective within the Projectwithin the schedule
4	and budget of a project to pursue such initiative.
5	It was rather difficult for environmental
6	personnel to have to live with this very conservative
7	assumption by DFO and to perceive this type of work
8	when we certainly felt that it was an overly
9	conservative assumption, an incorrect assumption, but
10	yet we had barriers internally, costs, scheduling,
11	and risk of getting your permit. These barriers just
12	would prevent us from proceeding with this type of
13	study, and that's why it wasn't done.
14	The R&D Guidelines provided an ideal
15	opportunity for us to correct this wrong, and, you
16	know, that is why this project was able to be
17	launched, and that's the only reason why. We were
18	able to do it outside of a project schedule, outside
19	of a project budget. I don't know if the Project
20	Managers knew at all if it was proceeding. It was
21	completely outside of the Project.
22	PRESIDENT GREENWOOD: That's very helpful.
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Thank you. 1 Ms. Hoffmann, please. 2 BY MS. HOFFMANN: 3 So, back to the intent of the Project at the 4 0. 5 time it was created, a major expected deliverable of this project is to provide scientific justification б to remove compensation requirements for disposal 7 sites. 8 The intent was to demonstrate that the 9 Α. assumption by default in their policy of harm was 10 incorrect. And, presumably, if DFO believed the 11 results, if the results were able to get 12 13 peer-reviewed and published appropriately, DFO believed the results, the intent would be to convince 14 them to change their policy and thereby, you know, 15 16 presumably reduce the amount of compensation--habitat that would have to be compensated for. 17 0. Okay. So, a major deliverable is to provide 18 19 scientific justification. That is correct. 20 Α. To remove the compensation requirements. 21 Ο. 22 Α. To alter the policy--Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

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1	Q. Okay.
2	Ain place with DFO.
3	Q. And to alter the policy could reduce Mobil
4	Investment Canada's compensation requirements by
5	50 percent?
6	I'm sorry.
7	To change the policy would reduce Mobil
8	Investment Canada's compensation requirements by
9	50 percent?
10	MR. NICHOLS: I'm sorry, I have to interrupt.
11	I think we're conflating again ExxonMobil Canada
12	MS. HOFFMANN: Sorry.
13	MR. NICHOLS:and operators
14	(Overlapping speakers.)
15	MS. HOFFMANN: Let me rephrase the question.
16	BY MS. HOFFMANN:
17	Q. It would reduce HMDC's compensation
18	requirements by 50 percent?
19	A. Not for theHibernia has done one subsea
20	project in the 20 years, so it'sso they're rare,
21	and the HSE Project was first, and there was no
22	intention to have the study apply to the compensation
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required for Hibernia. So, at the time, it just 1 could not happen because the permit to proceed had to 2 be in place first. To do the excavation, to do the 3 disposal; right? So, you can't do the study--you 4 5 can't get your permit and--you can't do the study in advance of getting your permit to do the work so... б And the study was, I think the timeline that 7 you mentioned earlier, three to five years. So, the 8 Project would be long done and the Project Team long 9 gone before that data would be collected and able to 10 be presented to the regulator, to DFO. 11

So, in the short term, the answer is no. The intent was not to apply it to HSE because the timing just was--it was impossible.

You know, the intent was to change a wrong, 15 to right a wrong. And, you know, if a subsea--if the 16 data actually proved us correct--first of all, I mean 17 18 that had to happen first, you know. If it got 19 published and reviewed in a manner--in an appropriate manner, if DFO accepted it and actually revised their 20 policy, because there is still no guarantee that that 21 22 would happen, and next if there was another subsea Confidential Information, B&B Reporters Unauthorized Disclosure

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1	developed sometime in the future, I mean there is a
2	lot of ifs that would have to happen for us to avail
3	of that benefit.
4	Q. Sure. But it is possible that the policy
5	would apply to other projects if it was changed.
6	A. It's possible.
7	Q. Thank you. Such as Hebron?
8	A. I can't comment on Hebron.
9	Q. Okay. Thank you.
10	MS. HOFFMANN: No more questions. Thank you.
11	PRESIDENT GREENWOOD: Thank you,
12	Ms. Hoffmann?
13	Mr. Nichols, do you have any questions in
14	redirect?
15	MR. NICHOLS: Yes, if I may.
16	PRESIDENT GREENWOOD: Go ahead, please.
17	REDIRECT EXAMINATION
18	BY MR. NICHOLS:
19	Q. I would like to actually follow up on a
20	question from the President of the Tribunal with
21	respect to the Bioindicators Project. Let's look
22	again at the exhibit that's at Tab A. I believe
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1	that's R 101.
2	A. Tab A?
3	Q. Excuse me, 8.
4	If I recall your testimony, Mr. Dunphy, this
5	was a presentation delivered at an HSE Workshop.
6	Just for clarification, what is HSE? What did the
7	letters stand for?
8	A. Health, Safety and Environment. That was the
9	theme of the workshop, the subject matter.
10	Q. Do you remember, sir, if you participated in
11	that workshop?
12	A. Oh, yes, I did.
13	Q. Okay. Do you remember, siror do you know
14	what the purpose of organizing that workshop was?
15	A. That workshop wasits entire purpose was to
16	enable the various operators to assemble with their
17	R&D proposals that they wanted to put forward to be
18	eligible and qualify under the R&D Guidelines.
19	Yes, go ahead.
20	Q. Besides this project, sir, were other R&D
21	proposals discussed at that workshop?
22	A. Yes, there were others.
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Q. Are any of those others discussed in your
 Witness Statement?

A. Yes. The Bioindicators Project, as we see here; the seismic noise effects on shrimp; and the Marine Dredge Disposal Study were all three studies that I was involved with in that workshop.

Mr. Dunphy, when I was listening to the 7 Q. examination by Ms. Hoffmann, it seemed like there was 8 a disconnect between you and her with regard to a 9 statement in your Witness Statement regarding the 10 Bioindicators Project. You recall from your 11 statement that you said that, as a result of the 12 13 change of the amendment to the Fisheries Act, there has been a shift in focus away from habitat 14 protection to fisheries protection; correct? 15 Α. That was for the Marine Dredge Project. 16 Oh, I apologize. The Marine Dredge Disposal 17 Ο. 18 Project. 19 But you stood by that statement; correct? Yes, without a doubt. 20 Α. Can we take a look at Tab 18, again? 21 0. 22 Can we turn back to that page that Confidential Information, Unauthorized Disclosure B&B Reporters

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1	Ms. Hoffmann had pointed you to where the definition
2	of "serious harm to fish" appears.
3	A. Yes.
4	Q. Let me know when you're there.
5	A. Yes, I'm there.
6	Q. Okay. Above that is sectionit looks like
7	Section 35. Is that Section 35 of the Fisheries Act?
8	A. I would have presumed so, yes; it appears to
9	be.
10	Q. All right. Mr. Dunphy, could you please
11	explain how your Witness Statement with regard to the
12	shift in focus away from habitat protection to
13	fisheries protection, how do you relate that
14	statement in regard to the language that you see
15	there?
16	A. In the previous act, there was no link
17	between habitat and the three fisheries that we see
18	here. So, in the previous act, just harm to the
19	habitat was sufficient to trigger an authorization
20	under the Fisheries Act in order to proceed with that
21	Project. With these amendments, it added toor it
22	added a requirement that not only would there have to
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1 be harm to the habitat, that harm had to be permanent 2 and had to be habitat of the three fisheries we have 3 here.

So, in the absence of reference to these three fisheries, we had to have an authorization in place. When these amendments were presented, as you see here, an authorization would be required only if these fisheries were affected with that harm to the habitat.

10 So, that is, clearly in my mind, a shift from 11 sole habitat--solely habitat harm to habitat harm 12 with fisheries' impact. That is a shift towards 13 protection of fisheries. That's very clear in my 14 mind.

It's even more clear when you consider the 15 fact that when we applied for the review of our 16 existing authorization in the old act, we were 17 successful in getting it, and the main thrust of that 18 19 success was we did not have commercial, recreational, or aboriginal fisheries in our area. 20 MR. NICHOLS: No further redirect. 21 22 PRESIDENT GREENWOOD: Can I just clarify one

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1	thing? I'm not sure whether this is for you,
2	Mr. Dunphy, or for counsel, but bear with me.
3	The initials HSE appear to be used in this
4	case in two different contexts; is that right?
5	Hibernia Southern Extension, Health Safety and
6	Environment?
7	MR. NICHOLS: Yes, that's correct. You're
8	very perceptive.
9	PRESIDENT GREENWOOD: Thank you.
10	I would be very grateful if counsel could
11	trawl the Transcript to make sure that it is clear
12	everywhere which context we're talking about.
13	Right. Let's break for 15 minutes.
14	Mr. Dunphy, thank you very much, indeed.
15	You've been very helpful. It's now just coming up to
16	11 o'clock. We'll break until 11:15. And then I
17	think the next witness is Mr. Durdle; is that right?
18	(Witness steps down.)
19	PRESIDENT GREENWOOD: Thank you.
20	(Brief recess.)
21	PAUL DURDLE, CLAIMANT'S WITNESS, CALLED
22	PRESIDENT GREENWOOD: Right. Thank you,
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Mr. Durdle. Make yourself comfortable and have some
 water, is the first thing I was going to say. Help
 yourself.

4 Can I just have an indication, are we likely
5 to get to Mr. Jeff O'Keefe by lunchtime, or are we
6 saving him for the afternoon?

MS. SQUIRES: I anticipate this would take
half an hour or so, and we could start Mr. O'Keefe
after lunch if we wanted, take an early lunch.

10 PRESIDENT GREENWOOD: What do you feel,11 Mr. Nichols?

MR. NICHOLS: Our redirect will depend on what Canada asks; but, otherwise, I don't believe that would be an issue.

PRESIDENT GREENWOOD: I think if it's only going to take half an hour or so plus a little bit of time for direct and redirect, then I think we will go straight on to Mr. Jeff O'Keefe.

MS. SQUIRES: He is available, so that will be fine.

PRESIDENT GREENWOOD: Right.

Mr. Durdle, you should have in front of you a

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21

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declaration which I would be grateful if you would
 make.

THE WITNESS: Okay.

3

7

I solemnly declare upon my honor and
conscience that I shall speak the truth, the whole
truth, and nothing but the truth.

PRESIDENT GREENWOOD: Thank you.

Now, counsel is going to put before you--no
need to ask for permission--going to put before you
your two Witness Statements and you also have to your
right--sorry, to your left, a large, depressingly
large lever arch file which contains the documents
that counsel will put to you in cross-examination.
THE WITNESS: Okay.

15 PRESIDENT GREENWOOD: Can I just make two16 points before we start.

The first is that, sitting behind you is the 17 Court Reporter. He has to be able to hear what you 18 19 say and transcribe it, so please speak up. You have a good speaking voice, so it shouldn't be difficult. 20 But it's particularly problematic that people tend to 21 22 look at the counsel who is asking them questions, and Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

therefore, to turn away from the microphone, so try 1 and make sure you speak into the mic and keep your 2 voice up. 3 THE WITNESS: I will do my best. 4 PRESIDENT GREENWOOD: Thank you. 5 And, secondly, don't speak too quickly. б We've already had some advice about Newfoundlanders 7 having difficulty slowing down, but it's very 8 important whether you're from Newfoundland or not 9 that you don't speak too fast. 10 THE WITNESS: Understood. 11 PRESIDENT GREENWOOD: Okay. Thank you very 12 13 much. Mr. Nichols. 14 DIRECT EXAMINATION 15 BY MR. NICHOLS: 16 Good morning. Could you please introduce 17 0. yourself and your relationship to the Hibernia and 18 19 Terra Nova Projects. Good morning. My name is Paul Durdle, and 20 Α. I've had I would say a significant amount of 21 22 experience on both the Hibernia--particularly the Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

1	Hibernia Project and indirect experience on the Terra
2	Nova Projects. I've held a number of different roles
3	ranging from procurement, finance procurement to
4	operations roles, about a four-year assignment
5	offshore as a supervisor, and then most recently or
6	my last two assignments related to Hibernia were as
7	safety manager and an operations support
8	superintendent.
9	Terra Nova, I was part of theit's a safety
10	Subcommittee that would meet on a regular basis and I
11	participated or represented HMDC interests on that
12	safety committee.
13	Q. For the benefit of this record, are you the
14	same Paul Durdle who testified in the last proceeding
15	between Mobil and Canada?
16	A. I am.
17	Q. And you also provided a Witness Statement in
18	that last proceeding?
19	A. Yes, I did.
20	Q. You have provided two further Witness
21	Statements in this proceeding; isn't that correct?
22	A. I have, yes.
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Public Version Page | 770 Q. Okay. Do you have those in front of you? 1 Α. I do. 2 0. Okay. Your First Witness Statement of March 3 7th, 2016, marked CW-7, that is in front of you, sir? 4 5 Α. Yes, it is. Do you reaffirm the contents of that б 0. statement? 7 I do. Α. 8 Do you have any corrections you wish to make 9 0. to that statement? 10 No, I do not. 11 Α. Do you also have in front of you your Second 12 0. Witness Statement of September 14th, 2016? 13 Α. Yes. 14 CW-12? 0. 15 Α. CW-12, that's correct, yes. 16 Do you reaffirm the contents of that 17 Ο. 18 statement, sir? And I do. 19 Α. Do you have any corrections you wish to make 20 0. to that statement? 21 22 Α. No, corrections, no. Confidential Information, **B&B** Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

Public Version Page | 771 MR. NICHOLS: Mobil passes the Witness. 1 PRESIDENT GREENWOOD: 2 Thank you. Ms. Amalraj, is it to you? 3 MS. AMALRAJ: 4 Yes. PRESIDENT GREENWOOD: Excellent. Well, 5 please, go ahead. б CROSS-EXAMINATION 7 BY MS. AMALRAJ: 8 Good morning, Mr. Durdle. My name is 9 0. Valantina Amalraj and I'm counsel for the Government 10 of Canada. Before we get started, I would just like 11 to give you a brief idea of how this will work. 12 13 I will be asking you a few questions to better understand your Witness Statements. Now, it's 14 important that you understand me. So, if anything I 15 say is unclear, do ask me to repeat myself. It's 16 also important that you answer my questions. So, if 17 18 the answer to something I ask is a yes or a no, 19 please begin your answer that way, and you can provide any clarification you wish to after that. 20 That said, we do have a brief amount of time 21 22 this morning together, so I would appreciate it if Confidential Information, Unauthorized Disclosure **B&B** Reporters Prohibited 001 202-544-1903

1	you could be focused and on point.
2	A. Okay.
3	Q. So, let's get started then.
4	You have been employed with ExxonMobil since
5	2003?
6	A. That is correct, yes.
7	Q. And, in 2010, you were assigned to the role
8	of Safety Supervisor for ExxonMobil and seconded to
9	HMDC?
10	A. That's correct.
11	Q. And you were at HMDC in this role until 2014.
12	A. I believe 2014. I would have to verify, but
13	that sounds correct, yes.
14	Q. Okay. You have never been employed by
15	Suncor?
16	A. No, I have never been employed by Suncor.
17	Q. And you filed two Witness Statements in this
18	arbitration?
19	A. I did.
20	Q. And the two statements concern eight
21	safety-related projects that were undertaken by
22	Hibernia or Terra Nova?
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1	A. That is correct.
2	Q. Did you speak to anyone at Suncor about
3	Suncor's perspective on any of the Projects you
4	discussed that Terra Nova participated in?
5	A. It would have been some time ago and it would
6	have been in ajust a general passing sense as I
7	attended some of thesome of the EH&S or Safety
8	Committee meetings.
9	Safety is perhaps one area where wethere's
10	really nothing proprietary, so we try to share safety
11	learnings across projects. So, I can't recall a
12	specific Project or a specific incident where I would
13	have spoken to someone, but I know in general terms
14	we would have had casual conversations about safety
15	projects.
16	Q. Now, I would like to start by discussing the
17	safety oversight management system expenditure that
18	you discuss. It's at Paragraph 33 of your First
19	Statement, and at Paragraph 17 of your Second Witness
20	Statement, just for your reference.
21	Now, this Project is an IT Project to develop
22	a software program; right?
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Α. Thirty-three and the Second Witness Statement 1 2 was--Paragraph 17. 3 0. Seventeen, okay. Okay, I have them here. 4 Α. Now, this Project, it's an IT Project to Ο. 5 develop a software program; correct? б 7 Α. That's correct, yes. And you said in your Witness Statements that 8 Ο. the purpose of the software was to create a database 9 for reporting and tracking safety incidents? 10 Yes. 11 Α. Now, another focus of this Project, though, 12 0. 13 was automating and streamlining the Board's work approval process; right? 14 That was initially talked about, but the Α. 15 fundamental focus of this Project was really to do 16 with streamlining the Board's mandatory reporting 17 process, and I'm reasonably familiar with this 18 19 Project because, as Safety Supervisor, when we were asked to brainstorm some of these R&D ideas, this was 20 one that myself and some people in the Department I 21 22 directly supervised brought forward, and it really Confidential Information, B&B Reporters Unauthorized Disclosure

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arose out of -- right now the requirement for reporting 1 to the Board was a paper process, it involved a fax 2 machine, which is old technology, and it involved us 3 trying to reach individuals at the CNLOPB by 4 5 telephone, which was not always ideal. So, when the opportunity arose, we identified a system where it б might make sense to enter them in, and not unlike any 7 databases, enter it in directly, and then the Board 8 would receive that response. 9

They would also enable the Board to do some data analysis because it was not uncommon for us to receive phone calls from the CNLOPB about historic incidents, and this was a way to avoid that and be more efficient. So, that's really where the Project arose from.

Q. Okay. Let's look at Tab 2 of your binder. This is Exhibit R-208, and you'll see the first page is a letter from Mr. Sampath, and attached to the letter is the Agreement or the Contract that is signed between Hibernia and the Contractor that was actually hired for this Project.

22

Do you see that?

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1	A. I do.
2	Q. Now, the Contractor that was hired to do work
3	on the Project is MWCO or Michael Wager Consulting,
4	Inc., right?
5	A. Correct.
6	Q. And if you turn to Appendix A of the
7	Contractactually, if we just look on the Contract
8	at Paragraph 2, it references the Appendix A and
9	includes the Appendix A and the Project description
10	in it within the Contract; right? This is at
11	Paragraph Number 2 on the first page of the Contract.
12	A. Paragraph 2 on the first page of the
13	Contract. Page 2 of 9? Is that what you're
14	referencing?
15	Q. So, it's Bates Number 4229.
16	A. Okay. 422okay, I have it. Sorry.
17	Q. And if you look at Bullet Number 2 on that
18	page, it says: "The contribution," so HMDC's
19	contribution of to this Project, "will be
20	used to support development of a certification and
21	safety management oversight system as more
22	particularly described in Appendix A."
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1	Do you see that?
2	A. I do.
3	Q. Okay. So, let's turn to Appendix Ait's
4	just one page over. If you go to Bates 4232, that's
5	where the appendix is.
6	Now, you will see it's entitled "Research and
7	Development Activity for the Certification and Safety
8	Management Oversight System."
9	Right?
10	A. Yes.
11	Q. And if we go to Page 3 of 9 of this
12	proposal
13	A. Okay.
14	Qat the very last paragraph, the second line
15	says: "The activity has two main focuses, firstly to
16	automate and streamline the current paper based
17	certification and recertification documentation
18	process to expedite approvals through the Board while
19	reducing the amount of administration involved in the
20	process through automation."
21	Do you see that?
22	A. I do.
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1	Q. And then it goes on to say: "The second
2	focus is to develop an accident/incident tracking,"
3	what you were talking about?
4	A. That's correct, yes.
5	Q. Okay. So, one of the two focuses of the
6	Project was automating and streamlining the Board's
7	approval process at the time the Contract was signed?
8	A. Based on the vendor's proposal, yes, I would
9	agree with that.
10	Q. Yes. And based on what was attached to the
11	Contract that Hibernia signed also?
12	A. That's correct, yep.
13	Q. And the point from this was to expedite the
14	approval process by moving away from a paper-based
15	system to an on-line system?
16	A. I think that was one of the descriptors or
17	one of the optimistic goals of the program.
18	Q. Okay.
19	A. On paper.
20	Q. That was the goal under which the
21	contribution was made, yes?
22	A. The paperyeah, I mean, that's fair, yes,
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1	that's what was written in the proposal, that was put
2	forward to us. The discussions that we had with the
3	CNLOPB at the time were simply and only focused on
4	the incident database piece.
5	Q. Okay. I would like toare you aware of the
6	paper-based approval process that the Board uses?
7	A. Reasonably. Individuals I supervised would
8	execute that process.
9	Q. Okay. I would like to talk about that
10	briefly.
11	Now, any time Hibernia wants to do something,
12	say drilling or laying a pipe or anything like that,
13	the Board has to approve it first and issue a work
14	authorization for it; right?
15	A. That's basically correct, yes.
16	Q. And this is the case for any production
17	development activity, well operation, diving
18	operation or geophysical operation? The Board would
19	have to approve
20	A. Fundamentally, yes, that's correct.
21	Q. So, the Board's authorization and part of the
22	authorization involves a safety assessment, isn't
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1	something that Hibernia needed just when it began
2	operations; rather, any time something is changed or
3	renewed, Hibernia has to apply and the Board has to
4	authorize it?
5	A. I'm not sure I follow your question, but in
6	principle, prior to anyfundamentally any activity
7	certainly to start the Hibernia Project, there was a
8	formal process to apply for an Operations
9	Authorization.
10	Q. Okay. And as part of this process, the
11	application certification process, like you were
12	saying, there's paper exchanged back and forth?
13	A. Yes, that's correct, yes.
14	Q. And sometimes boxes and binders of paper will
15	be exchanged, depending on what the activity is?
16	A. That would be fair.
17	Q. Okay. Now, any delay in this process, so a
18	delay in the Board authorizing an activity, would
19	push back the actual activity, if it's an unexpected
20	delay that wasn't built into the system?
21	A. Potentially. Our practice was tothese
22	dates didn't come up as a surprise, so our normal
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1	practice was to plan for these events, and typically
2	we would not see delays based on that because we were
3	fairly proactive in applying for those things early
4	on, and certainly we know when they expire.
5	Q. Okay. Let's discuss what the President of
6	Hibernia thought about this software Project, okay?
7	So, let's turn to Tab 4 of your binder. This is
8	Exhibit R-207, and this is an e-mail chain, and you
9	will notice you're cc'd on the final e-mail on the
10	chain, so you have seen this thread before; right?
11	A. Yes, I would have seen this.
12	Q. Now, the subject line of the e-mail is "SOIMS
13	Project," which stands for Safety Oversight
14	Information Management System. That's the Project
15	we're discussing; right?
16	A. That's correct, yes.
17	Q. So, let's just turn to the second page of the
18	e-mail thread for a moment. So, that's Bates Page
19	Number 4252. And around the center of this is an
20	e-mail from Jamie Long; right?
21	A. I see that, yes.
22	Q. And Jamie Long was the President of Hibernia
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1	when this e-mail was sent?
2	A. He was.
3	Q. And if you look at the start of the e-mail,
4	it says: "I scheduled a meeting with MWCO a month
5	ago on the assumption that we would have some useful
6	information."
7	Do you see that?
8	A. I do.
9	Q. And at the end of the next paragraph in the
10	e-mail, so the last sentence of this e-mail from
11	Jamie Long, he says: "I do not want to cancel the
12	meeting."
13	Do you see that?
14	A. I do.
15	Q. So, it seems from this that the President of
16	Hibernia is planning to meet with the Contractor that
17	was hired for this Project, MWCO; right?
18	A. That's correct, yes.
19	Q. Okay. Now, let's turn to the first page of
20	this e-mail thread, so the most recent e-mail that
21	you were cc'd on. That's at Bates Page Number 4251.
22	PRESIDENT GREENWOOD: Sorry, Ms. Amalraj,
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1	before we do thatMr. Durdle, could you just tell us
2	who or what are EMIT which appears in the first
3	paragraph of the e-mail we've just been looking at?
4	THE WITNESS: That isit's an ExxonMobil
5	Management Information Center that supports Hibernia
6	Management Development Company, so Hibernia, on
7	occasion, would seek subject-matter experts in
8	certain areas, and we would rely on some of the Owner
9	companies to provide that, and that's an entity that
10	would have provided information technology support.
11	PRESIDENT GREENWOOD: Right. Thank you very
12	much. Sorry about that, I just wanted to be clear.
13	THE WITNESS: That's okay.
14	BY MS. AMALRAJ:
15	Q. Now, at the center of this e-mail is also
16	Jamie Long, the President of Hibernia; right?
17	A. Yes.
18	Q. And the third paragraph of this e-mail, Jamie
19	Long says: "It was a productive discussion, in
20	addition to tracking the Incident Reporting, Dan
21	(CSO) wants to use the software to streamline the
22	Operations Authorizations process, which would be a
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1	significant benefit. A four-day delay in receiving
2	an Operations Authorization for a future MODU would
3	pay for the cost of the Project."
4	Do you see that?
5	A. I do.
6	Q. Okay. So, I just want to take a moment to
7	talk about these two sentences because you said in
8	your Second Witness Statement that you do not
9	understand what the President was saying because
10	there was no connection between this Project and the
11	Operations Authorizations; right?
12	A. Fundamentally, yes.
13	I can clarify that, if you wish.
14	Q. Okay. So, the President of Hibernia is
15	reporting here on his meeting with MWCO about this
16	Project; right?
17	A. Yes.
18	Q. And "Dan (CSO)" refers to Daniel Chicoyne,
19	the Chief Safety Officer of the Board?
20	A. That's right. He was the CSO, yes.
21	Q. And the e-mail refers to an "MODU."
22	A MODU, or a Mobil Offshore Drilling Unit, is
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1	something used for drilling or exploration; right?
2	A. That's correct, yes.
3	Q. And using an MODU is one of those things that
4	Hibernia would need the Board's authorization to do?
5	A. Absolutely, that's correct.
6	Q. And it would rely on a paper-based system
7	right now for authorization?
8	A. It would rely on a combination of inspections
9	by the CNLOPB, presentations by HMDC as the Operator,
10	and some paper applications, certainly. It was a
11	combination of more than just submitting paper, but
12	fundamentally you're correct.
13	Q. Yeah. There is a part of the process that
14	happens in paper format?
15	A. There is.
16	Q. And it can take as long as a year to get
17	approval for an MODU; right?
18	A. I would have to verifymy piece of it wasn't
19	involved in the overall, but it can take extensive
20	amounts of time, yes, I'm aware of that.
21	Q. Okay. So, there might be potential to save
22	more than four days in theory by automating a part of
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the process and allowing for transfer of information
 to happen in realtime?

I challenge the idea of save four days. Α. 3 As T identified, this process is typically started well in 4 5 advance of a rig or a MODU coming into the country. That's not something that would be a last-minute б decision, it would be done through a bid process. 7 Ιt would be an extended period of time. So, it's hard 8 to say a day or two savings would have actually been 9 there in real terms. We would have had a targeted 10 date when we wanted to go into operations and would 11 have worked towards that delivery date. To my 12 13 knowledge, in terms of my role in the OA process for a MODU that we had at one time, we didn't see any 14 15 delavs.

I don't know if I answered your question, butI hope I have.

Q. So, your position is that Jamie Long's concerns are unfounded? What he's saying in this e-mail is unfounded?

A. I believe Jamie misspoke in terms of thee-mail.

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1	The process for us at the time we were
2	looking at these R&D Projects was to describe them as
3	optimistically as we could to identify a Project that
4	met the Guidelines and a Project that the Board would
5	approve. This particular project was one of the more
6	frustrating ones for me as a safety professional. I
7	was the supervisor of the safety department. The
8	individual in the e-mail that you referenced here,
9	Ms. Vicki Reid, I was her direct supervisor. We
10	assigned Vicki to work with the Chief Safety Officer.
11	This Project kicked around for many, many weeks with
12	the Board. It lacked any type of focus or any type
13	of real direction. It was a little bit of Mr. Long
14	trying to work in a cooperative manner with the
15	Board. And in many respects, in my opinion, trying
16	to please the Board in this regard. This Project is
17	really unusual. Why would Mr. Long and I identify a
18	Project and pay for it for the regulator to have a
19	database? That, in many respects, Jamie and I felt
20	they should have had all along. The Project started
21	out as a \$ estimate. It was really, we
22	felt, over the top. We worked diligently with the
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1	Board to try and narrow it down, but it was
2	frustrating in many respects to get cooperation from
3	the Board, and certainly I know Dan Chicoyne and
4	Jamie had conversations about how big this could be,
5	how helpful it could be. But in my opinion as a
6	safety person who worked with the Board every day for
7	many years, it was optimistic at best that it could
8	accomplish the things that were identified in the
9	vendors' report.
10	As I identified, the birth place of this idea
11	was simply to streamline the reporting offshore on
12	evenings and weekends and start small there.
13	It was a really frustrating Project for us
14	because even to this day we have not seen a print
15	screen, we have not seen anything on this from this
16	vendor, and I have my personal doubts that we will
17	ever see anything from them. So, it's been, like,
18	four years, and nothing has arisen out of this.
19	So, if it was really of interest to Hibernia
20	and it was really going to save that kind of time, we
21	would have put a whole lot more energy into it. If
22	we really saw that value, we would have been all over
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this like we are in everything in our business. 1 But this was just something percolating along in the 2 background, and it was really based on conversations 3 we had with the Chief Safety Officer who thought this 4 5 was a good idea. I was involved in the day to day, and that's б really the observations I can give you on it. 7 Okay. So, I wanted to focus here on the 8 Ο. President of Hibernia's take on this Project because 9 he is the person that met with the Contractor. 10 And, as you can see in the next paragraph of the e-mail, 11 "MWCO will send us the updated proposal 12 he says: 13 next week, and I suggest we take whatever version they provide, make changes as appropriate, and attach 14 it to our standard funding template for 15 Do you see that? 16 I do. 17 Α. So, I'm trying to understand the President's 18 Ο. 19 perspective on the Project because it was the President that decided to go ahead and do this 20 That's what he's saying in this e-mail 21 Project. 22 that, he wants to go ahead with the Project; right? Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

1	A. Yeah. He did identify he wanted to go ahead
2	with the Project.
3	Q. And as the President, met with the Contractor
4	to discuss the Project?
5	A. Jamie would have met with him. I believe we
6	had one of our IT individuals meet with him, along
7	with the safety representative, Vicki Reid, so it was
8	a number of meetings that were held. I think Jamie
9	was certainly not at all of them, but he would have
10	met with him on one occasion. And certainly Mr. Long
11	and I spoke a number of times about the Project.
12	Q. Right. So, the President of Hibernia,
13	rightly or wrongly, saw a cost-saving potential of
14	this Project, and he may have also been influenced by
15	a desire to have a good relationship with the
16	Project's regulator, the Board?
17	A. I believe that's factual, yes.
18	Q. Okay. Now, I just want to follow up on
19	another point that you made about Hibernia being the
20	only Operator to pay for this. Now, the Board
21	operates on cost recovery; right? The Board recoups
22	all of its operational costs from the Operators in
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Newfoundland; is that right? 1 I believe it's 75 percent, but in principle I 2 Α. understand the concept and I agree with what you're 3 saying. 4 So, Hibernia would have ended up paying for a 5 0. portion of the software Project, if the Board went б ahead with this through some other mechanism as an 7 Operator in this area? 8 That's correct, quite likely, yes. 9 Α. And a benefit of paying for this Project in 10 0. the front-end, the way Hibernia did, was the 11 President had the opportunity to build a relationship 12 13 with the Board, and Hibernia, through this contract, was also given a seat at the table as to how this 14 software was designed; right? 15 Α. I don't know. I'm not sure I understand your 16 phrase "seat at the table," but certainly through the 17 18 R&D Guidelines, it was Hibernia that put the submission in and had some dialogue with the Board. 19 To say we had a seat at the table, there was really 20 only cursory meetings with the Board. There was no 21 22 detailed design. Confidential Information,

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1	And as I said earlier, to the best of my
2	knowledge, to this point, to today, we have not
3	seenwe were not party to any fundamental testing of
4	software. We were not part of any design of forms,
5	we were not asked to participate in any beta testing.
б	This was some preliminary conversations with the
7	Board, satisfied the Guidelines, Jamie was happy to
8	approve the Project, because it satisfied some of our
9	spend, and really the interface with the CSO would
10	beon this Project has been nonexistent for years.
11	And, as I said, to this point it's not functioning,
12	we haven't seen any reports. And, as a matter of
13	fact, the Board has never shown us anything in terms
14	of input or asked for any additional input on this
15	Project.

So, really, the fundamental motivation there 16 was for Jamie to satisfy the Guidelines, and we were 17 anxious to identify projects. This looked like an 18 easy one, and we proceeded with it. But, if there 19 was real value in this, Jamie would have had myself, 20 as safety supervisor at my department, actively 21 pursuing this. If there was really four days of 22 Confidential Information, B&B Reporters Unauthorized Disclosure

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1	savings on a MODU, which is significant, we'd have
2	put a significant amount more effort in it.
3	The motivation here, in my opinion, based on
4	my experience, was simply a Project to satisfy the
5	Guidelines.
6	Q. Okay. I would like to talk about helicopter
7	safety now.
8	Now, workers travel primarily by helicopter
9	to the Hibernia and Terra Nova Projects; right?
10	A. Correct, yes.
11	Q. And three Sikorsky S92A helicopters are used
12	for that purpose?
13	A. That's correct, yes.
14	Q. And the helicopters fly over 300 kilometers
15	each way between the shore and the Project, so
16	300 kilometers over water each way?
17	A. That's correct, yes.
18	Q. Now, unfortunately, I have to bring up the
19	2009 helicopter accident that happened in these
20	waters. You discuss the accident at Paragraph 26 of
21	your First Witness Statement.
22	So, there was a helicopter crash that
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happened in March 2009 in these waters; right? 1

That's correct, yes.

2

Α.

And just to keep this brief, what happened 0. 3 was one of the three helicopters was on the way to 4 5 Hibernia, the helicopter crashed into the water, did not stay upright, became submerged underwater and 17 б people drowned while one survived? 7

I clarify the description a little bit in Α. 8 terms of -- and I have some unique knowledge of the 9 tragedy of that crash. I participated and 10 represented Hibernia on the Implementation Committee 11 after the inquiry. To say that was a--that really 12 13 was--we make a distinction in helicopter transit and in training people between a crash and a controlled 14 landing or a controlled ditching. The tragedy of 15 16 Cougar 491 was simply a crash. We train people offshore for controlled ditchings, and that's where 17 you worry about helicopter stability. Anything to do 18 with helicopter stability is, pardon my phrase, out 19 the window, in terms of a crash and Cougar 491 was 20 definitely, without a doubt, a crash. 21 22

Okay. I don't think I actually said the word Q.

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1	"stability," but I appreciate the clarification
2	nonetheless.
3	Now, prior to the helicopter accident,
4	Hibernia and Terra Nova flew their helicopters at
5	night; right?
6	A. That's correct, yes.
7	Q. And, after the accident, operators were
8	ordered to stop flying at night?
9	A. Correct, yes.
10	Q. And then, in 2012, the Board told Hibernia
11	that if it wanted to fly the helicopters at night
12	again, it had to do a few things, and one of them was
13	to research seabird migratory patterns; right?
14	A. In principle, yes. The seabird survey or
15	study was identified as a group with seven other
16	recommendations. And the recommendations didn't come
17	from the Board, they came from the implementation
18	team that I participated on. So, there was a risk
19	assessment on night flying, they identified eight
20	best practices that were recommended to be done, and
21	the Board took the recommendations from the
22	implementation team and assigned them to the
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1	Operators. And basically said, yes, as you
2	described, if they want to return to night flying,
3	these eight things must be satisfied. And then, once
4	they were satisfied, the CNLOPB would consider
5	approving return to night flights.
6	Q. Right. So, because the Board accepted the
7	recommendations of this implementation team, in
8	essence, before the Board would consider a return to
9	nighttime flying, the Operators had to meet
10	conditions, including researching seabird flight
11	patterns?
12	A. That's correct, yes, absolutely.
13	Q. And the Operators told the Board at that
14	time, so in 2012, that they were prepared to meet
15	this condition to fly at night and were developing a
16	plan to meet it; right? In 2012.
17	A. I don't knowI'm not sure of the timing,
18	but, yes, the Operators did say they would look at
19	the conditions for returning to night flight.
20	Q. And that they were developing a plan to meet
21	those conditions?
22	A. Yes, that's fair, yes.
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1	Q. So, then the very next year after that, so,
2	in 2013, Hibernia started to research seabird
3	migratory patterns?
4	A. I would have to verify the timing, but in
5	principle, yes. I remember the Project coming up for
6	discussion and it being presented as an R&D Project.
7	But I don't have the exact timing.
8	Q. If it helps, the Project is at Paragraph 31
9	of your First Witness Statement and at Paragraph 24
10	of your Second Witness Statement?
11	A. Okay.
12	Q. It's been labeled the "Seabird Activity and
13	Aviation Operations Study Expenditure" in this
14	arbitration, and you will notice there is a reference
15	to 2013.
16	A. '13, okay, thank you, yeah.
17	Q. Okay. So, the Hibernia started funding this
18	research in 2013.
19	So, when you signed your First Witness
20	Statement in March 2016, you said that this was not
21	an "ordinary course" expenditure because, to your
22	knowledge, Hibernia was not seeking to fly at night
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1 at the time?

A. That's correct. There was no conscious
effort to work the intimate details of the eight
recommendations and present it to the CNLOPB at that
time.

There is a number of things in those б recommendations, those eight recommendations, if you 7 went into the details of aviation and the benefits, 8 there's a number of items in those eight 9 recommendations that are simply a best practice 10 regardless of night flying or not, and the Operators, 11 Cougar, on behalf of the Operators in the Basin, 12 presented those to Hibernia, along with the other 13 folks who shared these helicopters and said there's a 14 number of these things that make sense to do. 15 And in 16 terms of working some of those options, that's the premise on which a number of them were worked. 17 So, 18 there's a number of those eight items that just make 19 good sense to do, whether you were intending to night fly or not. And I can tell you certainly in the 20 early years post-Cougar 491, there was no appetite to 21 22 return to nighttime flying. And really that was the Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

1	tone from the Board, and the Operators may have been
2	identifying some opportunities to change how they do
3	business, how we did business with Cougar and how we
4	flew, but there was no conscious effort at that time
5	to work a plan to return to nighttime flying.
6	Q. Okay. So, this is what you said in your
7	First Witness Statement in March 2016, but a few
8	months later, when you filed your Second Witness
9	Statement in September 2016, the Operators had met
10	every single one of those eight conditions, including
11	the one that we're talking about to complete seabird
12	migratory pattern research; right?
13	A. That's correct, yeah.
14	Q. And, after that happened, you say in your
15	Witness Statement that Hibernia was or is stillis
16	now considering applying to the Board to fly at night
17	again after all?
18	A. So, I used the word "considering" because at
19	this point, certainly when I made my First Witness
20	Statement, there was no conscious effort, there was
21	no presentations to our management team, there was no
22	cooperative effort with Cougar, the service provider
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or the other operators in the basin, to return to
 night flying.

And if we were to return to nighttime flying,
it would involve a lot more conscious effort and
overt actions, besides just these eight activities.
It would involve engagement with the workforce, it
would have involved a media plan. It was a
significant amount of more activity required to
return to nighttime flying.

When I made my First Witness Statement, none of that had been contemplated, none of that had been planned. As I identified a few minutes ago, there was some activities around those eight

recommendations because they presented value for
daytime flying, so there was effort to do that, but
no conscious effort to return to nighttime flying.

17 Subsequent to my First Witness Statement, the 18 Operators have gotten together and completed those 19 eight activities, they are still considering a return 20 to nighttime flying. There is an awful lot of other 21 factors that have to be considered, and at this 22 point, there's been no proposal presented to the Confidential Information, Unauthorized Disclosure B&B Reporters

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Ŧ	CNLOPB to actively return to night light.
2	And no certainty that they will, but I think
3	there was reasonable effort put in to satisfying
4	those eight in the event that they want to return to
5	nighttime flying. But at this point, there's no
6	application before the CNLOPB to return to nighttime
7	flying.
8	And in many respects, the feedback we've
9	received from some of the workforce is it's been
10	almost eight years since the tragedy of Cougar 491,
11	we haven't flown at night, and we've gotten our
12	business done. So, there's a balance to be added in
13	terms of the decision to go to nighttime flying.
14	Q. Like I said at the start, we have very
15	limited time together, so I'm going to ask you,
16	again, to try and focus on what I'm asking you and
17	try and keep your answers to the point. I'm happy
18	for you to provide some context, but try to stay
19	within the realm of the question that's being asked
20	if possible. Thank you.
21	A. My apologies.
22	Q. So, needless to say, now that the Operators
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1 CNLOPB to actively return to night flying.

1	are considering returning to nighttime flying, within
2	that context, this Project is useful?
3	A. If we were to return to nighttime flying,
4	this Project would have value. At the time we
5	approved the Project, there was no concerted effort
6	and in my opinion, it was incremental.
7	Q. So, over time, an expenditure that seems
8	incremental can turn out to be useful and necessary,
9	depending on future decisions that are made?
10	A. I think in this case, this one may or may
11	not.
12	The criteria for us at the time was not
13	whether it would ever yield value, is would it
14	satisfy the Guidelines. And I mean, we applied that
15	test here, and in many cases the Projects were
16	optimistic at best. This particular one was one that
17	we didn't need to do at the time. It represented
18	compliance with the R&D Guidelines. It was almost an
19	easy one to pick, and that was the thought process we
20	had when I was involved in the conversation
21	Q. Okay, so my question was, a Project that
22	seems unnecessary when it's undertaken, to you, can
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1	over time turn out to be useful and helpful?
2	A. Hypothetically, I guess, yeah. I mean, you
3	can say that about anything, but yeah.
4	Q. Okay. Now, I would like to turn to another
5	issue related to helicopters. We can talk about
6	helicopter stability now, which you alluded to
7	earlier.
8	A. Okay.
9	Q. So, after the March 2009 accident, one of the
10	things the Board did was set up an inquiry on
11	helicopter safety; right?
12	A. That's correct, yes.
13	Q. And the inquiry completed two reports, a
14	Phase I report that was completed in October 2010,
15	and a Phase II report that was completed in
16	July 2011; right?
17	A. Correct, I believe, yeah.
18	Q. So, let's just turn to the Phase I report
19	now. It's at Tab 7 of your binder. This is Exhibit
20	C-213 for the record, and we can go to Page 208.
21	If it helps, it's also Bates Number 3879, so
22	it's just the smaller number on the pages on the
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1 bottom right. 3879.

- 2 A. I have it.
- 3 Q. Great.

So, if you just look at the last paragraph, 4 at the second line, the inquiry notes, "I have 5 б already written about the harsh conditions which 7 almost always prevail in our offshore. Suffice it to say that in our sea states, it is most likely the 8 helicopter will overturn because it is top heavy. 9 In calm water that may not happen, but we must assume 10 that in our conditions it will happen and happen very 11 quickly." 12

13

Do you see that?

14 A. I do.

Q. Okay. I'm just going to take you to a couple
more references in this report. Actually, before I
do that, the Sikorsky helicopters have floats at the
bottom of the helicopter; right?
A. That's correct. All helicopters only have

20 flotation at the bottom of them--

21 Q. Okay. The idea is that if the helicopter is 22 in water for some reason, it can float.

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1	A. In principle, yes.
2	Q. Now, if a helicopter starts to invert, which
3	is what this paragraph is alluding may happen, the
4	floats would end up at the surface of the water, and
5	the cabin and everyone in it would be submerged under
6	water. Okay.
7	So, let's just turn to another paragraph in
8	this report now. I would like you to go to Bates
9	Page Number 3895.
10	A. Okay.
11	Q. Now, at the second full paragraph on this
12	reportsorry, on this page, the inquiry states:
13	"All of my readings and consultations with experts
14	lead me to believe that in ditching, there is at
15	least a 75 percent chance that the helicopter will
16	capsize and its occupants will very quickly find
17	themselves upside down in a machine which has filled
18	with frigid water."
19	Do you see that?
20	A. I do.
21	Q. And I think you mentioned this earlier, but
22	ditching refers to any emergency landing on water,
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1	whether controlled or in the form of a crash; right?
2	A. That's fair, yes.
3	Q. Okay. Now, we will just turn to one last
4	reference in this report.
5	Can you please turn to Page 264, Bates
6	Number 3935.
7	A. Okay. I have it.
8	Q. Okay. Now, at the very last paragraph of the
9	third line, it says: "An example of research which I
10	think is important is the concept of the
11	side-floating helicopter. Its advantage would be to
12	avoid the disorientation which is bound to affect
13	some or all of those in the helicopter, should it
14	capsize and invert. Escape from an upside-down
15	helicopter is obviously more difficult than it would
16	be from a side-floating helicopter."
17	Do you see that?
18	A. I do.
19	Q. Now, just for clarification, a side-floating
20	helicopter is something thatis a helicopter that
21	could have floats at the top and the bottom of the
22	helicopter?
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1	A. In principle, yes, that's the theory.
2	Q. That's the idea behind a side-floating
3	helicopter?
4	A. That's the theory.
5	Q. And the theory is that if there are floats at
6	the top and at the bottom of the helicopter, the two
7	floats can float the helicopter sideways if the
8	helicopter starts to invert?
9	A. That's the theory, absolutely, yes.
10	Q. And it would basically ensure that the cabin
11	is not submerged under water?
12	A. Correct.
13	Q. Now, after this report was released by the
14	inquiry, the Board became interested in the issue of
15	helicopter stability upon ditching; right?
16	A. That's correct.
17	Q. And, in fact, the Board started actively
18	researching helicopter stability and the benefit of
19	side-floating helicopters in 2012?
20	A. I'm not aware of the Board itself actively
21	researching. I do know from my time with the
22	helicopter inquiry and dealing with, at that time,
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1	the Chief Executive Officer of the Board, he had
2	great interest in this and had participated in a
3	number of certainly seminars and conferences in the
4	U.K. sector where they were doing some research on
5	side flotation.
6	Q. Okay. So, the Board is the regulator that
7	deals with whether operations are operating safely,
8	and they have been interested in this issue to some
9	degree?
10	A. Absolutely, that's a fair statement.
11	Q. Okay. So, let's now discuss the "Improving
12	Stability of Helicopters Following Ditching"
13	expenditure that is at issue in this arbitration. It
14	was started by the Operators in 2013. And for
15	reference, it's at Paragraph 26 of your First Witness
16	Statement, and at Paragraph 14 of your Second Witness
17	Statement.
18	A. Okay.
19	Q. Let's turn to Tab 9 of your binder now,
20	Exhibit C-215.
21	A. Okay.
22	Q. Okay. So, this is Hibernia's application to
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1	the Board for approval of this project. And attached
2	with this is a document prepared by Oceanic. It's
3	just two pages in, and it's entitled "Manners of
C	
4	Improving Helicopter Stability in Waves Following
5	Ditching in Order to Prevent Inversion."
6	Do you see that?
7	A. Yes, I do.
8	Q. And Oceanic is the Contractor that was hired
9	to do this research?
10	A. I believe they were, yes.
11	Q. Okay. And the goal of this project,
12	ultimately, was to show that, or to study whether
13	side-floating attitude can be achieved for the S92A
14	in the wave environment that's found in the Grand
15	Banks of Newfoundland; right?
16	A. That's correct.
17	Q. And you might recall you said in your Witness
18	Statement that it's not economical for Hibernia to
19	redesign Sikorsky helicopters because Hibernia only
20	uses three of these helicopters; correct.
21	A. That's correct.
22	Q. Now, I just want to confirm: So, this
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1	research is specific to the wave conditions that are
2	prevalent on the Newfoundland offshore where, as the
3	Commission, or the inquiry, found there was a
4	75 percent risk of the helicopter flipping; right?
5	This study is focused on the specific waves in the
6	Newfoundland Banks?
7	A. It did specify that, yes.
8	Q. And the reason this research focuses on the
9	specific waves in Newfoundland is because, whether or
10	not a helicopter capsizes, and how that happens, is
11	very sensitive to the precise details of the waves
12	involved; right?
13	A. That's a fair statement, but it was really
14	generated around the percentage of time that we see
15	those sea heights or wave heights that exceed the
16	existing certification and flotation. The
17	Newfoundland region has no monopoly on waves; or the
18	waves that we would see offshore in Newfoundland are
19	not untypical to what we would see off thein the
20	North Sea, Norwegian or U.K. sectors in the North
21	Sea.
22	In principle, waves on the ocean are waves on

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the ocean. And the percentages you referenced of 1 75 percent, they're roughly correct. But they would 2 be the same applicable percentages to a helicopter 3 landing on water in the Norwegian sectors or the U.K. 4 sectors of the North Sea. 5 If you have wave heights that exceed the б certification of the flotation, it's quite likely 7 that helicopter is going to tip over. 8 So, while it was identified to be specific to 9 Newfoundland, in principle, waves are waves wherever 10 a helicopter flies. 11 And I didn't mean to sound curt, I apologize, 12 13 but I just wanted to clarify that. I appreciate that. 14 Q. So, do you recall that one of the first steps 15 that this project was meant to do was to actually 16 figure out how to model the specific waves in 17 18 Newfoundland, and move away from using general sort 19 of wave heights and that sort of thing, as you're describing? 20 It talked about that, yes. 21 Α. 22 Q. So, it was meant to be quite specific to the Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

waves of Newfoundland. Okay. 1 And now, I just want to clarify: This 2 research does not contemplate a general redesign of 3 the Sikorsky helicopter; right? It was designed just 4 5 to test whether side-floating is feasible in these waters, and the Project was specifically designed so б that, if it went well, the results would be passed to 7 the helicopter's manufacturer to actually do the 8 redesign work; is that right? 9 I believe that's correct. In any event, 10 Α. that's what would have had to have happened anyway. 11 Sikorsky would have had to redesign. And it's almost 12 13 a certainty that they would have had to have redesigned the aircraft. 14 0. Now, this research project was a Joint 15 Industry Project; right? 16 17 Α. I believe it was, yes. And HMDC, also contributed 18 Ο. and 19 to this project. I would have to verify, but I think that's 20 Α. 21 correct, yes. 22 Q. If you go to Tab 5 on your binder, you will Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

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1	see the Agreement that the Operators entered into
2	with PRNL to do this research project. And you will
3	see all of the OperatorsHMDC, and
4	-are mentioned there?
5	A. I do see that, yes.
6	Q. Okay. Now, are you aware that this
7	expenditure is an "ordinary course" expenditure, as
8	far as the Terra Nova Project is concerned?
9	A. I am not aware of that.
10	Q. Okay. I would like to talk to you about one
11	last topic: personal locator beacons.
12	Now, a personal locator beacon is worn by
13	workers and used to send out distress signals; right?
14	A. That's correct.
15	Q. And the idea is that it speeds up rescue by
16	making it easier to locate people during an
17	emergency?
18	A. Yeah, that's fair. Yeah.
19	Q. And because the waters of Newfoundland are
20	quite cold, speed of rescue can be critical there?
21	A. That's a fair statement, yeah.
22	Q. Now, the personal locator beacons that were
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1	used during the helicopter accident that we discussed
2	a little while ago were ineffective; right?
3	A. In principle, it was identified during the
4	Transport Canada investigation that they did not
5	work. The indications from the investigation were
6	they did not work because it was a crash, not a
7	controlled ditching, and because the helicopter sank
8	very quickly and exceeded the limitations of that
9	particular unit.
10	I don't think it's fair to say they were
11	ineffective. They certainly didn't work because they
12	weren't designed to work under those circumstances,
13	where a helicopter crashed so severely and sank
14	immediately.
15	So, it was the depth of the water that
16	stopped them from working.
17	Q. So, the beacons did not work; no signals were
18	received during that accident.
19	A. To my knowledge, no beacons were received,
20	nobecause of the depth of the water.
21	Q. Right. And do you recall that the Union of
22	Hibernia workers, Local 212, was frustrated by the
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1	personal locator beacons that were in use, and how
2	they worked during the accident?
3	A. I don't have any direct recollection or
4	direct involvement or interface with the Union to say
5	they were frustrated. They were frustrated with the
6	crash in general; we all were.
7	Q. Now, after the helicopter crash, the
8	Operators told the inquiry that they would do work to
9	continuously review improvement opportunities for
10	beacons; right? Do you recall that?
11	A. I don't recall it directly, but I believe
12	that was a general intent that, coming out of the
13	crash of 491, you know, operators would look at ways
14	to make improvements. Yeah, you can always learn,
15	and I think that was a fair statement, yes.
16	Q. Okay. Now, let's discuss the Personal
17	Locator Expenditure at issue in this arbitration.
18	You discuss it at Paragraph 35 of your First Witness
19	Statement, and at paragraph 21 of your Second Witness
20	Statement.
21	And you will find the expenditure application
22	to the Board for this project at Tab 13 in your
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1	binder, and it's Exhibit C-220.
2	So, this is actually an R&D application for
3	this project and a few others, as well. So, we'll
4	have to go to Bates Number 4321 to find the
5	application for the Beacon Project; so, Tab 13, Bates
6	Number 4321.
7	A. Okay.
8	Q. Now, the purpose the Project was to create a
9	better personal locator beacon; right?
10	A. In principle, yeah, that's correct.
11	Q. And one advantage it was meant to offer was
12	being more reliable in environments with high-impact
13	force, water pressure, high humidity or saltsome of
14	the things that would come into play with a
15	helicopter crash in water; right?
16	A. That's correct.
17	Q. And you state in your Witness Statement that,
18	if a better beacon was necessary, it would have been
19	obtained off-the-shelf from the market. That's what
20	you said in your First Witness Statement, I believe?
21	A. That would be normal practice for HMDC. I
22	mean, in our business, we wouldn't take on a design
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1	of anything in particular. We wantour typical
2	approach would be to identify a specification or a
3	spec for the product we wanted, and it's very typical
4	for us to go to the market and put a formal bid, and
5	evaluate the bids from a cost-benefit perspective.
6	Q. Okay. So, let's look at that application to
7	the Board now. I believe you're at it. So, attached
8	to the cover page of the application is the write-up
9	that was completed by Canatec. Canatec is the
10	contractor that was hired to do this research; right?
11	A. That's correct.
12	Q. And you will see on the first page of this
13	document, the first paragraph, at the end of the
14	first line, it says: "Timely, reliable and exact
15	location of personnel in emergency rescue situations
16	is limited by the performance and reliability of
17	personal locator beacons now on the market. Better
18	technology is available to reduce the loss of human
19	life, and the financial impact on operations."
20	And in the next paragraph, in the second line
21	it says: "This technology can be quickly adapted for
22	a personal locator beacon application, and offers
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significant advantages over existing products on the 1 market." 2 Do you see that? 3 Α. I do. 4 So, the type of beacon that was being 5 Ο. envisioned here could not have been bought directly б from the market? 7 The ideal PLB that was being described here Α. 8 was not available in the market, not at that time. 9 Okay. And just to confirm, your position 10 0. remains that this research was done not to increase 11 the safety of the Projects but just to meet the 12 13 Guidelines, just like all the other projects we've discussed today? 14 Canatec was competing for R&D dollars. 15 Α. The 16 descriptions we used in a lot of these Projects were designed--17 0. I think that was a yes-or-no question. 18 19 Α. If you'll repeat the question for me, then. So, your position remains that this research 20 Ο. was done not to improve the safety of the Projects, 21 22 but simply to meet the 2004 Guidelines? Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

1	A. In this particular project, yes, it was done
2	to satisfy the Guidelines and to meet some spending
3	requirements. That's my position.
4	Q. Thank you, Mr. Durdle. Those are all my
5	questions.
6	A. Thank you.
7	PRESIDENT GREENWOOD: Thank you.
8	Mr. Nichols?
9	Ms. Amalraj, would you please turn off your
10	microphone.
11	REDIRECT EXAMINATION
12	BY MR. NICHOLS:
13	Q. Mr. Durdle, I'd like to take you back to the
14	Safety Oversight Management System Project, which I
15	believe Ms. Amalraj was taking you through at the
16	beginning of her examination.
17	Do you know how this project came to the
18	attention of HMDC?
19	A. My best recollection is it was through a
20	discussion. We had met on a number of occasions with
21	the safety group to brainstorm our R&D projects.
22	Based on our experience, in terms of what was
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1	happening offshore in terms of efficiencies, this was
2	brought forward as an idea that might represent some
3	value, but certainly would satisfy the R&D
4	Guidelines. So, it came through a brainstorming
5	session on the R&D Guidelines that we were asked to
6	participate in as a safety group.
7	Q. Ms. Amalraj brought up that part of the
8	Board's costs are covered by the Operators. Do you
9	remember that part?
10	A. I do.
11	Q. Do you know whether the Board would have
12	funded this particular project if HMDC did not?
13	A. I don't believe they would have funded it.
14	Certainly, they didn't demonstrate any interest or
15	willingness to do this type of activity prior to us
16	presenting it under the R&D Guidelines.
17	Q. Do you know who selected the vendor for this
18	project?
19	A. CNLOPB's chief Safety Officer brought the
20	vendor to us. It was not done through any
21	full-and-fair competitive bid process.
22	Q. Do you know why the CNLOPB selected that
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1 particular vendor?

2	A. I believe he was known tothe vendor was
3	known to the Chief Safety Officer, either in a
4	previous career or personallybut I couldn't speak
5	specifically to it. But, certainly, he was known to
6	the Chief Safetythe vendor was known to the Chief
7	Safety Officer, and that's how he presented the name
8	to us.
9	Q. You also testified, as I recall, that you
10	have personal doubts about whether you will ever see
11	the results from this vendor. Could you please
12	explain why you have those doubts.
13	A. The project was identified a significant
14	period of time ago, many years ago. In many
15	respects, aspects of the Project should have been
16	fairly simple to bring forward. But, to this point,
17	and to the best of my knowledge, we have not seen, as
18	I said earlier, a simple electronic form; we have not
19	been asked to participate in trial runs; we have not
20	seen a scoping document with any degree of detail.
21	And the safety people that presently occupy, or all
22	occupied previously at Hibernia, have had no
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1	engagement with the CNLOPB about it. And, in fact,
2	when they've inquired about it, received very little
3	in terms of a formal response.
4	Q. Do you know whether the value, potential
5	value, described in Jamie Long's e-mail that Ms.
6	Amalraj referred to, has been realized?
7	A. To the best of my knowledge, we've
8	seenwell, certainly, we've seen no reports, or no
9	active use of this database; so, certainly, no dollar
10	values or values to Hibernia have accrued out of this
11	Project. And I doubt we'll see any out of it.
12	Q. Do you know whether HMDC will ever derive
13	value from this particular expenditure?
14	A. Based on the progress that I've seen so far,
15	again, I'm doubtful we will see any value coming out
16	of a database such as thisif, indeed, we see the
17	database active at all.
18	Q. Mr. Durdle, let's go back to the Seabird
19	Activity Study that was covered in your Witness
20	Statement and also examined by Ms. Amalraj.
21	Why, Mr. Durdleor do you know why,
22	Mr. DurdleI will rephrase.
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1	At the time that this particular expenditure
2	was made, do you know whether the Operators intended
3	to return to nighttime flying?
4	A. At the time we evaluated this particular
5	project, there was definitely no concerted effort to
б	return to night flying.
7	Q. Do you know when the Operators began
8	considering returning to nighttime flying?
9	A. I knowI couldn't speak specifically to when
10	the work started. I can tell you when I became
11	reasonably aware, and it was justit was post my
12	First Witness Statement.
13	Q. With regard to the Helicopter Stability
14	Project that Ms. Amalraj also covered, in the
15	ordinary course of business, does HMDC undertake
16	studies into design changes to helicopters?
17	A. Absolutely not. It's all foreign to our core
18	business. Our base business is production; safe,
19	efficient production of oil. And the redesign of
20	helicopters that are certified in the U.S., and are
21	used worldwide, would certainly not be anywhere near
22	the mandate for HMDC.
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1	It would be really unusual for me as a
2	supervisor, or as a leader in the Hibernia
3	organization, to bring that to my management and say,
4	"This is a quality Project that represents value to
5	Hibernia, its core business. Let's do this project."
6	It would just never pass the test of our business
7	model. It would be so foreign for us to do something
8	like that, particularly, with helicopters
9	particularly, in an industry so specific and targeted
10	as aviation.
11	Q. Turning to the PLB study, do you know whether
12	HMDC would fund that particular study in the ordinary
13	course?
14	A. Again, not unlike the helicopter stability,
15	for one company, HMDC, we perhaps used, you know, at
16	most 50 PLBs in terms of our base business. It's not
17	core business. We would typically go to the market,
18	identify a need or a gap in the technology; and ask
19	the market to provide that.
20	But for HMDC, in and of itself, to fund very
21	specific technical research with that much
22	uncertainty, and not have any proprietary rights to
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1	the productand even if the PLB research yielded a
2	product which, to this point, it hasn't, and it's
3	probably very uncertain that we will see a PLB come
4	out of that research that's able to be certified and
5	used in America. But even if it did, we would still
6	have to go to the market and ask a vendor, whoever
7	built that, to sell it to us, and buy it. And we
8	would be just in the queue like everybody else.
9	That's just so foreign to our business model
10	that we would not do that, but for these Guidelines.
11	MR. NICHOLS: No further redirect.
12	PRESIDENT GREENWOOD: Mr. Durdle, thank you
13	very much.
14	You were working for HMDC when that
15	helicopter crash took place, were you?
16	THE WITNESS: I was actually on a rotation
17	offshore, so I was one of the first individuals to
18	PRESIDENT GREENWOOD: So, they were
19	colleagues of yours.
20	THE WITNESS: Yes.
21	PRESIDENT GREENWOOD: Well, I'm sorry that
22	you've had to relive it in the context of this
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Hearing. And thank you very much for coming to see 1 2 us. I suggest we take a five-minute break while 3 we change witnesses over, and then we'll make some 4 5 progress with Mr. Jeff O'Keefe. (Witness steps down.) б PRESIDENT GREENWOOD: Sorry--could you hold 7 on for just a minute. 8 Mr. Durdle, you're free to leave. 9 (Tribunal conferring.) 10 JEFF O'KEEFE, RESPONDENT'S WITNESS, CALLED 11 PRESIDENT GREENWOOD: Mr. O'Keefe, welcome. 12 13 Thank you for coming to talk to us. Yes, you need to put your microphone on. 14 Is that on now? THE WITNESS: 15 Okav. PRESIDENT GREENWOOD: There we are. 16 Would you make the Declaration from the 17 18 laminated sheet of paper in front of you, please. 19 THE WITNESS: Sure. I solemnly declare upon my honor and conscience that I shall speak the truth, 20 the whole truth, and nothing but the truth. 21 22 PRESIDENT GREENWOOD: Thank you very much. Confidential Information, Unauthorized Disclosure **B&B** Reporters Prohibited 001 202-544-1903

1	Now, just a couple of housekeeping matters.
2	The first one is not going to be a problem since you
3	seem to have a good, clear voice. It's very
4	important that you speak up, but remember, if you're
5	looking at the counsel who is asking you questions,
6	don't take your mouth away too far from the
7	microphone so that the Court Reporter, in particular,
8	can pick up what you're saying.
9	And the second thing is don't speak too
10	quickly, and don't speak when counsel is speaking.
11	It's all too easy with cross-examination for both of
12	you to speak at once, but it plays havoc with our
13	attempt to keep a transcript.
14	THE WITNESS: I understand.
15	PRESIDENT GREENWOOD: Right.
16	Who is doing the direct examination?
17	MS. SQUIRES: I am.
18	DIRECT EXAMINATION
19	BY MS. SQUIRES:
20	Q. Hi, Mr. O'Keefe, you will see in front of you
21	there you have a copy of your Witness Statement.
22	Do you have any corrections to make to that
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1 statement?

2	A. Yes. I have one correction, and that is on
3	Page 9, in Paragraph 23, the line that says, "While
4	the results of the WAG Pilot will not be known until
5	the pilot is run, based on the documents provided to
6	the Board by HMDC, I see no reason not to believe
7	field-wide EOR is not possible."
8	There's three "nots" in there. There should
9	only be two.
10	My statement is that I believe that it is
11	possible.
12	PRESIDENT GREENWOOD: I think that's how I,
13	for one, had read it, but it should read, therefore,
14	"I see no reason to believe field-wide EOR is not
15	possible." I think that's what you meant to say.
16	THE WITNESS: Correct.
17	PRESIDENT GREENWOOD: Thank you.
18	BY MS. SQUIRES:
19	Q. No other questions from me.
20	PRESIDENT GREENWOOD: Thank you very much.
21	I'm sorry, I can't see who it is who's asking
22	the questions.
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1	Mr. Neufeld.
2	MR. NEUFELD: Mr. President.
3	PRESIDENT GREENWOOD: Very good. Please go
4	ahead.
5	Do you have a cross-examination bundle?
6	MR. NEUFELD: I do, indeed.
7	PRESIDENT GREENWOOD: I think we will just
8	pause for a minute while you distribute it or while
9	your colleague distributes it.
10	While those are being handed around,
11	Mr. Neufeld, through no fault of anyone, we have
12	clearly followed the practice in this Hearing that no
13	piece of paper should be produced which doesn't bear
14	at least two, and sometimes three different page
15	numbers, but we were getting a little bit confused on
16	one or two occasions, so please try to be consistent
17	about which page you refer the Witness to.
18	MR. NEUFELD: Thank you, sir. I will.
19	CROSS-EXAMINATION
20	BY MR. NEUFELD:
21	Q. Good afternoon, Mr. O'Keefe.
22	A. Good afternoon.
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I would like to take you to your statement 1 0. and ask you a few questions about what's contained 2 3 therein. First, I would like to ask you how long--4 PRESIDENT GREENWOOD: Mr. Neufeld, I'm sorry, 5 we're losing you. You'll have to speak up and make б sure the microphone is right by your mouth. 7 MR. NEUFELD: Thanks, Mr. President. 8 BY MR. NEUFELD: 9 Mr. O'Keefe, I would like to ask you how long 10 0. you've served as Director of Resource Management and 11 Chief Conservation Officer at the Board? 12 13 Α. I was appointed Director of Resource Management in March of 2012, and I became the Chief 14 Conservation Officer, I think it was, in July or 15 August of 2012. 16 And what was your position prior to joining 17 Ο. 18 the Board? 19 Α. I came to the Board in July of 2004 as a Reservoir Engineer and moved through the ranks, 20 becoming a Conservation Officer in 2008. 21 22 Q. And, prior to that, did you work in the Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

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1 private sector?

2 A. Yes.

3 Q. And what were your positions in the private4 sector?

5 A. Should I list all of them or the relevant6 ones?

7 Q. You can list the relevant ones.

A. Okay. I graduated from Memorial University
9 in '93 with a Bachelor's in geology and worked for
10 two years as a well-site geologist for a company out
11 of Calgary called "Sperry-Sun."

I then went back to school, graduated from the University of Alberta with a petroleum engineering degree where I was--then went to work for Marathon Oil company out of Houston, Texas, in their international production department.

I spent close to four years there before returning to St. John's, Newfoundland, where I worked for a year-and-a-half on the sanctioning of the White Rose Project for Petro-Canada.

21 Q. Thank you.

22

And what year did you graduate from the

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1	University of Alberta, was it?
2	A. 1998.
3	Q. Okay. That's my alma mater, as well.
4	A. Okay.
5	Q. Now, you note that you're responsible for
6	reviewing and approving development plans, production
7	operations and so forth; is that right?
8	A. Correct, as the Director of Resource
9	Management.
10	Q. And what activities and projects in the
11	Offshore Area are within your responsibility?
12	A. All the activeall the productionall the
13	exploration in terms of data acquisition and all the
14	development and production activity in the
15	Newfoundland and Labrador offshore.
16	Q. Thank you.
17	And which projects specifically, if you could
18	name them in the Offshore Area that you were
19	responsible for?
20	A. I worked forin terms of production
21	projects, the Hibernia Project, on the Terra Nova,
22	White Rose, and most recently the Hebron Project.
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1	Q. Thank you.
2	Now, you've submitted your statement in these
3	proceedings, as you say in Paragraph 2, to address
4	what you call the Gas Utilization Study or WAG Pilot;
5	is that correct?
6	A. That's correct.
7	Q. You say "the" WAG Pilot. How many WAG Pilots
8	are there currently in the Offshore Area in which you
9	are responsible?
10	A. Currently, there is none.
11	Q. Okay. So, you're referring to the WAG Pilot
12	specifically at Hibernia; is that right?
13	A. Yes.
14	Q. And, of the other projects you named, some of
15	those are older in life of field than Hibernia's; is
16	that right?
17	A. No, Hibernia is the oldest one. It's been in
18	production since 1997 and it's in its 20th year.
19	Terra Nova started in 2002, so it would begin its
20	15th year, and White Rose started in 2005, so its
21	12th year.
22	Q. Yes. And the end of life for Production
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1	Phase for those projects, however, it's Terra Nova, I
2	believe, that is closest or one of the closest to
3	coming to an end?
4	A. No. Currently, Terra Nova isstarted an
5	asset review of the facility to extend its life by
б	another 10 years. It comes up for renew in 2022.
7	That review possibly could extend it beyond that.
8	White Rose, obviously, with the sanctioning
9	of the wellhead project is a continuation, and that's
10	supposed to extend it out for another 10 years,
11	around the same time. It could be White Rose, it
12	could be Terra Nova.
13	Q. And the life of field expected for Hibernia
14	at this stage is over 20-40.
15	A. Another 30 years, yes.
16	Q. Now, in your statement, you refer to a number
17	of provisions. One is in a decision, Decision 86.01,
18	and that's at C-37, but it's also quoted in your
19	statement at Paragraph 3. This is the Hibernia
20	Benefits Plan, and it's an application for approval,
21	and there is a decision on this matter.
22	Is the Hibernia Development Plan referred to
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in this document, this Development Plan was presented 1 prior to any drilling taking place at Hibernia; is 2 that right? 3 Well, there was exploration drilling, the 4 Α. 5 discovery well, and then there was delineation drilling, and then the Project--the Operator submits б the proposal based on the information from the 7 exploration and delineation wells. 8 And the initial development drilling did not 9 Ο. take place until when? Nineteen-ninety--10 1990--November 1997. Α. 11 1997, thank you. Q. 12 13 Now, the purpose of this document, the Decision 86.01, is to record the Board's decision on 14 the Proponent--in this case, I take it that's HMDC? 15 Α. Correct. 16 --and then HMDC's Application for Approval of 17 Ο. the Hibernia Development Plan; correct? 18 19 Α. Correct. And, as part of the approval of the Hibernia 20 0. Development Plan, there was a condition, you say, a 21 22 Condition 1(2) of Decision 86.01; is that right? Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

Α. Correct. 1 Okay. Let's take a look at that provision. 2 0. You cited at the top of Page 2 of your Witness 3 Statement, which is Paragraph 3. Could you just read 4 that out for us? 5 Okay. It's on the screen there. Α. б It's the next page, whoever is controlling 7 the screen. Okay. 8 "It is the condition of the approval of the 9 Hibernia Development Plan that the Proponent 10 undertake studies concurrent with the initial 11 development drilling to establish the feasibility of 12 a miscible flood for the Hibernia Reservoir." 13 Thank you. 14 Q. Now, let's look specifically, before we get 15 16 into the details, at what exactly this quote is referring to. It is the feasibility of a miscible 17 flood. 18 19 Α. Correct. And there are a number of different types of 20 Ο. miscible flooding; is that right? 21 22 Α. Correct. Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

1	Q. For example, CO2 injection, polymer
2	injection. Would those be two examples?
3	A. Correct.
4	Q. Another example is a form of miscible
5	flooding called "double displacement"; is that right?
6	A. Correct.
7	Q. And would you agree that double displacement,
8	in particular, is a process of injecting water
9	throughout a reservoir followed by injecting gas
10	throughout the same reservoir?
11	A. Correct. That you would haveinitially
12	start with a waterflood, and then after it
13	watered-out, you follow it up with a gas flood.
14	Q. And, as I understand it, a
15	double-displacement study was actually done in 2008
16	to assess the potential for EOR.
17	A. Correct.
18	Q. And "EOR" refers to energy
19	A. Enhanced oil recovery.
20	Q. Thank you.
21	Now, you also refer, I think, to a definition
22	of "miscible flooding," and that's found in C-37, as
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well on Page 101, which--1 MR. NEUFELD: Excuse me, Mr. President, I'm 2 going to give you the number of the Bates page, which 3 is 1051. 4 5 PRESIDENT GREENWOOD: Mr. O'Keefe, each document is likely to have two page numbers. The one б 7 that is usually the best one for identifying things is what's called a Bates number, which is the 8 hieroglyphic down in the bottom right-hand corner, 9 MOB 0001051. 10 11 THE WITNESS: Okay. BY MR. NEUFELD: 12 13 0. Now, sir, do you have the definition in front of you? 14 15 Α. It's currently on P. It has to go back up to "miscible," I guess. 16 Okay. Could you read that out for us if it's 17 Ο. 18 in front of you? 19 Α. It's not in front of me yet. Okay. Yeah, Mr. O'Keefe, you can also find 20 Ο. it--21 22 PRESIDENT GREENWOOD: Yes. Mr. O'Keefe, I Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

1	think you will find it more useful to use the bundle
2	that trying to read it off the screen. It's quite a
3	challenge to read it off the screen.
4	THE WITNESS: The number again, please?
5	PRESIDENT GREENWOOD: 1050. It's in the
6	bottom right-hand corner.
7	THE WITNESS: I have it.
8	BY MR. NEUFELD:
9	Q. Could you read that out for us.
10	A. Sir, certainly.
11	"Miscible flood, a secondary or tertiary
12	oil-recovery method where two or more injection
13	fluids are used, one behind the other, for example,
14	gas or water, to mix with the oil and enhance flow
15	characteristics."
16	Q. Now, we were just discussing double
17	displacement, and I take that it double displacement
18	would be a form of miscible flood based on the
19	definition we had.
20	A. Correct.
21	Q. And the topic that you are discussing in your
22	statement, as you say, in Paragraph 2 is the WAG form
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1	of EOR.
2	A. Correct.
3	Q. And what does WAG stand for?
4	A. Water-Alternating-Gas.
5	Q. Okay. So, by its very name, it suggests that
6	it's a form of miscible flooding.
7	A. Correct.
8	Q. Can you describe the process, briefly?
9	A. So, basically, you would initiate a WAG study
10	where you would, for a period of time, inject water,
11	then stop and inject gas, and then alternate back to
12	water then gas. So, it would depend on cycles in
13	terms of how longdepending on the reservoir and the
14	fluid characteristics, how long you would have those
15	cycles going on for.
16	Q. WAG itself is the displacement of water and
17	gas alternating in form?
18	A. Correct.
19	Q. Is that right?
20	A. Correct.
21	Q. Okay. And double displacement and WAG, as
22	thatas defined just now, are forms of miscible
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flooding, according to the definition of 86.01. 1 Α. Correct. 2 0. Okay. So, WAG is a form of EOR; is that 3 right? 4 5 Α. Correct. Okay. Though it's not quite right, I quess, б 0. to say, in Paragraph 4, as you do, that WAG is--that 7 EOR is a form of WAG. It's really the other way 8 around. There are multiple types of miscible 9 flooding. 10 Α. Correct. EOR is sort of the umbrella that 11 captures the different types between miscible, 12 chemical, in situ. There is a variety of different 13 14 types. Now, the expenditure that we are discussing 15 Ο. in this particular matter is the WAG Pilot. You're 16 familiar with this project; right? 17 18 Α. Correct. 19 0. Okay. And earlier, we were reading out from the Condition 2(1) or rather 1(2) in Paragraph 3 of 20 21 your statement. 22 There, there is no reference, is there, to Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

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1	the WAG Pilot or a pilot of any kind?
2	A. No, there isn't.
3	Q. All right. But you have cited this
4	provision, I take it, as a demonstration of the
5	requirement to take the WAG Pilot.
6	A. You have to go back to the premise of where
7	the condition was put into the Decision. That would
8	be
9	Q. Sir, if I could
10	A. Page MOB0000999.
11	PRESIDENT GREENWOOD: You said Page 999?
12	THE WITNESS: Yes.
13	So, the Board, in its analysis, describes
14	what led to the Condition Number 1. It's realized
15	that there was technical difficulties in looking at
16	miscible flood, and required that more field and
17	laboratory data needed to be done to look at the
18	feasibility of a miscible flood. So, the requirement
19	was that during the initial drilling phases, that
20	more field data as well as lab data be required to go
21	forward, and they even suggest the block area that
22	the study should be done.
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1	BY MR. NEUFELD:
2	Q. Yes.
3	A. So, they could best assess miscible flooding.
4	Q. And the third paragraph on 999 states that:
5	"The Board recognizes a technical difficulty
6	associated with the feasible study of a miscible
7	flood at this time"
8	A. Mm-hmm.
9	Q"and with the possible implementation of a
10	miscible flood in a geologically complex reservoir
11	such as the Hibernia sandstones."
12	So, the reference here is to studies,
13	feasibility studies, which is what's referred in your
14	statement
15	A. Correct.
16	Q. Now, studies, as we have just been
17	discussing, include, for example, the
18	double-displacement study that was done in 2008.
19	A. Correct.
20	Q. That study did not include a pilot, in-field
21	pilot, did it?
22	A. No. It was more based on the laboratory.
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Q. Right. 1 And the studies that are referred to in, for 2 example, the staff commentary on that study assumed 3 that the study takes place before anything else is 4 5 done. It's a study about feasibility; is that right? Α. Correct. б So, that's in keeping with the legislation. 7 Right. 0. 8 So, a study as such is not an in-field pilot. 9 I mean, the study is to--whether--a pilot's 10 Α. definition, if you go to that, is a scheme to look at 11 evaluation of experimental data to see if it can be 12 13 used on a full field. So, I would say that a pilot is a study because you're not doing a full field. 14 You're testing out a hypothesis that you want to 15 16 bring to the field in a small area, and thus it's a study, bringing the--because the lab data doesn't 17 18 always work in the field, and thus you're testing 19 your hypotheses that you've seen in the lab going forward. So, I would say no. It is a study. 20 So, sir, it's your testimony that there is no 21 Ο. 22 difference between a study in the form, for example, Confidential Information, Unauthorized Disclosure

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1	of a double displacement paper that was submitted and
2	commented on in regards to its feasibility and an in-
3	field pilot, an actual production
4	A. Well, it depends. The definition of the
5	"pilot" in the regulations state that it's taking
6	experimental data and trying it out in the field, not
7	on a full field, or thatbut it's for a period of
8	time. There's objectives in the pilot to test it
9	out.
10	Q. Now in
11	PRESIDENT GREENWOOD: You say "in the
12	regulations," the definition in the regulations?
13	THE WITNESS: Correct.
14	PRESIDENT GREENWOOD: Is that in the bundle
15	in front of you? Could you just show us where it is?
16	THE WITNESS: You would need to pull up the
17	Drilling and Production Regulations, whatever
18	PRESIDENT GREENWOOD: Drilling and Production
19	Regulations, thank you.
20	Could somebody do that?
21	MR. NEUFELD: Yes. It's R 249.
22	PRESIDENT GREENWOOD: R 249. Thank you.
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1	Is thatright. That's later in this bundle.
2	MR. NEUFELD: Yes, it's Page 39 of
3	PRESIDENT GREENWOOD: Mr. O'Keefe, would you
4	perhaps direct us to the particular definition you
5	were referring to a moment ago?
6	THE WITNESS: Sure.
7	It's under "pilot scheme" Number 831. For
8	the purposes of this section "pilot scheme" means a
9	scheme that applies, existing or experimental
10	technology, over a limited portion of a pool to
11	obtain information or reservoir or production
12	performance for the purpose of optimizing field
13	development or improving reservoir or production
14	performance."
15	And the last, number three says: "Completing
16	the pilot, tell the results of the scheme and
17	supporting data as well as conclusions to the
18	potential of the scheme for application for full
19	scale production."
20	BY MR. NEUFELD:
21	Q. Thank, Mr. O'Keefe. That's quite helpful.
22	Now, the definition of "pilot," as you say,
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1	is provided in the regulations and it's defined as
2	such just as you've read it; correct?
3	A. Yes. Correct.
4	Q. And had Decision 86.01 wished to use that
5	term as it's defined, presumably it would have
6	included it in the Decision. Would you not agree?
7	A. No. I mean, it'syou do the studies first
8	in the lab to seeif the results in the lab are
9	encouraging, you're moving next to the pilot. So, to
10	define that
11	Q. Excuse me, sir. So, in that case, studies
12	are done, and they're different from the pilot; is
13	that correct?
14	A. I think you're saying there is a diffyou're
15	trying to say there is a difference between
16	Q. I am indeed saying there is a difference.
17	A. Difference.
18	Q. We've just looked to the definition, as you
19	pointed us to
20	A. Correct.
21	Q. Of "pilot"; correct?
22	A. Correct.
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1	Q. It's in the regulations.
2	A. Correct.
3	PRESIDENT GREENWOOD: Please, gentlemen,
4	don't both talk at the same time. It makes it
5	impossible for the Court Reporter.
6	Mr. Neufeld, you must let your witness answer
7	the questions that are put to him.
8	MR. NEUFELD: Thank you, sir. I will.
9	BY MR. NEUFELD:
10	Q. So, the definition of "pilot" that you drew
11	us to
12	A. Correct.
13	Qthat word, that's a defined term as you
14	noted, is not the term that's included in Decision
15	86.01; correct?
16	A. Correct.
17	Q. And, as you say, studies are done before in-
18	field pilots as a matter of course; is that your
19	testimony?
20	A. Correct.
21	Q. So, there is a difference between a study and
22	a pilot in that case.
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1	A. No, I don't think there is a difference
2	because I think the results from the study lead you
3	to do more work, which is a study and which includes
4	a pilot.
5	Q. So, you would agree that a defined term in
6	the regulations, namely "pilot," is not in this
7	provision; is that correct?
8	A. I think you'rethe definition is the scheme
9	a study.
10	Q. I think we need to get this very baseline at
11	least set. The word "pilot scheme" does not appear
12	in Condition
13	A. 86.01, correct.
14	Q. 86.1.
15	And it is a defined term in the regulations,
16	"pilot" is.
17	A. Correct.
18	Q. And it was not chosen to be used in this
19	provision.
20	A. Correct.
21	Q. And "pilot" and "study" are two different
22	things, therefore; would you agree?
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1	A. No, I would not agree.
2	Q. Thank you. Let's move on.
3	PRESIDENT GREENWOOD: Mr. O'Keefe, is there a
4	separate definition of "study" in the regulations?
5	THE WITNESS: No, there is not.
б	PRESIDENT GREENWOOD: Just a pilot scheme?
7	THE WITNESS: Mm-hmm.
8	PRESIDENT GREENWOOD: Thank you.
9	BY MR. NEUFELD:
10	Q. Now, in Paragraph 5 of your statement, you
11	say in the first line that there is a requirement
12	under the Decision 86.01 to implement EOR techniques.
13	That's not quite right, is it?
14	A. The section you're referring to in 65 says
15	that, if65(c).
16	Q. Pardon me. I was referring to
17	Decision 86.01, so the condition we were just
18	speaking of.
19	A. Correct. The Decision 86.01 doesn't refer to
20	implementing an EOR.
21	Q. Right.
22	Let's move, then, on to the point that you
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1	were referring to, which is Drilling and Production
2	Regulations. This is Section 65, which you were just
3	referring to. And if we take a look at that
4	provision, it refers to EOR in Subsection (c), and
5	this is found in the bundle, which we were just
6	looking at, at R-249, and I believe it is Page 31.
7	(Comment off microphone.)
8	Q. Yes, page 31 in the bottom left corner,
9	Section 65. It's also reproduced, Mr. O'Keefe, of
10	course, in your statement at Paragraph 5.
11	Could you read out for us Subsection (c) of 65?
12	A. Sure.
13	"The Operator shall ensure that (c) if there
14	is reason to believe that infill drilling or
15	implementation of an enhanced recovery scheme may
16	result in increased recovery from a pool or a field,
17	studies on this method are to be carried out and
18	submitted to the Board."
19	Q. So, again, the word "studies" appears in this
20	provision, as before; correct?
21	A. Correct.
22	Q. And an in-field pilot study does notpardon
	Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

me, an in-field pilot project does not appear 1 anywhere in this provision. 2 Α. That's correct. 3 Mr. Neufeld, I think 4 PRESIDENT GREENWOOD: 5 that might be a convenient moment for us to break for lunch, unless you have perhaps just one further б question on this point. 7 MR. NEUFELD: That's quite all right, 8 Mr. President. 9 PRESIDENT GREENWOOD: 10 Thank you. Right. We'll resume at 2:00. Thank you all 11 very much. 12 13 Mr. O'Keefe, I'm afraid you must sequester yourself during the lunch break and not talk to 14 anyone from either team that you see in the 15 room--probably not to talk to anyone at all. 16 17 THE WITNESS: Correct. PRESIDENT GREENWOOD: Thank you very much. 18 19 THE WITNESS: Not a problem. PRESIDENT GREENWOOD: Mr. Neufeld, when we 20 come back, I think we've all--the Members of the 21 Tribunal have all looked as these legislative 22 Confidential Information, B&B Reporters Unauthorized Disclosure Prohibited 001 202-544-1903

1	provisions. Of course, you should put them to the
2	Witness, but I don't think it's necessary that either
3	you or the Witness read them out unless you want to
4	make some particularly significant point about the
5	exact wording.
6	MR. NEUFELD: Thank you, Mr. President.
7	Understood.
8	PRESIDENT GREENWOOD: You can assume that
9	we're familiar with them by now.
10	MR. NEUFELD: Thank you.
11	(Whereupon, at 12:56 p.m., the Hearing was
12	adjourned until 2:00 p.m., the same day.)

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1	AFTERNOON SESSION		
2	PRESIDENT GREENWOOD: All right. Let us		
3	reconvene.		
4	Mr. Neufeld, please continue.		
5	MR. NEUFELD: Thank you, Mr. President.		
6	CONTINUED CROSS-EXAMINATION		
7	BY MR. NEUFELD:		
8	Q. Mr. O'Keefe, could you turn to Paragraph 21		
9	of your statement. In the first sentence you say:		
10	"In his statement, Mr. Noseworthy suggests that once		
11	conventional drilling techniques are exhausted at a		
12	block, HMDC may choose to abandon the block even if		
13	it has not undertaken EOR."		
14	And you say this is incorrect; is that right?		
15	A. Correct.		
16	Q. Isn't it true that, since oil production		
17	began in 1997, that HMDC has been permitted to		
18	abandon wells without the requirement to implement		
19	EOR in the field?		
20	A. Correct.		
21	Q. And how many applications have been accepted		
22	on the condition that HMDClet me rephrase.		
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How many applications for abandoning a well 1 2 have been denied because HMDC did not implement EOR in the field? 3 None have been denied because EORs are not 4 Α. 5 ready. I also want to ask you-б Ο. PRESIDENT GREENWOOD: Sorry, I need to make 7 sure we've got that answer right. Did you say EORs 8 are not ready or EORs are not relevant? 9 10 THE WITNESS: EORs are not ready. PRESIDENT GREENWOOD: Ready, thank you. 11 Ready in what sense? 12 THE WITNESS: That the studies that were 13 undertaken to see if EOR could be done are still 14 15 ongoing. PRESIDENT GREENWOOD: Thank you. 16 BY MR. NEUFELD: 17 0. Mr. O'Keefe, there is a presentation that you 18 19 have attached to your Witness Statement that I would like to ask you about. It is R-259, and it appears 20 at Paragraph 18 of your statement. 21 22 It's noted in a footnote. Confidential Information, Unauthorized Disclosure **B&B** Reporters

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1	A.	What's	
2	Q.	Paragraph 18 of your statement.	
3	Α.	Oh, Paragraph 18.	
4	Q.	The first sentence has a footnote,	
5	Footnote 16, and there you refer to Exhibit R-259		
6	Α.	Yes.	
7	Q.	which appears to be a PowerPoint	
8	B presentation; is that right?		
9	Α.	Correct.	
10	Q.	And you also refer to a similar presentation	
11	at Paragraph 13, and that exhibit is 257, also a set		
12	of PowerPoint slides apparently from the same date.		
13		Are you able to tell me whether or not	
14	those		
15	A.	I don't have the 257.	
16	Q.	Ah, okay. Well, let's just talk about 259.	
17	Α.	Okay.	
18		Slide 4?	
19	Q.	You recognize this presentation?	
20	A.	Yes, I do.	
21	Q.	And can you tell me who created this	
22	presentation?		
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1	A. My lead engineer, John Manning.		
2	Q. Okay. And was it ever presented?		
3	A. Yes, it was presented to the CNLOPB Board.		
4	Q. I see.		
5	And did you present the slides?		
6	A. John presented the slides, but I was in the		
7	room, being his supervisor.		
8	Q. And was this presentation that you made to		
9	your Board, I guess it would be called		
10	A. Yes, that's correct.		
11	Qbefore you completed your Witness		
12	Statement?		
13	A. Yes.		
14	So, the Board has a policy in which you		
15	submit documents a week before the Boardactually,		
16	they're sent out to Board members so they can review		
17	them and have relevance rather than bring them		
18	straight to the Board itself.		
19	Q. I see. So, you prepared it before you did		
20	the presentation, so the presentation occurred on		
21	December 19, 2016?		
22	A. That's correct, yes. And it was prepared a		
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week before. 1 Thank you. I was wondering about that 2 0. discrepancy. 3 4 Α. Sure. MR. NEUFELD: Mr. President, no further 5 questions. б PRESIDENT GREENWOOD: Thank you very much. 7 Redirect, Ms. Squires? 8 MS. SQUIRES: We have no further questions 9 for Mr. O'Keefe. 10 PRESIDENT GREENWOOD: Thank you. Can I just 11 ask whether either of my colleagues have any 12 13 questions they would like to put to Mr. O'Keefe. In that case, Mr. O'Keefe, you are free. And 14 I'm sorry, had I known it was going to finish quite 15 16 so soon, I might not have made you sit in splendid isolation over lunch. I hope you were given some 17 food. 18 THE WITNESS: Yes, I was fine. 19 PRESIDENT GREENWOOD: Well, thank you very 20 much. You're discharged. 21 22 (Witness steps down.) Confidential Information, Unauthorized Disclosure **B&B** Reporters Prohibited 001 202-544-1903

PRESIDENT GREENWOOD: Now, I think we might 1 as well proceed straight to the Expert Report of 2 3 Mr. Walck. RICHARD E. WALCK, RESPONDENT'S WITNESS, CALLED 4 PRESIDENT GREENWOOD: Mr. Neufeld, if you 5 have a cross-examination Core Bundle, perhaps you б would like to give it out to everyone except counsel 7 for Canada at this stage then we won't be as heavily 8 disrupted. 9 Your loyal colleague who carries this vast 10 number of ring binders around... 11 12 (Laughter.) 13 PRESIDENT GREENWOOD: Ladies and gentlemen, before we move to the cross-examination of Mr. Walck, 14 can I just take stock of where we stand? How long is 15 16 this likely to take? Do we know? MR. O'GORMAN: Mr. President, we do not 17 expect that this will take a substantial amount of 18 19 time, but may we lodge with you the very humble request to stick with Closing Arguments on Friday 20 morning. We would be eternally grateful to you if 21 22 you would allow us to do that. Confidential Information, Unauthorized Disclosure

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1	PRESIDENT GREENWOOD: You've eitherI left
2	the microphone on or else you read people's minds.
3	You may have noticed that the thought had crossed our
4	minds, you might want to get away earlier, but
5	evidently the answer to that is no.
6	Government of Canada?
7	MR. DOUGLAS: We're fine with Friday as well.
8	PRESIDENT GREENWOOD: Friday.
9	Well, then, in that case, Mr. Walck, would
10	you be kind enough to make the Declaration, the
11	Expert Declaration. You should have one that's
12	headed "Expert Declaration" in front of you.
13	THE WITNESS: Yes, I do, Mr. President.
14	I solemnly declare upon my honor and
15	conscience that my statement will be in accordance
16	with my sincere belief.
17	PRESIDENT GREENWOOD: Thank you very much.
18	Now, who is doing the direct examination?
19	MR. DOUGLAS: I am, Mr. President.
20	PRESIDENT GREENWOOD: Mr. Douglas, please,
21	continue.
22	DIRECT EXAMINATION
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1	BY MR. DOUGLAS:
2	Q. Good afternoon, Mr. Walck.
3	A. Good afternoon.
4	Q. Mr. Walck, how long have you been a damages
5	expert?
6	A. Since 1977.
7	Q. And on how many projects have you provided
8	expert advice?
9	A. I've consulted on several hundred and
10	provided expert testimony in probably 70 to 75 of
11	them.
12	Q. And did you provide Expert
13	MR. O'GORMAN: Mr. President?
14	PRESIDENT GREENWOOD: Yes, Mr. O'Gorman?
15	MR. O'GORMAN: May I just humbly request, I
16	don't believe that there was an anticipated direct
17	examination in Procedural Order Number 8, and it
18	appears that we are heading in that direction. I
19	just want to ask on what basis that's about to be
20	undertaken.
21	PRESIDENT GREENWOOD: Well, I think so far
22	the questions I have heard are no different from the
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1	questions that have been put to Mobil's various
2	witnesses, asking them to establish who they were and
3	what their area of expertise was.
4	But the rules are quite clear. You're
5	entitled to do that. You're entitled to invite
6	Mr. Walck to make any corrections that he has to make
7	to his statement and to put to him any facts that
8	were not previously before him.
9	I think you're also entitled, given the way
10	in which Mr. Phelan's evidence was dealt with, to put
11	any issues that arose in the examination and
12	cross-examination of Mr. Phelan. But, otherwise, not
13	a direct examination.
14	MR. DOUGLAS: That is our understanding as
15	well. And this won't be long.
16	BY MR. DOUGLAS:
17	Q. You provided five Expert Reports in the Mobil
18	and Murphy Arbitration?
19	A. Yes, I did.
20	Q. And did you testify in that arbitration?
21	A. Yes, I testified at the Merits Hearing and at
22	the subsequent Damages Hearing.
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And you provided two expert reports in this 1 0. arbitration? 2 Α. Yes. 3 4 Ο. Do you have any corrections to those expert 5 reports? Α. No, I do not. б Mr. Walck, have you learned anything this 7 Q. week that is of relevance to your testimony? 8 Yes, I have. I've learned a few things from 9 Α. Mr. Phelan's testimony. 10 First of all, that the Mobil share of the 11 Hibernia South Extension is different from its share 12 of Hibernia General. I have not had the chance to 13 evaluate whether that would have any material impact 14 on my conclusions; but, if it is necessary, if the 15 Tribunal gets there, then certainly I will take a 16 look at that. 17 18 In addition, as I set out in my expert 19 reports, one of my concerns with Mobil's damages presentation in the Mobil/Murphy Arbitration was the 20 lack of any alternative methods for corroborating the 21 22 DCF calculation of Present Value of future losses, Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

and I heard some things from Mr. Phelan that very
 strongly suggested to me that such other methods may
 well have been available.

I heard Mr. Phelan, for example, testify that
there were, in fact, transactional data involving the
purchase and sale of working interests.

7 I heard him say that Mobil had run various8 scenarios on its damages.

9 I heard Mr. Phelan testify that there was a
10 formula in connection with the Terra Nova
11 redetermination that involved both capital
12 expenditures and operating expenditures, the former
13 of those being part of what would be called the "cost
14 methods" of valuation, the latter the operational
15 expenses being part of an "income" method.

16 And maybe it's helpful to just back up for 17 just one second.

There are three broad measures or broad methods of valuation that are commonly used by valuation professionals. I'm accredited in business valuation. Mr. Rosen has the comparable

22 certification in Canada.

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The first of those is cost or asset-based 1 2 methods. That's valuing something based on what it 3 cost or based on what replacement assets would cost. The second is market or transactional 4 5 methods. That's valuing something based on what it costs in the marketplace. б And, third are income-based methods, the most 7 frequently encountered of which is the Discounted 8 Cash Flow Method that looks to future income in 9 attempts to discount it back. 10 So, what I take from Mr. Phelan's testimony 11 is that it is highly probable that there were other 12 13 sources of data that could have been used as a sanity check, as corroboration of Mr. Rosen's DCF 14 calculations, but that we never saw. 15 I have no further questions. MR. DOUGLAS: 16 PRESIDENT GREENWOOD: 17 Thank you. Mr. Neufeld. 18 19 MR. NEUFELD: Thank you, Mr. President. 20 CROSS-EXAMINATION BY MR. NEUFELD: 21 22 Q. Good afternoon, Mr. Walck. Confidential Information, Unauthorized Disclosure **B&B** Reporters Prohibited 001 202-544-1903

1	A. Good afternoon, Mr. Neufeld.
2	Q. Since you have raised the topic of Mobil I,
3	maybe we can begin there and take you back to your
4	Report dated December 1st, 2009, which is in the
5	bundle in front of you labeled 231, R-231.
6	A. Yes, I have it.
7	Q. I just want to very briefly focus on the
8	conclusion in this report, which is at Paragraph 154,
9	only because it includes some comment on factors that
10	are part of the Guidelines formula for calculating
11	Incremental Expenditure.
12	PRESIDENT GREENWOOD: Gentlemen, could I ask
13	you to both keep your voices up. I couldn't hear
14	that last exchange. I don't think it matters because
15	it was purely procedural, but it's very important
16	that we can hear you and that the Court Reporter has
17	an accurate record of what's being said.
18	MR. NEUFELD: Thank you, Mr. President. We
19	will be.
20	BY MR. NEUFELD:
21	Q. So, in Paragraph 154, Mr. Walck, you discuss
22	a number of factors that are involved in calculating
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1	expenditure requirements, including oil prices and
2	the StatsCan factor; correct?
3	A. Yes.
4	Q. And among other things, you focus on some
5	issues of uncertainty and volatility in respect to
6	those factors; correct?
7	A. That's correct.
8	Q. For example, you say that production hadoil
9	production had been shown to "very considerably" from
10	projections.
11	Is that still true today?
12	A. I haven't done a recent comparison of the
13	actual production to the forecasted production, so I
14	can't answer the question.
15	Q. And, in respect of oil prices, you say those
16	are quite volatile; correct?
17	A. Yes.
18	Q. And in respect of converting prices to
19	Canadian dollars, also "not historically stable," I
20	believe are your words; is that right?
21	A. That's correct.
22	Q. And so, all the uncertainty surrounding these
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1	factors, you say, impacts the projections that have
2	been made by Mr. Rosen in Mobil I; is that right?
3	A. They do.
4	Q. And, in particular, in calculating or
5	attempting to calculate life-of-field damagesnow,
6	let me take you away from this report and take you to
7	just one more place in the Transcript from Mobil I on
8	Day 3, which is 285. It's all included in here, but
9	I really only want to take you to the lastto the
10	Page 279.
11	A. Yes.
12	Q. And there you note, I think it is at Line 21
13	that you provided a sort of rough sizing of potential
14	damages; is that right?
15	A. I assume you're talking about Line 21 on the
16	top of the page and not the Line 21 on the bottom of
17	the page?
18	Q. Correct.
19	A. Yes.
20	(Comment off microphone.)
21	Q. And there you say thata little bit lower
22	down at Line 5that you did not have the sufficient
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1	data to give a figure that you could say was your
2	opinion of damage; is that right?
3	A. That is correct.
4	Q. Okay. And, in fact, you also note that you
5	were actually requested to give an estimate but would
6	preferred to have not done that?
7	A. That is also correct.
8	Q. If we could now turn away from the Transcript
9	in the Mobil I and your report, I'd like to ask you a
10	few questions about the market-based valuation that
11	you raised earlier, actually in your direct.
12	Now, in this arbitration, you have introduced
13	a market-based analysis to determine, or at least are
14	proposing it hypothetically, to determine loss in
15	value incurred by Mobil in respect of Hibernia and
16	Terra Nova over the life of the field; correct?
17	A. I have suggested that there should be market
18	or transactional data that could have been used as a
19	crosscheck on the calculation Mr. Rosen did.
20	Q. Andbut you have not performed that market
21	valuation in this arbitration; correct?
22	A. No, I have not.
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0. And you did not perform it in Mobil I, 1 either; is that right? 2 Α. No. I didn't have the data to do it with. 3 Q. And in Paragraph 30 of your First Report in 4 this arbitration, which is RE-1, at Paragraph 30 you 5 introduce this notion of a market-based valuation. б It's actually Paragraph 30. 7 And there you say that Mobil and Murphy could 8 have calculated their claims as the difference in 9 value of their investments in Hibernia and Terra Nova 10 (a) without the 2004 Guidelines and (b) with the 2004 11 Guidelines, and that the measure of the impact of the 12 13 2004 Guidelines on Mobil's and Murphy's investments would be the damage occurred, assuming sufficient 14 support for the calculations. 15 Is that the correct location for your 16 market-based suggestion? 17 18 Α. Yes. Okay. And this model would, nevertheless, 19 0. consider future cash flows and also the impact of the 20 Guidelines on those cash flows; is that right? 21 22 Α. Yes, it would. Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

1	Q. And, in addition to that, you say uncertainty
2	would be addressed if it was a concern by both the
3	transactional or other data or market comparables; is
4	that right?
5	A. Yes, I've suggested that you could use
6	transactional data from other areas to crosscheck
7	your result.
8	Q. And the delta between the value of the
9	investments with and without the Guidelines would be
10	the standard of damages you're suggesting; is that
11	right?
12	A. It would be one measure.
13	Q. The delta
14	A. Of the potential damages.
15	Q. The delta being the impact of the variables,
16	in this case the Guidelines formula?
17	A. It would be the impact of the imposition of
18	the Guidelines. You would have the other variables
19	in any event.
20	Q. And I take it that the Market Value Approach
21	so described depends on the market being able to
22	measure the impact of the required expenditures or
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1 the Incremental Expenditures as projected on value;
2 is that right?

Could you repeat that for me, please? Α. 3 That the--is it correct to say that the 4 Ο. 5 Market Value Approach depends on the marketplace being able to determine the impact of the expenses б caused by the expenditures made in pursuant to the 7 quidelines on the value of the investment? 8 Yes, that would factor into it. You would be 9 Α. looking at the difference in the cash flows. 10 Now, in addition to considering cash flows 11 0. for Hibernia and Terra Nova, the market would also 12 13 need to estimate the required expenditures over the life of field; is that right? 14 Α. You would need to be able to estimate 15 16 required expenditures, yes. And you would also need to determine that the 17 0. 18 impact of the Guidelines as such was the cause 19 or--the cause of the permanent decrease in the value of the Projects to Mobil? 20 Well, I think you have to link things to 21 Α. 22 causation, yes. Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

1	Q. In fact, it has to be the sole cause of
2	decreased value; isn't that right?
3	A. Well, I think that calls for a legal
4	conclusion. If there are situations in which you
5	have multiple causes, I don't know how you would deal
6	with that.
7	Q. Surely, you would agree that there are more
8	than one factor that would impact the value of an
9	investment besides a sole consideration of
10	expenditures or expenses or costs?
11	A. Yes, and that's why you would set up your
12	model to look at it with and without the Guidelines.
13	Q. And, in that regard, when looking for
14	comparables, the Guidelines are also not the only
15	factors that may impact the value of the investments
16	as compared to other assets; isn't that true?
17	A. Could you repeat that one for me, please?
18	Q. So, when looking for comparables for
19	evaluating the investments, the Guidelines aren't the
20	only factor that would impact the value of the
21	investments as compared to other assets; is that
22	accurate?
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1	A. If I understand your question correctly, I
2	think what you would be doing is looking for other
3	transactions and seeing how the interplay of the
4	common variables was handled by the market in other
5	areas, and then
6	Q. Well, actually, I'm asking, I think or
7	pointing to something a little more mundane than
8	that. For example, other assets that might be
9	comparable to the investments are going to, for
10	example, face different regulatory environments, for
11	example; isn't that true?
12	A. Oh, certainly.
13	Q. Different legal regimes, different R&D
14	requirements, et cetera; isn't that right?
15	A. Correct.
16	Q. And other assets may also have different
17	geographic challenges to their production.
18	A. They may.
19	Q. North Atlantic versus Offshore versus Gulf of
20	Mexico versus North Sea. These are all different
21	geographic locations, for example, that might impact
22	that assessment?
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1	A. I think you would find there would be
2	differences and there would be commonalities.
3	Q. Now, you also note that in Mobil I, Mobil and
4	Murphy sought to claim as damages a pro rata share of
5	Incremental Expenditures for the life of field. I'm
6	not going to take you to a document on this, but I
7	think you went through enough of Mobil I probably to
8	know the answer offhand, but isn't it true that what
9	you're characterizingthe way you characterize the
10	damages model is a claim for a pro rata share of
11	Incremental Expenditures?
12	I think, in fact, maybe the easiest way is to
13	take you to the statement because, in Paragraph 30,
14	of your Damages Report, which is RE-1 in this case,
15	you note at the bottom of Page 9, which is
16	Paragraph 30, you state: "Mobil and Murphy elected
17	to frame their claim as one for their pro rata Shares
18	of increased costs"
19	A. Can you tell me where you are?
20	Q. I'm sorry. Paragraph 30.
21	A. Yes.
22	Q. In RE-1, in your Cross-Examination Bundle.
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1	A. I've got it now.
2	Q. The last sentence of Paragraph 30, where
3	you're just characterizing the damages model in Mobil
4	I, and you say Mobil and Murphy elected to frame
5	their claim as one for their pro rata Shares of
б	increased costs incurred by the Project. That's what
7	you're describing there; is that right? The damages
8	model that was presented?
9	A. That is my understanding of Mr. Rosen's
10	damages model, yes.
11	Q. Okay. And that is the same projection that
12	you stated that you did not have sufficient data to
13	form an opinion on damage in regards to; is that
14	right?
15	A. It is the same kind of a model that I was
16	asked to do and had difficulty doing because of the
17	variability of the variables, and the lack of any
18	other corroborating evidence that would help me test
19	that result.
20	Q. Right. And we discussed some of those
21	variables at the outset of the examination.
22	A. Yes.
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1	Q. Now, you also note in this arbitration in
2	respect of such projections of expenditures over the
3	life of field that there is an issue about
4	corroborating those projections and having a safety
5	check; is that right?
6	A. I don't recall safety checks. I think I used
7	the word "sanity check."
8	Q. Okay. Well, let's take a look at
9	Paragraph 32. That may well be right. This is in
10	RE-1. Let me just see if you just comment on it
11	there.
12	Well, I think the point is actually better
13	made in Paragraph 30, wherewhich we were just
14	looking at, where you sayand this is sort of the
15	middle of the paragraph, Paragraph 30 in RE-1, your
16	First Damages Report, where you say the valuation
17	could have been supported with transactional or other
18	data on market comparables.
19	Is that what you're referring to as a sanity
20	check?
21	A. That would be one form of sanity check, yes.
22	Q. And that's a sanity check on the projection
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1	of cash flows over the life of field?
2	A. That's a sanity check on the way of setting
3	up the model. If you can test that model for
4	Hibernia and Terra Nova against transactional
5	information from other fields that also includes
6	projections on oil prices, projections on exchange
7	rates and so forth, and see whether they have been
8	handled reasonably consistently.
9	Q. That point aside, in a Market Valuation
10	Approach, one must still consider, at least in this
11	instance, whether the impact caused by the
12	Guidelines, one has to measure that impact; is that
13	right?
14	When you say, for example, you need to look
15	at the value of the investments with or without the
16	Guidelines, a prerequisite of that is to measure the
17	impact of the Guidelines with or without; is that
18	right?
19	A. Well, that's what you're ultimately trying to
20	do, is to get a measure of what the value of the
21	impact is.
22	Q. Okay. And some of the comparables that we
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1	were talking about earlier included, for example,
2	geographic location, legal regimes, those kind of
3	differences that might impact your valuation of
4	causation. The Guidelines, of course, are not
5	enforced outside of Newfoundland on projects. That's
6	an important difference.
7	But, you alsoI mean, would you agree with
8	that? I think that's factually correct and you
9	would
10	A. To the best of my knowledge, the Guidelines
11	are not enforced outside of Newfoundland and
12	Labrador.
13	Q. Now, the transactional data and market
14	comparables you do refer to include, among other
15	things, the sale of participation interests as one
16	example; is that right?
17	A. Yes.
18	Q. And Financial Statements? Is that another
19	example?
20	A. A Financial Statement in and of itself is not
21	an example of a comparable. What the Financial
22	Statement would do is it would give you a sense of
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1	how the impact of the Guidelines was treated for
2	financial-reporting purposes. And that may need a
3	little bit of explanation.
4	When you are looking at the impact of an
5	event
б	Q. So, you did not refer to Financial
7	Statements? Is that your point? This is an
8	additional point?
9	A. I'm not sure I followed the question.
10	Q. Well, what about impairment analysis? Is
11	that another element that you refer to as a
12	comparable?
13	A. Impairment analysis would not be a
14	comparable. Impairment analysis would be directed
15	toward this specific investment, and you would be
16	testing that investment because of a trigger event,
17	as Mr. Phelan testified.
18	So, if the imposition of the Guidelines is
19	your trigger event, from a financial reporting
20	standpoint, you have a two-prong test:
21	The first prong, if I may
22	Q. Mr. Walck, I would like to
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1	(Comments off microphone.)
2	Q. I'm not sure where the theory is going, but
3	I'd like to stick to my questions if I may.
4	PRESIDENT GREENWOOD: Before you take us any
5	further, two things: First, is that in Line 16, the
6	answer is given as I'm sure I followed the question,
7	and it was actually I'm not sure I followed the
8	question, just need to correct that so that when
9	we're going back to it later this evening there is no
10	problem.
11	The second thing is, you have to be able to
12	ask the question, but at the same time Mr. Walck has
13	to be given the time to answer it. It's not like
14	cross-examination of a fact witness on a relatively
15	simple matter. An Expert has got to be allowed to
16	set out the nature of their answer, so please allow
17	the Expert to do that.
18	MR. NEUFELD: Thank you, Mr. President.
19	THE WITNESS: So, you were asking about
20	impairment testing, and that's a two-prong test, the
21	first of which is, is it probable that an impairment
22	or an obligation has occurred? That would basically
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1 be the fact of damage.

2	The second prong is can you reasonably
3	estimate the impact of that. If the answer to both
4	of those is yes, then you book a provision, you
5	reflect it in the Financial Statements, assuming it's
6	material, and you disclose it. If the answer is
7	"yes" to the first one, "no" to the second one, you
8	disclose it. If you have some range of values you
9	think that the impairment would fall within, you
10	would be likely to disclose that as well. But you
11	don't book a provision for it until you have better
12	information.

And I think this actually is responsive to 13 one of the questions that I heard the Tribunal ask 14 during the Opening Arguments about what do you do if 15 you have an appeal going on? Do you have a loss? 16 And obviously, from a legal standpoint, I have no 17 idea. But from a financial accounting standpoint, 18 you would treat it that way. You would say is it 19 probable that a loss or an obligation has occurred; 20 and, if so, can I reasonably estimate it. 21

22

And so, the impairment testing that might be

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1	reflected in the Financial Statements would be a
2	relevant thing to look to for ascertaining how the
3	amount of damage was treated for that purpose.
4	BY MR. NEUFELD:
5	Q. Thank you, Mr. Walck. I appreciate that
6	answer. Where I was about to go is to just very
7	briefly note the testimony that we had heard earlier
8	this week, and you noted at the outset, which is that
9	Mr. Phelan's testimony in this instance, none of the
10	working interests at Hibernia or Terra Nova have been
11	sold since the 2004 Guidelines have been introduced,
12	which was one point. I think you were here, and you
13	understood that point as well; correct?
14	A. Yes.
15	Q. And a second point, that there are no
16	internal or external asset valuations of the Hibernia
17	and Terra Nova assets that could show the specific
18	impact of the Guidelines in Mr. Phelan's testimony?
19	A. Yes, I heard him say that.
20	Q. And his testimony that no impairment
21	accounting analysis had been performed with respect
22	to Hibernia or Terra Nova?
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1	A. Yes, I heard him say that.
2	Q. Now, where this information is not available,
3	the Market Value Approach is not appropriate; would
4	you agree with that?
5	A. Obviously, if you have no data to work with,
6	you can't do much with it.
7	Q. Now, we already went to Mobil I in your
8	Report where you had noted that you could not arrive
9	at a damages calculation that you would stand by. I
10	think there is another point on that very same page,
11	going back to R-231, and I'm only going to take you
12	to the very same page. It's the conclusion of the
13	Report from 2009, and it's Paragraph 153. And there
14	you say: "There are no damages that have been
15	incurred at this point."
16	Now, isn't it true that if no damages had
17	been incurred at all, that there is no basis for
18	doing a Market Value Approach because you're not
19	measuring an impact in value? There is no damage?
20	A. If I recall correctly, there were some
21	significant questions that were open as to the
22	eligibility of some very large expenditures, so it
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1	wasn't clear whether the "ordinary course"
2	expenditures would dwarf the required expenditure,
3	which is why, if you think back to that two-prong
4	test, I couldn't conclude that it was probable that a
5	loss had occurred, which then leads me to the
6	conclusion no damages have been incurred at this
7	point.
8	Now, that doesn't mean that if you're looking
9	at a calculation such as Mr. Rosen's with a
10	multiple-year future projection discounted back, that
11	you couldn't look at some market information to try
12	to test that calculation. Those two are separate
13	things.
14	Q. Now, the point about testing the
15	calculationlet's return to that just for a moment
16	because the variables that are so volatile in your
17	view in respect of projecting life-of-field costs
18	arriving from the expenditures, that projection still
19	has to be made on the market comparison approach
20	you're suggesting; isn't that right?
21	A. Yes.
22	And oil companies do that in their everyday
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1	business, which is precisely why I was interested in
2	getting that kind of information.
3	Q. Right. But you also noted that you couldn't,
4	as an expert, evaluate it to any certainty, any
5	reasonable certainty or indeed at all.
6	A. I couldn't do it in a vacuum. Had I had
7	other market-based information about how oil
8	companies contemporaneously have been valuing assets,
9	then perhaps I could.
10	Q. Right.
11	But the StatsCan factor and oil prices and
12	all of that you very succinctly identified as highly
13	volatile; isn't that right?
14	A. Yes.
15	Q. Okay. Now, even if there were comparables of
16	the sort that you are suggestingwhich Mr. Phelan
17	has testified in this case there are not, but let's
18	assume there werewe still have the issue, do we
19	not, of determining that the Guidelines are the sole
20	cause of whatever supposed difference in value has
21	taken place? Isn't that right?
22	A. Well, if you've set up your model to measure
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values with and without the Guidelines, then you
 would have the Guidelines as the sole cause of the
 delta.

Q. But, regardless of what the delta is, isn't
it still true that the costs are being incurred by
Mobil for Incremental Expenditures made pursuant to
the Guidelines and that that's a cost and expense and
the damage incurred?

9 A. If they have been incurred. See--

10 Q. The--

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--I think there may be some semantics here. 11 Α. If you have an event that occurs-let's take a 12 13 post-sale dispute. You sell a company, and the buyer comes in and says, well, four of the major customers 14 that you represent would be here aren't here. 15 That 16 impact is going to occur down the road, but it also has an impact on the value at which the company 17 18 changed hands. And so, you can look at what is the 19 future loss of sales, loss of profits, discount that back and get a number today. But you can also look 20 at it from a standpoint of how were the deal metrics 21 22 put together, and if I take those customers out of Confidential Information, Unauthorized Disclosure B&B Reporters

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1	the deal metricsmaybe it's a multiple of sales, a
2	multiple of profits, whatever it isI may get a
3	different number, and does that number tend to
4	corroborate the Discounted Cash Flow? That's the
5	point that I'm trying to suggest could have been
6	done.
7	Q. I appreciate the point.
8	Regardless of the comparables, the
9	projections, the uncertainty, which, in fact, I think
10	the market-based value model which you've just
11	described, isn't it still true, and in the case
12	today, that the damages that are incurred as a result
13	of enforcing the Guidelines and Mobil making
14	expenditures that they would not make in the ordinary
15	course of business, that those damages, unlike
16	everything else we've been talking toabout are
17	discrete and quantifiable and measurable? Would you
18	agree with that?
19	A. Are we talking about damages that have
20	already occurred or are we talking about damages that
21	lie in the future?
22	Q. That, on an ongoing basis, damages are
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1 incurred.

2	A. If I understand you correctly, I think the
3	answer to your question is that, as those monies are
4	spent as the determinations are made as to what
5	required spending is and you know specifically how
6	the money was spent, you're in a position to make
7	those determinations.

If you're talking about an ex ante situation 8 where you're trying to make the decision, say, in 9 2009 to go out for the life of field, it's much more 10 difficult to specify precisely what those impacts 11 will be, which is why, in bringing it down to 12 13 something that you can assess on a market-value basis, you may have a better ability to ensure that 14 you've got some reasonableness in your calculations. 15 Well, on that point, and this is one of my Ο. 16 last questions to you, but if we just turn very 17 briefly to Paragraph 28 of RE-1, where I think you 18 refer to the Decision on Liability and Principles of 19 Quantum in Mobil I, there's a small quote at 20 Paragraph 28, and there you describe damages for 21 22 Mobil I.

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1	T just wort to take were briefly to 0.1
1	I just want to take you briefly to C-1,
2	Paragraph 440. 440, where the Tribunal and the
3	Majority says they will consider any loss which is
4	incurred which is actual as the date of the Award, in
5	the Majority's view, actual damages occur when there
6	is a firm obligation to make a payment and there is a
7	call for payment or expenditure, or the occurrence or
8	payment of expenditure has transpired.
9	You would agree that the Decision in this
10	case is that the occurrence of a payment or
11	expenditure is a damage, would you not?
12	A. I would agree with what you read as being
13	what the Majority in the Mobil/Murphy Tribunal set
14	out in Paragraph 440.
15	Q. Thank you very much, Mr. Walck. I appreciate
16	your time.
17	MR. NEUFELD: No further questions.
18	PRESIDENT GREENWOOD: Thank you, Mr. Neufeld.
19	Mr. Douglas?
20	Mr. Neufeld, would you turn your microphone
21	off, please.
22	MR. DOUGLAS: Yes, just a few questions on
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1	redirect.
2	PRESIDENT GREENWOOD: Please go ahead.
3	REDIRECT EXAMINATION
4	BY MR. DOUGLAS:
5	Q. Mr. Walck, how many models were used by
б	Mr. Rosen in the Mobil/Murphy Arbitration?
7	A. I don't know how many he used. I know how
8	many he put in his Report, which was one.
9	Q. In your view, is it common practice to
10	provide alternative damages models?
11	A. Yes.
12	Q. In your view, is it good practice to provide
13	alternative damages models?
14	A. Yes. It's generally set out in pretty much
15	every valuation guidelines that I've ever read.
16	Q. Counsel took you to Paragraph 30 of your
17	First Expert Report in this arbitration. I think
18	there was a lot of discussion, so I don't want to
19	revisit it, but that diminution of value model you
20	are suggesting Mr. Rosen could have undertaken?
21	A. I was suggesting that was one method he could
22	have used, yes.
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1	Q. And counsel asked you whether such an
2	approach would create any further certainty in the
3	quantification of damages. Would it?
4	A. Potentially. It's something where you never
5	know until you do it.
6	You approach the question of value from as
7	many different perspectives as you have data for, and
8	then you reconcile the results of those.
9	So, if you've got three different approaches,
10	let's say, a cost of market method and an income
11	method and they're all converging around the same
12	general number, you get much better comfort than you
13	do if you've got one that's ten times the other.
14	PRESIDENT GREENWOOD: Sorry, forgive me for
15	interrupting, I would like to put a question to the
16	Witness myself.
17	THE WITNESS: Yes, sir.
18	PRESIDENT GREENWOOD: What's puzzling me a
19	little bit is that I fear we appear to be refighting
20	Mobil I rather than looking at the issues in Mobil II
21	in this line of questions. This claim, the present
22	one, is a claim for damages incurred over a period of
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1 years.

2	Is there any reason to suggest that there
3	should have been an alternative model for damages in
4	this case as opposed to Mobil I?
5	THE WITNESS: I think, in this case, the
6	challenge that I have with the damages model that was
7	used was that it no longer drives off the expenditure
8	requirement. If you think back to that two-step test
9	that a financial accountant uses, is it probable
10	there has been a loss or obligation created? I don't
11	know whether there is with respect to the surplus
12	spending, and that's where I have difficulty with
13	this particular damage model.
14	PRESIDENT GREENWOOD: When you say "the
15	surplus spending," you're talking aboutthere was a
16	very helpful chart in one of your Reports, as I
17	recall, but you were talking about the expenditure
18	during the years for which a claim has been made.
19	THE WITNESS: Correct.
20	PRESIDENT GREENWOOD: Which is in excess of
21	what was required under the Guidelines.
22	THE WITNESS: Yes.
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1	PRESIDENT GREENWOOD: Right. So, you're not
2	questioning the valuation of the damages otherwise;
3	is that right?
4	THE WITNESS: That's correct.
5	PRESIDENT GREENWOOD: Thank you.
6	Yes, Mr. Douglas, please continue.
7	MR. DOUGLAS: We have no more questions,
8	thank you.
9	PRESIDENT GREENWOOD: So, I will ask if my
10	two colleagues have any questions.
11	Mr. Rowley?
12	QUESTIONS FROM THE TRIBUNAL
13	ARBITRATOR ROWLEY: The claim here is for
14	damages incurred as a result of spending required by
15	the Guidelines; yes?
16	THE WITNESS: That's my understanding, yes,
17	sir.
18	ARBITRATOR ROWLEY: And the chart the
19	Chairman was referring to was the one where you had
20	at least two colors. One was a color indicating an
21	amount required by the Guidelines, and then there was
22	another color for an amount above that; yes?
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1	THE WITNESS: Yes.
2	ARBITRATOR ROWLEY: And that's the surplus
3	that the Chairman just referred to.
4	THE WITNESS: Yes, it is.
5	ARBITRATOR ROWLEY: And your concern with
6	that, if I understand what you're saying, is that you
7	don't know whether that surplus spend was required by
8	the Guidelines; is that it?
9	THE WITNESS: Either waswell, we know it
10	wasn't historically. The question is will it be some
11	time in the future, and that I don't know.
12	We saw, from Mr. Phelan's testimony,
13	"ordinary course" expenditures are increasing. We
14	know that as the fields age and production drops, the
15	required spending will drop in proportion to
16	production. Mr. Rosen had predicted that, by 2024,
17	the two would cross, and "ordinary course" spending
18	would exceed required spending.
19	So, I don't know whether that surplus
20	spending now is something that will ultimately be
21	used to meet a requirement or if it will just always
22	stay surplus spending. That's my quandary.
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ARBITRATOR ROWLEY: And the amount of time 1 spent on cross-examination and re-examination on 2 comparables really has nothing to do with that, does 3 it? 4 THE WITNESS: No, it doesn't. 5 ARBITRATOR ROWLEY: Thank you. 6 PRESIDENT GREENWOOD: Thank you. 7 Dr. Griffith? 8 9 ARBITRATOR GRIFFITH: No. PRESIDENT GREENWOOD: Right. 10 In that case, Mr. Walck, we thank you for your testimony, and you 11 can stand down. 12 13 THE WITNESS: Thank you, Mr. President. PRESIDENT GREENWOOD: And then we'll just 14 take stock of where we are, counsel. 15 16 (Witness steps down.) PRESIDENT GREENWOOD: We have time to have 17 18 closing submissions this afternoon, I would have 19 thought. (Laughter.) 20 (Discussion off the record.) 21 22 PRESIDENT GREENWOOD: I think, judging by the Confidential Information, Unauthorized Disclosure B&B Reporters Prohibited 001 202-544-1903

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1	reaction to, we say, the implied suggestion that you
2	might want to get away earlier, the answer to that
3	appears to be no, so it looks as though we finish
4	now. We have a day clear tomorrowit's a day off
5	since everyone will be working very hardand then we
б	have Closing Submissions on Friday.
7	Is that agreeable to everybody?
8	MR. O'GORMAN: Thank you very much,
9	Mr. President. That's certainly agreeable from the
10	Claimants.
11	PRESIDENT GREENWOOD: Right.
12	And can I please remind you, first of all, to
13	go through the Transcript of Day 1 and just pick up
14	the various questions that were put to you by Members
15	of the Tribunal. Just off the top of my head, I can
16	remember asking for submissions from you both on the
17	effect of the Nicaragua and Colombia 2016 judgment.
18	And, on reflecting about that, I think you might also
19	want to have a look at what was said in the 2012
20	judgment of the International Court, which was what
21	was said to create the res judicata.
22	MR. LUZ: Mr. President, on that point, the
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1	Secretary of the Tribunal distributed the Judgment.
2	We think it would be helpful to have the entirewith
3	the Dissenting Opinion and the Concurring Opinions as
4	well in the attachment with the main Judgment?
5	PRESIDENT GREENWOOD: Yes. I think this is
6	all available on the Court's Web site, actually, if
7	you go to "www.ICJ-CIJ.org." It's a new Web site.
8	It's much easier to use than the old one.
9	MR. LUZ: It is.
10	PRESIDENT GREENWOOD: And you can pull them
11	all off there.
12	Keep in mind that there are three separate
13	Nicaragua and Colombia Judgmentsthere's four,
14	actually. You can forget about the 2007 one. 2012
15	is the section on the Extended Continental Shelf
16	Claim. You don't need to read anything else. The
17	2016 Judgment, there were two given on the same day.
18	It's the Extended Continental Shelf Claim, "NICCOLB"
19	as it's sometimes called, and not the claim for
20	noncompliance that you need to look at.
21	I also asked about whether there was anything
22	in the res judicata article in the Max Planck
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1	Encyclopedia and to what extent international law on
2	res judicata reflected concepts, of course, of action
3	estoppel, issue estoppel and the like.
4	But those are just the questions that
5	immediatelythat I recall from what was a very
б	interesting dialogue on res judicata. There were
7	also quite a number of questions about effective
8	subsequent practice, for example, and 1116(2),
9	1117(2). You need to have a look at thoseand 1106,
10	yes. And that is what exactly Mr. Rowley quite
11	rightly reminds me of his question about 1106,
12	referring to maintenance and enforcement of measures,
13	not just adoption.
14	So, we look forward to hearing your
15	submissions on those points.
16	(Tribunal conferring.)
17	PRESIDENT GREENWOOD: Yes, Mr. Rowley.
18	ARBITRATOR ROWLEY: The President referred at
19	one stage, perhaps on the first day, about the
20	obligation under international law of a State that
21	imposes an illegal measure, once it's been found to
22	be illegal, to revoke that measure, and we want to
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1 hear what we can on that.

2	PRESIDENT GREENWOOD: The damages issues need
3	not be dealt with in the closing submissions.
4	Now, please let me reiterate what I said at
5	close of play yesterday. You should not read into
б	that that we have made up our minds about the issues
7	we have just been putting to you. But we think, for
8	reasons of procedural economy, the way forward is to
9	deal withfor us to make whatever determination we
10	consider right and necessary about the temporal
11	jurisdiction argument and about Canada's res judicata
12	argument. And then, if we find for Canada on either
13	of those points, that is, of course, the end of the
14	case, so no submissions on damages will be necessary.
15	If we find in favor of Mobil on both of those points,
16	then we would proceed to requesting post-hearing
17	briefing from you on various damages issues.
18	Is everybody clear about that?
19	MR. O'GORMAN: Yes, Mr. President.
20	PRESIDENT GREENWOOD: Good.
21	Any questions of any kind?
22	In that case, thank you all very much.
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1	Yes, Mr. O'Gorman?
2	MR. O'GORMAN: Would you still like to begin
3	at 9:00 on Friday, in keeping with the original
4	schedule?
5	PRESIDENT GREENWOOD: I think it would be
6	better that we begin at 9:00 because, for practical
7	reasons, we cannot conveniently go on beyond 4:00,
8	and I want to make sure you have plenty of time to
9	develop your submissions. We will doubtless have
10	questions for you, so I trust you will build that
11	into your allocation of time.
12	MR. O'GORMAN: Very good.
13	PRESIDENT GREENWOOD: Mr. Douglas?
14	MR. DOUGLAS: Great, thank you very much,
15	Mr. President.
16	PRESIDENT GREENWOOD: All right. Thank you
17	very much.
18	So, tomorrow is a preparation day and reading
19	day for the Tribunal, and we will see you all at
20	9 a.m. on Friday morning. Thank you.
21	(Whereupon, at 2:59 p.m., the Hearing was
22	adjourned until 9:00 a.m., Friday, July 28, 2017.)
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CERTIFICATE OF REPORTER

I, David A. Kasdan, RDR-CRR, Court Reporter, do hereby certify that the foregoing proceedings were stenographically recorded by me and thereafter reduced to typewritten form by computer-assisted transcription under my direction and supervision; and that the foregoing transcript is a true and accurate record of the proceedings.

I further certify that I am neither counsel for, related to, nor employed by any of the parties to this action in this proceeding, nor financially or otherwise interested in the outcome of this litigation.

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DAVID A. KASDAN

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