

BEFORE THE ENVIRONMENTAL PROTECTION AUTHORITY

OMV GSB LIMITED APPLICATION FOR MARINE DISCHARGE
CONSENT TO DISCHARGE OFFSHORE PROCESSING DRAINAGE
5 (HARMFUL SUBSTANCES FROM DECK DRAINS)

EEZ 100018

10 IN THE MATTER of the Exclusive Economic Zone and
Continental Shelf (Environmental Effects) Act 2012

AND

15 IN THE MATTER of a Decision-making Committee
appointed to consider a marine discharge consent
application made by OMV GSB Limited for the
discharge of trace amounts of harmful substances
from deck drains in the Great South Basin

20 Held at: Distinction Hotel, Dunedin

Decision-making Committee

25 Mr M Farnsworth (Chair)
Mr G Shaw
Dr N Crauford

30

I N D E X

DAY ONE (29 July 2019)

5	Opening, Introductions and Preliminary Matters	3
	Opening Statement from the Chair	5
	Opening Representation	8
	Questions from the Committee	12
10	HENRIK MOSSER	14
	Questions from the Committee	18
	Mr Mosser excused	24
	GERALD HELMUT HOLLINGER	25
	Questions from the Committee	27
15	Mr Hollinger excused	36
	MATIU CORRIGILL PARK	36
	Questions from the Committee	39
	Mr Park excused	42
	REID WILLIAM FORREST	43
20	Questions from the Committee	51
	Mr Forrest excused	55
	DANIEL GOVIER	56
	Questions from the Committee	61
	Mr Govier excused	64
25	JOSHUA O'ROURKE	65
	Questions from the Committee	68
	Mr O'Rourke excused	69
	DR BRENDA STEBBINGS	70
	Questions from the Committee	75
30	Dr Stebbings excused	78
	JEN OLSEN	78
	Mrs Olsen excused	83
	SIR ALAN MARK	84
	Questions from the Committee	87

Sir Alan Mark excused	88
GISELE LAVEN	88
Mrs Laven excused	90

OPENING, INTRODUCTIONS AND PRELIMINARY MATTERS

CHAIR: (Opened with a mihi).

And if I was to sing a waiata for that, it would go something like this:

5 "Come submitters, participants, marshall your facts, state your case, and we will decide with alacrity."

Apologies to Gilbert and Sullivan.

The Environmental Protection Agency, the EPA, has appointed this Decision-making Committee to hear,
10 consider, and decide this application for a marine discharge consent by OMV GSB Limited for the discharge of trace amounts of a harmful substance from offshore processing drainage from the deck drains of one or more of its mobile offshore drilling rigs, MODU.

15 Good morning, and welcome to the first day of the hearing.

As already indicated, I'm Mark Farnsworth, and I am an experienced hearing Commissioner, based in Te Tai Tokerau in Mangawhai, with a special interest in coastal
20 processes, and as a geographer, I find myself sitting between two engineers. It's going to be an interesting time for me, and I'm just going to ask each of the panel members to introduce themselves quickly.

DR CRAUFORD: Good morning, Nicki Crauford. I am an EPA Board
25 member and an engineer, as has been indicated, and a professional company Director. Thank you.

MR SHAW: Yeah, good morning. I'm Greg Shaw. I am a consulting engineer; range of experience from marine, coastal processes. I once owned a commercial diving
30 company, so I have some experience of offshore drilling rigs et cetera.

Thank you.

CHAIR: We are in support by two -- by a number of EPA members here, but I'm going to point two out to you, Paula Duffy,

who is the hearing manager, sitting here, and Gen Hewett over there, who is your go to person at any time during the hearing.

5 And I'm now going to cut to a commercial break for Paula, thank you.

MS DUFFY: Good morning everybody. Just need to do a little bit of housekeeping and some health and safety before the hearing begins.

10 My name is Paula Duffy, and I am the hearing manager, and I am here to help you through the course of the next couple of days as the hearing takes place.

Please ensure that you sign the attendance register when you arrive. You don't have to get up now and do it if you haven't, just at the break. It's at the front door as you came in.

15

And please, right now, ensure that you turn your cellphones off. I suggest just popping them on to aeroplane mode, and any electronic devices you have, on to silent mode. That's just being respectful for the people that are speaking with no interruptions, and distracting them.

20

There is to be no recording, visual or audio, of this hearing without prior approval from the Committee, please. You may have noticed a camera; that's the EPA set up with our AV guy; that's for Skype. We have a couple of submitters that are not physically able to be here, so they're going to Skype in and make their representation.

25

Please note that this hearing is being recorded for transcription purposes and you will see the microphones. They're actually quite good at picking up even distant speaking, so assume that they're live at all times.

30

Our breaks, except for today, we're going to go right through to lunchtime, but for the rest of the week,

they'll be 10.30, 12.30 and 3. The morning break and the afternoon break, we'll leave the room open; you can remain in the room, but the lunch break we will lock it. We do just need a quick toilet stop and a little
5 something to eat. So we do lock it at lunchtime.

As far as health and safety, if an alarm is activated, please exit this room and follow the green emergency exit signs. You came in through the lift, when you exit, go back in the same direction, but before you hit the lifts,
10 there is a green exit sign pointing to the right. Follow that corridor and you'll go down the stairs. Exit the hotel; there's a blue building you can see right out window there; that is the emergency assembly meeting point.

15 In the event of an earthquake, please do not exit the room. Drop, cover and hold, and we remain in the room until we get instructions from the venue.

And lastly, hopefully you've observed the bathrooms are right out the door that you came in.

20 And that's it from me. Thank you everybody.

OPENING STATEMENT FROM THE CHAIR

CHAIR: People, I do have one or two opening remarks, so please bear with me just while I work through them, and I
25 may actually repeat some of what Paula has just said.

Declarations of interest of the Members of the Committee are listed in the interests register, which is available on the EPA website.

Please note this hearing is open to the public, and
30 representatives of the media who are way down back in the distant, in there, are free to attend and report on the proceedings in accordance with the hearing procedures. To this end, we have a number of requests to be, you

know, classified as media. We restricted our approval to bona fide members of the media.

Can I remind all people that other -- that filming other than the media is banned and we've already made the point about cellphones. I have a low tolerance threshold to cellphones, so please be -- you might find them dropped in a glass of water if you don't perform.

A copy of all of the material in front of the DMC is available in the hearing room and if you need to review any of the documents, talk to one of the EPA staff.

Paula has already indicated that this hearing is being recorded. Please speak into the microphones. A transcript will be available the next day.

The DMC has read all of the material that has been placed before it. That material will be taken as read. As a result, we will expect the presenters to spend their time on the key points of their evidence and for the submitters, telling us what you want and why, without repetition.

Repetition will be dealt with according to the way we see it at the time, but we reserve the right to limit unnecessary repetition.

The overall purpose of the hearing is to ensure the DMC, in making its decision on the application, is informed by the best information available. So therefore, we will concentrate on the substantive issues before us. We are here to listen, and it's really important that everyone understands that we are independent hearing Commissioners. We have not made up our minds. We come here with an open mind. We will hear and consider and make our decision.

And one of the things as Chairman that I have a special role, my role is to ensure that a fair hearing procedure is followed at all times. So we'll give

participants to the hearing the ability to explain their situation on the application.

5 Some ground rules, and these are important to me. We expect all participants to respect one another. The DMC has the right to maintain order, and as required, and as necessary, we will do so.

We've talked about videoing conference; I don't need to talk to that.

10 I just want to make a quick, quick comment on climate change. Climate change is very topical, and the effects on climate change of discharging greenhouse gases into the air from this application has been explicitly ruled out as a matter which the DMC cannot have regard to. However, in saying that, no doubt we will hear more about that as the hearing proceeds.

15 No person can question any of the witnesses. That's the role of the DMC. Some people have put questions before us that we may or may not ask. If you have a matter that you think we need to address, talk to Gen over there and put it before her, and she will give it to us, to look at.

The hearing schedule is available each day. We'll endeavour to keep to it.

25 Just then, can I just stress, the DMC expects the hearing will be conducted in a measured and constructive manner, and with all participants being treated with courtesy and respect. Normally at this stage, I would ask everyone to introduce themselves. I think by what we've done we've all got a -- we've already basically done that. So, without further ado, I am going to turn to Mr Winchester, and ask the applicant to start their case. Thank you.

OPENING REPRESENTATION

MR WINCHESTER: Thank you Mr Chairman, Members of the Committee, and thank you for the ground rules. It's clearly understood.

5 I see, just in terms of the hearing schedule, 2 hours has been set aside for legal submissions. I'd be pretty surprised if we need that long. I don't aim to take up that much time.

10 I should introduce to my left, Mr Hamish Harwood, who is a colleague of mine who's been closely involved in this matter, preparing the application and for this hearing.

We will introduce the OMV witnesses as we go along.

15 Just in terms of the order that is set down in the hearing schedule, there's one amendment, in terms of that suggested order, with your leave sir, and that is to interchange Mr Forrest and Mr Govier. So, we would propose to call Mr Forrest before Mr Govier. Mr Govier performs a sort of a sweeper and a wrap up and overall evaluation role at the end. So that's the only change.

20 Now, there are written legal submissions, and I will read through those at times. I'll identify parts that are taken as read, but feel free to interrupt at any time and ask questions as we go along.

25 So by way of introduction, OMV GSB Limited is a applying for a Marine Discharge Consent under section 38...(Reads paragraphs 1-3)...event that would result in a discharge. So it is very much a precautionary application.

30 If a spill to deck does occur, it would be cleaned up immediately. After clean up procedures...(Reads paragraphs 4-6(d))...during the EAD Programme.

So those are the worst case parameters that have been assumed in terms of the effects of the discharge.

On any assessment of the activity to which the application relates, the potential effects on the marine environment from the ultimate discharge would be negligible or *de minimis*.

5 Now, Mr Chairman, you have identified what the scope of the application is and I propose to take paragraph 8 as read.

CHAIR: Okay.

MR WINCHESTER: But it is important, and I should say at this
10 point that OMV does respect the ability of submitters to make submissions and have their views heard, but what is in play for better or for worse, is a very confined issue. And that has been the focus of OMV's evidence and what you'll hear from OMV. So, the Act and the
15 regulations, they are what they are, and that is what has resulted in this application.

 Turning to the trigger for consent.

 Not all aspects of the EAD Programme require a marine consent.

20 However, under subsection...(Reads paragraphs 10-12)...which require non-notified marine consents.

 So, in essence, the only aspect of the EAD Programme which goes through notified process is this harmful substances discharge application.

25 Turning to the purpose of the EEZ Act.

 The purpose is fundamental to decision-making under the Act. It guides the interpretation and application of the Act, including the decision-making sections. We've set out section 10 in full. I don't propose to read it
30 out, with your leave.

 So I'll move to paragraph 14.

 Central to the purpose of the Act is the definition of "sustainable management". The definition...(Reads

paragraphs 14-17)...to provide for their economic wellbeing.

5 But importantly, for the purposes of this application, no specific benefit or positive effect is claimed by OMV for present purposes.

The adverse effects of the potential discharge are relevant under section...(Reads paragraphs 18-19)...in section 10 of the EEZ Act.

10 The decision-making principles are set out in section 59(2A) of the EEZ Act and they are the matters that the EPA, and in this instance, the DMC, must take into account.

15 Section 59(2A) states that the EPA must take into account the...(Reads paragraph 21)...and evidence relating to each application.

I've set out at paragraph 22 all of the relevant matters under section 59(2) and the matters to have regard to under section 59(3) and over the page, the matters that are excluded from consideration under section 59(5), and I propose to take those as read, sir.

Turning to the information principles.

25 The EEZ Act requires a decision to be based on the "best available information" and "to take into account any uncertainty or inadequacy in the information available". Best available information means:

The best available that, in the particular circumstances, is available without reasonable [sic] cost, effort, or time.

30 The individual circumstances of any application...(Reads paragraph 24)...certainty about every single aspect of a proposal.

And that is probably the case with land use applications, but it is, I guess, even more important

when it comes to applications out at sea. There are always unknowns and uncertainties.

Under section 61(2) decision-makers are to favour caution... (Reads paragraph 25)... in the circumstances
5 section 61(2) is not engaged by this application.

And I've just noted in the footnote at the base of the page:

"The requirement to consider an adaptive management approach if favouring caution means that an activity is
10 likely to be refused in section 61(3) does not apply to this application because it is an application for a Marine Discharge Consent."

So, there's simply no ability to rely on adaptive management and it certainly is not relied upon for the
15 purposes of this application.

Under section 59(2)(a), the effects of the activity need to be considered... (Reads paragraphs 26-28)... not those that occur as a result of the wider EAD Programme.

Dealing with existing interests. That definition is
20 set out in full at paragraph 29, and I will take that as read with your leave and move to paragraph 30.

In this location with the exception of fishing activities and maritime traffic... (Reads paragraphs
25 30-33)... and the effects on any existing interests will be *de minimis*.

And, just for context, those applications were closer to the shoreline in shallower water, and certainly it was a high energy environment, but possibly not as high energy as what is predicted for the Great South Basin.

30 **CHAIR:** A matter we will traverse.

MR WINCHESTER: Yes.

Dealing briefly with ocean acidification.

Mr Adam Currie has filed evidence by Dr Hoffmann that discusses ocean acidification.

Dr Hoffmann's evidence does not suggest that...(Reads paragraphs 35-42)...but we discuss those matters in turn below.

5 With regard to MODU selection, as part of its tender process OMV has identified environmental and operational requirements that any MODU suppliers must comply with.

OMV has also proffered condition 7...(Reads paragraphs 44-55)...we have set out key paragraph below.

And I can read it out if you wish sir?

10 **CHAIR:** Actually do, please.

MR WINCHESTER: I think it is -- it's highly relevant, so I will read it out.

15 "219 In reaching our conclusions on a set of 'fit for purpose' conditions...(Reads subparagraphs at paragraph 55)...OMV's IA and further information."

So essentially, the principle's there, in my submission, relate to both necessity and economy in terms of wording and the value that the conditions add.

20 It is also submitted that the scale of the proposed discharge...(Reads paragraphs 56-57)...which is discussed by Mr Govier in his evidence.

25 And I have set out, in the final section, a description -- or identified the OMV witnesses. I've explained the proposed order and that is the content of the evidence summarised that each of those witnesses will cover.

Those are my legal submissions, sir. Happy to answer any questions.

30 **QUESTIONS FROM THE COMMITTEE**

CHAIR: Actually I do have one. Can you go back to point 14 of your evidence? I was really interested when you said that it would be a balancing exercise. As you might understand, I do a lot of resource management hearings.

The term "balancing" doesn't seem to be favoured and instead it's a weighting exercise, and I just wanted to be sure about what you're actually saying there. I mean, I don't think it's adding up all the positives, taking
5 away all the negatives, and saying on the balance, I think this is right. Isn't it something more than that you're saying there?

MR WINCHESTER: Yes, I think that's right sir. Perhaps balancing is -- well, it's a question of whether it's
10 balancing or weighting, and in my submission, it's both, because when you go to the mandatory relevant considerations in section 59(2), some are simply not relevant. So they carry no weight in that balancing exercise. Some will be centrally relevant, and
15 therefore, that will be the focus of evidence and your consideration, particularly around risk and then applying, as an overlay, the information principles that you are bound to apply in terms of certainty, whether you have satisfactory information, what the level of risk is
20 that you're addressing. So it is a complex set of factors depending upon the specific facts and circumstances. So I'm happy with it being described as a weighting exercise sir.

CHAIR: Okay, I just wasn't sure. It's just that, you know,
25 it just had fallen out of favour, the word balancing, in recent times.

MR WINCHESTER: Yes, I suppose in the RMA context with King Salmon and following case law there was much more of a focus on environmental bottom lines. So, yes, I don't
30 think it makes a big difference in terms of the exercise you need to carry out, but as far as the terminology is concerned, I'm happy to substitute "weighting" for "balancing".

CHAIR: Thank you. Dr Crauford, have you got any questions?

DR CRAUFORD: No, I haven't.

CHAIR: Mr Shaw?

MR SHAW: No thank you.

CHAIR: Okay, thank you for that Mr Winchester. Can we move
5 to your first witness please?

MR WINCHESTER: Certainly. Sir, the first witness is
Mr Henrik Mosser. I'll ask him to come forward and sit
at the witness stand.

Now in terms of the DMC's requirements, I understand
10 that there is no requirement for the witness to be sworn?

CHAIR: No.

MR WINCHESTER: Simply to confirm the accuracy of his
statement.

Now, you may recall that the original witness who was
15 going to be sitting in this chair was Mr Selischi. So
we've, with the DMC's approval, substituted Mr Mosser.

CHAIR: Yeah.

MR WINCHESTER: And he is prepared to answer questions.

By way of introduction, each of the OMV witnesses has
20 been asked to provide a brief summary of, or overview of
their evidence to assist the DMC in terms of the key
matters that those witnesses cover. So that's what I'll
ask each witness to do as we move through.

CHAIR: Good thank you.

25

HENRIK MOSSER

MR MOSSER: Good morning. My name is Henrik Mosser. I am the
head of exploration.

CHAIR: Mr Mosser, can you just wait until it's handed out?
30 It's a bit of a distraction.

MR MOSSER: Sure.

MR WINCHESTER: And I might just, I think there is an error in
this, a residual error in the statement, which I'll just
ask Mr Mosser to address before he kicks off.

CHAIR: Okay.

MR WINCHESTER: So I'll just -- I'll take my cue from you sir,
as to when you're ready.

CHAIR: Okay. I think we're ready now. Thank you, Mr Mosser,
5 sorry for that.

MR MOSSER: No problem.

MR WINCHESTER: So Mr Mosser, as I've outlined to the
committee, you've adopted the evidence of Mr Selischi,
and it is your own evidence?

10 **MR MOSSER:** Yes.

MR WINCHESTER: And you confirm that to the best of your
knowledge and ability it is true and correct?

MR MOSSER: I have read it, understood it, and adopted it
fully as mine, yeah.

15 **MR WINCHESTER:** Thank you.

And, can I ask you just to turn to paragraph 36 of
that statement of evidence?

MR MOSSER: Yeah, in paragraph 36, it states that I'm directly
reporting to the Board member, Executive Board member for
20 Upstream in OMV AG, which is not correct. So, I am
reporting directly to the managing director of OMV
New Zealand. So I think that needs to be taken out.

MR WINCHESTER: So, we should strike through paragraph 36;
it's simply a hangover from Mr Selischi being the witness
25 at the time.

DR CRAUFORD: So just to be clear, you report to Mr Selischi?

MR MOSSER: Directly. Exactly. Yeah, this was a paragraph of
his evidence, so he is reporting.

MR WINCHESTER: Thank you. Will you please give a summary of
30 your evidence and then answer any questions from the DMC?

MR MOSSER: Yep.

I just want to highlight a few points from the
evidence, if I may.

CHAIR: Yes.

MR MOSSER: So, I would like to start a little bit with the background on OMV. OMV New Zealand is part of the OMV group. The OMV AG is an Austrian based oil and gas producing and marketing international company. It has
5 around 20,000 employees worldwide. Its main focus is on gas, so it's 60% gas. In New Zealand the focus is even higher on gas; it's around 70% gas. Gas is actually providing 20% of the New Zealand gas needs, and this is why the focus of our company here is quite high on gas.

10 OMV is not new to New Zealand. Actually we're here for 20 years. Started here in 1999, offshore at Taranaki, with the Maari oil fields. We later extended our operations to two big gas fields, Maui and Pohokura, and those two fields are actually now keeping 36 percent
15 of the OMV New Zealand gas reserves, so a quite important gas production offshore Taranaki that OMV operates for 20 years.

OMV also holds seven exploration permits and the GSB exploration permit is the one that is the matter of
20 discussion today for the drilling programme that we are discussing.

OMV is holding these permits already since 2007.

And OMV has used the years to gather extensive information about the Great South Basin.

25 We have conducted several studies. We have done 2D seismic surveys, 3D seismic surveys, and lately also a 1500 square kilometre environmental baseline survey, mainly to get a vast understanding of the subsurface, the geologic structures, the seabed and the overall marine
30 environment in the Great South Basin for the exploration drilling we are intending to do, which is also part of the commitment to the Crown. So each of the exploration permits comes with a commitment, which is normally a mixture of studies, seismic and drilling.

We are supposed to drill a well until July 2021, as part of the licence commitment if we are intending to extend the licence beyond October 2021, we would have to drill two more wells until July 2022, as part of the commitment.

5

In this permit, we are in a joint venture with Mitsui, which is holding 17% in this joint venture.

So important for me to mention is also that health and safety and also environmental protection are top priorities for the company. So this is especially important for us because everywhere we operate we want to -- we strive for a long lasting relationship with the stakeholders in the countries where we operate. This is especially important for us, because if we would not operate in a sustainable manner, we risk our licence to operate, which is actually the foundation of our business. So, it's inherent in our business principles that we strive for the highest standards in health, safety and environmental protection. So all the documents that you find in the evidence, starting with the Code of Conduct, the HSE policy, the HSE management system, or the sustainability report, they serve simply one particular purpose, to make sure that all the principles and all the standards of OMV are adhered to and stuck to by every employee and also every contractor, every company that works for us, in all the countries where we operate. So this is extremely important, as I said before, because it actually supports our basis for operations.

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Finally, I want to point out that if this well is successful, it could have a substantial economic impact for New Zealand. The oil and gas industry in the last four years has contributed with 2.8 billion New Zealand dollars to the New Zealand economy. OMV New Zealand has

invested over 3 billion New Zealand dollars since being
 in the country and is contributing roughly with 200
 million New Zealand dollars every year in terms of
 royalties and taxes, and intends to continue to invest in
 5 its gas fields to provide the energy that New Zealand
 needs.

That's the main highlights I wanted to emphasise.

QUESTIONS FROM THE COMMITTEE

10 **CHAIR:** Dr Crauford, have you got any questions, please?

DR CRAUFORD: Yes, please. Thank you.

So Mr Mosser, first of all, the last point you raise
 on economic benefit, I appreciate that you are talking
 about the economic benefit of the entire programme, the
 15 EAD Programme. Can I just clarify that you do not
 anticipate any economic benefit being derived from this
 particular application and this particular discharge
 consent? Is that correct?

MR MOSSER: So, not from this particular discharge consent,
 20 but if the well is successful and we can develop similar
 oil or gas fields as we have in the Taranaki basin, what
 I described is the economic benefit that one could
 expect.

DR CRAUFORD: Okay, but in terms of this consent, we
 25 will -- we cannot take into consideration any economic --

MR MOSSER: Any economic benefit.

DR CRAUFORD: Thank you.

Secondly, some applicants have been concerned about
 the potential for oil spill from OMV operations. Can you
 30 just explain to me the purpose of the emergency spill
 response plan?

MR MOSSER: So, the purpose of that emergency spill response
 plan is exactly to prepare ourselves. So, to have all
 the measures and control in place to be able to act in an

immediate manner, to have all the means available to mitigate any impact that a spill might have.

DR CRAUFORD: And this is something that you will submit to the EPA; it's not part of this application?

5 **MR MOSSER:** It's not part of this application, but we are going to submit that as part -- as the follow-up consent to come.

DR CRAUFORD: Thank you.

10 Finally, I'd like to ask a question about another topic that you spoke to earlier, and that is that you claim to be -- operate in a responsible way, and that you take into consideration environmental effects. What is OMV's approach to the effects on the climate of the products that you produce, oil and gas production?

15 **MR MOSSER:** So actually, as part of their sustainability goals, also OMV is setting itself emission reduction goals. So we have also signed, together with the World Bank for instance, our goal to reduce routine flaring and venting to zero until 2030.

20 We yearly report to the CDP, which is the carbon disclosure project non for profit charity, which is actually regulating economic impact from carbon emissions worldwide for companies, but also for cities and States, and they actually do a ranking every year of around 7,000
25 companies and their initiatives in efficiency increase and emission reduction, and OMV has been awarded A minus on a scale from A to D minus three years in a row for their initiatives in terms of reducing emissions.

30 So OMV, on a global scale, intends to invest around 840 million New Zealand dollars in the next three years in emission reduction projects, for instance

DR CRAUFORD: This relates to the emissions of OMV?

MR MOSSER: Of OMV and their operations.

DR CRAUFORD: Okay. Do you in any way help to mitigate the emissions caused from the oil and gas that you sell?

MR MOSSER: The only -- it's mainly about the oil and gas that we use ourselves.

5 **DR CRAUFORD:** Okay, thank you.

MR MOSSER: So whatever -- yeah.

DR CRAUFORD: Thank you.

CHAIR: Mr Shaw?

10 **MR SHAW:** In the evidence by Selischi under executive summary number 2, and you've mentioned it yourself, you say that you are in a joint venture with Mitsui, who I think you said were 17% stakeholders?

MR MOSSER: Sorry, can you repeat that?

15 **MR SHAW:** You've stated that you're in the joint venture with Mitsui?

MR MOSSER: Mitsui, exactly.

MR SHAW: And they're 17% stakeholders?

MR MOSSER: Yes. So we are the operator --

MR SHAW: Yeah.

20 **MR MOSSER:** -- and this is a multi-incorporated joint venture. So we have technical committee meetings and operational committee meetings. So all the projects that we do, especially also this one, goes then also through a peer review of our partner on a technical sense, and then
25 financial decisions would be taken from the operating committee together, but OMV is the operator and we are handing in this consent on our behalf. Also on the behalf of the partner.

30 **MR SHAW:** So, where I read OMV, should I also be reading that Mitsui also -- is of the same view of OMV for all these health and safety, in every aspect?

MR MOSSER: Yes, since we are operating.

MR SHAW: Yeah, it's just they've been excluded from any comments.

MR MOSSER: Okay. Mhmm.

MR SHAW: Going further through Selischi's evidence, clause 58(d), you talk about reducing health and safety risk et cetera. Under (d), could you give -- explain the
5 outcome of that procedure?

MR MOSSER: What page is that?

MR SHAW: Page 19.

MR MOSSER: Point?

MR SHAW: (d).

10 **MR MOSSER:** So the example of administrative controls, is that what you --

MR SHAW: Correct, yes.

MR MOSSER: So he has actually presented that in the case of an unexpected discharge of harmful substances, what kind
15 of controls do we have in place to mitigate that? What are the possibilities? And what we list here is for instance, we can either eliminate, and not use it at all. Use a different means, by using for instance high pressure. We can substitute it with a less harmful
20 product, if possible, and in addition, we have engineering controls, which would mean if the harmful substance would end up in the drainage system, it would be diluted. If the concentration is too high, an engineering control would take place and close the valve,
25 and in circumstances this would be end up in (d), so we could actually put administrative controls, operational controls, in place. For instance, people monitoring the discharge of what goes out in the drainage for the period of time of substantial rain.

30 And the final control that we have in place is actually the personal protective equipment of the people working on the rig.

MR SHAW: Clause (d) specifically mentions what I'm looking at here, the stability of the MODU is threatened. So that's

an emergency situation, as I read it, where you basically -- you bypass everything and it just goes directly overboard?

MR MOSSER: So this would be for either when the deluge system
5 is activated and is dumping massive amounts of water on the deck, and also if you have extended periods of rain, where there is no other possibility other than bypass these valves, for a limited period of time.

MR SHAW: Now moving through to further in the evidence,
10 page 7, which is your Code of Conduct, "Our values". Do you have that?

MR MOSSER: Page 7?

MR SHAW: Page 7, it's the --

MR MOSSER: Governance?

15 **MR WINCHESTER:** Is this in the attachment sir?

MR SHAW: Yeah, it's the attachment.

MR WINCHESTER: Oh, it's the attachment to your evidence
Mr Mosser.

MR SHAW: So the topic is "Our values are universal values" at
20 the top of the page there.

MR MOSSER: Yeah.

MR SHAW: And if I take you to the right-hand column, the
first two clauses, and I'll read those out for clarity:

25 "To undertake initiatives to promote greater environmental responsibility".

And secondly:

"To encourage the development and diffusion of environmentally friendly technologies".

Can you explain how that's achieved?

30 **MR MOSSER:** So it feeds into what I explained a bit earlier. So, OMV has sustainability goals but also, as part of the HSE goals, how to reduce their environmental footprint, overall as a company, how to reduce the greenhouse gas intensity, and has put out specific goals for the next

five years, and the next ten years, and also, set aside a budget for investing in technology to reduce emissions of our operations.

MR SHAW: I think Dr Crauford's asked my other question, which
5 related to all of this is about your own in-house things that you do, and deals in no way with the products that you produce? So it's just an internal?

That's all my questions.

CHAIR: Mr Mosser, I've got a couple for you, and they are to
10 do with in your role, you're informed of spills, are you not?

MR MOSSER: Yes.

CHAIR: So just outline to us kind of the spill track record
of the company and the types of spills that have
15 occurred.

MR MOSSER: So OMV Global, or OMV New Zealand?

CHAIR: No, no, no, let's just hone down to Taranaki and
what's happening in New Zealand.

MR MOSSER: And so, as you said before, we are of course
20 supporting a transparent reporting of spills. So spills with a certain -- that exceed a certain volume are reportable. So, going back in the history of OMV in New Zealand, we mentioned the last spill to be -- bigger spill to be mentioned is from 2015. So it was mainly a
25 spill occurring on a -- when loading oil on a tanker, and it occurred on the deck of the tanker, so most of the spill was actually onboard of this tanker, but there was also oil partially spilled into the ocean that was with the emergency spill response and plan and the means on
30 site was immediately tackled.

Going further back, I also need to have a look at my long-term colleagues in OMV New Zealand, but the last one before was around 2010.

So there have been spills, and there has been -- it has been transparently reported, and also with the emergency controls in place, they have been mitigated in a very short period of time.

5 **CHAIR:** Okay. In terms of drilling, in terms of this type of operation, have you any record of spills in the country?

MR MOSSER: I would like to refer to my colleague on that, because he has more -- you know, history on the drilling part and not to give you the wrong answer now.

10 **CHAIR:** I'll come back -- yep, okay. So we'll hold that question for your colleague.

MR MOSSER: For my colleague please, sir.

DR CRAUFORD: May I ask another question?

CHAIR: Yes, you may.

15 **DR CRAUFORD:** Mr Mosser, so we've heard that the multiple applications are required for this EAD Programme and you will be submitting a second consent, a non-notified consent. Has that consent been submitted to the EPA yet?

MR MOSSER: Not yet.

20 **DR CRAUFORD:** Not yet. When were you intending to do that?

MR MOSSER: I think it's ready; it's prepared. So -- I don't know what the stage -- I need to refer to what is the stage.

DR CRAUFORD: Okay, we'll ask one of your colleagues.

25 **MR MOSSER:** I know it's ready to be submitted, but I don't have it at now.

DR CRAUFORD: Thank you.

CHAIR: Anything else, Mr Shaw?

MR SHAW: No.

30 **CHAIR:** Thank you very much Mr Mosser for that.

MR MOSSER: Thank you.

CHAIR: We have nothing else at this particular stage.

(Mr Mosser excused)

CHAIR: Just by way of housekeeping, how long is the next person going to take, because what we might do is just bring the morning tea adjournment earlier. I don't like breaking witnesses.

5 **MR SHAW:** There's no morning tea.

CHAIR: There's no morning tea. Great. The lunch break?

MR SHAW: We could have a comfort stop though.

CHAIR: Well, let's just have a quick comfort stop for people. We'll just break for five minutes.

10

(Short adjournment)

CHAIR: Now Mr Winchester we're back in your hands. Thank you.

15 **MR WINCHESTER:** Thank you sir, the next witness is Mr Gerald Hollinger, who is OMV's expert on drilling matters. So I'll call on Mr Hollinger.

GERALD HELMUT HOLLINGER

20 **MR WINCHESTER:** Now Mr Hollinger, you've produced a statement of evidence, and do you confirm to the best of your knowledge and belief that it's true and correct?

MR HOLLINGER: Yes.

MR WINCHESTER: Thank you.

25 Can you give a summary of your evidence to the Decision-making Committee, and then remain where you are and answer any questions?

MR HOLLINGER: Good morning. My name is Gerald Hollinger and I am the Well Engineering Manager for OMV New Zealand.

30 From my witness statement, in principal, we can consider two types of mobile offshore drilling units for the water depth and for the environment), and those are semi-submersible MODUs or drill ships.

For the first well, we have chosen a semi-submersible, the COSL prospector, as you will know.

5 All MODUs have in principle a similar deck drainage system. So it's really the same on drill ships and on semi-subs, which allows them to treat contaminated -- oil contaminated water.

10 Under the International Convention for Prevention of Pollution from Ships, MARPOL, annex 1, you can discharge water where the oil content is less than 15 parts per million.

15 It's noted that the water treatment systems cannot guarantee removal of harmful substances, chemicals, and therefore, they will be only stored in dedicated areas protected from the weather, like the sack store or covered banded pallets within banded areas.

20 Not all MODUs treat the fluid from the non-hazardous areas. So, some of them allow direct discharge from non-hazardous areas because there are no -- the likelihood of harmful substances to be there is -- it's not there.

25 OMV selects a MODU through a rigorous tender process. So all the offered rigs will be evaluated against the operational and health, safety and security and environmental requirements. For the current campaign, we have hired the COSL Prospector, which is a very modern 6th generation rig; it's built 2014, and it's a harsh environment semi-sub, and it has the full drainage system from hazardous and non-hazardous areas.

So, any questions?

30 **CHAIR:** Yes, I'm going to move to Mr Shaw this time to start.

QUESTIONS FROM THE COMMITTEE

MR SHAW: Good morning. I'd like to know whether this MODU has faced similar sized waves and storms that are expected in the Great South Basin?

5 **MR HOLLINGER:** Yes, I believe so. It has drilled a couple of wells in the South China Sea. Nevertheless, this MODU has travelled from Norway, down here, self-propelled, so it's fully self-propelled. It can handle a mean wave height of 17 metres.

10 **MR SHAW:** 17.

MR HOLLINGER: Significant, yes.

MR SHAW: Okay.

MR HOLLINGER: And yeah, so it's designed, it's designed for these environments.

15 We have done an operability study on it, which also indicates that it's suitable, for the environment.

MR SHAW: Why do I recall a wave height of 20 metres expected in this area?

MR HOLLINGER: I think there was an example of a wave
20 further -- I'm not sure if it was at our location or if it was further north, but, there are some waves that are going higher than this, which is normal I would say. These freak waves are considered.

This rig also does DNV certification, so it -- the
25 procedure there is if you have this kind of weather, you disconnect, and it rides the waves out. Of course it goes on survival draft, and it turns against the wave, so that it's protected, but it can handle these high waves as well. We've verified this with COSL. So because this
30 is -- the significant wave height is an average of the top third of the wave height, but it can handle higher waves as well. It will not sink because of a 20 metre wave.

MR SHAW: So, does this MODU pitch and yaw, or?

MR HOLLINGER: Yes. Not as much as a drill ship; it's more stable. It has less deck space. That's the downside of a semi-sub really, but it's -- according to our operability study, it's more stable than a drill ship, but yes, it has pitch and yaw, and it has a coastal hazards (inaudible) policy that outlines all the requirements in terms of pitch and roll for certain operations like helicopter landings, drilling and testing. So that's -- it's part of the procedures.

5
MR SHAW: So what sort of average height would the bunded walls be on that?

MR HOLLINGER: Oh the bunding, the bunding around the deck area, like I would say, 10 centimetres, 10 to 15 centimetres.

15 **MR SHAW:** So how effective is that when the vessels pitching and yawing?

MR HOLLINGER: The deck area is fairly big, actually. So, you need to spill quite an amount of fluid if you really get to the limit. The drains are able to handle 10 cubes an hour on this rig, so that's what we have put in our requirements and that's what we have confirmed. So, it shouldn't fill up in the bunded area, unless you really block the drain. There is an option of course to shut it down and to contain everything that is within the bunded area in case you really have a spill. I mean you can -- some rigs have stoppers and plugs. COSL has a valve, from the collection. So it's -- like I said, unless you have, as I said, a rare thing ongoing, like a deluge, that the deluge system blows out water, there shouldn't be an overflow of this system.

25
30 **MR SHAW:** So, I mean generally when you have a storm, you have wind and rain and -- plus pitching. I'm just picturing that, if the rig is doing that, and you get the rainfall coming to one side and the wind blowing that water

basically over the 150 high bund, it's going to go directly into the sea, isn't it, and not through your bund drain hole?

MR HOLLINGER: If the wind is blowing that strong, yes, I
5 guess it's like from the accommodation roof, but if -- on any vessel, really, yes, it can be that the spray goes over. I think this likelihood would be there, but again, it's not planned to have any spill or anything in this area to --

10 **MR SHAW:** No, but this spill is in relation to the unseen amount which is -- you haven't been able to mop up. So, it remains there, at all times, doesn't it?

MR HOLLINGER: If it happens at -- yeah, but everything needs to come together in this case, right? So normally if you
15 have a spill, you clean it up. That's what's going to happen. So you really do your best; you clean it; you flush it. If it's a big spill you have various options on a MODU, really. So you can even get it into your drain system. If you see it's too big, you can transport
20 it to the vault and treat it onshore. So, I think it's unlikely to have a spill and then this weather in addition, because if the weather is so bad that you have this kind of movement on the rig, we would also not drill ahead, at this time. At a certain wave height, we would
25 need to disconnect and stop operations basically and then ride it out.

MR SHAW: I'm not sure if I'm confused or not, but
it's -- this supposed 250 mls of unseen stuff is there because you can't see it? So you've had a spill, you've
30 cleaned up, and this is the residual stuff? So, it's there?

MR HOLLINGER: But if it's normally raining and then light rain, yes, it will after a while go into the drain system.

MR SHAW: Okay. So it's constantly being cleaned?

MR HOLLINGER: The drain system is constantly open, so it's permanently running and treating what fluid comes, and unless you really exceed the capacity of it with rain, then it will start to fill up, but it's not foreseen. I have never experienced this, I can say.

MR SHAW: So, are there any other areas apart from the deck where the hazardous materials could be splashed onto or located, which would then eventually go into the deck drain system?

MR HOLLINGER: Not really, because like I said in my evidence, if you have hazardous chemicals we store them in quite protected areas so they are not open in the weather. They are usually in the sack store, and if we would run out of space we would put them, in addition that they are within the banded hazardous areas, they would also be on pallets with another containment. So I cannot see that we would store them anywhere else.

MR SHAW: These 17 metre waves, would they splash over the deck of the vessel?

MR HOLLINGER: No.

MR SHAW: What about --

MR HOLLINGER: Well, if the air gap of this rig is -- I believe it's -- I need to check that one, the information, and come back to you on this one, on the air gap.

MR SHAW: But, at the present we're using this MODU -- but in your future drilling, you might have a drill ship, for example?

MR HOLLINGER: Mmm.

MR SHAW: Are the waves potentially going to splash over the deck of a drill ship? Because they'd be considerably lower in the water, wouldn't they?

MR HOLLINGER: It could be a potential, yes, but again, it's the non-hazardous area that is exposed, and like I said before, not all ships and not all MODUs have the non-hazardous area anyway, to be collected. So, some of
5 the MODUs don't treat the non-hazardous areas drains and discharge directly, and the hazardous drains, they are well protected against -- also against the waves.

MR SHAW: In clause 56 of your evidence it talks about extremely high rainfall events.

10 **MR HOLLINGER:** Mmm.

MR SHAW: And the final sentence you say:

"This would only happen once the decks were checked and it has been confirmed no oil or harmful substance contaminants are present."

15 What is that checking process? How do you do that? Clause 56.

MR HOLLINGER: 56. Sorry, 56, or?

MR SHAW: 56.

DR CRAUFORD: 56, page 18.

20 **MR HOLLINGER:** Oh okay, so this, if you open anything that goes overboard it needs to be under permit to work. So basically, they will have to do a risk assessment. They have to go through and have a look if there is anything on the non-hazardous area that is -- yeah, that is spilt.
25 And if that's not the case, then under the permit system, they can open to pump overboard.

MR SHAW: On the next page, clause 60, you talk of having a double valve system?

MR HOLLINGER: Mmhmm.

30 **MR SHAW:** Is this the case with this MODU?

MR HOLLINGER: With the COSL Prospector, we will have a look at all of this of course, but all the overboard lines do have a mechanism that prevents that they are accidentally opened, and we will have a look at the lock off and take

out system, so this is what we expect them to have in place. That it's -- that all procedures are in place to prevent that lines are opened by accident.

MR SHAW: So you're going to check that there's a double valve
5 system?

MR HOLLINGER: Mmm.

MR SHAW: And if there's not you'd reconfigure it so that there was?

MR HOLLINGER: At least we would look into a mechanism to
10 ensure procedures that we have something in place that prevents that these lines are accidentally used.

CHAIR: I have just got one or two in a similar vein as Mr Shaw's.

Do you have any concerns about the potential high
15 intensity rainfall of the area to exacerbate any spills?

MR HOLLINGER: The rainfalls?

CHAIR: Yeah, where the rig is going to operate, although you've used the Stewart Island figures, operationally, does the high intense rainfalls that potentially occur in
20 the areas cause you concern?

MR HOLLINGER: No, not the -- I believe not. I must admit, I think the MODU has quite a good capacity to treat this. Yeah, they can do -- they have an automatic system; they are looking into improving it at this stage as well. I
25 mean, it depends also of course, like I said, this application is not only for the Prospector; it's for more rigs. So we need to look at each rig, individually, what they have, but the COSL Prospector in terms of my estimate -- my take on it, is suitable for the area we
30 are in, with the treatment capacity they have.

CHAIR: So in your experience, as an experienced operator, what's your spill record like?

MR HOLLINGER: From all my operations? Personally?

CHAIR: Yeah.

MR HOLLINGER: Yeah. Ah, I had so far one spill on the wells I was involved as a drilling engineer, and that was during testing, while testing, and that was a minor discharge. So it was less than 50 litres, because the
5 test one was slugging and it didn't ignite, so 50 litres went out before we shut it down. That was not really deck drainage; that was something else, but it was the only spill I had on my operations on the wells I've drilled so far.

10 **CHAIR:** So would you say that spills are unusual, rather -- yeah, unusual?

MR HOLLINGER: Spills?

CHAIR: Yeah.

MR HOLLINGER: Mmm, unusual? They do happen. So, but -- I
15 mean, that's why we have all the procedures and everything we are looking into, all the audits and the verification process on the rig. We are going through competence; we are going through the (inaudible) register. We are looking at the lock out/tag out system
20 and the management system. So we really assess our MODUs before we consider them to work for us.

CHAIR: Okay.

Dr Crauford?

DR CRAUFORD: In terms of the selection of the MODUs, you say
25 you go through a rigorous tender process?

MR HOLLINGER: Mmhmm.

DR CRAUFORD: Is there much choice for MODUs? How many
companies, how many different organisations tendered?

MR HOLLINGER: Oh, there is a few of them. There is Maersk,
30 there is Transocean, Nabors, so there are several.

DR CRAUFORD: So you can choose?

MR HOLLINGER: You can choose, yes, and we had more choices
also for our campaign here. That was not the only one,
yes, but it's -- it's a matter of what you define for the

MODU. So what depth it needs to operate in, what is your requirements in terms of HSE, but yes. This was not a single source tender. So there were more options.

5 **DR CRAUFORD:** So you're happy with the MODU that you have chosen for this initial drilling?

MR HOLLINGER: Yes. I think it's one of the most modern ones I think that have been to New Zealand, I can say. So it's been built in the high spec oil price environment, which means it's -- it has quite good equipment onboard. 10 And yeah, I think it's perfectly designed for what we are doing here. I mean, it's a harsh environment. In theory it's rated to minus 20 degrees. We don't need it for this operation, because we're drilling in summer. So yeah, top of the art MODU.

15 **DR CRAUFORD:** And does some of your pre-audit checks include getting a reference from a previous user of the MODU?

MR HOLLINGER: We do look at this. We look at performance. In this case here, it's drilled in the South China Sea. It's difficult to get all the information, of course. We 20 are not the first ones to use it. So the rig is currently drilling for another operator. So we will get a well running rig, as we see it. We will also share the personnel. So we will take over the supervisor, for example, to make sure that the learnings and everything 25 is kept onboard. So, yeah, that's our -- but we do look at the performance of the MODUs yes, and about the HSE statistics as well, so yes.

DR CRAUFORD: And I note in your evidence that you say that it's important that the rig has not been cold stacked 30 prior to the assignment?

MR HOLLINGER: Yes.

DR CRAUFORD: Why is that?

MR HOLLINGER: Because a cold stacked rig is quite an effort to bring up to operational mode again. It's not easy. I

mean, there is no crew onboard. This is an older machine that's been just really maintained on the limit. So tinsel taped, and yeah, not run frequently. So, we don't really like to take on a cold stacked rig, as an
5 operator, first because it takes quite a while to really make everything smooth and up and running.

DR CRAUFORD: And so this one that's on the way from Norway, it's currently in the South China Sea?

MR HOLLINGER: No. Currently, it's already in Taranaki,
10 drilling for another operator in New Zealand.

DR CRAUFORD: Oh, okay.

MR HOLLINGER: Yes.

DR CRAUFORD: All right.

MR HOLLINGER: But it was run in Norway. So it had a crew
15 onboard. It was used as a training facility, so it -- and it was actually foreseen to drill in the UK. So it was kept warm. It didn't -- it wasn't cold stacked.

DR CRAUFORD: And the crew, they move with the rig? They stay
20 with the rig?

MR HOLLINGER: But actually, they did not in New Zealand, but you may have seen it in the news, right? There was a bit of -- they have to have a local content. So they are now in the progress also to train up local people, and bring
25 them up, but yes, part of the Norwegian crew came with the rig.

DR CRAUFORD: Okay. Thank you.

CHAIR: Mr Shaw?

MR SHAW: Yes, I've just got another question.

MR SHAW: So what sort of wave height limit would that machine
30 operate under before it stopped drilling?

MR HOLLINGER: I believe for drilling operations it's 6 metres, but it's very different from what we are doing really. So 6 to 7 metres, we will disconnect, and then

they have a criteria when they go on survival draft. So it means they are basically de-ballasting and raising the rig out of the water, to get to this 17 metres.

5 **MR SHAW:** So what -- how do you disconnect? What happens to your --

MR HOLLINGER: If you disconnect, it's a controlled process. So there is a BOP, a blowout preventer, on there, right, which will close. So you basically, you pull out the drill string, or you hang it off, in the (inaudible), and
10 then you close your shear rams, and then you disconnect the upper part, which is the (inaudible) at the lower mooring, and you can move the rig away or you can ride out the storm then, basically, but there will be -- the well will be fully closed in this case, and once the wave
15 settles again, then you can go back, re-connect, open it up, get your drill string out and continue.

MR SHAW: So you pull all of your rods out, from the seabed?

MR HOLLINGER: Mmm?

MR SHAW: You lift all your rods -- your drill rods out?

20 **MR HOLLINGER:** Oh, you can hang them off in the BOP as well, so the back rams are designed that you can hang off the drill string in there, because it's not -- time-wise, sometimes it takes too long to pull everything out.

MR SHAW: Okay, thank you.

25 **CHAIR:** Okay, I think that brings us to -- no further questions from the panel?

DR CRAUFORD: No, thank you.

CHAIR: Thank you very much for your contribution.

(Mr Hollinger excused)

30

MATIU CORRIGILL PARK

MR WINCHESTER: Morning Mr Park. Now, you've prepared a statement dated 2 July. Do you confirm that that

statement is true and correct to the best of your knowledge and belief?

MR PARK: I do.

MR WINCHESTER: Thank you. Can you please give a summary of
5 your evidence to the DMC and remain where you are and answer any questions?

MR PARK: Kia ora koutou katoa. My name is Matiu Corrigill
10 Park. I am currently employed as Health, Safety, Security and Environment, or HSSE Manager Australasia, for OMV New Zealand.

My principal role at OMV is to implement the HSE management system into the OMV New Zealand branch office, and to ensure that OMV is fully compliant with New Zealand legislation relevant to HSSE.

15 I'm also responsible for working with the relevant regulatory authorities, including Maritime New Zealand, the EPA, regional and district councils, and the High Hazards Unit of WorkSafe New Zealand.

I've worked closely with SLR Limited, and OMV's
20 in-house environmental expert on this application. For the purposes of this application, I have supported engagement with iwi and other stakeholders in relation to the Great South Basin exploration and appraisal drilling campaign.

25 A large part of the application process has focused on stakeholder engagement, and OMV has undertaken a significant effort to engage widely with stakeholders as part of this application and the wider Great South Basin EAD campaign.

30 As part of my role, assessing -- assisting the technical specialists with stakeholder engagement, I've attended meetings with iwi, hapu and fisheries organisations, as well as liaising with the Environmental Protection Authority and Maritime New Zealand leading up

to, during, and post-lodgement of OMV's Marine Discharge Consent application.

As a part of this role, I've worked closely with the OMV team to ensure that all practical steps have been taken to liaise with existing interests and identified interested parties.

Following the initial granting of the Great South Basin exploration permits by the Government, OMV identified stakeholders, including those who meet the definition of existing interests in the EEZ Act, Exclusive Economic Zone and Continental Shelf Environmental Effects Act, and developed an engagement plan.

Once this engagement plan was completed, OMV management and technical experts met with stakeholders to introduce OMV and provide some context to the GSB exploration permit obligations.

This included the information relating to the anticipated permit activity timeframes, from seismic acquisition through to exploration and appraisal drilling.

When OMV identifies a concern during stakeholder engagement, OMV's approach in the first instance is to attempt to mitigate the concern.

For the purposes of this application, OMV has engaged with two regulators, being the Environmental Protection Authority and Maritime New Zealand; two regional councils, Environment Southland and Otago Regional Council; four district councils, Dunedin City Council, Southland District Council, Invercargill City Council and Clutha District Council; five iwi and hapu organisations, Te Runanga o Ngai Tahu, Te Runanga o Awarua, Te Runanga o Otakou, Kati Huirapa Runaka ki Puketeraki and Te Runanga o Moeraki; the national and relevant regional offices of

the Department of Conservation, as well as fisheries organisations including Te Ohu Kaimoana, the Deep Water Group, Ngai Tahu Seafood, and Seafood New Zealand.

5 Most recently OMV has also coordinated specific workshops with stakeholders to outline in greater detail the results of the environmental monitoring undertaken in the Great South Basin marine environment by NIWA for OMV.

10 These workshops have provided opportunities for stakeholders to fully understand the marine environment and the potential impacts from specialists from OMV and independent scientists.

15 OMV's ongoing success as an oil and gas operator and explorer in New Zealand relies on establishing and continuing to develop and maintain the trust and respect of a wide range of stakeholders.

OMV is committed to continuing engagement with stakeholders throughout this programme and for the life of the Great South Basin permit.

20 And as an organisation, as a company, OMV recognises the long-term importance of investing in, building trust, and maintaining these relationships regardless of the complementary legislative and regulatory requirements to engage and consult with stakeholders.

I'm happy to take questions.

25

QUESTIONS FROM THE COMMITTEE

CHAIR: Dr Crauford?

DR CRAUFORD: Thank you, Mr Park.

MR PARK: Before I start, I can answer a couple of questions
30 that were put to Mr Mosser too, if that's an advantage?

DR CRAUFORD: Sure.

MR PARK: So, the first question was around the spills from previous campaigns. I've been working at OMV since 2014, came in the back of that, but we've you know spent a bit

of time as part of the application looking at, you know, any lessons learned there, and those were very successful campaigns, as you've seen from Mr Hollinger, and so, you know, from my memory, no spills through those drilling
5 campaigns.

DR CRAUFORD: So the 2015 spill was not a drilling campaign, is that what you're saying?

MR PARK: Those -- the ones -- no, the ones that Mr Mosser was talking about were operational, with the producing field
10 and the Maari Field.

DR CRAUFORD: Okay, thank you.

MR PARK: And just to clarify, that was a crude oil spill rather than a harmful substance.

DR CRAUFORD: Yeah.

MR PARK: And the second question, around the next step with the application, still working pretty closely with NIWA. We've had some initial engagement with the Environmental Protection Authority over the next -- the Marine Discharge Consent, and we're looking to lodge that in the
15 next -- within the next kind of couple of weeks, yep.

And so, engagement with stakeholders is still ongoing and waiting on feedback for that next stage of the application.

DR CRAUFORD: Thank you, Mr Park.

DR CRAUFORD: You mentioned that you attempt to mitigate the concerns of stakeholders. You also mentioned that Ngai Tahu iwi, Runanga, and hapu sought clarification on the relationship between the Marine Discharge Consent and for harmful substances, which is this one, and the
25 non-notified consents. Were you able to provide -- to alleviate the concerns of the stakeholders in this regard, and also how?
30

MR PARK: Yeah, I think -- yeah, in that case, you know we -- we came back, spoke to the EPA applications team

and encouraged their staff to go down and meet with Ngai Tahu representatives to sort of clarify the interplay of those regulations, and that did take place and I'm assured it went pretty well.

5 **DR CRAUFORD:** And the stakeholders were -- their concerns were alleviated about the multiple applications?

MR PARK: I don't think alleviated; we've seen in some of the submissions that there was definitely concern around the two different processes and the opportunities for the participation or submissions.

10 **DR CRAUFORD:** A better understanding, perhaps, might be a better way of looking at it?

MR PARK: Correct.

DR CRAUFORD: Okay.

15 Also, just in relation to paragraph 25 of your submission, can I clarify OMV's position in regard to consultation? You talk about engaging widely. My reading of paragraph 25 is that you believe that consultation is with parties only with potential existing interests, and is that true?

20 **MR PARK:** To a certain extent. You know, we do really -- we spend a lot of time, you know, working. It's a bit unclear, the definition in the EEZ, in the regulations, the terms of the existing interests. So, we get out there and work pretty close, you know, pretty hard to kind of identify who certainly sits in that existing interests, and then purposefully go a bit wider. And you've seen in that example, you know, a lot of time with organisations like, you know, the district councils that would otherwise wouldn't really, you know, have an interest out there in the EEZ, and so we've taken it quite a bit wider. You know, that list is not exhaustive. Other organisations we have engaged with, we've engaged with Greenpeace at the international level,

30

through head office, through the sustainability team, including the details.

DR CRAUFORD: What about in New Zealand? And what about other environmental organisations within New Zealand?

5 **MR PARK:** Yes, we've engaged with -- off the top of my head, would be the Southland Conservation Board. We did a presentation to all the Board members in Invercargill. Organisations like Aukaha(?), which is sort of, you know, representing Ngai Tahu as a consultancy, mandated to, you
10 know, mandated for environmental science.

DR CRAUFORD: Have you spoken to Greenpeace in New Zealand?

MR PARK: Not specifically for this application.

DR CRAUFORD: What about Generation Zero?

MR PARK: No, not for this application.

15 **DR CRAUFORD:** Thank you.

CHAIR: Mr Shaw, any questions?

MR SHAW: Is that a deliberate policy to avoid the environmental groups?

MR PARK: Nope. No, we've tried to engage on numerous
20 occasions, but again, it's, you know, it's -- specifically for this application, we know it's not about a climate change issue, and we've, you know, purposefully chosen just to, you know -- who those stakeholders are going to be, and relying on the
25 public -- you know, the public process to generate submissions.

CHAIR: Thank you, Mr Park. That's all we have for you.

(Mr Park excused)

30 **CHAIR:** Yes, we are rather ahead of the time, Mr Winchester.

MR WINCHESTER: Yes. There's no concern about that sir.

Hopefully it reflects the fact that relevant issues are being adequately addressed for your needs.

The next witness sir, as I said, is Mr Forrest. So I ask Mr Forrest to come forward before Mr Govier.

REID WILLIAM FORREST

5 **MR WINCHESTER:** Mr Forrest, you've produced a statement of evidence dated 3 July 2019. Do you confirm that to the best of your knowledge and belief it's true and correct?

MR FORREST: I do.

MR WINCHESTER: Thank you. Now, can you give a summary of
10 your evidence to the DMC and answer any questions that they might have?

MR FORREST: Good morning.

My full name is Reid William Forrest. I am currently employed as an Associate Consultant for SLR Consulting
15 New Zealand Limited, based in Nelson. I have been in that position since October 2014. Prior to that time, I worked for nine years at the Cawthron Institute as a coastal ecologist based in Nelson.

The HSNO Act classifies substances into class 9.1 if
20 they are considered harmful to the aquatic environment, that being ecotoxic. Within class 1, there is a further split into classes A to D, where the most ecotoxic substances are classified A, through to the less ecotoxic, D.

25 During preparation of the impact assessment document, the harmful substances used during previous drilling campaigns and those approved for use in the Maari Field by the EPA were reviewed, and OMV Great South Basin and SLR chose representative ecotoxic substances from classes
30 9.1A to 9.1D with which to calculate the expected concentrations within deck drainage discharges.

My calculations used the best available information contained within the safety datasheets provided for each

of those substances, which was provided to OMV by the product's manufacturer.

5 Dilution calculations assumed a maximum total volume of 250 millilitres, or one cup of a harmful substance, which would be left as a residue on the deck of a Mobile Offshore Drilling Unit following a clean-up of a loss of containment. This was then assumed to be entirely entrained in the deck drainage system immediately.

10 This 250ml volume was a conservative estimate based on calculations undertaken by OMV staff with experience in drilling and MODU operations.

It was also assumed that the MODU selected for the GSB EAD Programme would have a deck drainage system settling capacity of at least 5 cubic metres.

15 Following discussions with OMV's experts, I understand that under normal operations, discharges from this deck drainage tank would only begin to pass through the oily water separator and then overboard once that deck drainage tank reached a half full state.

20 Calculations within my evidence focused on the most ecotoxic of the substance covered by the impact assessment document, that being class 9.1A, because this substance could have the greatest ecological effects.

25 Concentration of the most ecotoxic substance selected in the IA, being the class 9.1A substance CI-111 were calculated to be 106 mg per litre in the 275 cubic metres of liquid in the settling tank at the point of discharge beginning, with the most ecotoxic active ingredient within this substance, 2-mercaptoethanol, assumed to be 30%, having a concentration of 31.8 mg a litre.

30 The next most ecotoxic substance within CI-111, Pyridinium-1 phenylmethyl alkyl derivs chlorides, assumed 60%, would have a concentration of 63.6 mg per litre.

While this concentration is higher than the predicted no effects concentration calculated for that most ecotoxic active ingredient within CI-111, this concentration would only be present at the very point of discharge into the ocean and would rapidly decrease -- its concentration would rapidly decrease upon discharge where significant rapid dilution would occur.

The EC50 ecotoxicity concentrations used to calculate the predicted no effect concentration assumed that test organisms are subjected to this concentration for extended periods, normally between 48 and 96 hours, depending on the test, whereas in the case of the discharge from the MODU, concentrations will be continuously decreasing with time and mixing.

Since preparing the impact assessment, OMV have contracted the COSL Prospector semi-submersible MODU.

With a confirmed MODU for the first well in the GSB EAD Programme, that being the Tawhaki-1 well, there is now a known hazardous drains tank size, being 320 cubic metres onboard the COSL Prospector. The deck area size is known, being 5,810 square metres, and a list of harmful substances that are anticipated by OMV to be used for the drilling rig operations and for drilling are now known.

Therefore, I've undertaken calculations using this information to show what could essentially be an example of the consent in action.

Concentrations of the most ecotoxic class 9.1A substances anticipated to be used onboard the COSL Prospector, it being Sodium Hypochlorite Potable Grade, were calculated to be 1.97 mg per litre in the half filled settling tank at the point of discharge, when discharges began to occur. This concentration would

again be above the predicted no effects concentration calculated for this substance, at the point of discharge.

Sodium Hypochlorite Potable Grade, commonly encountered as chlorine bleach, would be utilised onboard the COSL Prospector as a sterilising agent in the potable water supply. As I understand it, this substance is fundamental to the operation of this -- is a fundamental operational substance to MODU operations for the health and wellbeing of all crew onboard, and this substance is used similarly onboard most other MODU, large ships and also in Municipal water supplies.

To be effective in its purpose requires this substance to have a high ecotoxicity.

And on the rainfall data. Due to the lack of available rainfall data for the offshore area of the Great South Basin, ten years of rainfall measurements from a representative onshore location, that being Stewart Island, was investigated to determine likely and worst case rainfall scenarios, along with rainfall frequencies.

Calculations of total possible rainwater discharge from a MODU were made based on the surface area of the largest MODU included in the OMV rig selection process, which was 5,826 square metres, and used three possible drilling programme length scenarios, that being 74, 60 and 50 days duration.

For comparison, the COSL Prospector MODU has a surface area of 5,810 square metres, and as such, the maximum rainwater discharges calculated based on the largest rig in the selection process are more conservative.

The highest calculated rainfall to discharge occurred when drilling took 74 days to complete, that being the longest possible period, and needed torrential rainfall intensity every day of that programme, and that equated

to a rainwater discharge of 78.7 cubic metres per day, while the more likely rainfall scenario at the same location, that being average rainfall intensity at the average frequency, produced an estimated rainwater discharge of 18.4 cubic metres per day.

5

As you've heard from Mr Hollinger, and as I understand, a typical oily water separator system through which the rainwater would need to pass before it discharged, has the ability to treat 10 cubic metres of water per hour, and as such, could easily keep up with the calculated daily rainwater discharge volumes, if required.

10

The zone of influence. The zone of influence around the MODU from the harmful substance within deck drainage was conservatively estimated at 200 metres. This value was based on modelling undertaken on a discharge of larger volumes of water from the floating production storage and offloading vessel Raroa, within the Maari Field, where the maximum daily discharge volume of 10,300 cubic metres per day was approximately 140 times greater than the highest daily rainwater discharge estimates for the MODU in the GSB.

15

20

Water sampling undertaken in the Maari Field this year found results showed that there was approximately 2,000 times dilution of that discharged production water occurring at 50 metres down current of the Raroa.

25

A more realistic, but still highly conservative zone of influence, could be visualised by assuming the entire mass of the active ingredient within the 250 mls of harmful substance residue left on deck, was loss directly to the receiving environment in a single parcel, that being no prior dilution and calculating the volume of water then required to dilute this mass down to the calculated predicted no effects concentration.

30

For CI-111, the substance used within the impact assessment, this equated to a hemisphere with a radius of 12 metres around the MODU's discharge location. This assumed no water current deformation.

5 Similarly, visualising the volume of water required to dilute the entire mass of the 250 mls of Sodium Hypochlorite that could be discharged from the COSL Prospector would equate to a hemisphere with a radius of 94.2 metres around the point of discharge.

10 The zone of influence for Sodium Hypochlorite is larger than that calculated for CI-111 within the impact assessment, but must be viewed in its context. Sodium Hypochlorite is a very unstable substance and would react rapidly with any organic matter within the water, and
15 breakdown into sodium chloride, table salt, and water. Calculations within my evidence do not take into account any decreases in concentration due to the substance breaking down, and only takes into consideration decreases resulting from dilution in the receiving
20 environment and in the drainage tank.

As such, these concentrations are likely to be highly conservative.

The zone of influence assumes the entire mass of the harmful substance enters the deck drainage and is
25 immediately discharged as a single parcel with no dilution. In reality, the mass would likely be slowly walked into the deck drainage tank with rainfall or wash down water where it would be diluted, and then slowly discharged from the tank, so that only a small fraction
30 of the total mass would be entering the receiving environment at any one time.

Therefore, the instantaneous zone of influence when a discharge occurred would be much smaller.

The predicted no effects concentrations used to calculate the zone of influence assume that any organisms are subjected to that concentration for extended periods, in the case of the predicted no effect concentration for hypochlorite -- Sodium Hypochlorite -- that being 72 hours. It is highly unlikely that -- given the large and rapid mixing and dilution that would occur upon discharge, that organisms would be subjected to this concentration for a period such as this.

The most ecotoxic substance assessed within my calculations in the impact assessment document, that being CI-111, was previously approved for use in the Maari Field by the EPA. OMV was approved by the EPA to apply a CI-111 down hole(?) at up to 8,000 mg per litre with 250 litres of the substance allowed per treatment, and up to five treatments per year. Due to its action as a corrosion inhibitor, the substance sticks to the walls of the well or casing, and approximately 10% of the approved volume of this 9.1A substance is expected to be discharged to the receiving environment.

Even given this decrease, a single treatment event at Maari may lead to up to 2.5 -- 25 litres, sorry, of this 9.1A substance reaching the marine environment, which is a hundred times greater volume than what I've assumed might occur from the MODU deck drainage, and that being at far higher concentrations than those calculated in my evidence.

The risks to marine organisms from the far larger volumes and concentrations that was being discharged in the Maari Field were assessed by the EPA as being negligible.

Calculations within my evidence are conservative, because they are based on discharging the entire amount of the harmful substance, that being 250 mls, as a single

2.5 cubic metre parcel of water from the discharge tank. However, it is far more likely that A, not all of that harmful substance would be washed into the deck drainage system at one time, and B, not all of that harmful substance would also be discharged into the receiving environment in a single event.

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It is more likely that the harmful substance will be gradually washed into the deck drainage system over an extended period of time, during which the tank would be slowly filled to the point where the oily water system engaged, that being assumed to be 2.5 metres on a 5 cubic metre tank, and deck drainage water containing the harmful substance will then begin to discharge. As the diluted harmful substance within the deck drainage was discharged, the remaining amount of substance within the deck drainage tank would then be even further diluted by any incoming rain or wash water, resulting in decreasing concentration of harmful substances at the point of discharge over time.

20
As the concentration at the point of discharge decreases with additional dilution occurring in the deck drainage tank, the potential instantaneous zone of influence of the discharge would then also decrease.

25
30
Thus, while the most ecotoxic substance likely to be utilised during the drilling of the first well in the GSB EAD programme is more ecotoxic than that substance modelled within the impact assessment document, for the reasons detailed within my evidence and within the evidence presented by OMV's other expert witnesses, I consider that, subject to the adoption of proffered conditions, including the amendment in the conditions report, and the implementation of management procedures and mitigation measures identified in the impact assessment, the risk of adverse environmental effects

associated with a discharge of trace amounts of harmful substances within deck drainage will continue to be negligible.

5

QUESTIONS FROM THE COMMITTEE

CHAIR: Thank you Mr Forrest for that. I am going to start off this time. I have a -- and that's quite an involved -- and your evidence was really quite interesting to read. My question's going to cover a couple of areas. I'm really interested in the three chemicals that you've used as indicative type of, you know, ecotoxic ones?

10

MR FORREST: Yep.

CHAIR: Sodium Hypochlorite, what's its life in the water?

15

MR FORREST: It depends on a large number of factors, depending on the likes of if there's a significant amount of organic matter present, it will react very quickly with organic matter that's there. So your half-life can be very short. Also, if, for example, there's a lot of UV, very sunny days, it reacts with UV and degrades as well. I can't tell you the half-life exactly off the bat, but I do know it's quite short, especially when it's at high concentration.

20

CHAIR: So with UV it breaks down to chlorine and?

25

MR FORREST: Table salt, again.

CHAIR: Table salt again.

MR FORREST: Yeah, table salt and water.

CHAIR: Table salt and water.

30

It was interesting, because I tried -- I was just looking at -- trying to resort back to my stage 1 chemistry to deal with it, and I found it quite fascinating.

In terms of the other two, the BioGuard, and the C11, what are their lives?

MR FORREST: Again, they will be slightly longer. I -- again, couldn't tell you the exact figures off the top of my head. BioGuard is an antifoulant substance, so it would have slightly longer lasting effects to be active in its role that it's required for, and then CI-111, I'm not sure, but I know it is less -- much less reactive substance, and so therefore, I'd imagine its half-life would be longer.

5
CHAIR: So the C111 is used by other vessels as well, isn't it?
10

MR FORREST: Yes.

CHAIR: Yeah, so that's generic across marine operations, is it not?

MR FORREST: Yes, yep.

15 **CHAIR:** Yeah, I thought it was. I was just trying to get my head around the different types. So that's antifouling?

MR FORREST: Oh no, the BioGuard's antifouling.

CHAIR: Antifouling as well.

MR FORREST: Yeah, CI-111 is used within -- often used within production facilities and exploration wells.
20

CHAIR: Can we now traverse the submitters concerns? And I know you've done that in something, but I'm going to ask you to work through it methodically for me.

MR FORREST: Yep.

25 **CHAIR:** And that's about the relationship of the Taranaki modelling?

MR FORREST: Yes.

CHAIR: With -- and whether it's analogous to the conditions in the Great South Basin.

30 **MR FORREST:** Based on the question that was asked, yes, conditions could be different between Taranaki and the Great South Basin. I went through the impact assessments for both Taranaki and for GSB that have been submitted as part of the deck drainage application, and looking at the

mean figures that were available, mean wave height, mean current, and mean wind speeds are all higher in the Great South Basin than they are compared to Taranaki.

CHAIR: Okay, Mr Shaw questioned one of the, you know, former
5 witnesses about wave heights --

MR FORREST: Yes.

CHAIR: -- you're not concerned about those?

MR FORREST: It's probably the opposite concern that
Mr Hollinger might have in terms of operations. Yeah,
10 the higher the wind speed and the wave height would
therefore create a more active mixing zone and would
therefore create faster dilution and mixing of any
discharge.

CHAIR: So if you, per chance, were able to model the Great
15 South Basin, would you predict that there would be major
variances from the Taranaki model?

MR FORREST: Possibly not major variances. During the impact
assessment preparation and the upcoming marine consent,
Marine Discharge Consent, there is specific wave -- wind,
20 wave and weather modelling that is undertaken as part of
that, and that's included within the document, that's as
I've detailed just before, those median conditions were
higher down there. So you would expect, you know, they
would be different. So your modelling results would show
25 some differences, but likely your mixing zones would
probably be smaller due to that increased activity.

CHAIR: Okay. If I asked you to rank your predictions on a
scale of 1 to 10, you know, 1 being terrible and 10 being
pretty good, where would you say your -- would do you lie
30 within that continuum?

MR FORREST: I think the calculations that we've come up with
are conservative, in the fact that, for the likes of the
zone of influence calculations that we've done, we've
basically assumed with those almost an entirely worst

case scenario where you'd be discharging the entire 250 mls as if you'd tipped it over the side of the MODU and directly into the ocean, and then how much water would then be required to dilute that amount of substance down to its predicted -- a concentration where it's predicted to have no effect. And so, we've estimated that being 94 metres for the Sodium Hypochlorite and I think it was 12 metres for CI-111. Where I'd place that -- I mean those are calculations based on the numbers that exist. They don't use any modelling data. So I'd be, you know, fairly certain that they were good estimations. The numbers that we -- when we originally based our zone of influence on a 200 metre conservative value, based on the information from the discharge from the Raroa, for example, that is a modelling study and modelling always has some inherent issues around it, no matter whose model it is. So, again, you'd probably have slightly less -- yeah, you'd be -- I have more faith in the numbers that didn't involve modelling than did involve modelling, but they're still -- you know, those models are performed by MidOcean Solutions who have a long history of performing such models in that environment.

CHAIR: So, other than the three examples you use, there's a whole range and you've kind of extrapolated it forward, said the systems in place could deal with anything that comes out?

MR FORREST: Yes, I mean we've -- in the impact assessment document we looked at substances that have been used in prior drilling within the offshore Taranaki environment, that being the Maari Field and some of the exploration wells, BO(?), for example, and then what were the most harmful substances used in that, and that came back as CI-111, and then we've looked at the substances, both

involved in drilling operations for -- on the COSL
Prospector, and also on the wider operational aspects of
the MODUs general day-to-day operations, and that was
where Sodium Hypochlorite was identified as the most
5 ecotoxic ingredient, and it's likely that most ecotoxic
substance would be the one that could have the greatest
impact on the environment around it if it was discharged.

CHAIR: Thank you. Mr Shaw, anything from you?

MR SHAW: Just for the record really, if we took a cup full of
10 hypochlorite, tipped it into the sea, would that cause
acidification right at that point?

MR FORREST: The Sodium Hypochlorite is basic rather than
acidic, so it would be slightly the other way, but I
would definitely not advocate tipping large amounts of
15 Sodium Hypochlorite into the ocean to counter ocean
acidification.

MR SHAW: No, I just wanted that to be on record, because it's
not adding to acidification?

MR FORREST: No.

20 **MR SHAW:** I have no further questions.

CHAIR: Dr Crauford, have you any?

DR CRAUFORD: No further questions.

CHAIR: Well, Mr Forrest, thank you very much for indulging
us.

25 (Mr Forrest excused)

MR WINCHESTER: Thank you sir, that just leaves Mr Govier.

CHAIR: Just a little bit of housekeeping, since we're going a
little bit ahead of time.

30 **MR WINCHESTER:** Yes sir, I appreciate that. It's often a
degree of unpredictability around the timetable.

Now, do you have Mr Govier's written statement?

CHAIR: Yes, please.

DANIEL GOVIER

MR WINCHESTER: Morning Mr Govier. You have produced a statement of evidence dated 3 July 2019?

MR GOVIER: Correct.

5 **MR WINCHESTER:** And do you confirm that to the best of your knowledge and belief it's true and correct?

MR GOVIER: Yes, I do.

MR WINCHESTER: Thank you. Can you provide a summary of that evidence to the DMC and answer any questions?

10 **MR GOVIER:** Sure.

Good morning. My name is Daniel Govier; I am the Asia-Pacific Technical Discipline Manager with the Marine Science Team for SLR consulting.

I have 17 years of professional experience, particularly in the preparation of impact assessments, resource consent, marine consent, Marine Discharge Consent applications for activities in the marine environment.

As part the of the preparation of the impact assessment for OMV's marine discharge consent application, a detailed environmental risk assessment was undertaken. Through this process, the risk to the different receptors in the marine environment and the effects on the environment and existing interests from the proposed activity were assessed.

This assessment incorporated mitigation measures, controls and operational procedures that OMV will implement.

As a result, the overall risk from the potential discharge of a harmful substance from the deck drains of a MODU was considered to be negligible.

Concern has been raised over two potential sources of uncertainty in the application, that being the MODU has not yet been selected, so the deck drainage system is

unknown, and the harmful substances that will be onboard the MODU are not yet known.

5 Since the impact assessment was submitted, OMV has contracted the COSL Prospector to undertake the drilling of the Tawhaki-1 exploration well. However, any future wells could be drilled with a different MODU. To reduce the uncertainty around MODU selection, OMV has developed environmental and operational requirements that any MODU operators must comply with, and if this is not possible,
10 these suppliers will not progress to the next stage in the contracting process.

As such, OMV expects that any MODU contracted will have a deck drainage system capable of processing the anticipated volumes of rainwater and deluge water during
15 the EAD Programme.

OMV proffered condition 9, which states the minimum design requirements the MODU must have for a deck drainage system. In my opinion, this condition, which I understand OMV would include as part of any future tender
20 requirements, along with additional environmental and operational requirements, would address the uncertainty of OMV not having a MODU contracted at this time for any future wells drilled after Tawhaki-1.

The EPA's key issue report stated that the uncertainty
25 around the specific details of the MODU not being known at the time of consent lodgement has been reduced and mitigated by the commitments OMV have made within the application.

The key issue report concludes that the potential
30 adverse effects on the Marine Discharge Consent application will be negligible.

At the time the application was lodged, the harmful substances that would be used and stored on the MODU were not known, as the determination of the harmful substances

depends on the final MODU contracted and the design of the wells. Since lodging the application, OMV contracted the COSL Prospector to drill the Tawhaki-1 well.

However, for any wells drilled after the Tawhaki-1, the harmful substances remain unknown.

5

In my opinion, the uncertainty around the final harmful substances used is not significant for this application, as OMV have detailed the systems and processes in the impact assessment that control harmful substance handling and storage. These systems and processes will take place onboard any MODU that OMV contracts for EAD programmes. As a result, the risk of any harmful substance spill will be reduced, which will adequately control the amount of harmful substance that could be discharged from a deck drainage system, no matter whether the harmful substance is known or not.

10

15

The assessment of effects was determined using worst case scenarios, such as selecting the most ecotoxic harmful substance that could be onboard the MODU, and using minimum and conservative dilution levels in the calculations. It was determined that with the implementation of all operational procedures and management measures, if a spill occurred, following appropriate clean up, there is only potential for a harmful substance residue to enter the deck drainage system following rainfall or deck washing. The assessment concluded that the low volumes of the harmful substance, combined with the large dilution rates within the deck drainage system, would have negligible effects on the receiving marine environment following a discharge event.

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25

30

With the contracting of the COSL Prospector, and the known harmful substances that will be used for the drilling of the Tawhaki-1 well, Mr Forrest's evidence, as

you have just heard, provided a comparison between the hypothetical worst case scenarios used in the impact assessment, and those that would be onboard the COSL Prospector, using the most ecotoxic harmful substances that would be used, should a harmful substance enter the deck drainage system.

The EPA's key issue report identified that the harmful substances not being known at the time of the submission was an uncertainty in OMV's application.

However, the key issue report concluded that the systems and processes in place will be effective at reducing any harmful substance spill, and will therefore control the levels of harmful substance that may enter the deck drains of any MODU.

I know that this Marine Discharge Consent application is part of a number of required regulatory applications or approvals, which OMV must be granted prior to commencing the EAD Programme in the Great South Basin.

As part of my preparation for this hearing, I also reviewed the EPA commissioned Conditions Report.

The Conditions Report agreed that the uncertainties that have been identified have been adequately addressed within the impact assessment.

Five additional conditions were identified in the Conditions Report, for inclusion within OMV's suite of conditions.

The proposed condition 12, enabling the EPA to review the conditions, should not be included as a numbered condition on this consent, as this is a condition that OMV cannot comply with, as it's only the EPA that can instigate such a review.

The Conditions Report concluded that should OMV's Marine Discharge Consent application be granted, the conditions, with the additional inclusions, are

appropriate to ensure that any effects from the proposed activities are avoided, remedied or mitigated.

5 Lastly, I have read the evidence filed by Dr Hoffmann, which discusses ocean acidification. Dr Hoffmann's evidence does not suggest that she considers that the discharge of trace amounts of harmful substances would have an impact on ocean acidification. For the avoidance of doubt, in my opinion, the discharge of trace amounts of harmful substances, if it occurred, would not affect
10 ocean acidification.

To summarise, the information outlined in my evidence, in addition to the evidence presented by OMV expert witnesses, I consider that subject to the adoption of the proposed consent conditions, and the implementation of
15 management procedures and mitigation measures identified in the impact assessment, any adverse effects on the environment, including existing interests, associated with a potential harmful substance discharge through the deck drainage system will be negligible or de minimus.

20 In my view, OMV's Marine Discharge Consent application is consistent with the sustainable management purpose of the EEZ Act.

And that's everything.

CHAIR: Mr Winchester, that's a relatively nice concise
25 summary of his evidence. Do you think we could get a copy of what he's just read at some stage, please?

MR WINCHESTER: Yes, and I think most of our witnesses have produced their summaries in writing, so they can be -- they can also be tendered to the DMC, if --

30 **CHAIR:** I would really appreciate that. That would be very helpful to us, thank you.

MR WINCHESTER: All right. I'll arrange for that over the lunch break, sir.

CHAIR: Okay, if you wouldn't mind, that would be good.

MR WINCHESTER: Yes.

QUESTIONS FROM THE COMMITTEE

CHAIR: Mr Shaw, this time, to start with?

5 **MR SHAW:** You might think this is a little bit offbeat, but
the overarching comment has been that the effects are
de minimus, and I just wanted to ask you, possibly you
can answer this, as a comparison, if we took say a
10 recreational person in their small boat with a 50 horse
motor cruising up and down the coast for one hour, with
their exhaust directly dispersing into the sea, would
that have a far greater effect on the environment than
what we're considering here today? Just to get an idea
of comparison of what we're talking about?

15 **MR GOVIER:** Ah, I'm not qualified enough to know about the
emissions from an outboard or anything like that. So I
can't really comment on the discharges or emissions from
an outboard. Yeah, I'm not really sure how to answer
that question, sorry.

20 **MR SHAW:** Okay, that's fine.

You're probably -- I'm not sure if you can answer my
second question then, but again, it was in relation to
getting a comparison, and every vehicle on the road that
has rubber tyres, the rubber tyres wear down. It ends up
25 on the road; it ends up in the stormwater system which
then comes out onto the coastal marine area, and no doubt
causes -- has an ecological effect. Are you able to
compare that overall effect for all the vehicles in
New Zealand with what you're doing offshore? If you
30 could possibly just make an estimation?

MR GOVIER: Yeah, in terms of estimation I can't, but I guess
the more sensitive environments are generally nearer the
coast, and there's more impacts to the coastline; there's
more run off; there's more discharges. There's higher

use. There is more, you know, more terrestrial inputs, more runoff, more discharges, more users are in that environments. So there's -- compared to offshore, where the proposed well locations are -- the area of interest. You know, you're in deep water, anything -- any sensitive environments are either potentially on the seabed, which is over 1300 metres down, or in the near shore environment, which is over 140 odd kilometres in-shore. And likewise, any fishing area is well in-shore as well. So those sensitivities aren't around, where it is in -- and as Mr Forrest pointed out before, those zones of influence are constricted around -- so it's a very well confined footprint around the proposed activity.

MR SHAW: Good, thank you. No more questions.

CHAIR: So in terms of the limiting 500 metres, that's also very conservative?

MR GOVIER: The 500 metres?

CHAIR: Exclusion around the vessel?

MR GOVIER: Ah, no, that's -- so the 500 metres is the non-interference zone. So that's a mandatory -- or it's not a mandatory, it's -- so they'll apply for -- OMV will apply for that, so that's -- that's enforceable.

CHAIR: But it's an added protection?

MR GOVIER: Yes, it is. So that's to ensure that no vessels will go there.

There's also a -- under the New Zealand Nautical Almanac -- in there is a -- basically another notice to mariners. It recommends that all vessels keep beyond 5 nautical miles from any production station, offshore production field, or exploration rig, but that's not enforceable. It's just a recommended distance to keep away, but the 500 metres is an enforceable distance that vessels do keep away.

CHAIR: Dr Crauford?

DR CRAUFORD: Thank you. Mr Govier, I want to ask a question about seabirds. In your evidence, you're saying that there is -- that the effect on seabirds of the discharge, the harmful discharge, is likely to be negligible, yes?

5 Is that correct? What I want to know is what the effect might be of the MODU on seabirds? So, will the MODU have lights?

MR GOVIER: Yes, it will do. So as part of -- as part of the, I guess, the future applications, that's going to

10 be -- well, I guess it's outside of the scope of this application, but the actual physical presence of either a floating MODU, under DP, or a drill ship, it doesn't need marine consent for being there, because it's not actually fixed to the seabed. So, that doesn't require consent.

15 However, it does need lights, and lighting doesn't need a consent, a marine consent either. However, operational procedures that OMV will implement, under best practice they'll have -- they're in discussions with the

20 Department of Conservation at the moment in regards to seabirds, and that will be in terms of minimising lighting, so that excess lighting is not there; facing lighting inward, and having measures in place such as with port holes, at night having curtains over port holes. Just reducing as much lighting at night so that

25 there isn't, you know, any excess light to obviously startle birds. And then, if there is any birds which make its way on to the MODU, there will be trained personnel onboard, which will be trained in handling birds, and they'll either -- if they're just -- sometimes

30 offshore structures can be used as resting places for birds if they're ever too far offshore, they can be either released on the dark side of the vessel, that can be done. Or if they've hit something, they can be, with the trained personnel, there will be communication

procedures in place where they'll contact DoC and also through Ngai Tahu as well. They will make notification procedures. So that's in discussion as well. So, those measures are being discussed, and that's part of the next application process.

5

DR CRAUFORD: Okay. Thank you. I know it's not part of this application, but nevertheless it is still --

MR GOVIER: It is being considered and it's being taken seriously.

10

DR CRAUFORD: Thank you.

My other question was in regard to the proposed condition 12, where you're saying that it should not be imposed --

15

MR GOVIER: No, I'm not saying it shouldn't be imposed; I'm just saying it shouldn't be a numbered condition. So more as an advice note.

DR CRAUFORD: Oh, I see. So that was my question. Are you happy for it to be an advice note?

MR GOVIER: Yes, absolutely.

20

DR CRAUFORD: Okay. Thank you very much.

CHAIR: Well, thank you very much for that. We've got nothing else for you at this particular point in time.

(Mr Govier excused)

25

CHAIR: Ladies and gentlemen, what we are going to do now is conclude, adjourn for a while. We are way ahead of schedule, but can I just note before we do so, is that a series of questions to be considered at the hearing were placed before us, and looking down that list, we have, I believe, the witnesses have either addressed, or we have

30

asked most of those questions.

So, we will stand adjourned until 1.30, thank you.

(The luncheon adjournment)

CHAIR: Kia ora tatou people, we are reconvened.

Can I just remind people please about their cellphones, can you please make sure that they're either
5 in flight mode, silent mode, turned off, or not in the room? You take your pick on any one of those four things, please.

So we're moving to the afternoon's agenda now, and can I sincerely thank those people who have come forward to
10 help us fill in the time productively for the rest of the afternoon.

So we're now going to move by Skype to the Petroleum Exploration and Production Association of New Zealand, and welcome Joshua O'Rourke, can you hear us?

15 **MR O'ROURKE:** Yes.

CHAIR: Mr O'Rourke, you can hear us?

MR O'ROURKE: Yes I can.

JOSHUA O'ROURKE

20 **CHAIR:** Mr O'Rourke, why don't you just give us a summary of the key points of your submission?

MR O'ROURKE: Well thank you Mr Chair, and thank you Members of the Committee, and can I also acknowledge you for allowing me to present via Skype today rather than
25 travelling down, so thank you.

As you've said, my name is Josh O'Rourke; I am with the Petroleum Exploration and Production Association in the role of policy manager here.

My background is in public policy and my experience
30 includes time at the Ministry for the Environment and with the EPA.

PEPANZ is the industry association which represents upstream explorers and introducers of petroleum in New Zealand.

As you are aware, we have submitted in support of OMV's application and are pleased to be able to present at this hearing.

5 You've said that I can take the submission as read, so I'll just move to highlight some of the key points.

The consent application is for a very small discharge with minor effects and should therefore be granted.

10 Although the discharge is of a minor nature, the marine consent is essential to the operation of the broader exploration activity as a whole.

The benefits to New Zealand of petroleum exploration and production are significant. Natural gas to shore provides energy security, and is a feed stock for major petrochemical operations, and exports of oil provide a major revenue earner.

15 Oil and natural gas production earns the Crown approximately \$500 million annually in royalties and corporate taxes. The petroleum sector creates thousands of jobs nationally, paying salaries twice the New Zealand average. A discovery, and subsequently development, from OMV in the GSB would amplify these benefits to the Otago region and ultimately New Zealand as a whole.

20 OMV is a member of PEPANZ and has a strong representation as a competent and sound operator in New Zealand.

In our observation, OMV works very well with regulators and stakeholders.

30 OMV has agreed to the PEPANZ Code of Conduct which in summary requires adherence to ethical and responsible business practices, and to continuous improvements in health, safety and environmental performance.

Under the EEZ Act the DMC must consider a range of positive and adverse effects. In our view, the balance in this case is very positive. The EPA's key issues

report quote: "finds that the potential adverse environmental effects will be negligible". You will have been well briefed on this point, so I do not need to cover these minor effects in further detail.

5 We are aware that the notified aspect of this consent relates only to a certain discharge and also that effects on climate change are precluded from the DMC's consideration. However, with the DMC's tolerance, I would like to briefly address the climate change concerns
10 that many submitters have raised.

Firstly, although rightly being precluded as being a factor in this consent, greenhouse gas emissions from petroleum operations in New Zealand are managed and accounted for. This is done under the Emissions Trading
15 Scheme.

Secondly, from an emissions perspective, reasonable voices have long acknowledged the role of natural gas as a key transitional fuel. Natural gas, through its peaking capacity and electricity generation, helps to
20 ensure that electricity remains affordable, which in turn promotes the electrification of energy needs. Indeed, the Interim Climate Change Committee recently found that natural gas has an important part to play in New Zealand's broader de-carbonisation agenda.

25 Lastly, despite some of the rhetoric, demand for petroleum is projected to increase significantly in the decades ahead as global demand for most energy sources continues to rise. A recent report from the International Energy Agency predicts demands for natural
30 gas will increase by 45% by 2040.

Natural gas is a clean burning fuel which emits half the CO₂ of coal and is accordingly in high demand.

New Zealand should be part of this global natural gas story.

In summary, the DMC should grant this consent due to the positive economic benefits, vastly offsetting the minor environmental effect.

Thank you for your time today,

5 And I'm happy to take any questions.

QUESTIONS FROM THE COMMITTEE

CHAIR: Mr O'Rourke, just -- can we just narrow your focus down to the narrow scope of the actual application? I
10 realise that under point 17 of your evidence you've actually addressed those environmental considerations. Are there any matters in that consideration that you particularly want to highlight?

MR O'ROURKE: Primarily that the effects are low and that they
15 can be adequately managed through consent conditions.

CHAIR: Okay. I'm just going to ask the other panel members, starting with doctor here on my left, if there are any points of clarification?

DR CRAUFORD: Just to clarify Mr O'Rourke, you talk about
20 economic benefits; I think the applicant has said there won't be any economic benefits associated with this application, are you in agreement with that?

MR O'ROURKE: Well, there will be employment from the rig
25 conducting its exploration activities in New Zealand. But of course, exploration is the life blood of the petroleum sector and it's upon development induction that the major benefits arise. And exploration is an essential part of that journey of getting to production.

DR CRAUFORD: But this is not an application for exploration,
30 this is for -- this is a discharge consent.

MR O'ROURKE: Yes that is correct. And, as I said in my opening remarks, it is intrinsically associated with the broader exploration activity to which this discharge

relates. And I think that broader picture of this operation as a whole should be kept in mind.

DR CRAUFORD: All the same, as a Decision-making Committee are you suggesting that we can take into account in terms of
5 this discharge consent, economic benefits?

MR O'ROURKE: Well, I understand section 59 of the EEZ Act specifies economic benefits as a factor for you to consider; so, yes.

DR CRAUFORD: Even though the applicant is suggesting there
10 are not economic benefits associated with the discharge consent?

MR O'ROURKE: I think that that probably is true in relation to the specific discharge. But I am just saying that as -- that it relates to a broader exploration activity
15 and it's intrinsically related to that, and it's a quirk that this is the sole part that's notified. But I do take that point, that with the discharge itself, there may not be.

DR CRAUFORD: I guess there are other things that we cannot
20 take into account that you have mentioned such as climate change impacts. And so, I guess we have to be clear as to what it is we are taking into account and what we're not.

Thank you.

25 **CHAIR:** Mr Shaw?

MR SHAW: I don't have any questions.

CHAIR: And Mr O'Rourke I don't have any further questions.

Look, a sincere thanks for making the time available today and we thank you for your presentation. And we
30 wish you good afternoon.

Thank you.

(Mr O'Rourke excused)

CHAIR: We are now going to move on to Ms Brenda Stebbings please. And the submission reference number for people who have got them on there is 336.

5 Doctor we're in your hands, sorry I didn't acknowledge your title, I should have.

DR BRENDA STEBBINGS

DR STEBBINGS: I'm just turning things on and setting myself up.

10 **CHAIR:** Good, thank you.

DR STEBBINGS: My name is Dr Brenda Stebbings. I provide specialist care at a low cost medical centre in Dunedin, and also volunteer at the Dunedin Wild Life Hospital, which mainly involves cleaning up penguin pooh.

15 I've tried to read the OMV application and the various reiterations, and it's felt like a full-time job trying to keep up with the details of the application.

Following on from OMV and their supporters presentations today is a daunting task.

20 I'll start by telling you what is important to me. That is family, community, wild life, the land, sea, Aotearoa, and the planet. I care about truth, justice, fairness, equity.

25 On the matter of this submission, my views are very clear "Not even one cup" or even amount whatsoever of harmful substance should be allowed to flow overboard or discharged into our ocean whilst OMV undertake exploratory drilling for oil in the southern basin.

30 I don't actually need to attend this hearing to work out that it's wrong. I know it's wrong. Just as I know many other things in life such as it's wrong to steal or take what isn't yours. It's wrong to give away what isn't yours to give away. It's wrong to bully. And it was wrong to allow nuclear warships into New Zealand.

I'm not here because it's my job. I'm here because I care about Otepoti, Aotearoa, and all the living creatures on this planet. And I implore the EPA to pay heed to my values, because in the end, I don't actually think that these pieces of paper have any value. They certainly can't have a greater value than the welfare of humanity and our planet.

5

I'm not alone in opposing companies such as OMV. I'd like to quote our Mayor Dave Cull when he spoke on 28 May this year, and I think this is very relevant:

10

"So to be clear, if you are promoting fossil fuel exploration, extraction and exploitation, and especially its expansion, then understand you are at odds with this community and my council that represents it."

15

I know little about deep sea oil drilling, but I would like to now speak to some of the specifics of the application.

The location of the drilling: It is my opinion that no consent should be granted until exact details are known about the location of the first exploratory well, or any future wells.

20

The zone affected: I believe that the 200 metres zone of influence calculation is not relevant for the Great South Basin because there are too many differing variables. The zone of influence calculations are based on plume modelling of discharges from the FPSO vessel in the Maari Field, and this is a different location with a different environment, there are different species in this area and different ecosystems, it's a different vessel.

25

30

The harmful substances: It is my opinion that no consent should be granted until exact details are known about the one cup of harmful substance that could be

discharged during this first exploratory drill, or any future drilling.

The amount of harmful substance: Firstly, the vessel. Differences between MODUs and drilling ships would affect any calculation relating to the amount of spillage of
5 harmful substances, and that would be visible or not, to the naked eye. Therefore, we need to know what vessel will be used for the drilling of the first exploratory well, and all vessels used for future drilling.

10 The one cup estimate. The estimate of one cup is arbitrary. The surface area of a MODU is massive; the assumption is that spills of greater than one cup would be visible to a naked eye. If you consider the spillage of substances on a vessel with a surface area the size of
15 a football field, add in some movement of the vessel which spreads the spilled substance, I'm not convinced that a person would even notice with their naked eye spillages of greater than a cup, say two or more cups, because the assumption is that all spills of greater than
20 one cup will be seen and mopped up with the spill kits. I'm not convinced with the logics here.

The frequency of spillage: Well, we don't know the frequency of the spillages. It could be monthly, daily, or even multiple times a day; so we don't know how much
25 harmful substance will be discharged.

The dilution calculation: OMV's harmful substance dilution calculation is based on a selection of harmful substances. We need to know the following with regards to the consent application, and this is the exact name
30 and chemical makeup of the harmful substances, the exact level of toxicity, and exact frequency of spillage, and the exact details of the drilling vessels and their final well designs.

The impact and the environmental cost of spilling spillage of harmful substances: Taranaki is not the great south. There has not been a detailed assessment of the area surrounding the exact location of this drilling site in the Great South Basin. We do not know the effects of the one cup of the harmful substance on all the ecosystems possibly effected, nor the effects on marine wild life specific to the great south ocean, which is home to southern right whales, hump back whales, bottle nose dolphins, and rare New Zealand sea lions.

We can't just assume that OMV's observation in the Taranaki basin are relevant here. As far as I know, there are no yellow eyed penguins or little blue penguins breeding and swimming around, or albatross flying around up in the Taranaki basin.

I doubt OMV are involved in efforts to protect our native species here, or have involvement in the uniqueness of Otago and Southland. Our numbers of yellow eyed penguins, for example, are so low that every bird counts.

We must guard against short-sightedness that could lead to the extinction of a native species, or indeed any species.

OMV are proposing an exclusion zone of 500 metres. That sounds like a good idea, but I just don't know how OMV will get that message out to all those concerned? The whales, dolphins, sea lions and birds that is.

Tipping points: We don't know the environmental cost of this one cup spillage. Any one of which might be the one that tips the balance. Use smoking as an example. You might smoke cigarettes for years and years, but one day the balance tips and you start to develop lung cancer.

Another example was referred to by Greta Thunberg during her speech at the National Assembly in Paris last week, and I quote:

5 "The bad news is that around the year 2030, if we continue with business as usual, we will likely be in a position where we may pass a number of tipping points."

Well she was of course referring to irreversible climate breakdown.

10 We don't know that this one cup is not going to be the tipping point that leads to the extinction of a species.

We also need to assess the future environmental and economic costs of ocean acidification.

15 I understand that OMV plan to drill to depths of at least as great as the 2010 BP deep water horizon disaster which also happened during an exploratory drill. I'd like to have the opportunity to submit my views on this, but I can't, as it's not part of this consent application.

20 The economic cost: Well, we don't know the economic cost of the one cup spillage. A large part of the supplied information is vague, arbitrary and based on assumptions, other locations, other substances, or other vessels.

Ocean acidification has not been considered.

25 It is many years since this permit was granted and a lot has happened since then.

30 OMV claim to have invested over 2 billion into the New Zealand economy since 2002. I think we can't assume that this means they'll invest another similar amount. Things have changed. I can't see how OMV can demonstrate that looking for oil to burn when there's no CO2 budget left is going to be economically viable. The CO2 budget is going to be gone within eight and a half years, quoting Greta Thunberg again.

We're talking about 2028, still within the timeframe of OMV's permit. Surely this needs to be revoked or forfeited? Because no amount of money can pay for extraction of oil that can't be used.

5 And to quote Greta Thunberg again:

"These are the numbers that count, this is the best available science."

My summary points are:

10 I am opposed to OMV's application, not even one cup should be allowed.

A lot has happened since OMV's permit was granted.

This one cup spillage is associated with the activity that neither our Government nor our council supports.

15 Dunedin has declared a climate emergency and all future permits for all oil exploration have been banned.

Key details are missing from OMV's application.

Little attention has been given to the environmental cost and huge economic costs associated with the current emergency that our council is facing.

20 I'll leave you with a last quote from Greta:

"You have to see the big picture."

CHAIR: Thank you Dr Stebbings.

QUESTIONS FROM THE COMMITTEE

25 **CHAIR:** Dr Crauford, have you got anything that you would like to ask?

DR CRAUFORD: Just one question, Dr Stebbings, you've asked a number of discrete questions of OMV: The location, the zone affected, the hazardous substances, the vessel,
30 et cetera. If you were to get satisfactory answers from that, would you then be in a position to not oppose this application?

DR STEBBINGS: I've tried to present this in a way that sort of answered that question. I guess I've started off by

saying actually, no, I don't -- I'm never going to be happy with this one cup full. But then I'm not -- I wasn't entirely certain that -- I guess I've tried to take part in the system the way the system is operating --

5

DR CRAUFORD: Sure, I understand.

DR STEBBINGS: -- and so by doing that, I've tried to address the things that I wanted -- I felt should be addressed from their application. But no, nothing will persuade me.

10

DR CRAUFORD: Thank you.

DR STEBBINGS: Thank you.

CHAIR: It's interesting, isn't it, if we take -- if we took, you know the chemical, Sodium Hypochlorite, and given the extent which we're looking and examining that particular chemical and its discharge, when I think about the amount that's going in just in any one area already, how do you equate the two?

15

DR STEBBINGS: Sorry, re-phrase that for me please?

20

CHAIR: Well, it's bleach. Bleach is being put down, you know, the common drain, every day of the week. You know, it seems -- yet there is not the great huha about that when you seem to be making it, you know, singling out a cupful here. How do you equate the two?

25

DR STEBBINGS: How do I equate the two? Okay, let me think.

I think that my opinion is that you have to see the big picture, and that's a quote.

CHAIR: Okay, thank you.

Mr Shaw.

30

MR SHAW: Were you here for the entire morning session?

DR STEBBINGS: No.

MR SHAW: That's a shame because a lot of the things you've mentioned were covered, and perhaps if you read the transcript --

DR STEBBINGS: I think that, as I tried to start off by saying, trying to keep up with this application process has been a full-time job. This is not my job. I've done my best to address their application. There seem to be, like I said, lots of various re-iterations and added information. You know, I guess you're telling me oh I could have been here this morning and heard the answers, but when I had to actually write this, the answers were not necessarily there. And when I looked at the original submission, the answers were not necessarily there. So, I've done my best with the system the way it is, to approach this, something which concerns me greatly, and I have a personal interest in, and I've tried to explain that here today, that I really care. And this is not something about, you know, this, it's something I really care about, the future of, you know, what we have here and now. So, that's what I'm really trying to talk about.

MR SHAW: You actually interrupted me, so I didn't get to finish.

DR STEBBINGS: Yep, okay, please finish.

MR SHAW: So, I was just going to suggest if you do have the time to read the transcript up until now, you may find that a lot of your queries are adequately addressed and answered, that's all I want to say.

CHAIR: Okay. Dr Stebbings, thank you very much.

DR STEBBINGS: Thank you.

CHAIR: Look, by the way, we do understand that it's an iterative process. This is an interesting one, it's not like the RMA, the information is teased out during the time the application is put forward to the time we hear it now, and yes, there is a hell of a lot of information flying around.

DR STEBBINGS: Thank you.

CHAIR: Okay, thanks.

(Dr Stebbings excused)

CHAIR: Can we move to Jen Olsen please? It's 142142.

5

JEN OLSEN

CHAIR: Mrs Olsen, welcome okay.

MRS OLSEN: Well, thanks for the opportunity to talk today.

And I know we're here to talk about the application by
10 OMV to discharge the harmful substance from the deck
drains, but as far as I can say, I think this is only a
tiny portion of the actual matter that a lot of us are
here to talk about. And I understand the stage that has
been reached, and I'd like to talk about some of the
15 background, because I think that should influence your
decisions today. And I hope it does.

I've been a member of the Dunedin and Otago Peninsula
community for 25 years, and I chose to live in this
beautiful part of the world because I love the natural
20 environment and the wild life that we're so lucky to have
here. And it's a friendly and safe community. I brought
my son up here to value the world around him and consider
the impacts of his actions on others.

I'm not a scientist, but I am well informed about the
25 social and political issues that we face in our local
community, nationally and internationally. And I've
participated in many public campaigns to raise awareness
of issues and let our politicians know that the people of
Dunedin and New Zealand want legislative and financial
30 support to protect our environment for future
generations.

I feel very strongly that we must all do our best when
it comes to caring for others in society and protecting
the world from harm. And that is why I'm here today.

I'm fulfilling what I feel as my responsibility to speak up for the changes I think are necessary and also on behalf of others who are not able to be here today.

5 We are at the end point here of a long process of consent for an action that could be described as destructive of society and the environment in its widest sense, in that drilling and exploration for further fossil fuels can only increase the damage that we know is occurring in the world environment today at a level that
10 is creating an existential threat to us all.

Carbon dioxide from fossil fuels dissolves in sea water and increases acidification of our oceans, and as we'll here from the evidence, I thought we might have already heard this, but mine's been brought forward, from
15 Dr Hoffmann, Dr Linn Hoffmann, ocean acidification affects the whole ocean ecosystem breaking the food chain that links the smallest crustaceans and plankton through fish and other creatures, through to the sea birds, penguins and ocean mammals like seals and sea lions, the
20 creatures that we love to see here on our coast.

By interfering with the calcium carbonate formation for these creatures and harming them, ocean acidification damages every member of the ocean community. Fishing, the shellfish stocks will be under threat and the threat
25 to already endangered species increases.

Our society will be impacted in ways we can hardly imagine if the ocean ecosystem breaks down. I don't know if you know about this one, but already in the Caribbean, sargassum seaweed is forming mats up to 7 metres thick
30 washing up in huge quantities on the shores where it decomposes very unpleasantly, and it's destroying fishing opportunities and interfering with the breeding cycles of creatures like turtles.

We simply do not know how future events will unfold, because we don't know what will happen if we continue to change a balance that has been in place for millions of years in the oceans. We do not know if there is a tipping point beyond which we will see even more destruction of the ecosystem. And I believe we should take a precautionary approach using the principle internationally recognised as a foundation for decision-making to protect human health and the environment and defined at the Wingspread Conference of 1998:

"When an activity raises threats of harm to human health or the environment, precautionary measures should be taken, even if some cause and effect relationships are not fully established scientifically."

Now when the process that has led to this hearing commenced and OMV were granted a permit for continued oil and gas exploration in the New Zealand Exclusive Economic Zone, I do not believe that the full seriousness of the current situation vis-à-vis carbon dioxide's harmful effect on the oceans was fully understood. And neither was it understood that world-wide, regardless of any other economic rationale, further fossil fuels are no longer required, as the harm they produce outweighs any benefits.

The consumption of further fossil fuels can only worsen a situation that is acknowledged by world scientists as extremely serious. It would be the height of irresponsibility to continue. It could amount to ecocide, which is defined as "serious loss, damage or destruction of ecosystems".

Now, we already have climate change iwi leaders Group Chair Mike Smith has filed proceedings in the High Court suing the Government over its failure to protect Māori

from the ecological crisis, and there are cases underway internationally intending to establish ecocide as an atrocity at the International Criminal Court.

5 Once this happens, and I'm sure it will, I don't doubt that there will be cases initiated in New Zealand. I do not accept the arguments for financial necessity. I believe that it's much more important to find alternatives for fossil fuels; that they can be found, and that if it entails financial sacrifice, then that is
10 a far better option than climate and ecological destruction.

I believe it is the responsibility of the EPA and, therefore, this Committee, to re-examine their obligations. There's been a complete lack of
15 consultation throughout this process with a number of non-notified consents that have been granted, and I believe that if the community and experts in this field were able to give their views, there would be a very different outcome here.

20 I think that the opinions of both groups would be overwhelming opposed to the activity of OMV, and that the EPA has a duty to act in a way that is consistent with the stated values of protecting people and the environment with the understanding that decisions made
25 now will affect us all into the future.

And I also have something to say about the behaviour of oil companies that has an implication for the validity of the evidence offered by experts appearing for OMV.

30 It's now public knowledge that oil companies have known for over 30 years that their industry was a major contributor --

CHAIR: Mrs Olsen, I have been exceptionally tolerant.

MRS OLSEN: Thank you.

CHAIR: We are, you know, and I'm not going to try and cut you short, but you really need to focus for us on the particulars.

5 You understand we have a very narrow brief and, with respect, what you're saying is well and true, but it belongs in another forum --

MRS OLSEN: Well --

CHAIR: Just let me finish please.

MRS OLSEN: Sorry.

10 **CHAIR:** What I am going to say to you is just tailor it -- you've sledgehammered us with it. We understand your concerns, and we really do appreciate the concerns of a lot of people coming to this hearing with a very similar view.

15 I said in my opening that we would allow a certain amount. The time has come to move on.

MRS OLSEN: Okay.

Well, I mean can I just say a little bit more --

CHAIR: Okay, carry on.

20 **MRS OLSEN:** -- and then I'll finish.

Thank you very much.

I do appreciate that I've departed completely from the point of the hearing.

CHAIR: Yes you have.

25 **MRS OLSEN:** But the point was just to make a wider appeal, really, because I think that the process of this decision-making has been broken down into such small sections that we are devoting an extraordinary amount of energy to an almost irrelevant part of the activity, as a whole, and ignoring the totality of it.

30

And, in some ways, it sort of seems to parallel what has actually happened in the world, and that is by only looking at each small element of things that are occurring that are harming the environment, we don't look

at the bigger picture and see how that all compounds to
create a situation that is really taking us in a
direction that we just don't want to go; that we are kind
of trapped really within a web of obligations and
5 conflicting information. And I'm really asking you to
take a step back from all that and think about the values
that we all have that we want to protect the environment
that we live in and that we feel we need to actually
stand up and do that right now. This is the time when we
10 need to turn around and say no, there is a bigger
picture, we are going to say no to this, and we're going
to turn around and do things differently.

CHAIR: Okay.

MRS OLSEN: That's what I'm asking you today; I'm asking you
15 to decline this consent and make a stand for things being
done differently.

CHAIR: All right, thank you.

MRS OLSEN: Thank you very much.

CHAIR: Mr Shaw?

20 **MR SHAW:** Unfortunately I don't have any questions.

CHAIR: Dr Crauford?

DR CRAUFORD: I don't either. But thank you for your
submission.

CHAIR: Mrs Olsen, can I sincerely thank you for having the
25 temerity to come along. Clearly there are issues and I
thought you made a very telling statement.

MRS OLSEN: Thank you very much.

CHAIR: And that's the bit about, you know, an irrelevant
part, which you pointed that it is, has really been
30 obfuscated by the much larger picture. So thank you very
much, actually, for pointing that out to us.

MRS OLSEN: Well you're welcome. Thanks for your time. I do
appreciate it.

(Mrs Olsen excused)

CHAIR: Sir Alan Mark please.

Now is there anyone else who wants to be heard this
afternoon? Is there anyone else? Gen could you talk
5 please? Thank you.

SIR ALAN MARK

CHAIR: Sir Alan, welcome.

SIR ALAN MARK: Thank you for the opportunity.

10 **CHAIR:** And the floor's yours.

SIR ALAN MARK: My submission -- my main submission was
deposited on June 12, referred -- the reference is 322.

I have a summary here.

I am a Dunedin-born, semi- retired academic
15 ecologist/environmental scientist, with research
experience in a wide range of terrestrial ecosystems, but
also involved as a ministerial appointee to the Fiordland
Fisheries and Marine Environment Committee and by the
Government to the Fiordland Marine Guardians under the
20 Fiordland Marine Protection Act. I was there for eight
years. Recognition has included a Fellowship of the
Royal Society of New Zealand, their Hutton Medal, and
their Fleming Environmental Award; an Honorary DSc from
my almanata, a CBE and a KNZM knighthood for my quote:
25 "Contribution to science-based conservation in
New Zealand"

I Chair the Wise Response Society Incorporated, an
Otago-based, but New Zealand wide NGO, with a mission
statement, which I quote:

30 "As demand for growth exceeds earth's physical limits
causing unprecedented risks, what knowledge and changes
do we need to secure New Zealand's future well-being?"

The Society endorses my submission.

I have read and endorse the Greenpeace submission on this application.

I believe the OMV application lacks essential detail, particularly the risks associated with the precise
5 location in relation to the presence of particular ecosystems, rare and/or vulnerable, associated biodiversity, as well as the chemical or chemicals that are likely to be discharged, their toxicity and their acidification potential. There is also no mention of the
10 type of vessel to be used.

Under acidification I'd accept Adam Currie's submission, supported by my colleague Dr Linn Hoffmann of the botany department, that ocean acidification is generally referred to as the evil twin of climate change;
15 quite separate in terms of the basis for its effect. But ocean acidification, as Dr Hoffmann has indicated, is toxic to quite a wide range of marine organisms and possible upsetting important marine ecosystems.

Neither has any information on the likely or possible economic benefit, cost benefit, been presented. In fact, the potential for a successful find is reported by the applicant, I believe, as less than 30%.

But significantly, the possible environmental cost of recovering any gas and/or oil for use onshore is not
25 presented and, most significantly, the environmental costs in terms of emissions of its combustion is not discussed. Section 13(b) of the Environmental Protection Act stipulates that the EPA must exercise its powers, functions and duties, conferred upon it by this and other
30 environmental Acts, including the Resource Management Act. The mediated version of the new Otago Regional Council's Regional Policy Statement, which derives its legal authority from the RMA, stipulates that a precautionary approach must be taken to all resource use,

a point that is not subject to any further appeal to the Otago Regional Council. I submit therefore, that the Environmental Protection Agency must recognise the precautionary principle as having legal effect.

5 I understand climate change is not to be addressed -- able to be addressed under this legislation. I find that kind of anomalous, it reminds me of being allowed to fight a fire, but not use water.

10 To ignore that the Government has committed to no further drilling for fossil fuels and to a carbon zero future is artificial. Such drilling in the South Basin, or anywhere else off our coast, is anathema to the commitments New Zealand has made.

15 Since the application was lodged, the Dunedin City Council has formally declared a climate emergency and the mayor, Mr Cull, two weeks ago acknowledged that without, I quote:

"Without urgent action we will have catastrophic environmental, health and economic impacts."

20 And to this end, the City Council have already divested their shares in fossil fuel extraction companies and have consistently opposed deep sea oil and gas exploration in recent years. And there has been widespread support for this action.

25 And I quote the InterGovernmental Panel on Climate Change's report presented at the recent COP24 Conference that demonstrates that humanity now has about 11 years to complete fundamental changes in the way we produce and consume energy.

30 And the UN Secretary-General noted that the majority of countries are already behind their efforts to meet their Paris pledges.

And it is plain that mankind is way off course. We need more action and more ambition, without delay. It is

not hyperbole to say that humanity faces an existential threat and we are not responding quickly enough.

I personally fear for the future of my children, my grandchildren, and my great-grandchildren, and indeed all
5 humanity, and also the many ecosystems essential to their welfare.

Finally, I repeat the opening statement of the very recent report of the Interim Climate Change Committee, the report to the New Zealand Government:

10 "The need to reduce greenhouse gas emissions is becoming increasingly urgent."

So, to the Committee my submission is firstly, to request the OMV to seriously consider its moral responsibility and its obligations to humanity, and
15 withdraw its application. But, failing that, secondly, I strongly recommend that the New Zealand Environmental Protection Agency, and again that's an Agency, not an Authority, applies the precautionary principle to its decision and declines this application.

20 Thank you very much.

QUESTIONS FROM THE COMMITTEE

CHAIR: Thank you Sir Alan. Can I just point out just a little bit about regional councils, since I was a former
25 Regional Council Chairperson for quite a long time.

SIR ALAN MARK: Sure.

CHAIR: Our role stops at the 12 mile nautical limit. Over there the Regional Policy Statement goes from coastal marine environment to the 12 mile. Beyond that, we now
30 have the Exclusive Economic Zone legislation.

SIR ALAN MARK: Continental Shelf Act.

CHAIR: But where you are right, it mirrors in many way the Resource Management Act, in many ways.

SIR ALAN MARK: Thank you, yeah our Society made submissions to the Regional Council's Regional Policy Statement and followed it right through, but I accept your point.

CHAIR: But I take it though, that you're asking us to kind of
5 parallel that --

SIR ALAN MARK: Consider that issue in your deliberation.

CHAIR: Yeah, okay.

SIR ALAN MARK: It's an artificial boundary, the 12 nautical
10 mile limit, and the ocean effects don't stop at that
boundary. Thank you.

CHAIR: Yeah, you're right.
Dr Crauford?

DR CRAUFORD: No questions. Thank you for your submission.

SIR ALAN MARK: Thank you.

15 **CHAIR:** No questions?

MR SHAW: No.

CHAIR: Sir, thank you very much for taking the time to
present us this afternoon, thank you. I have no other
questions.

20 **SIR ALAN MARK:** Thank you.

(Sir Alan Mark excused)

CHAIR: Gisele is it, Gisele Laven? And you're in for
Elayne Hill. Thank you very much.

25 **MRS LAVEN:** Yeah I'm here presenting on her behalf. I'm sure
you've read the --

CHAIR: We have, but by all means come up and talk to us on
her behalf?

DR CRAUFORD: So, on behalf of her, or on behalf of Elaine?
30

GISELE LAVEN

MRS LAVEN: Gisele ahau, and I belong to all the Runanga on
this coast, although I'm speaking just for myself and my
family and not in any way for my Runaka or my iwi.

I feel I'm doing this, in spite of the futility I feel about it, is for my family, and to be able to tell my grandchildren, my moko that if anything goes wrong, that I tried to, you know, address the issues and speak on their behalf.

5

So I've got some very brief notes I made during the lunch hour.

You've read her submission, I'm assuming?

CHAIR: Yes, we have.

10 **MRS LAVEN:** Yeah.

Okay. Regarding OMV's own value and policies in their Code of Conduct, page 16, OMV, and I'm quoting now:

"OMV identifies and manages environmental risks in all operations and ensures zero harmful discharges of pollutants in the atmosphere, land and water"

15

Yet clearly they plan to do the very opposite of their mission statement by applying for consent to do just that, to pollute our seas with poisons. It's clear to me if they are unable to honour their own words, their own Code of Conduct, and their own values, how can we trust them?

20

I'm not confident about their statements on the minimum amounts of poisons being used. I believe people's all over the world have been lulled into a false sense of security by promises from companies like OMV regarding jobs and money. I do not believe the tides of the Great South Basin and Rakiura, can be compared with Taranaki. They are completely different, as a lot of my tupuna from the original Arai-te-uru waka, which is why our coast is named Arai-te-uru, foundered and was wrecked on the coast of Moeraki, as you probably know.

25

30

My concern lies with the health and safety and well-being of our tangata whenua, our moana, and for now and into the future.

I trust it is also the concern of the EPA and our Government.

Thank you.

CHAIR: Well done, thank you for that.

5 Any questions from either of the panel members?

No. Thank you very much for that.

MRS LAVEN: Okay. Thank you.

(Mrs Laven excused)

10 **CHAIR:** Gen, is there, from the hearing administrator, anyone else?

Right, okay people, that brings us to an adjournment for the day. Thank you all for your attendance; thank you for the way you conducted yourselves today. It's not perhaps what we expected, but it has gone nice and smoothly.

15 We reassemble here tomorrow morning at 0900. So all have a safe journey home and we'll see you here tomorrow morning. Thank you

20 Ka kite ano.

(The hearing adjourned until 9 am on Wednesday, 31 July, 2019)