In the matter of an arbitration
under the Rules of Arbitration of
the International Centre for
Settlement of Investment Disputes

Case No. ARB/21/51

The International Dispute
Resolution Centre (IDRC)
1 Paternoster Lane
LONDON, EC4M 7BQ

Day 5 Tuesday, 6th February 2024
Hearing on the Merits

Before:

PROFESSOR GABRIELLE KAUFMANN-KOHLER
MR STEPHEN L DRYMER
PROFESSOR PHILIPPE SANDS

DISCOVERY GLOBAL LLC

Claimant

-v-

SLOVAK REPUBLIC

Respondent

Secretary to the Tribunal: JARA MÍNGUEZ ALMEIDA
Assistant to the Tribunal: MAGNUS JESKO LANGER

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08:59

Tuesday, 6 February 2024
(8.59 am)
THE PRESIDENT: Good morning, everyone. It's not yet exactly 9 o'clock but I see everyone is ready, so I think we can start.
Mr Moy is ready as well.
DR MOY: Yes.
THE PRESIDENT: Good morning, sir.
DR MOY: Good morning.
MR TUSHINGHAM: Madam President, just before we begin, I wonder whether we might just have a very brief discussion. We've been in discussion with our friends on the other side about a few logistical matters concerning post-hearing briefs and the oral closings. I'm entirely in your hands as to whether you would like very briefly to discuss that now or whether you would prefer to discuss that later in the day.
THE PRESIDENT: Well, maybe you can address it now, briefly, so we hear what you have to tell us and then during the lunch break, for instance, we can discuss it within the Tribunal and revert to you later. That makes sense.
MR TUSHINGHAM: Of course. Stephen.
MR ANWAY: Members of the Tribunal, we recognise it's a bit early to be discussing this, given that we still have another day and a half of hearing time left, but we have

09:00

reached agreement on I think all of the post-hearing matters and we thought it may be beneficial for the Tribunal to have the benefit of our thinking before perhaps it starts discussing these matters itself.
Number one, the parties have agreed not to do post-hearing briefs. That's principally for two reasons. One, it's very clear to I think everyone in the room that all three members of the Tribunal are extremely on top of the file. And number two, I think both sides are trying to be cost-sensitive. So for that reason the parties have agreed not to do post-hearing briefs, subject, of course, to the Tribunal's views.
THE PRESIDENT: No, you don't have to explain this further, because that would have been our proposal as well.
MR ANWAY: Excellent. Number two, that the parties do corrections to the transcripts within 30 days of receiving the last audio file, since the audio file, given all the translations, is important to the corrections to the transcript.
Number three, that the parties have 30 days to mark "redactions" to the video, if any, and consistent with the Tribunal's procedural orders, the other side would have 30 days to respond to the comments from the first party on those issues.
And finally, number four, that costs submissions be

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submitted within 30 days of that preceding event.
MR DRYMER: That means 90 days?
MR ANWAY: That's correct. The principal reason is to know the time charged for all of those activities. It takes 30 days, just given the invoicing systems.
MR TUSHINGHAM: And that's agreed by the Claimant.
THE PRESIDENT: That's agreed.
MR TUSHINGHAM: Yes.
THE PRESIDENT: Fine, so we'll discuss it within the Tribunal over lunch. I don't expect any particular difficulties, but let's discuss it and then revert to you. Thanks for having done the work --
MR TUSHINGHAM: Thank you.
THE PRESIDENT: -- for us.
Can I start with Dr Moy now?
MR NEWING: Yes, Madam President.
(9.02 am)
DR SIMON MOY (called)
THE PRESIDENT: Good.
You are Simon Moy?
DR MOY: Yes, I am.
THE PRESIDENT: From Rockflow Resources.
DR MOY: I was formerly at Rockflow.
THE PRESIDENT: Oh, yes, we heard that you had changed firm. Can you specify what your new firm is?

09:02

DR MOY: Xodus.
THE PRESIDENT: Yes. Good, thank you. When did you change?
DR MOY: December 2022.
THE PRESIDENT: 2023?
DR MOY: No, 2022.
THE PRESIDENT: No, the reason I'm saying 2023 is because I don't think it was signalled in your second report that is from 15 September 2023. But maybe I missed it.
DR MOY: Yes, I've been there over a year.
THE PRESIDENT: Good.
You have provided us with two expert reports, the first one of 30 September 2022 and the second one of 15 September 2023.
DR MOY: Yes.
THE PRESIDENT: You are heard as an expert. As an expert you are under a duty to make only statements in accordance with your sincere belief. Can you please read the expert declaration.
DR MOY: I solemnly declare upon my honour and conscience that my statements will be in accordance with my sincere belief.
THE PRESIDENT: Thank you. So we have received your presentation, and you know that you have 15 minutes, and you know that 15 minutes is short.
DR MOY: Yes, thank you very much.

09:04

May I start, Madam President.

(9.04 am)

Presentation by DR MOY

DR MOY: Hello, Madam President, and members of the Tribunal. I would like to first of all give a little bit of information about myself. My name is Simon Moy, I'm a reservoir engineer with 27 years' upstream experience. I've been an integral part of subsurface teams responsible for onshore developments in Turkmenistan and offshore developments in Trinidad.

I've been responsible for the classification and categorisation of resources for two oil company IPOs, Burren Energy and Bayfield Energy. I've undertaken due diligence on projects worldwide, in Africa, Asia, and Europe. I'm a member of the SPEE, the Society of Petroleum Evaluation Engineers. It's a society which promotes the high standards in resource and reservoir evaluations.

I'd like to follow on briefly from my colleague Mr Atkinson's presentation, and make an important point. The GCOS, the geological chance of success, factors in chance of discovery. It takes into account reservoir presence and quality, trap and seal, the presence of source rocks to generate oil and gas. All of these are present in the Slovakian licence areas. And please bear

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in mind that two historical wells blew out due to the presence of oil and gas.

So in this short presentation I'm going to go through the key elements of my work and methodology, and there's four main elements: production profiles, benchmarking, development plans, and the development schedule.

(Slide 3) My starting point has been Mr Howard's calculation of the P50 discovered volumes. This has been derived from a rigorous industry-standard method to determine which of the prospects would be discovered following an exploration campaign.

I've generated production profiles for each prospect based on sound reservoir engineering principles. Importantly, these calculations have used property values, such as for oil and reservoir permeability, et cetera, taken from Slovakian data. Benchmarking has been done for both gas and oil by comparison with Polish Carpathian examples, including the PGNiG data kindly supplied by Dr Longman.

High-level development schemes and schedules appropriate for the size and type of these discoveries is also presented. (Pause)

(Slide 4) So, once prospects have been identified, I've calculated the production that would be expected

09:07

once they've been developed. These depend on three interacting elements: reservoir, well and surface, which are defined using material balance, IPR curves, and tubing curves. These interact via pressure, fluid properties, permeability, well configuration, and together they determine flow rates and ultimate recoveries. Each of these three elements are described in detail in my first and second reports. The methods I've used are industry standard.

Of these three I'm going to focus on the material balance method and its applicability to the Slovakian prospects.

(Slide 5) So the material balance method is used across an extremely wide range of reservoir types for both oil and gas. It can be used for reservoirs under a range of drive mechanisms, including solution gas, gas cap, aquifer, and compaction drives, and it can be used in low permeability reservoirs.

The left-hand example on the screen is taken from Dr Longman's reports. That's an extreme example, and in fact represents 12 separate fields. In fact, material balance could be used on each of those separately.

A more realistic configuration is the generic example on the right-hand side of the slide, which includes both sealing and non-sealing faults. The oil

09:09

here, which is the shaded area, is in pressure equilibrium and has a single oil water contact. Production causes the pressure to decline, and different fault blocks may show pressure declining at different rates. However, what's important is that using the correct averaging method, one can derive a representative average reservoir pressure, which can then be input into a material balance calculation.

For the Slovakian prospects, the pressures calculated from the material balance method represent just such an average reservoir pressure.

So, what is observed in the Polish Carpathian fields. So the Ceranka report, Exhibit AA-11, contains a number of cross-sections showing oil distributions.

(Slide 6) Now, as can be seen in the above slide, in the cross-sections shown, despite extreme folding and possible internal faulting, continuous distributions of oil are apparent -- these are shown as the dark areas in each -- with a single oil contact, oil water contact, and a single depth. The presence and distribution of oil is confirmed through multiple penetrating wells. The oil distributions shown in the cross-sections indicate that they are in pressure equilibrium.

Depletion resulting from production may result in a range of pressures across the wells and fault blocks, 09:10 but a representative average reservoir pressure would still be definable. All of these examples could be analysed using the material balance method.

Oil discoveries in Slovakia would be similar in structure and would show similar distributions of oil. They too could be analysed using the material balance method.

(Slide 7) So turning to the issue of benchmarking. Of the eight developed prospects, five are gas. I undertook rigorous benchmarking of well and field performance against Polish Carpathian fields, including cumulative gas produced per well. Their data was supplied in my exhibits, SM-51 to SM-54.

As can be seen from the plots, the modelled gas prospects are comparable with the two Polish gas fields which are highlighted. Average peak rates and cumulative volume per well cover similar ranges. A description of these plots is given in my second report.

(Slide 8) Let's examine the oil benchmarking. The plot shows the historic volume of oil produced per field in the Polish Carpathians. Now, please bear in mind that this is the result of 150 years of oil exploration and development. Many of these fields were discovered through drilling of surface features and oil seeps. In

09:12 fact, these are some of the oldest fields that I've ever looked at. A description of this plot is given in my second report.

Now, looking at the right-hand side of the plot, i.e. fields having produced less than 500,000 barrels, these would be of a size too small to be identifiable from the available Slovakian seismic data, although it's likely that structures of this size may exist in Slovakia.

Now, looking at the larger fields on the left-hand side of the plot, as can be seen, the Slovak oil prospects, which I've marked in yellow and purple, are of a size comparable with those Polish Carpathian fields.

In addition, where data are available, recovery factors have been calculated, and one can see that these bracket the range I've calculated for the developed Slovakian oil prospects. In fact, Polish fields have slightly higher recoveries.

(Slide 9) Looking at the PGNiG data supplied by Dr Longman, a simple verification process revealed that 2,000, roughly 2,000 were inappropriate mainly because the data indicated that they were drilled into stratigraphic intervals which were too deep. This QC process reduced the number of entries from about 4,000

09:13 to roughly 2,000. My demonstrative exhibit, CD-8, graphically presents the depth and age distribution of these 2,000 entries.

(Slide 10) The plots shown on the screen at the moment have been taken from CD-8. On the left-hand side the PGNiG data from the Polish Carpathians -- that's the top plot -- is compared with historic production from the same region -- bottom plot -- and powerful insights can be obtained. The top plot shows depth versus date for each of the 2,000 wells. The bottom plot shows the oil production, with a rapid increase in gas production post 1945, and that's shown in red.

What can be inferred? Well, most of the oil production, that's 87%, has come from the pre-1946 wells, and most of these are less than 1,000 metres. Gas production is from later, deeper wells.

Now, taking those 977 pre-1946 wells and plotting their depths on the right-hand side shows that, in fact, 96% are less than 800 metres, and over half are less than 400 metres. These two depths are equivalent to my group 1b and 2b oil prospects shown in my second report at table 3-4.

So a valid comparison of my productivity per well has to be between prospects in group 1b and 2b only. Other prospects in group 3b and 9b are deeper and would

09:15 therefore have much higher pressures and would produce at a higher rate.

(Slide 11) So let's recap. There are 977 pre-1946 wells, which produced 87% of the historic Carpathian oil production, and that's 71.5 MMstb. That works out at an average of 73 Mstb/well.

Now, considering that 90% of the wells were drilled before 1930, and that peak oil production occurred in 1910, that's from wells drilled at or before that date, most of the production would have been from very shallow wells.

A reasonable comparison could be made with my estimate of 143 to 220,000 barrels per well for group 1b and group 2b, taking into account that these wells would be drilled using modern drilling equipment and techniques, minimising wellbore formation damage and maximising production.

With this understanding, a x2 and x3 uplift over pre-1946 well performance is reasonable.

(Slide 12) So now let's move on to the development scheme. The table above on the screen at the moment is taken from my CD-9 demonstrative exhibit. The first point to make is that this is not a single development: this represents activities spread over six years which results in the development of three oil discoveries and

09:16 five gas discoveries.

Secondly, please examine the depths of these wells: the vast majority are less than 820 metres. From my onshore experience, wells of this type can be drilled with a simple rig, completed, and hooked up in less than 14 days.

Please also look at the year 2021, the busiest year for drilling. Of the 45 wells required, 43 are less than 770 metres. From a drilling point of view, all of the above is doable. The majority of these prospects are shallow, they can be drilled quickly and developed using standard oilfield equipment.

I'd like to present a couple of European examples which illustrate the onshore oilfields similar to those described in my report that are currently being developed.

(Slide 13) The first example is the Anshof field in Austria. It's presented here as an example of a European onshore discovery which was rapidly developed and produced in short timeframe, including the environmental permitting, using many of the techniques I have mentioned in my development scheme. If the Tribunal is interested, there is a very nice online article in NS Energy.

The associated gas production would still need to be

09:17 exported or burnt for power, and although it's not clear from the article what the solution to this has been, the issue has clearly been resolved with little fuss and in short timeframe.

The second example is Romanian, from an online article in the Oil & Gas Journal. Again, a recent discovery made by OMV --

THE PRESIDENT: Dr Moy, I'm sorry for interrupting. I'm told there is one minute left, or one minute over.

MS MINGUEZ ALMEIDA: One minute left.

DR MOY: That's fine, I've got one more slide.

Again, a recent discovery made by OMV of multiple fields, they are presented here as they are of a size which is comparable to the Slovakia prospects. In fact, two are twice the size of the largest prospects. Clearly, onshore oil drilling and development is alive and well.

So in conclusion (Slide 14) I've used industry standard methodologies resulting in robust subsurface models and production profiles. I've shown the material balance method to be applicable to Polish fields and it's appropriate for Slovakian discoveries. I've undertaken rigorous benchmarking for both oil and gas and have shown comparable performance between Polish fields and Slovakian discoveries, and my development

09:19 scheme and timescales reflect those observed in other onshore European developments, and also reflect personal experience.

Thank you very much.

THE PRESIDENT: Thank you.

Do I give the floor to Mr Pilawa?

MR PILAWA: Yes.

THE PRESIDENT: Yes please.

(9.19 am)

Cross-examination by MR PILAWA

Q. Thank you very much.

Good morning, Dr Moy.

A. Good morning.

Q. I'm Douglas Pilawa and I will be asking a few questions today.

If we can keep this presentation up for just a moment, and if we can go back a slide.

Dr Moy, was this information in either one of your expert reports?

A. No, it wasn't.

Q. Okay. I don't need the presentation up anymore.

MR DRYMER: And what about the article that you mentioned. I didn't note the name. Is that referenced in any of your reports?

A. No, they're not.

09:20 MR DRYMER: Thank you. I didn't remember it.

MR PILAWA: Can you tell me your familiarity with the Slovak oil and gas regulatory framework?

A. I'm not familiar with it, no.

Q. Generally speaking, are you aware of the types of permits or other authorisations that an oil and gas company needs to secure for exploration or a development project in Slovakia?

A. If it were specific to Slovakia, no. But the generalities and general regulations, yes, they're probably very similar. But I'm not familiar with the details of regulations in Slovakia.

Q. Okay. And I think generally speaking, one of these I think you might be familiar with, but you're generally familiar with an EIA, an environmental impact assessment?

A. That's correct, yes.

Q. Okay. Are you aware that in Slovakia for any oil or gas producing well a preliminary EIA is required?

A. Yes, I've heard that, yes.

Q. As part of your preparation for your expert reports, did you undertake any geographical analysis of the 1,200 square kilometres of the licence areas?

A. I'm not quite sure that I understand your question.

Q. Okay. Did you study the terrain at all?

09:21
A. Only from what I've seen from maps.
Q. Okay. If we could start at paragraph 8 and 9 of your first expert report, this is on page 5. Do you have it in front of you?
A. Sorry.
Q. I wasn't sure if you were looking at the screen or ...
A. No, I'm ready, sorry about that.
Q. Just to follow on and understand where your expert report lies in the three, in paragraph 8 you state that the first question you were asked to address was to:
"Identify the likely volume of hydrocarbons which hypothetically could be produced from the prospects in the licence areas should they contain hydrocarbons."
A. That's correct, yes.
Q. Thank you. And I understand really the -- what you're trying to do here is Mr Atkinson has developed his PIIP estimations, which is amounts of oil and gas that might be in the ground.
A. Might be, yes.
Q. And so your analysis is, if there actually is oil or gas, then you are calculating the amount that might be produced from those amounts?
A. It's -- the whole process is -- we have a selection of structures that have been mapped, and we have a selection of their relative in-place volumes. And the

09:23
statistical process that's gone through allows a P50 discoverable volume to be estimated. So that is, if you were to go out and drill that licence area in the way that's been described, what is the P50 chance, or what volume would you get from that process.
And so -- and also what selection of prospects are you likely to find that are filled with hydrocarbons, either oil or gas. That process is described also in one of the papers that I present in my second report.
Q. But really what I'm trying to -- or what I'm wrestling with is the uncertainty in this analysis.
A. That's dealt with through the statistical process that we've undertaken, which is rigorous, to give you -- it is an estimate. It's P50 of the likely volumes you're going to discover if you undertook a drilling campaign.
Q. The likely volumes that you will discover if there is oil or gas at each one of these prospects; right?
A. There won't be oil and gas at each one because you're drilling the 40 prospects. But it's telling you what you are likely to discover if you were drill those 40 exploration wells, on those 40 structures that Mr Atkinson has identified from the seismic.
Q. And if we can go down to your next paragraph:
"Separately for both oil and gas ..."
You were asked to:

09:25
"... generate representative most-likely production profiles for the prospects in the licence areas and outline a feasible development scheme."
Correct?
A. Yes.
Q. And that development scheme assumes that exploration drilling occurs in the first instance; right?
A. Well, you would have to discover, yes, oil and gas first through drilling.
Q. And your model assumes that Discovery Global would drill an exploration well at all 40 prospects that Mr Atkinson identified; right?
A. That's the -- yes, that's over two years.
Q. Yes. And I understand that the way that the three reports interact with one another is that Mr Howard's decision-tree modelling produced successful oil and gas prospects; is that fair?
A. Not quite. So the decision-tree analysis gives you an estimate based on -- first of all, you've got each of the in-place volumes for each of the mapped prospects, each of which may or may not contain hydrocarbons. You then have a geological chance of success. Both of those have been estimated by Mr Atkinson. The decision-tree process is a robust statistical method that you then run through to allow you to estimate a P50 likely

09:27
discoverable volume should you drill all 40 of those. And then from that volume, that P50 volume -- and that was calculated for all four of the trends, the geological trends -- you have a series of scenarios which represent the successful prospects that would contain that P50 volume.
So there's a selection for the two gas trends, and there's a selection of prospects for the two oil trends. And that's given us the eight prospects which we've identified that would be either filled with oil or with gas.
Q. So I was just trying to ultimately get to the oil and gas prospects that you actually create a development plan for.
A. Yes, sure.
Q. So, just to come back to that, after this campaign of drilling 40 wells, the end product are oil prospects and gas prospects; right?
A. Yes. A list of eight that are considered to be successful, statistically determined, out of the drilling of all 40.
Q. And those eight are the ones that you used to create your development plan; right?
A. Yes. Yes.
Q. And I understand that the development scheme for those

09:28 eight, that's made on a but-for basis?
A. Yes, so it's assuming, yes, exactly.
Q. And to understand that but-for basis, it's: but for alleged actions of Slovakia, the development scheme is what would likely have occurred?
A. That's correct.
Q. Okay.
Now, you're aware that the extent of Discovery's drilling programme was to drill three exploration wells, one at Smilno, Krivá Ol'ka, and Ruská Poruba; right?
A. Yes.
Q. And I believe that Mr Atkinson confirmed yesterday that there is a very low chance of an actual accumulation of oil or gas at Ruská Poruba; do you recall that?
A. I vaguely recall that.
Q. Okay. And I understand that the development scheme that you've generated, the end product is one large, integrated development plan; is that a fair characterisation?
A. No. It's not.
Q. Well, maybe this will help. What I'm trying to understand is, for example, at Smilno, the Smilno prospect, your development plan does not say: here's the Smilno prospect, if Discovery would have drilled here and found oil, here's the specific development plan that

09:30 future production from Smilno would look like, but only at Smilno.
A. I believe Smilno is gas, and the reason that --
Q. Oh sorry, you're right. Yes.
A. Gas and oil have been treated differently. So there are the three successful oil prospects. Each of those is developed separately in terms of sequence.
The gas prospects, those where gas discoveries occurred, had to be developed, or would be developed, as a whole. Because of the amount of gas that's in them you would need to ensure you had sufficient time to construct the export line, and that's again described in my second report. And that's why the two are treated slightly differently.
Q. Thank you. I understand that they are treated differently. But there's no just standalone Smilno development plan; right?
A. No.
Q. Okay. And beyond these initial three wells, we don't actually know what Discovery was planning to do, do we?
A. I'm not aware of what their ultimate plans would have been.
Q. Okay. And so beyond these first three wells, the development plan that you were asked to generate is a hypothetical plan?

09:31 A. It's the but-for case.
Q. It's not based on any fulsome drilling programme; is that fair?
A. It's a -- we took into account -- when we did the statistical approach of a drilling campaign with a five-well walkway --
Q. Dr Moy, I'm actually just looking for -- there's no document, for example?
A. No.
Q. It's a drilling programme that you used?
A. No, there isn't.
Q. Okay. And I want to come back to the Smilno prospect, the gas prospect that we were just talking about.
A. Mm-hm.
Q. So if we could open up to page 29 of your first expert report.
A. Mm-hm.
Q. And this is paragraph 115.
A. Okay. I have it.
Q. Okay. Great.
So this is the Smilno gas prospect, and you explain here in paragraph 115 that:
"... Discovery ... envisaged a new 15 km pipeline..."
From the original well or any subsequent development

09:32 well at Smilno, and that pipeline would ultimately lead into the Slovakian gas system; is that fair?
A. Yes, based on what I have seen of those documents, yes.
Q. Yes. And we're going to pull one of those up.
So if we can pull up SM-019. This is the document that you cite in that paragraph called the "Smilno feasibility study". It will come up on one of the screens in just a moment.
Are you familiar with it? Take as much time as you need.
A. Thank you. (Pause)
Yes. Yes.
Q. And if we can scroll down to the last paragraph on this page. Thank you very much. And if we can see in this last paragraph that very first sentence, it kind of discusses this pipeline in a little more detail, and the part of the route -- or the potential route it could take, saying that:
"Distance of extraction network to gas pipeline ... 9000 ... Real terrain is complicated (hills, forest, brooks) - therefore proposed track of connection pipeline ..."
Et cetera. Do you recall that?
A. Yes. Yes.
Q. And if we could go to the fourth page to get an image of

09:34
what this path might have looked like? There we go. Thank you very much. And just to orient everyone who might not have seen this document, that bottom yellow line, that's the Slovakian pipeline system; right?
A. I believe, yes, that's ...
Q. Okay. And the red-dotted line is a potential route that this pipeline could have taken?
A. Yes.
Q. Okay.
Now, you didn't undertake an analysis about the feasibility of building this specific pipeline; right?
A. That's correct, I didn't.
Q. Okay. And as far as you're aware, AOG, or Discovery Global, didn't have any draft agreements in place to use it, or any permits necessary for this pipeline?
A. I'm not aware of any.
Q. Okay. And this pipeline, this scenario, it's not reflected in your ultimate development plan; is that fair?
A. That's -- yes, that's correct.
Q. Okay.
A. Because of the volume of gas.
Q. Okay. We'll come to that volume of gas. But just this standalone possibility is not reflected in the development programme?

09:35
A. Yes, this is for one well.
Q. Yes. Okay. Thank you.
Are you aware of how Discovery Global was planning to finance its well-drilling programme?
A. I'm not aware of the details, no.
Q. Okay.
I want to walk through --
MR DRYMER: I'm just curious on that point, thank you, it will help me later on and probably shorten things.
Have you read Discovery's submissions in this case?
A. Some parts.
MR DRYMER: Okay. I will be more specific. I'm not surprising. Have you read the evidence, the witness statements regarding how they intended to fund their ongoing developments?
A. I've read through them, but it was a while back, so I can't really --
MR DRYMER: Okay, understood.
A. I'm not a ...
MR DRYMER: Thank you.
MR PILAWA: Thank you. I actually want to walk through with you, Dr Moy, if we can, what it would look like to just develop this one scenario, and what I mean by that is, let's say we go to Smilno, we find gas there, and we ultimately want to bring that gas into production. So

09:36
I'm going to walk through a series of steps that I think would need to be undertaken, and let me know if this is generally the right idea. Does that sound okay?
A. Yes, by all means.
Q. Okay. So, first and foremost, if revenues wanted to be generated from this, gas would need to be discovered?
A. Yes.
Q. Okay. It would need to be in sufficient quantities to justify development; right?
A. Yes.
Q. Okay. And if the gas quantities justify development, the exploration well would need to be turned into a development well, or an additional well might need to be drilled that would become a development well?
A. Yes, either of those.
Q. Yes. Okay. Great.
And under Slovak law, as we discussed earlier, any development well must undergo a preliminary EIA. Are you comfortable accepting that point?
A. Yes, I understand that that needs to be done.
Q. And of course that preliminary EIA could turn into a more fulsome assessment, which we've been calling a full EIA?
A. What are the -- I don't know what the triggers would be for that.

09:37
Q. Okay. And while all of this is going on, maybe simultaneously, AOG would have to begin construction of this pipeline; right?
A. It would need to be started, yes.
Q. It would have the -- it would need to have the right to use the land that the pipeline is on; right?
A. Certainly.
Q. It would then need to enter into some form of an agreement with the Slovakian distribution network to connect to the Slovakian distribution system, right?
A. Yes, correct.
Q. And there would be additional infrastructure that's required, such as a processing facility of some sort, to separate the gas from other fluids; right?
A. Yes, pretty minimal though.
Q. Minimal, I accept that. But there would need to be some form of a facility to conduct that separation; right?
A. That would probably be near the wellhead.
Q. Okay. So that infrastructure would obviously need to be created?
A. You just phone up and order it.
Q. I'm sorry?
A. You would phone up and order it: it's off-the-shelf.
Q. Right. And once all of that is done, the pipeline is built, it's connected, then AOG could have started

09:39 generating revenues?
A. I presume so, yes.
Q. Okay. And of course, if it can't build that pipeline, it can't produce gas from this site, right?
A. There might be and there are other options. So, for example, the gas could be used for gas to power. Obviously you're then generating power, you need to export route. That is a scheme that isn't described in my report, but that's commonly done as well, when it's difficult to get an export pipeline out from a site, for example.
Q. And what does that prospect look like?
A. You usually have a gas to power generator, so the gas will go in, get dehydrated at the wellhead. It then goes to a gas engine. That will burn the gas and generate electrical power, which obviously then has to be hooked up to the national grid.
Q. But as far as you're aware, that was not AOG's plan for this site, right?
A. Clearly not, no, not in this case. But it's an option for any operator.
Q. And is it fair to say that while Krivá Ol'ka is an oil prospect, these are generally -- and I'm happy for you to walk me through them, but these are generally the same steps. Of course, no need for a pipeline to

Page 29

09:40 connect to the Slovakian distribution system, but these are the same general steps to bring that well into production?
A. Yes, I mean for oil you would not have a pipeline, obviously.
Q. But you would have a pipeline for associated gas?
A. Yes. Or you could also burn it, which apparently is what some operators are doing, in the UK, for example.
Q. Do you think that AOG -- are you talking about gas flaring?
A. No. No. Again, the gas -- sorry, the gas is burnt to generate power, and then you don't need to use a pipeline to get rid of the associated gas.
Q. But your but-for model provides, or it anticipates AOG taking that associated gas and selling it into the Slovakian distribution system?
A. Yes, in my scenario, yes.
Q. So if AOG could not have done that -- well, let me say this: your but-for model depends -- that scenario depends upon AOG constructing a pipeline for the associated gas and connecting to the Slovakian distribution system?
A. What's described, yes, requires a pipeline for associated gas, yes.
Q. If we could go back to -- we made a reference to this

Page 30

09:41 earlier -- the successful gas prospects, that project. And we can take these images down, and if we could pull up Respondent's demonstrative number two, it should be RD-2, or RD-002. Great. Thank you so much.
We're also going to be going back to parts of your expert report, and if you need both on the screen, I just want to make sure that we're oriented, so just let me know.
A. Thank you.
Q. I'm sure that you have seen this image before, right?
A. I have, yes.
Q. And generally speaking, do you accept that this represents somewhat what your final development model will look like?
A. Yes, in general.
Q. Okay.
A. Yes, it's an amalgam of various sources.
Q. Exactly. But you're okay with this image, right?
A. Yes, it's fine.
Q. Okay, and now we're going to start looking at your expert report at the same time. If it's possible to keep this up here and ideally still see some of the details of it, we're going to try that.
So if we could also pull up Dr Moy's first expert report, specifically page 53, paragraph 207.

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09:43 Yes, perfect. Thank you so much. Okay, in paragraph 207, you made reference to this earlier, this is talking about the gas developments, and can you please read the sentence for the record that begins with "Plateau gas rates ..." kind of towards the end and extends onto the next page.
A. Okay, sure:
"Plateau gas rates will be too high to transport within the existing SPP domestic gas network, therefore produced gas will be fed into the new Poland-Slovakian interconnector via a centrally located hub (somewhere around (BM03 ...) and thence into a 75km, 500 mm diameter pipeline. At the far end, it will be compressed to 80 bara, and fed into the Poland-Slovakian interconnector."
Q. Thank you, Dr Moy, and for illustration purposes, I know that the parties have estimated this to 55 kilometres or 75 kilometres, but it's somewhere around 55-75 kilometres; right?
A. I would say, yes.
Q. And that's that red line on the development model. You can see that; right?
A. I believe so. That's not my red line. The point on the right-hand side I believe is close to where the Poland-Slovakia interconnector enters Slovakia, so it

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09:44
would connect at some point along its length.
Q. Fair enough. And the reason it has to take this route is because the gas prospects produce an amount, or gas rate, plateau gas rates that are too high for the domestic pipeline system?
A. Yes.
Q. Okay.
A. That's the case, because the capacities are too small.
Q. Okay. So in the but-for model, the development scheme that you've put forward, the five gas prospects like this can only succeed if that pipeline is built; right?
A. Yes. That's correct.
Q. Okay.
Now, for the other prospects, or the successful ones, we're going to move to the oilfields.
A. Mm-hm.
Q. And those are -- there are three of them; right?
A. Yes.
Q. And I think we talked about earlier that all three of those oilfields anticipate associated gas being dealt with by being pumped back into the Slovakian distribution system; right?
A. That's correct, yes.
Q. And actually Mr Howard's DCF monetises that amount; the idea is that those are sold, right, those amounts of

09:46
gas?
A. Yes, the small component, yes.
Q. So in the but-for model, I guess, the development scheme here, for those oil prospects, that scheme to work -- I'm sorry, that plan to work, those pipelines would need to be constructed as well; right?
A. As described in my second report, the associated gas is disposed and sold via pipeline. But as I said, you know, there are current examples where operators burn its gas to power. So that would be an option. It's not described as such in my report, that second option.
Q. Yes, your model is the one where it's fed back into the Slovakian distribution system?
A. That's correct, yes.
MR DRYMER: You say it's not described as such. I know you mention -- it's not modelled; is that the point?
A. That's correct, yes.
MR DRYMER: Thank you.
MR PILAWA: And if we look at the model just in its entirety, this development plan contains 99 producing wells; right?
A. It's a series of different field developments, a total of 99, I believe, development wells; 33 are oil, and 66 are gas.
Q. Okay. So 99 wells.

09:47
And there's also a central gas-processing facility that would need to be built; right?
A. Yes. That would collect the gas from the gas wells.
Q. Okay. And the model anticipates the pipelines for the associated gas that we just discussed; right?
A. Yes, they're not marked here, but they would be from those oilfields that are at the bottom right-hand side.
Q. And at no point does the model ever consider that Discovery fails to obtain all of the permits or authorisations required for the project; right?
A. That's correct.
Q. Okay.
If we could go to your second report, and specifically page 36. This is figure 5-1.
A. Yes, I have it.
Q. Sorry, this should be page 36. Thank you.
Maybe we can make this a little easier on the eyes. We can remove the development plan and just focus on the report. Right. We can blow that up a little bit.
Thank you.
So this is the schedule that you have proposed for the exploration and development plan; right?
A. That's correct.
Q. And if we start at the top, this is the exploration phase?

09:49
A. The top line, yes.
Q. Exactly. That blue line that says 20 and 20?
A. Mm-hm.
Q. And this is 40 exploration drills over the course of 2017 and 2018; right?
A. That's correct.
Q. And it also includes site preparation, right; it's not just drilling?
A. Yes.
Q. Okay. And this all takes place within the course of two years; right?
A. Yes.
Q. And it doesn't account for any material delays that might occur within that timeframe?
A. Well, you should be able to drill 40 wells in two years, taking into account the time required for site prepare, getting your kit and getting out there and drilling those wells.
Please bear in mind that those 40 wells, half of them are less than 1,000 metres, so you can do that with a small rig on the back of a truck.
Q. I understand that. But I'm just talking more about kind of the operational issues that one can experience in any type of project like this. The model -- even if there are material delays or even if there are issues, for

09:50 example, constructing some sites, there are a whole host of issues that could arise. That's uncontroversial; right?
A. There could be, yes.
Q. There could be. But in your model, all of that, even if there are major operational delays, 40 wells are still drilled by the end of 2018; right?
A. I've assumed --
THE PRESIDENT: Can I just ask for a clarification. If I read this correctly, you have not counted time for the preliminary EIA?
A. That's not in there, I don't believe.
THE PRESIDENT: That's not in there. Thank you. Apologies.
MR PILAWA: No problem at all.
So you were instructed to assume that drilling would commence on 1 January 2017; correct?
A. Yes.
Q. Am I correct in my understanding that as part of that instruction, you were also instructed to assume that Discovery already had access rights to each of these 40 well locations?
A. I assume that that would be sorted out as part of the process of site preparation and drilling.
Q. Okay, let me see if I just understand. I'm just going to read the transcript. One moment. (Pause)

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09:51 THE PRESIDENT: Are you counting the access rights -- securing the access rights as part of the site preparation within the two years, or do you assume it's done before?
A. Well, some of these would be ongoing because you've got two years to do the ones -- the last 20 would be in the second year, so you've got a whole year to do that. And I have simply presumed that there would be some small amount of preparatory work prior to the drilling of the first well.
THE PRESIDENT: Thank you.
MR PILAWA: So 2017 and 2018 are devoted to drilling 40 exploration wells, preparing the sites, and securing access to all of these locations; right?
A. Yes.
Q. Okay. Are you aware of Discovery Global ever undertaking a project like this before?
A. I'm aware that Mike has a lot of experience drilling wells. And I'm aware that they had AFEs for three wells which, for whatever reason, they weren't able to drill. That is the extent of my knowledge.
Q. I'd like to talk a little bit about the Petroleum Resource Management System, what we'll just call PRMS to make it a lot easier.
Now, you mentioned it in the presentation, and

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09:53 I'm thankful for that. Would you agree with me that the PRMS represents industry guidelines?
A. Yes, certainly.
Q. And oil and gas companies are both familiar with and utilise PRMS?
A. Yes, they do.
Q. And financial institutions understand what the PRMS is?
A. One would hope so, yes.
Q. I was hoping that would be non-controversial!
You have extensive experience with PRMS; right?
A. Yes. I do.
Q. And you understand the reserve and resource classification under the PRMS?
A. That's correct.
Q. And the classification of reserves is an important step in a hydrocarbons project; right?
A. It is, yes.
Q. It signifies that the project has reached a stage where it can be considered commercially viable; right?
A. If one is in the situation where you've got reserves. Yes.
Q. Thank you. And that reserves classification often helps secure financing for a project; right?
A. Yes, it would.
Q. And generally speaking, that reserves classification is

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09:54 made in some form of an independent report, like a competent person's report, right?
A. Yes, usually.
Q. I'm just going to abbreviate that as CPR from here on out, competent person's report; thanks.
A. For the benefit of the Tribunal I would like to point out that there is value in prospective and contingent resources as well. Not just in reserves. (Pause)
Q. It's fairly common for CPRs to utilise the PRMS guidelines; right?
A. Yes, it is.
Q. And talking about reserves, they must be discovered, recoverable, commercial, and remaining; right?
A. That's correct.
Q. And all four of those must be satisfied for a reserves classification, right?
A. Yes.
Q. So it would be contrary to the PRMS guidelines to make a reserves declaration if one of those criteria is not met; right?
A. Usually, yes. When you're looking at the situation here, we have a but-for situation.
Q. Dr Moy, I'm not talking about this situation. I'm just talking about the PRMS guidelines in general.
A. That's correct, yes.

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09:56
Q. So if one of those -- I'm sorry, it would be contrary under the PRMS guidelines to make a reserves classification if one of those criteria is not met?
A. Yes. Could you repeat those for me, please?
Q. Sure. Do you want to open up the PRMS?
A. No, no, no, just ...
Q. Okay: discovered.
A. Yes.
Q. Recoverable.
A. Mm-hm.
Q. Commercial.
A. Mm-hm.
Q. And remaining.
A. Yes.
Q. You need all four of those, right?
A. Yes.
Q. And "discovered" means that drilling has taken place and confirmed the existence of hydrocarbons, right?
A. That's correct.
Q. So it would be contrary to the PRMS guidelines to make a reserves classifications if the hydrocarbons are undiscovered, right?
A. Yes. Usually, yes.
Q. So your expert reports, which make a reserves classification, even though Discovery's hydrocarbons are

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09:57
undiscovered, that does not conform to the PRMS guidelines, does it?
A. We're talking about the but-for situation.
Q. But I'm not talking about the but-for situation. I'm talking specifically about PRMS and those requirements --
A. Well --
Q. -- and so the question is, your expert reports, which make a reserves classification, even though the hydrocarbons are undiscovered, that does not conform to the PRMS, does it?
A. It will do in the but-for case. There is a difference.
THE PRESIDENT: Yes, maybe can I ask for a clarification. I did not understand how in the but-for you convert, if I can say, resources into reserves. But the state of the evidence that we have is still the resource state.
A. Sure. May I explain?
THE PRESIDENT: Yes please.
A. Okay, so in the but-for -- so the licence areas contain prospective resources as mapped. They haven't been drilled yet. The process, the decision tree, the incorporation of the geological chance of success, gives one an estimate of: if you went out with your drilling rigs and you drilled up those 20 prospects, it would give you an estimate of what your 50/50 chance of

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09:58
discoverable volumes are, and those prospects that would be filled with gas and oil. At that point they would be considered and classified as contingent resources.
So the difference between contingent resources and moving on to reserves, is down to seven commercial criteria, and that includes the finance, all the -- you know, the environmental, the paperwork, and just development plans.
So when I describe the volumes that would be produced as reserves, it's in a but-for case, assuming that those commercial criteria would be met following the successful discovery.
THE PRESIDENT: But on what basis, on what data do you accept that the commerciality requirements would be met?
A. Because, first of all, it's done elsewhere, it's not an unusual development. It's not of a size that's unreasonable. All of these seven elements, so the development plan, the export route, they are all doable, they are all feasible, they're all reasonable.
I haven't seen anything in what needed to be done that one would suggest is unattainable, unreasonable. So in a but-for case, knowing the will of Discovery, they, having made a discovery, would actually want to develop it. I can't see any barriers that would stop any of those seven commercial criteria from being met.

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10:00
THE PRESIDENT: Provided they make the discovery, which you account for by the probability; is that --
A. That's correct, yes.
THE PRESIDENT: Good. Thank you.
MR PILAWA: Thank you.
THE PRESIDENT: Apologies for the interruption.
MR PILAWA: That's fine, Madam President. I'm going to go to that list of seven criteria for commerciality.
Okay, I'd like to put two documents on the screen. We're now moving into the but-for scenario and the evidence that you've presented as justifying the classification for reserves.
Just before I do that, are you aware of any competent person's report that has made a reserves declaration assuming that commerciality is met?
A. Sorry, say that again?
Q. Are you aware of any competent person's report that makes a reserves declaration by assuming commerciality?
A. Not a competent person's report, no, because it's not used for that purpose.
Q. Because it's not in line with PRMS?
A. No, it doesn't deal with the but-for situation.
Q. The competent person's report doesn't deal with the but-for situation?
A. No.

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10:01
Q. It wouldn't. So it's unlikely that you would qualify for reserves-based lending, for example, with a competent person's report that operates on a but-for scenario, because that's not common; right?
A. Usually the competent person's report is a description of what's there at the moment.
Q. And what we have at the moment here are undiscovered hydrocarbons; right?
A. That's correct, in a prospective area.
Q. If we can pull up Dr Moy's first expert report, and we are going to go -- excuse me, just give me one moment. (Pause)
Can we go to page 57 of his first expert report, and at the same time -- I'm sorry, at the same time can we please pull up Exhibit AA-037. And specifically, and just -- this is PRMS.
A. Correct.
Q. And specifically if we can go to page 11 of the PDF itself. Okay. So down at the bottom is where we start the discussion of the determination of commerciality and the seven criteria that must be met; you see that, right?
A. Correct, yes.
Q. We're going to look at this in your expert report at the same time because I think there's a little bit of

10:03
a difference in language, but I just want to be clear here.
A. Mm-hm.
Q. So the very first commerciality requirement in your report says:
"A technically mature development plan."
Under PRMS it says there must be:
"Evidence of a technically mature, feasible development plan."
And the only evidence of a development plan here is the one you created, right?
A. That's my development plan, yes.
Q. Would you consider your development plan technically mature?
A. Not at this stage, no.
Q. Okay. Let's move to financing, the second one. Paragraph 224.2 of your first expert report, and here, letter B under "Determination of Commerciality". There must be:
"Evidence of financial appropriations either being in place or having a high likelihood of being secured to implement the project."
And in your report the only evidence you have provided is your opinion that "it is highly likely that funding would be available"; is that right?

10:04
A. That's correct.
Q. And if we go down to G in particular on AA-37, so if we go down to the next page, and we will have to also go down one page in Dr Moy's report. Paragraph 224.7. This requirement says that there must be:
"Evidence that legal, contractual, environmental, regulatory, and government approvals are in place or will be forthcoming, together with resolving any social and economic concerns."
Starting with evidence of legal approvals, you've provided no evidence of what legal approvals might be necessary; correct?
A. Well, that's outside my area of expertise, but I --
Q. And you've --
A. -- I simply -- the development being described in my report are ones which are being undertaken right now in Europe. So --
Q. But I'm talking about specifically in Slovakia. You haven't shown any of the legal approvals that might be necessary for that project; fair?
A. No. I haven't. No.
Q. And you've provided no place that they are in place or they will be forthcoming, right?
A. I believe that they would be forthcoming.
Q. What are the legal approvals that would be needed?

10:05
A. It's not my area of expertise.
Q. For contractual approvals, you haven't exhibited any contracts or drafts of contracts for all of the infrastructure needed for this project, right?
A. No, I haven't.
Q. Regarding environmental approvals, we discussed the preliminary EIA that's required for all producing wells. There are 99 producing wells in the model and the only evidence that you have cited is that it's to be expected that these go through without issue; is that right?
A. That's correct.
Q. And now on the last part, "resolving ... social and economic concerns", not in paragraph 224.7 of your first expert report, but reflected in PRMS. Are you aware that many local Slovak citizens were opposed to Discovery's project?
A. I'm aware of demonstrations, yes.
Q. You are aware that local citizens opposed the drilling of Discovery's three exploration wells?
A. I don't know the details. I don't know the reason why they were demonstrating.
Q. But you know there were demonstrations, right?
A. Yes, I'm aware.
Q. Am I to understand that the reason that you excluded this requirement is because you do not think that there

10:06
would be social concerns for a development plan that encompasses 99 producing wells and at least two major pipelines constructed in Slovakia?
A. Well, they have pipelines already. They have wells already in Slovakia, not in this area.
Q. So is your testimony that you don't think there would be social concerns about this development plan?
A. I don't think there would be anything that couldn't be overcome with the right approach. Nothing that's proposed in my report is of a scale or requiring technology that doesn't exist. It's done right now in Europe.
Q. In Europe. But I'm talking specifically about this region of Slovakia.
A. In this region it's underappraised and there's, as far as I'm aware, no longer any production of hydrocarbons. But there are -- there is oil being produced in other parts of Slovakia.
Q. In other parts of Slovakia. But this region in particular, this would be a major development programme or project in this region of Slovakia; right?
A. It would be a series of developments, yes.
Q. But one final product that has 99 producing wells and multiple pipelines built; right?
A. Over a very large area, yes.

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10:08
Q. A mix of private land and public land, right?
A. Yes, just as it's done elsewhere.
Q. And I'm talking about the private landowners in this instance. Is it your testimony that those private landowners, all social concerns about building this development plan, all of those social concerns would be adequately addressed; is that your testimony?
A. Yes it is, actually.
MR PILAWA: Okay.
I have nothing further, Madam President.
THE PRESIDENT: Thank you.
Mr Newing, questions in re-direct?
MR NEWING: Yes, just a couple of short questions. Thank you, Madam President.
(10.08 am)
Re-direct examination by MR NEWING
Q. Dr Moy, you discussed this morning the statistical process which has led to identifying the P50 estimate.
A. Yes.
Q. Can you explain whether this identification of the P50 process is a standard process that is used?
A. Yes, it is. I mean, in my second report there's an SPE paper. Even the diagrams mirror some of the material that my colleague, Mr Howard has produced. Yes, so it's the standard method to estimate that quantity for

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10:09
a portfolio of prospects.
Q. And is this a process that is taken into account by other people when making decisions about -- (overspeaking)?
A. It would be, yes. Yes.
Q. Thank you. You were also asked some questions this morning about the oil prospects and how associated gas may be dealt with.
A. Yes.
Q. Can you explain whether the ability to extract and generate revenue from the oil is affected by how the associated gas is dealt with?
A. You would need to be able to get rid of your associated gas. That's either by exporting it or by burning it. If you couldn't, you would need to reduce your oil production. Or stop it completely.
MR NEWING: Thank you. No further questions.
MR DRYMER: And just to be clear, I believe in answer to Mr Pilawa's questions, a couple of them earlier, you clarified that when you say burning, you mean burning to produce energy, not flaring.
A. No, not flaring. Not flaring at all.
MR DRYMER: I just want to clarify that.
A. Sorry, yes. Yes, gas engines, so --
MR DRYMER: Gas engines, yes.

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10:10
A. -- it's burned properly, power is generated, and hooked in. Sorry about that confusion.
MR DRYMER: Noted. Thank you.
THE PRESIDENT: Any questions?
MR DRYMER: No questions.
(10.10 am)
Questions from THE TRIBUNAL
THE PRESIDENT: I just have one question that may seem a little simple to you as a reservoir engineer.
When does drilling begin? When you have the drilling rig in place?
A. Yes, absolutely. The drilling rigs -- the site is prepared, the drilling rig would arrive. Basically it's called "spudding the well", so basically you would start preparing -- driving in the casing from the surface, and then you would enter into that with your drill bit and start the process.
THE PRESIDENT: When the surface conductor is driven into the ground, that is before you start drilling?
A. Yes, usually, because the surface conductor you don't want caving in around the drill bit. So you would put in a -- usually it's driven in, hammered in, to consolidate the surface soils.
THE PRESIDENT: Yes.
A. And then basically you've got the starting point to

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10:11
enter in with your large-size drill bits to drill that first section.
THE PRESIDENT: And then you bring the drilling rig to the site?
A. No, once you -- well, usually you could use the drill rig to hammer in the surface casing, and then you transfer to using a drill bit to drill out what's inside of that surface casing, and then you drill down and you're using ever-decreasing drill bit diameters to drill deeper down.
THE PRESIDENT: What was the position at Smilno? I think you address it at -- no, you address it more generally in paragraph 47 of your first report, where you speak of Discovery's intentions.
A. Yes, hold on. Sorry, which paragraph, Madam President?
THE PRESIDENT: 47. Page 11.
A. And paragraph, did you say?
THE PRESIDENT: 47.
A. 47. Hold on, let me just ...
Yes, that's right.
THE PRESIDENT: Actually, it's not only Smilno. It's all three sites.
A. Yes, I don't know exactly which one of those, it just says:
"... in the case of the most advanced of these, the

Page 53

10:13
surface conductor had been driven into the ground ..."
THE PRESIDENT: That was the situation at Smilno, if I am not mistaken, and if I am mistaken, counsel will correct me.
A. Yes, I'm not sure which of those three it was.
THE PRESIDENT: I think it was Smilno.
MR NEWING: That is correct, madam.
THE PRESIDENT: That's correct; thank you. And my question is: do you consider that drilling had started then, or not?
A. It depends --
THE PRESIDENT: And if you don't have sufficient information, you simply say so.
A. I do remember seeing the images, the photographs of the drill rig coming along the road. I don't know which site it was for, and I don't know whether the surface conductor had already been driven in prior to the arrival of the rig.
So, yes, all I know is the rig tried to gain access to a site.
THE PRESIDENT: Good. Thank you.
I have no other questions. That is my main other question that I had asked before. So that concludes your examination.
DR MOY: Thank you very much.

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10:14
THE PRESIDENT: And we thank you very much.
DR MOY: Thank you.
THE PRESIDENT: Is it a little too early to take a break, or do you want a relatively short break?
MR PILAWA: I would appreciate a 15-minute break, if possible.
THE PRESIDENT: 15 minutes?
MR PILAWA: A 15-minute break.
MR NEWING: That's fine.
THE PRESIDENT: We will take a 15-minute break now, and the next witness is Mr Howard; is that the plan?
MR NEWING: Yes, that's correct.
THE PRESIDENT: Yes. Good.
Let's take 15 minutes, then.
MR PILAWA: Thank you.
(10.15 am)
(A short break)
(10.30 am)
MR NEWING: Just before we start, can I just say Mr Howard does have some health issues, so depending on the length of the examination he may need to take a short comfort break. He will let you know if that is necessary, but hopefully that's okay.
THE PRESIDENT: Fine, please let us know if we don't remember.

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10:30
MR COLIN HOWARD (called)
THE PRESIDENT: So, sir, you are Colin Howard.
MR HOWARD: That's correct.
THE PRESIDENT: You are our third Rockflow expert?
MR HOWARD: Yes.
THE PRESIDENT: You have submitted two expert reports, the first one of 3 October 2022, and the second one of 18 September 2023.
MR HOWARD: That's correct.
THE PRESIDENT: You are heard as an expert and you are under a duty to make only statements in accordance with your sincere belief. Can you please read the expert declaration?
MR HOWARD: I solemnly declare upon my honour and conscience that my statement will be in accordance with my sincere belief.
THE PRESIDENT: Thank you.
So now we see your presentation on the screen and you have 15 minutes, and you can proceed, please.
(10.31 am)
Presentation by COLIN HOWARD
MR HOWARD: Thank you, Madam President.
(Slide 2) The first slide is just a very brief outline of my background. I don't propose to go through that in the interests of time. It's there for

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10:32 reference.

(Slide 3) On the second slide is just a note of my instruction from Signature to calculate a fair market value of Discovery's share of the Slovakian assets at the date of the award, and I note that my valuation is therefore an ex-post one, and a but-for scenario.

(Slide 4) As you will have noted from my expert reports, my valuation methodology that I chose was to use an income-based method, and specifically I used a discounted cash flow model using the volumes and geological chance of success presented by Mr Atkinson and Dr Moy, the Rockflow geological and reservoir engineering experts.

I used that model to calculate a net present value, NPV, of the prospects within the licence area. I would be very happy to expand on the details of my discounted cash flow model, but I don't propose to go through it in any detail.

(Slide 5) Just to note, the inputs of those discounted cash flow model are Dr Atkinson's probabilistic volume distributions, and his assessment of the geological chance of success. I used a Monte Carlo simulation methodology, combined with decision trees, to establish a probability distribution of successfully discovered volumes, i.e. volumes that could

10:33 reasonably be discovered within the area. And we select the P50, or median, as the most likely outcome. I then identify a set of prospects that most closely matches the P50 volume.

Dr Moy then has presented a development scheme for those set of prospects, and of course those and the associated costs are input into the DCF model to calculate the net present value.

(Slide 6) Just to summarise, my valuation for that, submitted on 18 September, was $133 million, a shade over. The table below confirms that and is taken from my expert report, second expert report.

At the end of this presentation there are a number of addendum slides which I won't be going through in detail, which explain my choice of valuation methodology. And I'm happy to take questions on those should the panel require.

I just want to move on to valuations regarding prior transactions regarding the asset, and these were used by the Respondent's expert in order to come up with their valuations, and there are three of them: the sale of the San Leon overriding royalty back to Discovery (Slide 8); the proposed Gulf Resources investment; and the Akard investment, all three in 2015.

(Slide 9) Just a quick note on the valuation of

10:35 prospective resources, i.e. prospects, as they undoubtedly were in 2015. This, of course, the valuation depends on both the volume, or assessment of volume, and the geological chance of success. Therefore, those perception of value is dependent on what we know about the asset at that time. It's our perception of value at a particular point in time when we make that assessment.

When a new piece of information becomes available, we revise our estimates of volume and GCOS, and therefore the valuation changes.

And I should just note that this process, data acquisition and interpretation, is not a smooth one: it goes in fits and starts as new pieces of information come along. And of course our valuation would reflect that.

I'm not going to go through it in any great detail, but you will have received the demonstrative exhibit, which is a timeline of different events. The second column notes the asset transactions, and the fourth column notes when data was acquired or interpreted, both of them.

MR DRYMER: A very quick look, sir: this is technical data; we're not talking financial data?

MR HOWARD: No, technical data. Yes.

10:37 MR DRYMER: Thank you.

MR HOWARD: If I just come to the San Leon overriding royalty (Slide 10). When San Leon Energy -- when Discovery acquired the asset from San Leon, San Leon retained an overriding royalty interest, and that was sold back to Discovery for £120,000 in January 2015.

CRA, that's Charles River Associates, I use that for the Respondent's quantum experts, they say this implies a value of 1.8 million at the Respondent's ex-ante date for the Discovery share.

Two things to note. At the transaction date there is still a considerable amount of data acquisition continuing after that, some of the data processing and some of the magneto-telluric data. In fact, interpretation continued for a number of years afterwards.

The other point to note is that the San Leon sale I do not believe was a fair market value transaction.

(Slide 11) Mr Lewis' witness statement notes that San Leon was in a "cash flow crisis and needed to secure cash quickly" and that the sale of the San Leon overriding royalty enabled them to overcome that cash crisis.

I don't believe Mr Lewis' testimony a couple of days ago was challenged on that.

CRA claim that this was not in fact the case and that they were not cash-strapped, and present information from the San Leon annual accounts to show that they were in fact able to raise corporate finance of several million euros. But a close reading of the annual report showed that in fact that was secured in a personal capacity by the CEO, Mr Fanning. So, actually, the company, San Leon, did not appear able to raise finance on their own.

They also appeared to be paying excessive finance costs, and the auditors noted in 2015 there was an item of concern on San Leon's status as a going concern, the materiality.

Taking that together, I don't believe we can consider the San Leon overriding royalty was a fair market value calculation.

(Slide 12) When it comes to the Gulf Shores investment, this was a deal that would include two wells and an option on two further wells, this implied under CRA assessment a valuation of $10.1 million in March, I believe it was, at the ex-ante date, the Respondent's ex-ante date. However, Gulf Shores' due diligence only appeared to focus around the immediate area of the two wells that they were committed to. There did not appear to be a full evaluation of the rest of the licence area,

and therefore they would not be in a position to actually assess that.

I also note that, again, the full prospectivity of the area had not been established by this date. It was an evolving process that continued right up to the EGI report in 2021, which was a fully integrated study of all the data available.

(Slide 13) Pretty much the same things apply to the Akard investment, which did actually proceed. Again, it was funding for three wells in return for 50% of Discovery's share of the licence. Although this was several months later, there was still ongoing evaluation and the EGI study had not been completed, which Mr Atkinson based his interpretations and assessments on.

Again, because that was not established, I don't believe it's an assessment of what the licence area prospectivity is.

(Slide 15) I now come to valuation based on comparables ex-ante methodology. I note that my analysis is, of course, a but-for case and is ex-post. But it is possible to look at the share prices of comparable companies at the ex-ante date, and this is what CRA have done.

Essentially what they're doing, what we're doing is

saying comparing with companies in Eastern Europe that have 2P declared reserves, and bear in mind that Dr Moy has stated that he believes that in due course, once discovered, appraised and given appropriate permissions, these would be developed in the licence area and would become 2P reserves in the but-for case.

(Slide 16) This is the graph from the CRA first report, and we're graphing the enterprise value in millions of dollars on the vertical axis, against the 2P reserves, millions of barrels of oil equivalent.

In coming up with a valuation, an ex-ante valuation, in actual fact, CRA do not use the data shown on that graph. They use data from a company called ADX because they claim that ex-ante, they were the only company that did not have 2P resources.

However, when we look into it, the ADX prospective resources are actually gas condensate fields, offshore Tunisia, and Sicily as well, I believe, and they're entirely incomparable. They don't relate to the type of thing we are looking to find in Slovakia.

They also note that ADX had prospective resources of 1,414,000,000 barrels of oil equivalent. I can't actually find that number in the references given in CRA, but I believe it's an unrisked volume; in other words, it's a volume that could be there.

CRA derive a value on their ex-ante valuation of just $0.15 million. But that is based on this value of 1,414 prospective resources, which is an unrisked number, and therefore this calculation cannot stand; the logic is incorrect.

Conversely, when I look at this graph in front of me (Slide 16) I see that, putting aside the data point for JKX, there is a rough linear trend going from the origin up through those values, showing there's a sort of relationship between enterprise value and the amount of reserves. That is not unexpected.

From the gradient of that line, we can get what's called an enterprise value/2P ratio, which I derive at $4.375 per boe. If I take the assessed volume of discovered resources, i.e. the ones we simulate that is the P50 value for Discovery's share, 8.24 million barrels, that equates to a value of $36 million, as of 7 June, and of course that value could be adjusted to the award date.

(Slide 19) When they do a similar analysis in their second report, they still rely on the data from ADX, from the first report, which again I believe is not correct because it's an unrisked volume and the calculations are not correct.

They also appear to make a fundamental error where

10:46
they apply a reserve adjustment factor, or RAF, to volumes which are already risked. In other words, they are the discovered volumes. And that's a double dipping on the geological chance of success, which they put at 5-10%.
If you correct for both the recovery adjustment factor and the fact that they haven't actually included associated gas from the oilfields, you essentially get back to the 36 million figure I was talking about.
THE PRESIDENT: I think you've reached the 15 minutes. You have exceeded them by 1 minute. But, of course, you can get to a conclusion. I'm just saying there's not really time left.
MR HOWARD: Yes. I will do that.
I'll just note briefly that when they did the ex-post comparables analysis (Slide 21), it's a similar picture, but the linear trend is not so apparent, and they use a weighted average method of deriving the dollar per boe, which I believe is not appropriate.
I will leave my formal presentation there. Just note that at the end of the presentation I have the addendum slides of my reasons for using a discounted cash flow for my valuation. Thank you.
THE PRESIDENT: Thank you.
Mr Pilawa.

10:48
(10.48 am)
Cross-examination by MR PILAWA
Q. Thank you, Madam President.
It's still morning: good morning, Mr Howard.
Can you go to slide 19, please. Thank you. Do you remember this slide?
A. Yes.
Q. Those figures in the last bullet point, those are new calculations that you've done; right?
A. That's correct, yes.
Q. Okay. They're not in either one of your expert reports; right?
A. That's correct.
Q. Okay. And then I don't think we saw it on the screen, but I received your slides, and can you confirm for me that slide 22 of your presentation also contains new calculations?
A. Which one specifically?
Q. The 24.7 million?
A. Yes. That's my eyeballing of the -- but it is derived from the graph that was presented in the CRA report number 2.
Q. And this is the first time that you've provided the 24.7 million number?
A. That's correct.

10:50
Q. Okay.
I don't need the slide show any more.
So talking about the second expert report that you issued, there were -- well, actually, let me back up. You mentioned this earlier: the basic, or the analysis that you are taking is the but-for analysis; right?
A. That's right.
Q. Okay. And you are calculating the fair market value on your but-for basis?
A. That's right.
Q. And that but-for basis is, again, the idea that had Discovery continued operating in Slovakia, it would have developed a large-scale project; is that fair?
A. The individual oil projects are not large-scale. They're quite small, in fact. The gas projects, taken together as an integrated development, I would call a mid-scale project, it's not a very large project.
Q. Okay. And that but-for scenario, the but-for, specifically the DCF, it's one unified integrated final product; right?
A. The model is a single model, but within the model, each project, the individual oil projects, and then the gas project, are modelled as separate incremental tranches, which has to be done in order to correctly calculate the tax effect at the corporate taxation level.

10:51
Q. Okay. But they're not separated by well locations. So there's no --
A. They are -- the three individual oilfields are separate well locations, yes.
Q. Right, but if I'm thinking about Smilno, for example, there's no fair market value exclusive to Smilno?
A. Not to Smilno, because it's one of the gas fields which is considered as an integrated single project.
Q. Right. Okay. And that DCF was the $133 million that you mentioned earlier, and in your second report there is also a $36 million valuation from comparable companies, which we'll discuss, and a 5.10 million comparable transaction approach. Those were the three numbers in the second expert report; right?
A. I recognise -- can you give me the reference to the 5 million one?
Q. Sure. It's paragraph 338 of your second expert report.
A. Yes, I have it.
Q. Okay.
I want to discuss a little bit the points you made in your presentation about data acquisition. And I believe we have received Mr Howard's demonstratives, and we can project those on the screen; is that right? So CD-10. I think you have a copy of it in your hand as well?

10:54
A. Okay. (Pause)
Q. There are a few dates when we get the spreadsheet up that I'm going to want to talk about.
A. Sure.
Q. But before we get into that, you understand that Discovery Global purchased AOG in March 2014; right?
A. Yes.
Q. And the previous owner of AOG was San Leon; right?
A. Yes.
Q. Have you analysed the data that Discovery Global inherited from San Leon?
A. Not personally. Do you mean the geological data, or ... which data?
Q. Yes, sure. I understand that Discovery Global, when it purchased AOG, inherited, for example -- if we can go up on that spreadsheet? Thank you.
I understand that when Discovery Global purchased AOG, for example, it inherited this seismic data that AOG or the previous owner had taken from 2008 to 2011?
A. That's correct.
Q. So I'm talking about -- and, for what it's worth, I'm also talking about July and August 2012, and then the March 2013 entries right here, where the gravity surveys and the interpretation reports -- I'm talking about that type of data?

10:56
A. Yes.
Q. So I understand that this was part of an overall package of data that Discovery Global purchased. Or, I should say, was handed over in the transaction.
A. Yes.
Q. So you haven't reviewed that data?
A. No. It's not my role to review the technical data.
Q. Okay. Did you review the manner in which Discovery Global reinterpreted some of that data, or reprocessed it?
A. I'm not aware of the nature of the interpretation. I'm not qualified to comment on that.
Q. Can you tell me the value that was added by the reprocessing and reinterpretation of monetary figures?
A. No.
Q. If we could put up Mr Howard's second expert report at paragraph 72, and I will get you a page number in just a moment. Page 18 of Mr Howard's second expert report. Yes. And I'm looking at that paragraph 72, Mr Howard, and that first sentence where you -- well, let's back up.
For context, here in this part of your report, and I'm happy if you want to take a moment to look at the previous page just to kind of see the context, but this is where you're discussing prospective resources and

10:58
responding to CRA's report, explaining that:
"Certain industry codes do not recommend using an income approach for prospective resources."
Are you comfortable with that characterisation of this part of your report?
A. Yes.
Q. And you state in paragraph 72:
"In this context, I note that I am not preparing a valuation for 'public reporting', but for a legal arbitration, and neither is the Claimant."
Can you tell me what you meant by that statement?
A. Yes, this is in the context where CRA quote the VALMIN code for reporting information to the Australian Stock Exchange, for purposes of stock listing or announcements to press releases, et cetera. It's in that context.
Q. Well, would your report have been different if you were preparing it for public reporting purposes?
A. If I was preparing a valuation for public reporting, you would need to follow the rules of that exchange. But it would be seen in the context of what it was. That is not necessarily a fair market value. It's not doing a fair market value calculation.
Q. So one of the -- well, we note here -- I'm sorry, I should say you note specifically, or you make

11:00
reference to the Australian Stock Exchange here. You rely on a guidance note for listing rules, and you state here that that guidance note is "underpinned by the SPE-PRMS". And so you see the --
A. That's correct.
Q. Yes. Thank you.
Can we pull up document CRA-35 and if we could go to page 16 of the PDF itself, section 5.28.6, right there in the middle. Are you able to see that, Mr Howard?
A. Yes.
Q. Can you read that for the record?
A. "An entity must not report forecast financial information derived from an estimate of prospective resources."
Q. Okay. Thank you.
Sticking with your second expert report, can we please now turn to paragraph 375, and this is page 99 (PDF page 97).
A. I should note on that previous quotation, that's reporting to the Australian Stock Exchange. It's not reporting to anyone. It is in the context of what you must report to the Australian Stock Exchange.
Q. And in that context, the Australian Stock Exchange prohibits financial forecasting of prospective resources, that's what the document says, right?

11:02 A. Financial forecasting, but that is not the same as valuation.
Q. I accept that. I'm just trying to confirm that specifically the Australian Stock Exchange prohibits using prospective resources for --
A. For --
Q. -- forecasting.
A. -- mostly mining projects. The VALMIN code is essentially a code for mining projects. They have a sentence in there where they say this can be used for oil and gas projects. In my professional experience, I've never seen that actually happen.
Q. I think in the paragraph before you were talking about how the guidance note was saying that this was underpinned by the SPE-PRMS and that's about hydrocarbons, right?
A. That's correct, yes. So if they were reporting on oil and gas, they would use PRMS, yes.
Q. Thank you.
So going back to 375 here, in paragraph 375, this $36 million valuation is based on the reserves in your DCF model; right?
A. In the but-for case.
Q. Yes, and the reserves in the DCF model, in the but-for case. And those reserves are the ones in paragraph 374

11:03 immediately preceding, right?
A. Yes.
Q. And this $36 million calculation is calculated on the ex-ante date; right?
A. It was calculated at that date, yes.
Q. Okay.
A. But the but-for case is, of course, ex-post.
Q. I understand that, but this calculation is specifically as [at] the ex-ante date; right? That's what paragraph 375 says.
A. Just to be clear what that means, the $4.375 per boe is derived from the gradient of that graph shown in the CRA report, and those enterprise values were from the companies at their ex-ante date. Which is different from the ex-ante data that the Claimant uses, yes.
Q. But I understand this to mean you are adopting the ex-ante date that Charles River Associates has been using, and you are providing your valuation as at that date, which is $36 million; right?
A. No, that's not correct. My valuation is based on my discounted cash flow model. I have merely said that if you did use the method that CRA recommend, or propose, and you look at the discovered resources, which we, myself and my colleagues, have come up with in our but-for case, using that value of $4.375 per boe, you

11:05 would come up with that figure. But that is not my valuation.
Q. Okay. I understand it's not your valuation. But that $36 million derives from your discounted cash flow analysis; that's correct, right?
A. No, it doesn't. It derives from the discovered volumes, which actually come from Dr Moy's and Mr Atkinson's work, and the Monte Carlo simulation, which I have undertaken. But that hasn't got anything to do with financial forecasting or discounting. That is purely in terms of volumes. And I then just multiplied by the 4.375, which is not derived from my discounted cash flow model. That is the gradient on the graph presented by CRA.
Q. Okay. So paragraph 375 says:
"Using the $4.375/boe value ..."
So you're using this, and it values the reserves in your DCF -- I understand this isn't your valuation, but it values the reserves in your DCF model at 36 million.
Are you comfortable with that?
A. Yes. The reserves were input into my DCF model but they're not derived from my DCF model.
Q. These are the reserves that Dr Moy -- I'm sorry, I should say this: Mr Atkinson and Dr Moy have produced two expert reports that then produce so-called reserves?

11:06 A. Part of my work was to go from the unrisked volumes to the risked volumes, which are the discovered resources. And that part of my work is undertaken within the same Monte Carlo spreadsheet that Dr Atkinson uses. But that part of the work is my responsibility.
You will note in that spreadsheet there are initials on the top of every column, just to make exactly clear who did what bit of analysis. It just, from a technical point of view, for data integrity, it is important to keep all the information in the same Monte Carlo spreadsheet.
So part of my work was to work out, from the unrisked volumes that could be in the prospects, to do an exploration simulation exercise to come up with a P50 volume of what is the most likely discoverable volumes. And we then chose a set of prospects that almost exactly matches that P50 volume of discovered resources. And Dr Moy built a development schedule for that.
Q. Yes. I understand that.
This paragraph in particular though, I understand it's not your valuation, that $36 million, that arrives -- we arrive at that through the reserves in your DCF model. Those are the words in 375; right?
A. The volume, the reserves --
Q. Yes?

11:08
A. -- are the same as I use in my DCF model, yes.
Q. Okay. At the Respondent's ex-ante date; right?
A. Yes.
Q. And at the ex-ante date, Discovery Global only had prospective resources; right?
A. Yes.
Q. Okay.
A. But of course, I should note it's a but-for case.
Q. I know.
A. Yes.
THE PRESIDENT: I'm not sure what -- you are saying it's the but-for, but the but-for in your analysis comes later than the Respondent's ex-ante date. So there seems to be some disconnect between the dates; no?
A. Let me try to explain. It's difficult without all the information directly in front of us.
THE PRESIDENT: But conceptually they mean --
A. CRA have presented data from so-called comparable companies and their share prices indicate their asset values, corrected for debt and cash balances, and of course those can be quoted at any date that we wish. They have quoted the data at the ex-ante date that they chose. We have then come up with a valuation. If the oil price changes over time, you would expect the asset values, hence the share values, to go up and down, and

11:10
those can be adjusted for in a very approximate way by applying something -- CRA use the FTSE 350 Oil & Gas index as a multiplier, which can be done, but it's a bit of a blunt instrument.
So all I have done is take CRA's chart and say: at that date, if you have 2P reserves, this is what their value would be. Not just Discovery --
THE PRESIDENT: So you assume you would have --
A. If anyone had --
THE PRESIDENT: -- 2P reserves at the time of the ex-ante valuation date; is that right?
A. Yes, but it's a generic description. I'm saying if anyone had some reserves at that date of that magnitude, we can, you know, from that graph, implies that they would be worth $36 million.
If other companies had the same volume of 2P reserves at that date, we could say that would also be worth $36 million, in a very approximate way.
Now, at the ex-ante date of course we know Discovery had not been able to drill and therefore did not have those reserves. But if they had have done, they would have been worth $36 million, and we could then move that value forward in time to a point at which they would have had, in the but-for case, the appropriate reserve declarations, and we can arrive at a valuation adjusting

11:12
using the FTSE oil and gas index or another index.
THE PRESIDENT: So you would take the ex-ante reserves value and then you move it forward to the ex-post date, and you adjust with the FTSE factor, or whatever --
A. 350 index. That is what you can do. It is not the method I've chosen for my valuation. I'm saying if you did do that, using the graph that CRA have produced, you would come up with a value of 36 million at that date, which can then be adjusted.
THE PRESIDENT: Thank you.
A. Yes.
THE PRESIDENT: Please carry on. Apologies for the interruption.
MR PILAWA: No. No problem at all.
So coming to the San Leon overriding royalty that you discussed, I believe -- and correct me if I am wrong -- in the presentation that you gave, you discussed how one of the issues with that royalty, or any valuation derived from that, is that the data landscape had changed?
A. That was one of the points, yes.
Q. One of the points. And you haven't quantified what that change in data represents; right?
A. No, one would -- in order to do that, one would --
Q. No, that's -- this is just to move to the second part of

11:13
the sale, the fair market value aspect.
So I understand that you rely on Mr Lewis' testimony that the sale for the San Leon royalty value was not fair market value, and --
A. It's one of the points that I rely on.
Q. It's one of the points that you rely on.
And one of the issues that you have with that royalty -- well, let me say this: apart from relying upon Mr Lewis' testimony and looking at San Leon's annual report, what are the other pieces of information that you've used to determine that this was not a fair market value sale?
A. Those were essentially the two points I used. In fact, the single point that the auditor raised, regarding -- there was a materiality issue regarding going concern, that by itself I believe would make it not a fair market value transaction.
Q. But you are aware that San Leon, to the extent it needed to find alternative funding or sources of funds, it had that ability at the time; are you aware of that from their annual reports?
A. Are you referring to the loan finance that --
Q. Right, I'm talking about the $30 million additional loan facility that they had at their disposal?
A. In their annual report?

11:15
Q. Yes.
A. I don't know the conditions of that $30 million loan facility.
Q. But you are aware that it exists, did I understand that right?
A. I wasn't aware specifically of that one.
Q. Okay. Did you want to see the document?
A. Yes. By all means.
Q. Okay. Can we pull up C-259. Page 32 of the PDF. And if you can zoom in to that middle column right at the top of the page. No, other to the other side. Right in the middle:
"In the event, that the Placing is not approved ..."
Do you see that at the top:
"... the Group has an additional loan facility of £30 million available ..."
A. Yes. Which report is this one? What date is this? Is this the 2014 --
Q. 2014.
A. 2014.
Q. Yes.
The question that I have though is, if San Leon, the previous owner of the royalty, and the previous owner of all of the data underlying the asset, if they were sitting on an asset that would pay them passive income

11:17
of tens of millions of dollars, wouldn't one of the last things they would want to get rid of be that royalty?
A. I don't believe at the time they, San Leon, thought it was worth that million. I think there was a gap in what their valuation was and what Discovery believed. And of course, in the context of the sale to Discovery, Discovery is not going to go to San Leon and say: I think it's worth more, let me pay you more.
Q. But you agree with me that San Leon of all parties was in the best position at that time to place a value on that royalty; right?
A. I'm not sure that's the case, no.
Q. Well, they had all the data underlying the asset; right? As the previous operator?
A. They had the data that existed at that time. And in the following months after the acquisition, Discovery acquired some more data, magneto-telluric, I think. But they also reinterpreted and reprocessed the seismic data, and that was key to the value that they placed on the royalty.
Q. And that's the improvement or -- the improvements with the data that you can't quantify, right?
A. I can't put a number on it, no.
Q. Okay.
A. But clearly Discovery felt the reprocessing was worth

11:19
doing for the -- you know, to improve the quality of the data. They cannot predict what the results of the reprocessing might be. Sometimes you reprocess data and it confirms that perhaps a trap is not there. That does not appear to be the case, because if that was the case, Discovery would not want to proceed with putting money into an asset that wasn't worth pursuing. They clearly pursued with the asset, because they felt the reprocessing improved their valuation of the asset.
MR PILAWA: That's fine.
I have no further questions, Madam President.
THE PRESIDENT: Thank you. Mr Newing?
MR NEWING: I have no questions, Madam President.
THE PRESIDENT: Do my colleagues have questions?
(11.20 am)

Questions from THE TRIBUNAL

THE PRESIDENT: We were discussing the 36 million valuation through comparable companies, and you said you get there by using the reserves that you have also used for your DCF, and then -- is that not ...?
A. Yes, the work that my colleagues and myself have done has come up with a volume that we think is -- you know, if we proceeded, or if Discovery proceeded with the exploration programme, we think that is the P50, the most likely volume that would result from that drilling

11:21
programme.
THE PRESIDENT: That would be produced.
A. Yes.
THE PRESIDENT: Yes.
A. Obviously it's a probability distribution and the P50 is the most likely. It could be higher, it could be greater. But the probability of it being greater is equal to the probability of it being smaller.
THE PRESIDENT: And then you said that you took the reserves at CRA's ex-ante date, and you explained to me that the disconnect between the dates, because there were no reserves at that date but only resources, could be made up for by moving to the ex-post date by applying the FTSE index.
A. That can be done, yes.
THE PRESIDENT: Which you do not -- which is not your preferred method, but is the one CRA has used; is that right?
A. Yes, if you like, that 36 million sort of arrives from the volume of -- that we think might be discovered. But using the data from the ex-ante date, just because that's the date they're having to choose and present the chart on, that analysis could have been on any day, you know, and in fact they do produce equivalent charts for ex-post valuation in their reports. And you might have

11:22 seen one of them in my presentation.
And the data points move around a bit. But the overall picture is similar. They move around because the oil price is going up and down, and therefore asset values will, of course, move.
And bear in mind that these are comparable companies. The fields and assets they have are not necessarily directly comparable. They are in Eastern Europe, and they are 2P reserves, partly. But the asset values on those charts, the enterprise value is, of course, a mixture of whatever -- whether they have reserves, contingent resources, and prospective resources. The share price just reflects investors' perception of the basket of assets that they have.
THE PRESIDENT: Yes. Do I understand this correctly: that if we find that your reserve quantities are not sufficiently certain, for legal reasons not for technical reasons, then we cannot use this market-based valuation because it is dependent on these quantities of reserves? It is built on it; is that right? Or do I misunderstand something?
A. All the numbers we have presented, both in my valuation and in the CRA, depend fundamentally on the quantity of reserves that might be found. I think that's, yes, common sense.

11:24 In terms of not sufficiently certain, obviously I can't speak about the legal definition of that.
THE PRESIDENT: No, and I'm not asking you that question. I'm just trying to understand the basis for the market-based valuation. But you just answered, so that's fine.
I have no further questions, so that ends your examination. Thank you very much, Mr Howard.
MR HOWARD: Thank you, Madam President.
THE PRESIDENT: Do we wish to move on, or do we need a short break? The next witness is Dr Longman; is that right?
MR PILAWA: Exactly.
MR NEWING: I'm happy to move on. I don't know if a couple of minutes is needed to bring up Dr Longman's slides.
THE PRESIDENT: Maybe we'll just switch the slides and whatever needs to be done. That will take, let's say, ten minutes, because five minutes is generally not very realistic.
(11.26 am)
(A short break)
(11.35 am)
THE PRESIDENT: I think we're ready to start.
DR CHRIS LONGMAN (called)
THE PRESIDENT: Dr Longman, you confirm for the record you are Chris Longman?

11:35 DR LONGMAN: I am.
THE PRESIDENT: From SLR Consulting?
DR LONGMAN: That's correct.
THE PRESIDENT: You have submitted two reports, the first one 31 March 2023, and the second one 14 December 2023?
DR LONGMAN: Yes.
THE PRESIDENT: You are heard as an expert witness and you know that I will now ask you to read the expert declaration into the record.
DR LONGMAN: I solemnly declare upon my honour and conscience that my statement will be in accordance with my sincere belief.
THE PRESIDENT: Thank you. Now we have received your presentation, and you have 15 minutes to ...
DR LONGMAN: I think we're just waiting for it to come up.
MR DRYMER: You have been patient the last couple of days; you will have to be patient a few minutes longer!
(Pause)
THE PRESIDENT: Is there a difficulty?
(Pause)
Good.
So now you have 15 minutes.
(11.39 am)
Presentation by DR LONGMAN
DR LONGMAN: So yes, good morning, Madam President, members

11:39 of the Tribunal.
I think as we've established, I'm Chris Longman. I'll run through a presentation this morning. I'm a geologist by background, and I have had 40 years plus working in the upstream oil and gas industry.
(Slide 2) I'll run through a series of topics this morning. I won't go through this slide in detail. It will become apparent as we run through it what we're reviewing, the licences, the potential, and what's being done on those licences.
(Slide 3) As has been shown before, the Discovery Global licences are in the north-eastern quadrant of Slovakia. It's the blue circle in the top right-hand diagram there, within the Carpathian Mountains, and the geological setting of these licences is one of a series of nappes that are thrust from the southwards over each other, so successive thrusts override the previous one, and you can see that in the bottom left diagram here where you've got a series of thrusts that are moving, as I say, from left to right, each one overlying it.
The most important thing about that is that it's a very complex structural setting, so there's lots of faulting and fracturing within the rocks themselves. And I think as has been mentioned before, the surface nappe within the Claimant's licences is mostly the

11:40

Magura nappe and a little bit of the Dukla nappe.

(Slide 4) This map shows that in a little bit more detail. The Claimant's licences are in the pink outline there, and you can see that the Magura nappe, in the sort of dirty grey colour, the Dukla nappe, the darker grey, are the ones that cover the Claimant's licences. And then the Silesian nappe, further to the north-east, doesn't actually overlie the -- or underlie the Claimant's licence area.

So looking at that in terms of trends, the Claimant's licences are on trend with the Magura and Dukla nappes, but I don't believe they are on trend with the Silesian nappe.

The key to that is that there's a lot of analogue data from Poland, less so from Slovakia, where there has been an exploration history in all these nappes, and therefore, in my opinion, the analogues should focus on the Magura and Dukla nappes, rather than the Silesian nappe. Although, taking into account the Silesian nappe is important and, as you will see later, I have done that.

(Slide 5) You've seen these diagrams as well before from Mr Atkinson. It's really just trying to reinforce that when we're looking at analogue field information, the most relevant ones I think are those that are in the

11:42

same nappes as are prospective in the Claimant's licence area.

Mr Atkinson yesterday provided a diagram in which he had noted that the reservoir and porosity parameters in the Silesian nappe were better than in the Magura and Dukla nappes. Again, I think that's important just as a general reference point, to indicate that while you can take note of the Silesian nappe, the best analogues are those that are relative to the Claimant's licence area.

To that extent, I find it difficult to accept some of the benchmarking that was done by the Claimant in relation to the licences, and they were referenced yesterday again, I think, with the purple and blue outlines.

(Slide 6) In addition to the analogue data from the Polish nappes, there's also been some recent exploration in Poland, and this map here shows the location of 12 wells drilled since 2000, all to the north-west of the Claimant's licence area, some within the Magura and Dukla nappes, some within the Silesian nappe. I think the important thing to note out of that is that in the last 20-plus years, of these 12 wells, we're not aware that any commercial discoveries have been reported.

(Slide 7) Moving a little bit on to the Claimant's

11:44

licence themselves, the database that they have, again, the outline of the licence is in pinky-purple, so the primary information that we've got is a series of seismic data and historical wells. There are some 34 wells, but as you can see from the map, they are clustered in three main areas. The last well was drilled in 1998, so there has been no recent drilling, and the seismic is 770 kilometres or so of 2D data dating from the early 2000s.

There's also additional data, gravity, magnetic, surface geology, et cetera, and, as has been referenced before, magneto-telluric data that was acquired by the Claimant but hasn't been used in Mr Atkinson's evaluation.

It's important to note, I think, that the Claimant did not acquire any seismic data or drill any new wells during the period it held the licence.

(Slide 8) Mr Atkinson has created a series of 40 leads, and we had a debate yesterday about leads versus prospects. My view is that they are leads because they are not well-enough defined under PRMS to qualify as prospects.

Of those leads 18 are oil, 22 are gas, and the map here in the top shows Mr Atkinson's interpretation underlying red circles, which are actually taken from

11:46

the Claimant's 2017 investor presentation where they identified 11 prospects. So it's just a comparison of the 11 that were referenced in 2017 in the investor presentation with the 40 that Mr Atkinson has identified.

And you can see there's some similarity and some difference. One of the key differences, as was referenced again yesterday, is that the Poruba feature, which is one of the three AFE wells, doesn't feature on Mr Atkinson's analysis.

(Slide 9) We have had a look at the data underlying the interpretation of those 40 leads. We didn't have that data to start with, but we were provided it halfway through.

We focused on the eight leads that have come out of the decision-tree analysis which, again, has been referenced in the proceedings, to have a look at how we viewed those leads. And we felt that three of those were very poorly defined and probably didn't even qualify as leads, and we looked in the remaining five.

This is just an example of one of them, and what I was trying to do here, which I don't need to go over now because, again, Mr Atkinson referenced it yesterday, is that the area that was interpreted has then been assumed to be the most likely case, and Mr Atkinson

11:47 doubled his area, so as he demonstrated yesterday, 50% of the time the area is going to be sampled from an area that was bigger than actually mapped.

You can also see from this that one of the other problems is, if you double the areas, then they start overlying each other, the prospects.

And I have to note that these leads are identified on what is very poor seismic data quality.

(Slide 10) Looking at some of the oil leads, and most of this sort of benchmarking analysis is available for oil rather than gas, because there's very little analogue gas data.

So this is just a plot of looking at the cumulative production from nappes in Poland relative to a fixed area, so 1,000 kilometres squared. The reason for doing this was to try and gauge what some of the history is, and what the oil leads identified by Rockflow are indicating, and you can see there that under our analysis we have a significantly higher density of potential resource in Rockflow's analysis than has been evident historically. It's even bigger than the Silesian nappe, which is the best of the nappes, but is significantly bigger than the Dukla and Magura nappes, which are the two relevant nappes for the leads identified. They are all identified within the Magura

Page 93

11:49 and Dukla nappes.

(Slide 11) The other element to do with the leads is not only the size of them, but also the geological chance of success. Again this was referenced yesterday. Mr Atkinson and myself used the same methodology to calculate the chance of success, but we have a different view of the input data.

You can see here that Mr Atkinson's assessment of the geological chance of success is roughly three times my assessment, and there's very little independent analysis of GCOS, but there was the RPS 2012 CPR, which again was referenced yesterday, and that gave an average of 9% for each of the individual reservoir targets that were analysed in that report.

There's another issue about the chance of success, which is that no dependency between leads has been accounted for in the Claimant's analysis, and the little chart at the bottom there just shows the same one we had before. But the two prospects that are adjacent and potentially overlie each other, if you drill one and it fails, then the chance of success on the other one is obviously going to reduce. Equally, the corollary would be true: if you drill the first one and it's a success, then the chance of success would improve on the other one.

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11:51 (Slide 12) The decision-tree analysis that was undertaken uses the resource volumes, which I think are overestimated, and also the GCOS figures, which, again, in my opinion, are overestimated. And that was run through an analysis to come up with a statistical output of the most likely, the P50 outcome.

Each time that gets run, you end up with a different output, and you can see there it just compares the 2022 figures with the 2023. So the first time there were nine prospects, the second time there were eight prospects, and we've got three oil prospects and five gas prospects in the latest version. Some are consistent between the two years; others are not.

(Slide 13) A little bit more just looking at the individual well production. Again, this is trying to benchmark the -- sort of sense-check what's being done. Again this is oil, because that's where we've got some historic comparison.

Using our analysis we've got somewhere around about 20 million -- sorry, 20,000 barrels per well from a lot of the historical data, and in the Claimant's analysis they are recovering round about 400,000 barrels per each well in their development scenario, which is a significant increase, whichever way you look at it, and has a double effect, because if you can produce more

Page 95

11:52 oil from a well, then you need less wells to develop and therefore the cost of any potential development is reduced.

(Slide 14) There's also an issue over the drilling. Mr Moy put his chart up earlier on today, and as is referenced, the concept is to drill 40 exploration wells and, in the event of the success, modelled 99 development wells.

The concept of drilling 40 development wells consecutively by any company exploring, without the opportunity to reflect and integrate whatever information you get from those 40 wells, is not something I've ever come across, and it wouldn't really make any sense to me in a process.

And the 99 development wells are drilled in a four-year period. Again, an extremely aggressive pace of drilling. And the charts at the top right there just compare the rate of drilling for exploration and development with the historical activity, and again it's a significant increase.

I should note that this chart is corrected from the figure that was in my second report, because I had erroneously divided the 99 wells by five years rather than four years. So it actually looks worse in this chart than it did in my second report.

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11:54
(Slide 15) Another thing to look at is the oil leads in relation to the historical information. You've seen the chart at the top. That is the three leads that were assessed to go into the DCF calculation from 2023 in yellow, plotted against historical field size for Poland, or for the Carpathian -- the Polish Carpathian fields. And you can see even on that analysis two of those leads would be in the top eight all-time.
I'm nearly at the end.
THE PRESIDENT: You're over time, but I understand that you soon are done.
DR LONGMAN: And in the bottom chart, that's just plotting all 18 of the Rockflow oil leads against the historical ones, and you can see how dramatic the difference is.
(Slide 16) So in summary, I don't think the licences are on trend, and there's little historical analogue for what's been done.
THE PRESIDENT: Thank you.
Mr Newing.
(11.56 am)
Cross-examination by MR NEWING
Q. Good morning, just about, Dr Longman. My name is Neil Newing and I will be asking you some questions on behalf of the Claimant.
I would ask you, please, to turn to your first

11:56
expert report. We're going to look at page 5 of the PDF, and I think it's internal page 1 if you are looking in the hard copy. And I am looking at paragraph 2.
A. The bullet points?
Q. Yes. I will just wait a moment for that to be brought up on screen. (Pause)
It's at page 5 of the PDF, please.
Okay, so in this first bullet point do you see you stated the general conclusion that:
"It is extremely unlikely that any significant oil or gas accumulations lie within the Claimant's exploration areas ..."
Do you see that?
A. I do.
Q. And at the time of this first report you had not conducted any assessment of the licence areas yourself to determine what hydrocarbons might be in place, had you?
A. No, that was based on the review of the information in Mr Atkinson's first report.
Q. I understand that you had, however, reviewed at that point the study which had been conducted by EGI; right?
A. We had that available, yes.
Q. And that study was carried out by individuals with a lot of experience in this particular region; is that right?

11:57
A. It was. Yes.
Q. And you have had no reason to challenge the work that they carried out in that study, have you?
A. I haven't challenged that work, no. That's the primary piece of work underlying what was done.
Q. And that study concluded that there were at least five potential traps in the underlying Dukla nappe, didn't it?
A. I think it identified five features for which it calculated volumes, yes.
Q. But all of those were only in the underlying Dukla nappe?
A. I don't remember, but I believe so.
Q. Okay. To refresh your memory, let's take you to document AA-002. And page 75 of the PDF, please. And you see there section 9:
"Whole volume estimates of potential traps in the Smilno antiformal stack".
Which I understand is basically the Dukla nappe, the underlying Dukla nappe, the parts underneath the Magura nappe or the part that's poking out in the tectonic window?
A. Yes, that's correct.
Q. And this study did not seek to assess whether there were any traps in the rest of the Magura nappe, did it?

11:59
A. I don't recall whether it sought to do that or not.
Q. You've referred in your first expert report to the fact that EGI only identified five potential structures, and compared that to the 40 identified by Mr Atkinson; do you recall that?
A. I do.
Q. But as we've just seen, this study was only looking at those structures that were in the underlying Dukla nappe, wasn't it?
A. I'm not sure it was only looking at the structures. Those are the ones that it identified in the end.
Q. But there is no part of this report where it seeks to identify any structures in the rest of the Magura nappe? It doesn't say one way or the other whether there are any structures in the rest of the Magura nappe?
A. It didn't, but it created a series of maps. It then focused on that particular area, as I understand it.
Q. But in that same area in which they identified five structures, Mr Atkinson has identified eight; is that right?
A. I don't know. I don't have the comparison between the two particular areas.
Q. Okay. If I can take you to Mr Atkinson's first report at page 36. And paragraph 107.2, you will see at the bottom. Mr Atkinson states:

12:01 "I defined 8 gas prospects in the Smilno area in the Dukla Nappe, based on the Base Magura structure map except for one mapped at an intra-Dukla Nappe surface (the 'base Antiformal Stack' surface)."
Do you see that?
A. I do.
Q. So the appropriate comparison would have been to compare EGI's five identified structures with the eight that Mr Atkinson has identified, not the total 40, wouldn't it?
A. I don't know for certain without going back to the whole of the description around the EGI report itself.
Q. Since the date of your first expert report you've conducted an assessment of five of the Claimant's eight prospects -- I know there is a difference between you as to whether they are prospects or leads, but what the Claimant has said are prospects -- that are part of their P50 case, haven't you?
A. I have.
Q. And in relation to the other three of those prospects, your position is that you do not recognise them as valid targets; right?
A. Yes. That's correct. We didn't see that they were identified sufficiently to be classified as leads.
Q. And so your position is they're not even leads, but

12:02 certainly not prospects; that's correct?
A. That's correct.
Q. But will you agree with me that whether something is a prospect is based on the judgment of those that are providing the funds and carrying out the drilling that there is sufficient detail to justify them pursuing their drilling?
A. I think that's a reasonable observation, yes. There was an AFE for various features, so one of the classifications for something being a prospect is that there is a sufficient comfort by the owner to go forwards with that.
Q. And so if there were AFEs for particular wells, you would agree that those would be considered prospects at that point?
A. I think in broad terms, yes.
Q. Okay. Can we also turn to paragraph 48 now of your first expert report. That is on page 20 of the PDF and page 16 of the hard copy document. And we're looking at paragraph 48.
A. Yes.
Q. And at the very last sentence, I'm going to look at the rest of this in a moment, you said:
"As these were notionally drill-ready, they could be considered as prospects."

12:03 Do you see that?
A. I do.
Q. So you accept, again, that being notionally drill-ready is enough to be considered a prospect?
A. I do.
Q. So in this very same paragraph you are actually talking about the two wells that the Claimant had intended to -- or in fact three wells that the Claimant had intended to drill at Smilno, Krivá Ol'ka, and Ruská Poruba, aren't you?
A. I am.
Q. And so your position in your first expert report is that you agreed that, at the very least, the Smilno and Krivá Ol'ka sites were notionally drill-ready and so could be considered as prospects?
A. Yes.
Q. And were you aware that both the Smilno and Krivá Ol'ka sites had AFEs?
A. Yes, that's why I considered them as prospects potentially.
Q. Were you aware that two of the three prospects that you decided in your second report were not even leads, let alone prospects, were in fact the Smilno and Krivá Ol'ka sites?
A. I am aware of that, yes.

12:04 Q. And so despite accepting, as you have just done, that both the Smilno and Krivá Ol'ka sites were able to be considered prospects as they were notionally drill-ready and had AFEs, you nonetheless now claim that they are not prospects?
A. I do. That's because my evaluation of them is very different from the Claimant.
Q. But you have accepted that the fact that the Claimant itself considered they were ready and had AFEs on them is enough for them to be considered a prospect?
A. In the eyes of the Claimant, yes. But not in my opinion.
Q. And obviously nothing has changed between the Claimant's decision that they were prospects and today, that will have changed the Claimant's view that they were prospects?
A. I can't say that. I don't know whether the Claimant has changed its view.
Q. Were you instructed for your second report not to assess those prospects, or those areas, at all?
A. Absolutely not.
Q. But isn't it the case that in fact two of those prospects are -- two of those areas that you have not identified as prospects are in fact prospects, as they meet the requirements that the Claimant itself

12:06
considered them to be and they had AFEs on them?
A. No, that can't be the case, because at the time that I was doing the analysis, the Claimant didn't hold the licences. So I think there's a difference between, if you go back in time, that was their view, but I'm looking at it now on the basis of the information that's available to me. And, as I say, there's a very different opinion between my assessment and what the Claimant's assessment was in the past.
Q. But the information you have looked at is the same information that the Claimant had?
A. As far as I'm aware it's the same. I mean, we had the dataset that was provided by the Claimant.
Q. The eight of the Claimant's prospects which you have looked at, although three of them not assessed, as I say, form part of the Claimant's P50 case; right?
A. The P50 decision tree case, yes.
Q. And so all that you have actually assessed are five of the prospects that the Claimant considers would be within that P50 case?
A. We looked at five in detail. Looked in detail at the eight, but decided that three were not valid, or were insufficiently well-defined to qualify as leads, and reviewed the remaining 32. But only in a superficial way.

12:07
Q. And so in discounting the three that you do not consider to be prospects, all you are in fact saying is that those three prospects should not have formed part of the Claimant's P50 case?
A. Well, it was the Claimant who assigned those eight leads to their P50 case. That wasn't my decision. That was their decision. My review was that of those eight, five could be considered leads and three not.
Q. So you have not conducted your own alternative assessment of what you think the P50 case would be?
A. Well, I have, to the extent that I've calculated volumes for and risks for those five that I identified as leads.
Q. But you have not actually considered across the entirety of the licence areas whether the P50 case would be those five prospects?
A. No, but I can't, because, as I say, the Claimant's P50 case is a statistical Monte Carlo output, which, you know, that's what they came up with.
Q. But you haven't conducted any similar assessment of your own?
A. No.
Q. Turning to the five that you did assess, could we please turn to page 59 of the PDF of your second report. This is page C.1 in appendix C of your second report.
It's page 59 of Dr Longman's second report, it's

12:09
tab 318. (Pause)
Page 59 on the PDF. And if we look at paragraph C.3, at the very beginning it's stated:
"SLR note that the majority of Mr Atkinson's 'Prospects' are defined based on two-way time ... grids - either his own or those of EGI. Structures which are 'drill ready' and form true Prospects under [PRMS] would never be presented in TWT. TWT maps are a step in the process of generating depth maps and are often used to illustrate exploration concepts ..."
Do you see that?
A. I do.
Q. I notice it says here "SLR note", rather than "I note", which you use in the next paragraph. Does that mean that you did not personally conduct those assessments?
A. I worked with one of my colleagues, who is referenced in the acknowledgments, in looking at the seismic projects that we had. But the interpretation of the Kingdom dataset is not my area of speciality.
Q. Okay. So you go on to say that these are a step in the process of generating depth maps, as you say?
A. Yes.
Q. And so you would accept that the depth maps would be helpful for you if you were actually trying to assess this further?

12:11
A. And there are depth maps and time maps.
Q. So you do accept that depth maps have been provided by Mr Atkinson in his Kingdom project?
A. There are some depth maps, yes.
Q. But here you suggest that in fact that's not the case. So is it the case that the depth maps were not assessed?
A. No. I say that the majority, there were depth maps and time maps, and in fact you will see in appendix C there are some depth maps and time maps.
Q. So the conclusion that in fact the majority are -- or that the information is not sufficient has not taken into account the fact that there are these additional maps which have been looked at?
A. Sorry, I don't ...
Q. Sorry, I'll rephrase that question.
Your conclusion that, or the conclusion I understand you to be drawing in paragraph C.3 is that the prospects have been defined on a first stage of data, rather than the next stage, which would be depth maps. But can you tell me today whether you can be -- whether you know if depth maps were looked at for the five prospects that you have particularly looked at in detail, or SLR have looked at in detail?
A. Yes, some were depth and some were time.
Q. So for the five that have been assessed, paragraph C.3

12:13
is not applicable?
A. Well, the -- it ... "not applicable". It is applicable to the extent that what I'm referencing here is two-way time grids. Yes, there are some depth grids. Yes, there were some depth grids for the five that we looked at. Yes.
But whether it's a lead or a prospect is not absolutely due to whether there's depth or time. It's an assessment as to what the validity of that interpretation is, how robust it looks.
Q. As we've mentioned, Mr Atkinson has identified what he calls 40 prospects; right?
A. Correct.
Q. If we can go back to your first expert report, please, at page 22 of the PDF, and 18 of your hard copy, at paragraph 61 at the bottom. You are seeking here to draw a comparison between the number of prospects identified by Mr Atkinson and those which were referred to in contemporaneous documents prepared by AOG, and if we go over the page we see the table where you do that; correct?
A. Yes.
Q. We've already discussed EGI, so I'm not going to look at that for the moment. But this refers to three different documents, or sets of documents, from AOG in 2014, 2015,

12:14
and 2017 that you have used to compare against the 40 prospects identified by Mr Atkinson; correct?
A. Yes.
Q. And the conclusion which I understand you are seeking to draw here is that AOG itself never identified more than seven leads, or prospects, and therefore Rockflow's assessment far exceeds that?
A. Not quite. There are seven leads identified there in the investor presentation as an example, which were tabulated. But I think as you may recall from the presentation, I superimposed all the circles that were in the investor presentation, which I think totalled 11. So I think there were 11 circles, but only seven of those were documented in the investor presentation.
Q. Understood. But the point you're trying to make is that Rockflow's assessment exceeds that that AOG itself had carried out?
A. Well, Rockflow's assessment identified a larger number of leads than any of the previous assessments. Yes.
Q. But are you aware of, at any point in any of Discovery's previous presentations, it was purporting to set out a full assessment of how many leads would exist in the licence areas?
A. No.
Q. And in fact they do not say anywhere in their

12:16
presentations that these represent all of the leads that would be in the licence areas, do they?
A. As far as I'm aware, they don't.
Q. And wasn't the point of such presentations to identify the initial areas that they wished to drill?
A. I think the focus was on the initial area. But if you were putting together an investor presentation, then I would have thought it would be only sensible to flag that you have whatever number of additional prospects or leads that you are assessing at the time.
Q. But would you agree there would be no point in spending money to identify a further 20 or 30 prospects until you had someone on board, if that were the point of these presentations?
A. No, I wouldn't. I wouldn't agree with that.
Q. So in your view, Discovery should have spent a lot of time and money identifying every prospect or lead that may exist in an area before going to any investor?
A. No, not necessarily. But I think that they should have undertaken enough of an evaluation to be comfortable in their own mind where to focus their efforts.
Q. But do you accept that this was not an intention on their part to show everything that might exist in the area?
A. Sorry, that this was?

12:17
Q. That these presentations were not intended to show everything that they considered might exist in the area.
A. I don't know. I can't say what their intention was when they put that together.
Q. On that basis, isn't it inappropriate to say that this is therefore a comparable figure to the number of 40 prospects identified by Mr Atkinson?
A. I don't see that that follows. I'm trying to compare what was made available in their investor presentations or Opcom minutes with what is there now. I'm just comparing the two, or the sets of different analyses.
Q. But isn't it important to understand the basis on which those numbers have been put forward, to understand whether they are, in fact, comparable?
A. Well, as I say, I think that's the only information that there is to compare. I mean, I can't go further than that.
Q. Turning now to look a bit at the exploration history that's taken place in the licence areas. You accept that there has been drilling activity in the actual licence areas in the past; correct?
A. I do.
Q. And can we please look at page 12 of your report, 16 in the PDF, I think.
A. First report or second?

12:19
Q. The first report that you've still got open.
A. Sorry, 12, did you say?
Q. 12 in your hard copy, yes, I think. And 16 in the PDF.
A. Yes.
Q. And here you set out a table that shows the exploration history in the licence areas over the 20th century, essentially?
A. Yes.
Q. And many of these would have been drilled with old technology or techniques, and with poor, if any, data; would you agree?
A. The vast majority, yes.
Q. And yet the majority of these wells reported hydrocarbons existing, didn't they?
A. Well, there were a lot of hydrocarbons reported, but that's partly because this is an area where everything is -- the whole petroleum system is one where you have hydrocarbons, but the difference is, have you got hydrocarbons trapped in a viable feature and a potential field. And most of these are what appeared to be shows, apart from a couple of the historic fields that were produced.
Q. But this is despite the fact that they actually had little data to go on to try and find actually where to put those wells, and the older technology that would

12:20
have existed?
A. Yes, I don't know the basis on which all those wells were located.
Q. And you will accept that no drilling has taken place since the acquisition of the data that is now available, and that Discovery has interpreted the 2D seismic, the gravity, the MT data?
A. Yes, the last drilling was 1998.
Q. And so all of that data that's been acquired since would most likely improve the chances of being able to find something, or put something in the right place?
A. It should improve the ability to put something in the right place. It won't necessarily improve the chance of finding something.
Q. Based on the fact that wells which were drilled without the benefit of that data had discovered hydrocarbons, isn't it likely that wells drilled with the benefit of that data would also discover hydrocarbons?
A. No, that doesn't necessarily follow. As I say, this area is one where you've got an active petroleum system, everything is faulted, fractured, broken. So there's a lot of seeps, there's a lot of oil and gas in fractures and coming to the surface. So that's why you would have acquired or would have seen a lot of shows in historical wells.

12:22
What you're trying to achieve is a viable structure with reservoir in that is large enough to be a commercial discovery these days.
Q. But with the benefit of the data that has now been acquired, as you say, would that not improve the chances of being able to find where those would be?
A. It should improve the chances, but the quality of the data is still -- it still makes it difficult to give you confidence in what is in the subsurface.
Q. I'd like to look now at some of the benchmarking exercises that you have carried out, and you've mentioned some of these in your presentation today. But we're going to look at your second report, please, at page 10 in the hard copy, and page 17 on the PDF.
This is a map where you have indicated in different colours the different nappes in the Polish Carpathians; right?
A. Correct.
Q. And then you use this on the next page -- I'm going to come back to the map -- to compare the resource density. Just to confirm, this is oil only at this point.
A. Sorry?
Q. This is just oil you're looking at, at this point?
A. Yes, as I think I mentioned in the presentation, it's very hard to get -- there isn't data on gas benchmarking

12:23
within the nappes. So you can only really do oil benchmarking.
Q. And so you've used the map in the table which you can see on the next page to compare the amount of oil that has been found in each nappe in Poland with the amount of oil that Mr Atkinson estimates may exist in the licence areas?
A. Correct.
Q. And so that calculation is made on the basis that you need two inputs: the total amount of oil and the size of the relevant area; correct?
A. Yes.
Q. And so if, for example, you had the same amount of oil but across two different sized areas, a larger area would result in a smaller resource density; correct?
A. Yes.
Q. So the accuracy of the resource density calculation depends on how you define the area, does it not?
A. That's one of the components, yes.
Q. And if I understand correctly, if we take, for example, the Silesian nappe, because it's just the easiest to see on this map for the moment, as outlined in pink, you have used the entirety of the Silesian nappe area in your calculation for the resource density?
A. Yes.

12:24
Q. Now, and you will have seen this in Mr Atkinson's presentation yesterday, and he mentioned this, that the green sort of blobs on the right-hand side of the map are where the oil is, or where the oil has been found, in that Silesian nappe; correct?
A. That's where the bulk of the oil that's been found lies, yes.
Q. But in fact, there are no green blobs in the western half of the nappe at all, are there?
A. There are green blobs that are towards the sort of centre. There's no green blobs in the western half. But there have been wells drilled across the area of the nappes.
So there's been exploration there, but no success.
Q. But you have nonetheless used the entirety of that nappe to determine the resource density, even though half of it, at least, has no oil in it, or has not found any oil?
A. I have, but it doesn't make sense to me to just say: okay, well we'll compare it against the successful bid. Surely you need to compare it against the areas that have been explored within that nappe: (a) the Silesian nappe is different from the Claimant's licence area, but (b) how would you know whether the area corresponds to the positive half or the negative half of the area?

12:26
Q. But the same is true of the licence areas, isn't it? So if you don't know -- if you're comparing the Silesian nappe where only half of it has oil with the licence areas, surely the assumption should be: well, maybe only half of that will have oil. You're simply not comparing the same things, are you?
A. Sorry, you've lost me.
Q. Well, if you are not going to take just the section where oil has been found to compare against the licence areas, you said you're taking the whole area because that's where there has been exploration, and the fact that oil has not been found in half of it doesn't matter. But you're comparing that to the very small licence areas, but you're not making any similar conclusion that there may not be some oil in half of that.
A. Sorry, I don't quite follow. If you're trying to say that I could have chosen one half than the other, then I suppose I could have chosen the negative half and said: there's no oil there.
Q. Well, exactly my point, in the sense that what you're doing is you've tried to show in your table that Mr Atkinson's estimates far exceed those in the other nappes. But, again, it depends entirely on how you are comparing the areas. As you say, if you had taken, for

12:28
example, part of the areas where there's no oil, the result would have been very different.
A. It would. So I think I come back to my original position, which is to me it seemed most logical to take the entire area.
Q. But isn't the result of this that basically you can manipulate this as much as you wish in order to get to the result that you want to have?
A. I didn't manipulate it to get to the result that I wanted to have. I took the data as I had it, which was the available information in Poland, and allocated it by nappe and came out with an answer.
Q. If we can now please turn to paragraph 109 of your first expert report, and that's on PDF page 33 of your first expert report, page 29 in the hard copy.
And you make a conclusion here by, again, a benchmark analysis between the oilfields that have been estimated or identified by Mr Atkinson, compared to those which have been found in Poland, and say that:
"... the Claimant's expected field size is over 30 times greater than the existing Polish Carpathian fields."
Correct?
A. Yes.
Q. And again, this is just oilfields we're talking about?

12:29
A. It is.
Q. And in conducting this exercise you have included all known Polish oilfields; correct?
A. Yes.
Q. Do you accept that the Polish field dataset includes many fields which are smaller than Mr Atkinson's prospects?
A. Yes.
Q. And the reason for this is that the data in the licence areas does not allow such small prospects to be mapped; isn't that right?
A. Well, I've simply taken the leads that Mr Atkinson identified and used them. The data is not very good. Would you be able to see tiny fields on that data? No. But then again, if and when you drilled the 40 leads, would you end up with that volume, or are you likely to end up with a smaller volume? We don't know.
Q. So you don't know whether smaller fields may exist in the licence areas, do you?
A. I don't, no.
Q. But this graph assumes a full range of oilfields in Poland, including very small ones, but then compares them only with those that have been large enough to be mapped in the licence areas?
A. Well, again, it's comparing the existing data, which

12:31
shows that in Poland there is a significant range in field size.
Q. So you accept that the reality is that there's simply not the data to be able to know what the same field size may be in Slovakia, or similar field size, and so you're using a set of data from Poland that is much larger than the set of data that exists for the licence areas?
A. Well, again, I am, because I'm just using the data that is available.
Q. But you're not comparing the same representative samples then, are you?
A. Well, I am. I'm using, as I say, what is available.
Q. But what is available isn't necessarily representative of what actually exists?
A. Well, no, but you're never going to know that until you've explored. So you've got to use what data is available to you.
Q. But the data that you've had available from Poland is data that's been accumulated over 150 years. So that's a much larger sample to compare against just what Mr Atkinson has done.
A. Well, it is. But, as I say, I'm not sure -- I'm not sure where -- what you can do. I mean, I'm simply plotting up the historical data from Poland.
Q. And I'm not saying that there is more data that you

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12:32
could have. But my point is that if you don't have similar data, again, you're not making a comparison with similar things, are you?
A. Well, I don't think I agree.
Q. Wouldn't a more appropriate comparison [have been] to have compared fields that were of the same size that Mr Atkinson had been able to identify, and exclude the smaller ones that have not been able to be mapped in Slovakia?
A. Well, no, I don't think so, because then you're arbitrarily selecting part of the data that's available.
Q. But aren't you arbitrarily making this comparison anyway by including data from one set that simply doesn't exist in another set?
A. Not in my opinion, no.
Q. As I mentioned, the vast majority of the Polish wells are historical and date back over 150 years. Not all of them that long, but over a span of 150 years. And so the production of those wells would not be comparable to what could be achieved today; would you agree?
A. I would expect that you would get some improvement using modern technology, yes.
Q. And so, again, taking this Polish data, without taking into account how old some of these wells may have been, or that production may have been improved if they were

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12:33
more modern, is, again, not using the data in the correct way to compare to what Mr Atkinson is estimating as at today?
A. No. I don't think that follows. Because what he's plotted here is what's been produced from fields. It's not related to individual well performance, this chart. It's field production.
Q. Can we please turn now to your second --
MR DRYMER: Pardon me, but on that point, wouldn't field production change as a result of modern techniques as well?
A. Well, not necessarily, no, just the number of wells that you might need to produce the field.
MR DRYMER: I see.
A. If the field size is, let's say, a million barrels --
MR DRYMER: Got it.
A. Then if you have got old wells producing small volumes there's only a million barrels to produce.
MR DRYMER: I see.
A. If you did modern ones then you would be able to do it with less wells. But you're not going to change the size of the field.
MR DRYMER: Not for another few million years, perhaps.
A. Well, maybe.
MR DRYMER: Maybe. But production from a field of a given

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12:35
size wouldn't increase?
A. It could, yes.
MR DRYMER: Yes.
A. But the production rate, but not the total volume.
MR DRYMER: That's what I mean, forgive me. Yes.
THE PRESIDENT: So it would take longer to extract all of the oil from the field; yes?
A. Historically, yes.
MR NEWING: Thank you.
If we could turn now to your second report, please, at page 16 in the PDF and 23 in your hard copy, I think -- no, the other way around. 23 in the PDF and 16 in your hard copy. Sorry.
A. Yes.
Q. And this is a chart which I think you showed again in your presentation earlier --
A. I did.
Q. -- which you say represents a comparison between the average amount of oil recovered by well in the Polish nappes we've been looking at, and those proposed by Rockflow.
A. Yes.
Q. And you acknowledge in paragraph 66 that technology, as you've just mentioned, would have improved well performances, and in fact you assume that there may have

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12:36
been a four-fold technology driven improvement?
MR DRYMER: That's what I was looking for, thank you.
A. I do.
MR NEWING: But even with that you say your view is that Rockflow's assumption are still inflated by 10 to 20 times?
A. Yes.
Q. And the data that you have used for this comparison is contained in a very large spreadsheet which, don't worry, I'm not going to ask you to bring up, but which is at CDL-14 for the Tribunal's purpose?
A. Yes.
Q. And contains a list of over 4,000 wells that have been drilled in Poland since 1850; correct?
A. Yes.
Q. And you've used the data from all of those wells to perform this comparison, haven't you?
A. I've used the data from, yes, the set of wells that reflected the oilfields, yes.
Q. You will have seen from Dr Moy's presentation this morning that in his view many of the wells in that data would be inappropriate to use, as they relate to stratigraphic intervals which are too deep to be present in the Slovakian licence areas; do you remember him explaining that?

12:37
A. I do. I do remember him saying that.
Q. Do you accept that those would be inappropriate to use as a comparison?
A. No, I don't, because I think the mistake there is that underneath the Silesian nappe you do have the older stratigraphy, and I think the reference to the stratigraphy in the well database is where the well TD'd. So if it drills all the way through the Silesian nappe, it then TDs in older formation. So I don't think that the removal of those simply because they were a TD in an older formation negates the use of those wells, because they've drilled through all the shallower formations in the Silesian nappe.
Q. But do you accept that the deeper you go, the greater the production may be?
A. Not --
Q. The greater the pressure?
A. Not necessarily. Yes, the deeper you go, the higher the pressure. But equally you may have, the deeper you go, the reservoir will deteriorate, and so you've got a balance between higher pressure and poorer reservoir parameters often.
Q. But the data that you've used, which includes these wells which go far deeper than would exist in the Slovakian licence areas, do not actually give you the

12:39
information to know whether the amounts have come from those deeper parts or from the shallower parts?
A. Well, there's no production from the deeper stratigraphy. So any production -- as I've tried to explain, if you drill a well through the Silesian nappe and you've got the deeper section in which the TD is, if that well's produced any oil, then it's produced out of the Silesian nappe section. There's no -- as far as I'm aware, there's no production from the deeper stratigraphy.
Q. And is that information that you've gained from that dataset about the wells in Poland, or is that information that you are assuming?
A. The dataset on wells doesn't, I don't think, identify which the producing horizons are. But, as I say, as far as I'm aware, there's no indication of deeper production in Poland from the section below the Silesian nappe.
Q. Dr Moy made clear in his presentation this morning that I think he said around 87% of the oil wells that have been drilled were from before 1946. Do you recall that?
A. I do recall that.
Q. And that they were virtually all shallower wells?
A. The majority were shallow wells, yes.
Q. Yes, 96% or something, I think he said. And he explained in his presentation that when you look at the

12:40
amount of oil recovered in those pre-1946 shallower wells, the average production in fact comes out at something as 73,000 barrels per well, much higher than the averages that you have included in your table?
A. But I think that's partly a function of the fact that he has removed a lot of the wells from his comparison. I think it's worth noting that even in the Claimant's documentation, they have a list of wells in some of their analogue fields that they've put in, and that list of wells totals somewhere near 3,700 wells. So I think reducing the number down to the number that Dr Moy was reporting, there seems to be a mismatch somewhere.
Q. Would you accept, though, that if most of the production has come from shallower wells, even in your larger dataset -- I think that's what you were telling me just now, because the production is still coming from the top part -- that this should be compared to the shallower wells' production that is being proposed by the Claimant's experts?
A. You can compare against the shallower as well as the deeper. The figure in this chart is actually the average of all three levels. The three oilfields in the Claimant's model are at different depths. So this figure of 400 is an average. The range within that model is from about 200-700.

12:42
Q. I think Dr Moy explained in his presentation earlier, and it's in his second report at table 3-4, that the recovery estimated for wells that were at the shallower depths is from 143 to 220,000 barrels.
A. And that equates to the -- broadly to the figure of 200 I just gave.
Q. Yes. But that's half of the 400 figure that you've assumed in this chart.
A. At the low end, yes. But 700 is much bigger.
Q. But if we were only comparing the shallower wells, on the basis that in Poland most of the oil has been recovered from shallower wells.
A. Yes, if you want to go down that route. But 200 is still significantly more than the analysis here.
Q. Yes. But assuming your four-fold production -- four-fold improvement, sorry, in production, it suddenly becomes a lot less than you've suggested.
A. Sorry, it becomes a lot less?
Q. The increase, or the difference in the amount which Rockflow have estimated, which you have suggested, when it's 400, after taking into account a four-fold technology-driven improvement, is inflated by 10-20 times, would be at least half that?
A. Well, it depends which nappe data you are taking. I mean, if you took the whole of the Poland average,

12:44
we've got 20 there. But again, the historical data from the Dukla and the Magura gives you a figure of 8, if you average that.
So, yes, the difference would be less for the shallow wells.
Q. So, again -- once again, in conducting all of these exercises, and I'm not suggesting you have done this, but ultimately, depending on how you look at the data and which bits of the data you want to use, will change the result that you're looking at?
A. Well, I think that's always the case. I mean we are looking at the data and taking all the data that we've got and presenting it, and other people will take the data and present it differently, as has been demonstrated this morning.
Q. I'm going to look now at one of the documents that we discussed with Mr Atkinson yesterday, which is the RPS CPR report. This is referenced by you in your second expert report at PDF page 12, and internal page 5. Do you see that?
A. Yes.
Q. And if you go over the page, in fact, you have a summary table that you have put together.
A. Yes.
Q. Which you say summarises in particular the geological

12:46
chance of success; it's one of the points that you summarise from the RPS report.
A. Yes.
Q. And this RPS report was issued in May 2012; correct?
A. 2012, I don't remember whether it was May, but I'll accept it was May. Definitely 2012.
Q. And so this was before the processing and interpretation of the seismic data had been completed by Discovery; correct?
A. Yes.
Q. And before the MT data had even been acquired, let alone processed and interpreted?
A. Yes.
Q. And even before the EGI study as well?
A. Yes.
Q. And yet RPS identified four prospects on the basis of the data that they had available to them then?
A. They did, although as you can see in the description below the table in the paragraphs, they were heavily caveating what they had identified.
Q. But they did actually identify four prospects.
A. They carried four prospects in that report, yes.
Q. And two of the prospects are in the Smilno area; correct?
A. They are.

12:47
Q. And one of those would equate to the well that Discovery was planning to drill?
A. Probably, yes.
Q. And the other, I think, equates to Mr Atkinson's BM04 well?
A. I don't know. I haven't compared those.
Q. I'm going to put it to you that that's what they equate to.
Both of those, the Smilno well, the Discovery Smilno well, which is Mr Atkinson's BM01, and Mr Atkinson's BM04, are wells that, again, are two of the three that you have discounted as not being prospects?
A. Correct.
Q. And so here we have a second independent report, which has identified that those would be prospects that you disagree with?
A. I do, but when you -- as I say, if you read the whole of that report, they do make comment about the level of data that they have available. But yes, they are carried in that document.
Q. So looking at the geological chance of success, and the table, and it's the right-hand column in this table, where you've set out the figures from the RPS report.
A. I have.
Q. You say that based on this, the range calculated by RPS

12:49
is between 6% and 12% with an average of 9%?
A. I do.
Q. And you say that that supports your calculation of 7.5%, compared to Mr Atkinson's 20.6%?
A. Yes. I view that as being more comparable with my analysis than Mr Atkinson's, yes.
Q. Just as a first point, your calculation of the GCOS is a calculation of the GCOS from just the three gas prospects that you have assessed, isn't it?
A. Sorry, my calc --
Q. Your own GCOS calculation of 7.5% comes from your assessment of the three gas prospects out of the five that have been assessed; correct?
A. Oh, what, you mean because I took two out?
Q. Yes.
A. Yes.
Q. And so it's not a calculation of the GCOS -- the average GCOS for all gas prospects in the licence areas; only those that you have looked at.
A. Yes. I've only calculated a GCOS for the leads that we looked at in detail.
Q. And so your 7.5% GCOS is also not a calculation of the GCOS of these particular Smilno prospects that RPS has looked at here, let alone the Zborov ones, as you discounted both of those Smilno ones?

12:50
A. Well, they're different GCOS calculations for different prospects, effectively, or different leads, the way they've been evaluated. They may be in the same geographic location. But, yes, I calculated the GCOS for the three that I evaluated. RPS have calculated chance of success for the four that they carried.
Q. Can we please turn to CDL-008, which is the RPS report. And if we can go, please -- you will see there it's May 2012, just to confirm the May date.
If we can go, please, to PDF page 91. And in the table at the bottom, you will see this is the summary in that report for the Zborov A prospect; correct?
A. It is, yes.
Q. And it shows that within that prospect there are three individual reservoirs for which they have assigned separate geological chance of success. In this they say GPOS rather than GCOS, but it's the same thing?
A. It is, yes.
Q. And those three numbers, the 8, 6, 6, are the ones that you have reproduced in your table?
A. Correct.
Q. But what this table also then shows is that the total GCOS for the prospect is 16%; do you see that?
A. I see the number of 16. I disagree with your analysis that that's the GCOS for the total prospect.

12:52
Q. Okay. I'll come back to that in a moment.
So what they are saying this is here, this 16, is the chance that at least one of the three reservoirs in that prospect will be successful; do you agree with that?
A. Yes, that's an analysis, on the basis that you have one success.
Q. Yes. And it's higher because the chance of hitting one out of those three is higher than hitting each one of them individually?
A. Yes, that's what the analysis is designed to show, yes.
Q. And if we turn over the page, at the table on the next page at the top, we see the same for the Zborov B prospect, we see the title there; yes?
A. Yes.
Q. And this one has five individual reservoirs, and then they've allocated a total of at least one success of 30%.
A. Yes.
Q. And so again I put it to you that the 30% is the chance of success that they've identified for the Zborov B prospect.
A. Well, these two prospects have got stacked different reservoirs in them. So there's separate reservoirs within the same prospect that they've put here. So each

12:54
individual opportunity has a GCOS calculated. They've then done a statistical analysis to look at the impact of drilling and finding one of those five, or at least one of those five reservoirs.
Q. Yes, so this is the chance of success of finding at least something, at least one of those reservoirs, in this prospect?
A. It is.
Q. So for the purpose of the prospect as a whole, this is their chance of success of finding at least one of those reservoirs?
A. That's the way they've assessed it, yes.
Q. And if you scroll down to the second table, you can see that they summarise this by the four prospects, Smilno A, Smilno B, Zborov A, Zborov B, and the figures they use -- Smilno is not challenged here, but the figures they use are the 16% and 30% figures; do you see that?
A. I do.
Q. And yet you have not referenced those figures at all in your table, have you?
A. I haven't, because there's a reason behind that, which is that these, as I say, they're looking at -- what I've put here is the chance of success for each individual reservoir within the prospect. And that is a more

12:55

direct comparison with what I'm looking at in assessing the GCOS for the leads identified.

The leads identified by Mr Atkinson are not a series of separate stacked reservoir. Each lead has one target.

Q. But Mr Atkinson explained yesterday in his testimony that they deliberately did not try to identify individual reservoirs, but that doesn't mean that they are not -- that they may not be stacked reservoirs. They simply chose a more simple approach. Do you recall him saying that?

A. These are -- I don't recall him saying that, but these are individual separate targets within one prospect in the RPS.

Q. But RPS itself has determined, as you can see from this second table, that the chance of success for the prospect as a whole is 16% and 30%, yet you make no reference to those in your report at all; isn't that misleading?

A. Not as far as I'm concerned, no. Because, as I say, I've quoted the GCOS that RPS put forward for the individual target within the prospect.

Q. Would you agree with me -- I appreciate you don't have a calculator with you, but would you agree with me that to work out the average of the GCOS with the prospects

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12:57

as set out in this table, you would add the four numbers and divide by 4: 12 plus 12 plus 16 plus 30, and divide by 4?

A. If you were taking those numbers.

Q. Yes?

A. You would. But as I've said, I haven't taken those numbers.

Q. And that average -- you may be mathematically minded to do it, but I'll put it to you that that average comes out at 17.5%. That is in fact much closer to Mr Atkinson's GCOS of 20.6% than to your 7.5%, isn't it?

A. If you do that analysis, you get that comparison. But, as I say, I don't agree with that analysis.

Q. In respect of oil, the other document that you seek to rely on is a draft 51-101 report, which is a Canadian regulatory filing that governs the disclosure of oil and gas activities for security purposes; correct?

A. Yes.

Q. And you deal with this in your second report at paragraph 32, which is on PDF page 14, and hard copy page 17. And following; it goes on from there.

And the draft document was prepared in 2014; correct? I think you say that somewhere. I can pull it up. It's the footnote at the end.

A. Yes, December '14.

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12:58

Q. You say at paragraph 33 on the next page that:

"The scope of the evaluation was ... '... to determine the prospective resources in the two committed wells in the Ol'ka and Stromy areas."

So they were only looking at those two wells and did not undertake an evaluation of the rest of the licence areas, did they?

A. They looked at the area around those two wells.

Q. But not the entirety of the licence areas?

A. No.

Q. And you also note in that paragraph that although they had 12 seismic lines available, they only interpreted five of them.

A. I think that was a reference they made, yes.

Q. Would you agree that that's a very limited basis on which to perform an analysis?

A. Well, it depends what you mean by the analysis. If those five lines cover the area that they were charged with reviewing, then fine. If the rest of the lines were outside the area they were charged with looking at, you know.

Q. Well, you yourself seemed to note that they had 12 seismic lines available to them.

A. Well, I think that's stated in the report.

Q. And in the report it doesn't appear that they considered

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12:59

the surface geology, does it?

A. I don't remember.

Q. But would you agree that this is a very preliminary assessment of a limited area of the licence areas?

A. Well, I don't know about the word "preliminary". It's a specific focus that they have been charged with, yes.

Q. And they did not specifically undertake assessment of the geological chance of success or chance of development because -- and you set this out at paragraph 35 -- they were not yet considered to be prospects; correct?

A. Yes.

Q. But all this means at the time is that they personally did not consider that there was sufficient data that those who might want to drill here would consider them prospects.

A. Sorry?

Q. All that means is that they do not consider them to have had sufficient data that would enable them to consider that someone who wanted to drill there would consider it a prospect?

A. Sorry, I'm still not quite sure where you're ... I mean, they simply state that they don't have the level to -- in their opinion, to calculate a chance of success.

(Pause).

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13:01
MR NEWING: Sorry, one moment. (Pause).
No further questions.
THE PRESIDENT: Thank you.
Any questions in re-direct?
MR PILAWA: I have no questions on re-direct, Madam President.
THE PRESIDENT: Do my colleagues have questions for Mr Longman?
(1.02 pm)

Questions from THE TRIBUNAL

MR DRYMER: Doctor, thank you for your evidence. As with your friends, Messrs Atkinson, Moy and Howard, I believe I understand the details of your analysis, but I sometimes like to zoom out and ask a more conceptual question, to be sure I don't miss the forest for the trees.
Could you elaborate briefly on the notion that prospectivity is in part a function of a developer's willingness to drill? Did I understand that aspect of your evidence, of your testimony earlier correctly? Or no?
A. That's an interesting question.
MR DRYMER: Well, I'm not trying to put words in your mouth.
A. No, no. In the ideal world, I think you want to have, obviously, as much comfort as you can get on

13:03
understanding what you're targeting. But you've got to work with the information that is available, and I suppose it comes down to a perception of risk in the end as to what individual companies are going to see as being an appropriate opportunity to follow.
MR DRYMER: That sounds, in a very, very gross sense, subjective. Is that the case? And doesn't that cut both ways?
A. Yes, exploration is a risk and reward game. So there's always going to be an element of objectivity, to the extent that you can have that, and subjectivity, to the extent that you're going to make a decision at some stage.
MR DRYMER: But even if two individuals, companies, whatever it may be, agree on all of the objective measurable and verifiable data, so to speak, there still might be a difference in their perception of risk and reward?
A. Absolutely. Absolutely.
MR DRYMER: Yes, and -- well, I guess it's not an overly controversial proposition, then, that whether a site is called prospective or not may come down to simply the willingness of the developer to take the risk or not?
A. Yes.
MR DRYMER: Right. Okay. I thought -- I just wanted to be sure I understood that.

13:05
Does that -- you obviously assume that or take that into account in your work. Phrasing it this way, does it change in any way your conclusions here, in terms of prospectivity?
A. No, because I think regardless of whether the developer or the explorer is willing to take the risk, you've still got to have a view of what might be there.
MR DRYMER: Yes.
A. So what the individual company might do I don't think changes your view of what you would assess might be there in the first place.
MR DRYMER: I understand. I understand. Alright, that's good. Thank you very much.
THE PRESIDENT: I have no further questions, Dr Longman. So that concludes your examination.
DR LONGMAN: Thank you.
THE PRESIDENT: Thank you very much.
So this is a good time for a lunch break. Should we resume at 2.15?
Let me ask, how much time do you envisage for the next cross?
MR NEWING: Probably a similar amount of time. I'm not entirely sure how much time I took then. But probably similar, no more than an hour and a half, I would imagine.

13:07
THE PRESIDENT: An hour and a half.
MR NEWING: In fact, I was a lot less than I thought I was, but certainly no more than an hour and a half.
THE PRESIDENT: I think then we have plenty of time this afternoon. We need to have ...
So we'll resume at 2.15.
MR NEWING: Thank you.
MR PILAWA: See you then.
(1.07 pm)

(Adjourned until 2.15 pm)

(2.18 pm)
THE PRESIDENT: Fine, we're ready to start.
You are both ready? Good.

DR TIAGO DUARTE-SILVA (called)

MR RICHARD ACKLAM (called)

THE PRESIDENT: Sir, you are Tiago Duarte-Silva?
DR DUARTE-SILVA: That's right.
THE PRESIDENT: And you are Richard Acklam?
MR ACKLAM: That is correct.
THE PRESIDENT: You are both from Charles River Associates.
MR ACKLAM: That's correct.
THE PRESIDENT: You have submitted two expert reports, 31 March 2023 and 14 December 2023.
DR DUARTE-SILVA: Yes.
MR ACKLAM: Correct.

14:20
THE PRESIDENT: You will be heard as expert witnesses. As expert witnesses you have a duty to make statements in accordance with your sincere belief. Can you please, one after the other, read the expert declaration.
MR ACKLAM: I solemnly declare upon my honour and conscience that my statement will be in accordance with my sincere belief.
DR DUARTE-SILVA: I solemnly declare upon my honour and conscience that my statement will be in accordance with my sincere belief.
THE PRESIDENT: Before you start with the presentation, when you get questions, will one of you take the lead and either answer or delegate to the other? Have you clearly allocated portions of the reports that go to the one or the other, or how are you organised?
DR DUARTE-SILVA: The report is the joint opinion of both of us. When we get a question, what we can say is one of us will answer, not two of us will answer.
I can make that judgment, if that's okay with the Tribunal.
THE PRESIDENT: Good. The idea is simply that it is not one who starts and the other then who corrects, or whatever.
DR DUARTE-SILVA: Of course.
THE PRESIDENT: One person per question, and you will decide how to allocate.

14:21
DR DUARTE-SILVA: Yes.
THE PRESIDENT: Good. Fine. So you may start. As you know, you have 15 minutes.
DR DUARTE-SILVA: Yes, good afternoon to all members of the Tribunal.
Before we start we just need to make two very minor corrections in our second report. Specifically, footnote 53 should have cited to a different document. It should have cited to CRA-63, page 64.
THE PRESIDENT: That's your second report?
DR DUARTE-SILVA: That's right.
THE PRESIDENT: Thank you.
DR DUARTE-SILVA: Which is San Leon's 2015 annual report.
Also, footnote 103 should read 1,577,000,000 barrels. I'll repeat that. 1,577,000,000 barrels of prospective resources. Instead of the 1,414,000,000 barrels of prospective resources.
So we will now start, if that's alright?
THE PRESIDENT: Yes please.
(2.22 pm)
Presentation by DR DUARTE-SILVA and MR ACKLAM
DR DUARTE-SILVA: So at the Tribunal's instruction, we have focused our slides on the market approach and the sunk costs approach. However, because we had already prepared slides on the income approach, we have moved

14:22
them to an appendix to this slide show.
(Slide 1) So what we will talk about today is in the market approach we will show that if it is based on past transactions, you will reach a but-for fair market value below $2 million. We will also show that based on companies that were deemed comparable by the Claimant itself, that fair market value is below $1.1 million.
We will then show that the Claimant's sunk cost claim is unreliable; the lost opportunity claim is unsubstantiated, and then we will provide comments on the appropriate rate of interest from an economic standpoint.
Now I'll turn to my colleague.
MR ACKLAM: So when it first invested in the project, the Claimant granted an overriding royalty of 3.5% of revenues from the licences to San Leon. (Slide 2) That was in March 2014. San Leon then sold the ORR in January 2015 for £120,000, and that corresponds to $5.15 million for 100% of the revenues from the licences, or $1.29 million for the Claimant's share.
Now, it's necessary to move these numbers from the transaction date of January 2015 to both the ex-ante and ex-post valuation dates. To do this we used the FTSE 350 Oil & Gas stock price index, which results in but-for fair market values of $1.82 million and

14:24
$1.66 million respectively.
Now, this royalty is based on revenues only, so therefore the values are biased upwards compared to the true fair market value, which is affected by costs, taxes and other deductions which do not come into play in the royalty.
This transaction --
DR DUARTE-SILVA: We're having trouble flipping the slides, I am sorry.
MR ACKLAM: Could we go to the next slide, please (Slide 3).
This transaction is representative of market value. The seller was not compelled to sell the royalty. The stream of revenues could, for example, have been converted into financing collateralised by those revenues. It was not part of a fire sale. San Leon does not appear to have been in a "dire financial situation". It had alternative sources of funding available to it at the time of the ORR sale and it was paying its directors significant amounts over this period. And we saw some new arguments raised by Mr Howard today, and in our opinion those are invalid and contradicted by other evidence available.
Furthermore, the seller was well informed about the sale. San Leon was better positioned than almost any other buyer to know the ORR's true value, given its

historic ownership of the project. And San Leon would not have left such a significant amount of money on the table when it sold the ORR for £120,000.

Just to compare, Mr Howard's discounted cash flow model implies that these revenues were worth $61 million in undiscounted terms.

(Slide 4) There was also an attempted transaction that is consistent with the fair market value implied by this ORR transaction, and that is the agreement by Akard to provide $3.7 million of funding to the Claimant in October 2015. Now, if the Akard agreement had been for purchasing 50% of the proceeds of the Claimant's share in the licences, that would mean a fair market value of 3.7 million for the Claimant's 25% share. And, again, moving this fair market value from the transaction date to the ex-ante and ex-post valuation dates, using the same index as with the ORR, results in but-for fair market values of $5.7 million and $5.2 million respectively.

However, in fact, Akard actually purchased more than 50% of the proceeds of the Claimant's share of the licences for that $3.7 million. So initially Akard would have received 80% of the proceeds until it had been paid four times its initial investment. That would have then switched to Akard receiving 65% of the

proceeds until it had received five times its original investment, before finally reverting to a 50/50 share between Akard and the Claimant.

As a result, Akard had purchased more than 50% of the proceeds, and therefore the project is worth less than the ex-ante and ex-post fair market values indicated on this slide.

(Slide 5) So I've spoken there about value implied by historic transactions. I'll now speak a little bit about fair market value implied by comparable companies.

(Slide 6) So in the market approach we need to select firstly comparable companies, and then a metric by which to compare them. We note that the project did not have reserves at the ex-ante valuation date, only prospective resources. The Claimant itself had selected eight companies which it deemed to be comparable to Discovery; however, at the ex-ante valuation date, only ADX Energy of these eight did not have any reserves. Therefore, we use ADX Energy on an ex-ante basis to imply a valuation for the Claimant's share of the licences.

The metric we use is the ratio of enterprise value to estimated resources, and based on ADX Energy's enterprise value and expected resources at the ex-ante valuation date, each barrel of those resources is worth

0.6 cents.

(Slide 7) The result of this is that the fair market value of the Claimant's share of the licences at the ex-ante valuation date is $40,000. However, ADX Energy's enterprise value, that 8 million, includes the value of both contingent and prospective resources, because ADX Energy had both contingent and prospective at that time, whereas the project only had prospective resources.

Generally, contingent resources are valued more, or higher per barrel than prospective resources. Therefore, this value is biased high relative to the project.

We also note the calculation by Mr Howard of 36 million at the ex-ante valuation date. This uses a metric of EV per 2P reserves, despite the fact that the project did not have reserves at the ex-ante valuation date.

Furthermore, Mr Howard used a weighted average of EV per 2P ratios across the comparable companies, although he described it in his report as a notional line of best fit. The value that he calculated for this was $4.375 per barrel, and he then multiplied this by the reserves which Mr Howard considered the project to have at the ex-ante valuation date to reach the $36 million

valuation.

(Slide 8) On an ex-post perspective, we analysed the same eight companies deemed comparable by the Claimant, with two adjustments. We removed Cub Energy, which by the ex-post date had sold all of its oil and gas assets, and as with Mr Howard, we also removed JKX.

At the ex-post date all the remaining six comparable companies all had 2P reserves; therefore on an ex-post analysis we use the ratio of enterprise value to 2P reserves, as opposed to resources. And, again, using Mr Howard's approach of calculating a weighted average of EV to 2P, this results in a value for those reserves of $1.44 per barrel.

Now, the result of this, if the Claimant had reserves in the but-for, ex-post scenario, would be a valuation of $11.9 million, so that's that 1.44 per barrel, multiplied by Mr Howard's estimation of the Claimant's reserves at the ex-post date. However, according to Dr Longman, the project would have only had prospective resources at the ex-post valuation date and not reserves, and generally, petroleum evaluation engineers value undeveloped prospective resources at 5-10% of reserves.

Therefore, if a project only had prospective resources at the but-for, ex-post valuation date, that

14:31 implies a fair market value of between 0.5 and $1.1 million.

I'll now pass back to my colleague.

DR DUARTE-SILVA: Thank you.

(Slide 10) So we have seen two ways to look at the market approach on an ex-ante and ex-post basis, and if you look at the globality of them we are talking at under $2 million of but-for fair market value.

I will now talk about the sunk cost claim, which is the next slide (11).

Generally we can say that sunk costs are not a good measure of the project's fair market value, and one clear example of this is that the owner of the project before San Leon had invested $7.6 million into the project by January 2013, and then San Leon sold to the Claimant for just €153,000. So just investing capital doesn't mean necessarily that it is worth at least that capital.

In any case, let's examine what the Claimant's sunk cost claim is, and it is the sum of these three amounts: the amount paid to acquire Aurelian Oil & Gas Slovakia for €153,000; the amount paid to buy the ORR in January 2015 of £120,000; and the bulk of it, AOG's, in this case Alpine, Alpine's share of the exploration expenditures incurred on the project between 2014 and

14:33 2020.

However, when we examined the sunk cost calculation of €2.8 million in Fraser's statement 2, we find it quite unreliable.

First, the annual reports submitted in evidence are not audited, and that is acknowledged by Mr Fraser in his second statement, paragraph 52.

Also, there's no invoices attached to the annual reports. There are just some summaries, in some of them.

So these numbers are just not reliable. There's also no evidence that these claimed amounts were ever disbursed, because just being charged something by a supplier doesn't mean ever that you necessarily paid for them. There's no indication of proofs of payment or anything of that sort.

Mr Fraser also applies interest to these alleged costs, but, even if they were disbursed, their timing is still unknown, so we don't know when they were disbursed, if they were disbursed, so we don't know what's the start date for that interest.

The Claimants also make an argument about a lost opportunity claim (Slide 13) and this lost opportunity claim was shown in their Reply Memorial to be between Mr Howard's DCF model of 133 million, and 40% of that

14:34 value, 53 million.

But, until the start of this hearing we were unaware of why 40%, so we didn't respond to it. When 40% was shown, there was no explanation of why 40%. We learned that elsewhere in the Memorial, the Claimant cite to Sapphire v NIOC, and we learned on the first day of the hearing that the argument for 40% is 2 out of 5 million in claimed lost profits. 2 out of 5, that's 40%.

There's no explanation in the award of what those lost profits represent or how much they were already reduced by uncertainty. Were they as reduced by uncertainty, more reduced by uncertainty than Mr Howard's DCF model? It's impossible to know.

But we see, for example, and I'm not saying this is the right way to do it, but we see, for example, that the same award talks about receiving a net income of $46 million if everything goes as well as possible. In that case, 2 million would be 4% of 46 million. And again, just as an illustration: if you were to apply 4% to 133 million, you will get $5 million.

(Slide 14) Finally, the Claimant's argument for its rate of interest on damages lacks economic substantiation. The Claimant argues for interest at LIBOR plus 4% (Slide 15) arguing that's the approximate borrowing costs which Discovery would have had to have

14:36 pay. But this is wholly unsupported.

First, there's no reason to think that the Claimant had to borrow. There is no evidence that the Claimant borrowed any amounts. There's no evidence that such hypothetical borrowing would have been at LIBOR plus 4%. And the only Claimant's reference to a rate of LIBOR plus 4% is to another case, another award, Murphy v Ecuador II, which implies that they're requesting interest based on those parties' borrowing costs.

In contrast, the appropriate interest rate on a US dollar claim should be at most the interest rate on dollar-denominated Slovakian sovereign bonds, because the only default risk that is relevant would be the risk that Slovakia does not pay an award, and the Claimant has not been exposed to business risks of the project.

(Slide 16) As I noted at the beginning of this presentation, we also have an appendix here that can be useful to you, that shows as I noted --

THE PRESIDENT: I should note that you are just reaching the 15 minutes.

DR DUARTE-SILVA: I'll stop there.

THE PRESIDENT: These are the appendices that you have?

DR DUARTE-SILVA: That is. That is right. And all, from A to F, they are appendices just for your reference,

14:37
guidance. They talk, for example, about the timeline of the assets' ownership, that could be helpful to the Tribunal. And the terms of transactions and so on.
THE PRESIDENT: Thank you.
DR DUARTE-SILVA: Of course.
THE PRESIDENT:
Mr Newing, your turn.
(2.37 pm)
Cross-examination by MR NEWING
Q. Thank you.
Good afternoon. My name is Neil Newing and I will be asking you some questions on behalf of the Claimant.
A. (Mr Duarte-Silva) Thank you.
Q. We've heard you state, and we have read in your reports, that you claim the appropriate valuation method to use in this circumstance is a market-based approach; correct?
A. (Mr Acklam) Correct.
Q. And that's based on looking at comparable transactions or companies; yes?
A. (Mr Duarte-Silva) Yes.
Q. And do you accept that in looking to find comparable transactions involving oil and gas assets, it's important to look at the nature of the assets in question?

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14:38
A. (Mr Duarte-Silva) Of course it is, and the company did that for us, they selected eight comparable companies.
Q. So, just to pick you up on that, you have said that a few times. At no point in any of the first expert reports supplied by the Claimant did they conduct their own market-based valuation, did they?
A. (Mr Duarte-Silva) The Claimant's experts to this date have not submitted any claim for damages based on fair market value, except for the income approach and the $36 million that we discussed before. Other than that, there's no claim for damages based on fair market value.
Q. So when you say the companies were chosen by Discovery as comparable transactions for the purposes of this market-based valuation, they were not chosen by Discovery for that purpose, were they?
A. (Mr Duarte-Silva) For which purpose, I'm sorry? I don't have a transcript.
Q. For the purposes of conducting a market-based comparable transaction valuation?
A. (Mr Duarte-Silva) Those companies were selected by the Claimant to perform a valuation of the project.
Q. But not a market-based valuation, which you are using here --
A. (Mr Duarte-Silva) I believe it was a market-based valuation. They used it to calculate the fair market

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14:39
value.
Q. They used it, did they not, to work out the cost of equity capital -- the cost of capital for the purposes of the DCF model, which is a completely different approach?
A. (Mr Duarte-Silva) Well, the way to calculate the market-based approach based on comparables would be to look at comparable companies. When the company looks -- when the Claimant looks at calculating the cost of capital, they're naturally looking at comparable companies. So they were deemed comparable by the Claimant.
Q. Can I ask you to look at the second expert report of Mr Howard, please, at page 94.
A. (Mr Duarte-Silva) I don't have it in front of me.
Q. It will come up on the screen in a moment.
In fact, page 95. And you will see at paragraph 362 Mr Howard refers to the fact that in your report you have said he "does not disagree with this list of comparable companies", but says this is "misleading", because he has considered them comparable:
"... on the basis that they were small oil and gas companies, operating in Eastern Europe, and therefore would have similar WACCs to Discovery ..."
And then in the next paragraph he says:

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14:41
"At no point did I state that the companies had assets comparable to those of Discovery ..."
And explains why; do you see that?
A. (Mr Duarte-Silva) I see that's Mr Howard's opinion.
Q. And you didn't respond to this opinion at all in your second report, did you?
A. (Mr Duarte-Silva) I did, I said the company deemed them comparable.
Q. But you didn't address the points that he had made here as to why he said he did not consider them to be comparable?
A. (Mr Duarte-Silva) I did. I said the company, which had the best possible way to assess this, deemed them the comparable. That's my response.
Q. Okay, so you basically don't accept Mr Howard's position here that he did not consider them to be comparable.
A. (Mr Duarte-Silva) Could you repeat the question?
Q. You don't accept Mr Howard's position as stated in these paragraphs that he did not consider those companies to be comparable for the purpose of a market-based valuation approach?
A. (Mr Duarte-Silva) I'm trying to answer your question. I think I already answered, but I'll try again. Mr Howard has a certain opinion of what is a comparable company. I looked at what the company, the company

Page 160

14:42
itself, the Claimant, thought was comparable. I think that's a better assessment than Mr Howard's assessment. And the company did that before Mr Howard performed this analysis.
Mr Howard also commented on this in his first report, talked about this list of comparable companies, and all he said was actually, in accordance of what we do, is he grabbed those list of comparable companies and said only one of them, Cub Energy, has prospective resources. Which was a clerical mistake. It's not, as we showed in our second report, Cub Energy was not in that status. So we corrected that and we found the only one that does have prospective resources is ADX. So we basically followed his approach and corrected it for a mistake he made.
So he did consider them comparable in the first report.
Q. For a different purpose?
A. (Mr Duarte-Silva) I don't understand what you mean by "a different purpose". We were calculating fair market value, and whether you're calculating it to calculate the cost of capital, or to use multiples, they're comparable companies. It's common to use the same comparable companies to calculate the cost of capital and to calculate multiples.

14:44
Q. But you would accept that Mr Howard has a different view to you on that?
A. (Mr Duarte-Silva) Yes, Mr Howard's opinions differ from mine.
Q. Thank you. So you first look in your report, and you've discussed today, the prior transactions on the assets; correct?
A. (Mr Duarte-Silva) Yes.
Q. And there are three transactions that you look at: the San Leon ORR, Gulf Shores and Akard, although you didn't mention Gulf Shores at all today.
A. (Mr Acklam) Correct.
Q. And all of those three transactions took place in 2015; yes?
A. (Mr Acklam) Correct.
A. (Mr Duarte-Silva) Can I correct that? There's one transaction and two attempted completed transactions.
Q. All of the three items that were prior -- what you call prior transactions, took place in 2015.
A. (Mr Duarte-Silva) Again, there's one transaction in 2015 and there's two attempted transactions as well, in that year.
Q. Which -- well, I accept that the Gulf Shores was not completed, but the other two were.
A. (Mr Duarte-Silva) I don't believe the Akard agreement

14:45
was completed. I believe that Akard did not fulfil the full agreement.
Q. But the agreement itself was signed and accepted at the end of 2015, there was a default later, but the agreement was completed in essence in 2015 at that time. And the value that was placed -- that you are placing on it is based on the transaction that was agreed in 2015?
A. (Mr Duarte-Silva) I believe that's true. However, the fact that the cash flows were not exchanged hampers the ability to rely on that transaction.
Q. Is it your understanding that no money was paid under that transaction at all?
A. (Mr Acklam) No. We understand some money was paid but not the full agreement.
Q. Okay. Before looking at those -- I'm going to call them "transactions" for simplicity, but I take your point about the Gulf Shores one in particular not having been completed.
But before we look at those further, do you accept that any view of value that may have been expressed over nine years ago is potentially out of date and things may have changed in the meantime?
A. (Mr Duarte-Silva) I think your question needs a clarification whether we are talking about the actual or the but-for world. Until then I don't think I can

14:46
answer it.
Q. I'm making a general point that if you are looking at a transaction that took place nine years ago in order to ascertain a value of something today, you would need to take into account that there may have been changes or events in those nine years that would affect that valuation?
A. (Mr Duarte-Silva) Yes. We account for that using the FTSE index.
Q. And do you accept, now looking at this case, that if further analysis had taken place on the licence areas, which had resulted -- and I'm talking hypothetically -- in the prospects being better defined, this would be of interest to someone who was looking to buy this today?
A. (Mr Acklam) Sorry. Could you repeat that question?
Q. Would you accept that if any further analysis on the licence areas had taken place in the meantime, and which had resulted in the prospects being better defined, that would be of interest to someone who was looking to buy it today?
A. (Mr Acklam) Yes. Do you have -- which specific analysis are you talking about, please?
Q. I was talking hypothetically, if that had happened.
A. (Mr Acklam) Correct.
Q. Now talking specifically, do you accept that if further

14:48
processing and interpretation of seismic data had taken place, that that would potentially affect the position of someone looking to buy it today?
A. (Mr Duarte-Silva) It depends on whether such further analysis and reprocessing has led to increased value or not. We heard from Mr Longman that what happened in this property was actually not increasing value.
Q. So your position: that the work that may have been undertaken since 2015 or since each of these transactions took place added no further value is based on Dr Longman's assessment?
A. (Mr Duarte-Silva) Not just that. There was also, I think, a shrinkage of licence area, for example.
Q. Yes. But otherwise, your view as to whether the data itself, or the further analysis, sorry, that's taken place has added any value, is based on Dr Longman's assessment that it did not?
A. (Mr Acklam) I don't believe we've seen any testimony, Dr Longman or Mr Howard or anywhere else, that indicates any reprocessing added value to the asset after these transactions.
Q. Well, I think Mr Lewis' testimony suggests otherwise, but I am not going to take that there for the moment.
But would you accept that as a starting point, any view on value which was expressed nine years ago must be

14:50
treated with some caution until you have been able to ascertain whether any events or analyses that have taken place have added any additional value?
A. (Mr Duarte-Silva) I agree that anything that would add value should be considered. I don't agree that we've seen any evidence that there was such addition of value. And also, I mean we -- I think today was the first time we saw a table, or yesterday, a table with subsequent events that happened and were summarised in that table.
Q. But that table, just to confirm, you're talking about Exhibit CD-10, which sets out the source of almost all that information, is either Mr Lewis' testimony or exhibits that have been submitted by the Claimant. So that information has been available to you.
A. (Mr Duarte-Silva) I mean in the context of any purported increase in value. It's the first time I'm hearing that articulated.
Q. And are you aware that the oil price had collapsed significantly between June 2014 and early 2016?
A. (Mr Duarte-Silva) I don't have those numbers in front of me.
Q. Okay. Could we bring up C-41, please.
So this is an exhibit, I don't know if you have seen this before, which shows the oil prices from 2012 to 2022; have you seen that before?

14:51
A. (Mr Duarte-Silva) Yes.
Q. And you will see there the rather dramatic drop that occurs at the end of 2014 and into 2016?
A. (Mr Duarte-Silva) Yes.
Q. And so would you agree that this is another reason why a valuation that may have taken place in particularly early 2015 coming off such a large drop may be cautious?
A. (Mr Duarte-Silva) I don't agree with that. That is the market value at the time, and we accounted for the passage of time and oil prices using the FTSE index from the time of the transaction until the ex-ante date, until the ex-post date. So this is fully reflected in our analysis and doesn't require more caution.
Q. But would you accept that somebody who was buying or selling an asset at that date may have a different view on it, in light of the fact that the price had crashed so significantly at that time?
A. (Mr Duarte-Silva) People are allowed to have different views. This is the objective, unbiased view of all market participants. And it shows the price was low.
And I recall, I mean, at the time, there was a lot of discussion that oil prices are going to be low for a long time.
Q. So if we turn to the first transaction, the San Leon ORR, and you've explained already that this was

14:52
purchased back by Discovery in January 2015 for £120,000; yes?
A. (Mr Duarte-Silva) That's right.
Q. And you understand that it's the Claimant's position that this was not a fair market value transaction, which I will come to shortly, but assume for a moment that it was.
San Leon sold AOG to Discovery in March 2014; right?
A. (Mr Duarte-Silva) Yes.
A. (Mr Acklam) Correct.
Q. And there is no reason to believe that they would have been aware of or in possession of any additional analysis work that had taken place by AOG since they sold it, is there?
A. (Mr Acklam) I'm not aware of what San Leon would have had at their disposal when they were evaluating the ORR transaction.
Q. But for the purposes of considering what they may have thought as to value, would you agree it's likely to have been based at most on the knowledge they had when they sold AOG in March 2014?
A. (Mr Acklam) That knowledge being seven years of institutional knowledge at Aurelian Oil & Gas, yes.
Q. Yes, although San Leon had not been the owner of Aurelian for that entire period, had it?

14:54
A. (Mr Acklam) No, although Aurelian was still part of San Leon.
Q. Mr Lewis' evidence, which has not been challenged, is that only initial processing and interpretation of the seismic data had been carried out by the time that Discovery bought AOG; are you aware of that?
A. (Mr Acklam) I'm not aware of the specifics of Mr Lewis' testimony, but ...
Q. Okay. I'll bring this up. If we could look at Mr Lewis' first witness statement, please, at page 9. I'll just wait for that to come up on the screen.
If we could go to page 9, please. Yes, it's at paragraph 24. You will see Mr Lewis states there that:
"After AOG was granted the rights to explore ... 770 km of ... seismic was acquired ... between 2008 and 2011 [that's when it was owned by Aurelian], with only initial processing and interpretation of those data carried out. After Discovery acquired AOG, we completed the processing of these data, and commenced interpretation in 2014 and 2015."
Do you see that?
A. (Mr Acklam) Yes.
Q. And Mr Lewis' evidence on that has not been challenged.
So on this basis, would you accept it's likely that San Leon would not have been aware of this additional

14:55
analysis work that had been carried out?
A. (Mr Acklam) It may not have been aware of this additional analysis work. There's no indication here as to whether or not the completion of processing, as Mr Lewis states it, would have had any effect on the value of the data that was in its possession.
Q. But you simply don't know?
A. (Mr Acklam) No.
Q. So we were talking just then on the basis that the sale of the ORR was assumed to be a fair market value transaction, but you understand the Claimant's position is that it was not; yes?
A. (Mr Duarte-Silva) Yes, and that position, as we understood from Mr Howard's expert reports, was based solely on an alleged compulsion to sell based on being a fire sale. We are hearing now there might have been other things.
Q. So if we look at the second witness statement of Mr Lewis. It's at paragraph 50, which is on page 14. Paragraph 50. I'm not going to ask you to read the whole thing, I know you've read it before, but Mr Lewis explains here about San Leon's petition, and in the middle of the paragraph sets out:
"By the end of 2014, San Leon was in a dire financial position."

14:57
And you've seen that before, yes?
A. (Mr Duarte-Silva) Yes, we see that.
Q. And he goes on in paragraph 52, on the next page, to say that in respect of the price, you have the figure of £120,000, and just after that:
"This price was not based on any valuation of the royalty at the time and it did not represent its real value in the open market. It was, in a sense, a fire sale, and they had no one else they could possibly sell it to."
Do you see that?
A. (Mr Duarte-Silva) Yes.
A. (Mr Acklam) Yes.
Q. Now Mr Lewis' evidence in this regard was also not challenged in his cross-examination, were you aware of that?
A. (Mr Duarte-Silva) No.
Q. But there is no basis other than what you have set out in your second report, which I will come to in a moment, for saying that what Mr Lewis has described about the circumstances of that sale are wrong, is there?
A. (Mr Duarte-Silva) We are here to answer about our opinions, but if you are asking us what happened in this hearing, I think we're not the best people to tell you.
Q. But if the Tribunal accepts that what Mr Lewis has said

14:58
about the circumstances of that transaction is true, would you agree that this would then not be an appropriate transaction for purposes of a market-based valuation?
A. (Mr Duarte-Silva) Fair market value assessment needs to be between a willing buyer and a willing seller, under no compulsion to sell. If the Tribunal believes there was a compulsion to sell, then it's not a fair market value transaction.
Q. Thank you. And to confirm, you had no involvement in that transaction at the time, did you?
A. (Mr Duarte-Silva) I did not.
Q. And you have had no evidence about that transaction since, other than what Mr Lewis has set out in his witness statement, have you?
A. (Mr Duarte-Silva) I'm not sure what you mean by "evidence about that transaction". The evidence we have about that transaction has been listed in our expert reports.
Q. But you have not had any evidence from anyone else that was involved in that transaction at the time, other than what Mr Lewis has said, have you?
A. (Mr Duarte-Silva) No, but we have actual data and evidence that we rely on. That is also evidence about that transaction.

14:59
Q. And you do not know what San Leon's CEO, Mr Fanning, with whom the deal was negotiated and agreed at the time, believed when he entered into this transaction, do you?
A. (Mr Duarte-Silva) I believe that is it is fair to assume that Mr Fanning is a rational economic actor and would try to sell it for the highest value possible. And even if they were in a dire financial situation, which we dispute, and show they were not, then they could still try to sell it to other people. They don't have to sell it to Mr Lewis' company.
Q. But these are assumptions you are making on what you think a rational businessman would have done. You don't actually know what Mr Fanning thought at the time?
A. (Mr Duarte-Silva) I believe that Mr Fanning is rational.
Q. But you have no evidence on which to base that, other than the fact that he is a businessman?
A. (Mr Duarte-Silva) Yes. He's a rational human being and he is an executive of a company.
Q. You said just now and you say in your report as well that you don't accept that the company was in a dire financial position, and you give a number of reasons for this in your second report. One of the reasons is that directors' salaries totalled €2.8 million across 2014 and 2015; correct?

15:01
A. (Mr Duarte-Silva) Yes, we say that.
Q. Do you know who those salaries were paid to?
A. (Mr Duarte-Silva) I don't recall. But you can show me, if you want.
Q. Can we look at Exhibit C-259, please. And if we could turn to page 24 of the PDF. On the left side of the screen there you have the table of the directors' salaries. And so you have at the top Mr Fanning, who was the executive chairman of San Leon; right?
A. Yes.
Q. And then second you have Paul Sullivan, who was the managing director?
A. (Mr Duarte-Silva) Yes.
Q. And do you agree that the bulk of the salary payments were paid to those two individuals?
A. (Mr Duarte-Silva) Yes.
Q. So would you agree that these high salaries do not necessarily reflect a thriving company, but simply the heads of the business paying themselves very large sums?
A. (Mr Duarte-Silva) Are you implying that they're paying themselves too much? I'm not sure what your question is.
Q. Well, you have relied on the fact that large amounts were paid to the directors as an indication that the company was therefore financially stable.

15:02
I'm suggesting to you that all this shows is that the directors were paying -- these two individuals were paying themselves large amounts of money.
A. (Mr Duarte-Silva) Well, it's not that simple. So first, there's a number of reasons that we can go over why the company was not in a dire financial situation, instead of just focusing on this one. If --
Q. Well, we'll come to some other reasons in a moment.
A. (Mr Duarte-Silva) If you want to focus on this one, I will tell you that these numbers that you are pointing here are correct, as to my best understanding, and that I imagine that as a publicly listed company, there are checks and balances and that there is probably a compensation committee, that I actually read about, I think, a compensation committee of the board of directors that examines this and pays them the amounts that it deems fair, just like in any other publicly traded company.
Q. One of the other --
A. (Mr Duarte-Silva) So if your question is whether it's excessive, I have no reason to believe it's excessive.
MR DRYMER: I think the question is strictly whether compensation is an indication of the solvency and the financial situation of the company?
A. (Mr Duarte-Silva) It is certainly consistent with

15:03
a company that is not in dire straits. And if we're talking about £120,000 that the company was desperate to get, according to the Claimant, so much that it sold it for just £120,000, that is contrasting highly with these amounts being paid in the other points that we made, such as the €30 million that they had in loan facilities, the £30 million that they raised from investors in 2015. I mean, those -- that's a real market indication that the company was not in dire financial straits. I mean, the company raised £30 million -- £29 million five months after the transaction of the ORR. Just by investors for new shareholders.
MR NEWING: Well, let's look at some more numbers. You note in your report, which I note doesn't mention the position you just stated, but you note in your report as another indication of company solvency that it had taken out loans of €5.8 million in 2014. And my understanding is you suggest that this indicates that it was a stable enough business to be able to obtain that financing; correct?
A. (Mr Duarte-Silva) It's one of the reasons, as well as, for example, the line of credit that was, I think, €30 million. One of the reasons.
Q. Okay, but if you look at page 45 of the PDF. So this

15:05
sets out on the top left the loans and borrowings. And you will see the first was a €3.3 million loan from -- in fact it was $3.2 million, it says in the note -- from YA Global Masters SPV Limited; do you see that?
A. (Mr Duarte-Silva) Yes.
Q. And the note to this says that this had an arrangement fee of $800,000, so 25% of the loan value. That's a very steep arrangement fee, isn't it?
A. (Mr Duarte-Silva) It's what -- the arrangement fee it had.
Q. But does this not indicate that in fact it was not easy for it to obtain financing, if it had to resort to seeking loans on such steep terms?
A. (Mr Duarte-Silva) It's the first time I'm hearing this. I would have to analyse this. I don't know if it's a high arrangement fee or not.
And you have to remember, this is an oil exploration company. It's a company that, it's not surprising, that's going through, like, these arrangement fees and so on, and ...
Q. You said this is the first time you're hearing this. But is it not the case that it is your second expert report which sets out the fact that the company had €5.8 million in loans? So surely you must have looked at this in order to get those figures?

15:06
A. (Mr Duarte-Silva) Yes, we looked at this. Yes.
Q. But you simply ignored the fact that --
A. (Mr Duarte-Silva) I'm making the point that saying the arrangement fee is too high, it's the first time I'm hearing it.
Q. So you just didn't consider that point at all when you looked at this before?
THE PRESIDENT: Well, do you think it's a high fee --
A. (Mr Duarte-Silva) I have no opinion of this.
THE PRESIDENT: -- to pay 800,000 to get 3.2, a loan of 3.2?
A. (Mr Duarte-Silva) I would have to know the terms of that. I mean, it's a considerable percentage. Now, whether it's high or low depends really on the market conditions at the time.
And, I mean, it seems like a high -- I would say it is a somewhat high arrangement fee, but I'm sure it was negotiated -- not "I'm sure". We can make a default assumption that it was fairly negotiated. And so reflects the conditions of those loans and the conditions of an oil and gas exploration company.
MR NEWING: The second loan is listed as being from a company called Palomar Holdings Limited, which was San Leon's business partner in relation to some of the projects at that time. And the note says it was repaid post year end; correct?

15:07
A. (Mr Duarte-Silva) Yes.
Q. Alright. Now I would like to turn up CRA-63, which is the 2015 annual report. And if we can go to page 78, please. So we have ... You can scroll down ... (Pause)
So we can see the loans here in 2015, and so we see the same YA Global Masters loan is still there, that's not been repaid. The Palomar loan has been repaid and we have a new loan from LPL Finance, and then other; correct?
A. Yes.
Q. And you will see in the note number 3 that in relation to the new loan from LPL Finance, it says that Mr Fanning has personally guaranteed that loan; do you see that?
A. (Mr Duarte-Silva) I see that.
Q. So doesn't this again suggest that the company was not able to obtain financing without Mr Fanning himself personally guaranteeing that financing?
A. (Mr Duarte-Silva) I disagree with that. They had a line of credit of €30 million.
Q. If we could now turn --
A. (Mr Duarte-Silva) And also they raised £29 million from external shareholders.
MR DRYMER: So what, if anything, does this indicate, in your opinion? If you were asked to guarantee personally

15:09
a loan taken out by your company?
A. (Mr Duarte-Silva) It doesn't indicate much to me because it's a quite small amount really in the grand scheme of things. It doesn't show at all that the company was in a dire financial situation. I would have to know more about this loan. There's nothing here about it.
MR NEWING: So if we turn to page 83, please. And under item 29 you will see just under the table, the second paragraph it says:
"Mr Fanning had personally guaranteed the loan from Palomar Holdings ... which was repaid during the year..."
So the other loan of $3 million was also personally guaranteed by Mr Fanning; right?
A. (Mr Duarte-Silva) I believe so, from what I'm reading.
Q. So from the loans taken out, we have seen that two were personally guaranteed by Mr Fanning and the other one had a 25% arrangement fee. Correct?
A. (Mr Duarte-Silva) That's what you're telling me, that's what I read, yes. I still would need to know more about these loans. I mean often these loans are, for example, assessed, are attached to a specific asset, and so they might have specific conditions that require the personal guarantee. It's not really a reflection of the company as a whole.

15:11
Q. But it was in your second report that you put forward the fact it was able to obtain financing as a suggestion that this was an indication of the company's financial performance.
A. (Mr Duarte-Silva) And the company was able to obtain financing, as I've been telling you, through the line of credit, and through even raising almost £30 million from external shareholders. So yes, they were able to. And you're pointing me to some personal guarantees in a small loan of, I don't know, $2 million or something.
Q. Okay, let's turn to page 34 of the PDF. While that's happening, you've placed a lot of emphasis this afternoon on the fact that there was this line of credit. Why was that not raised in your second report as the main reason, or any reason, as to why you didn't believe San Leon was in a dire financial position?
A. (Mr Duarte-Silva) I would have to check that in my second report, if you would like.
Q. We can go to it in a moment, but it is not mentioned at all in there. Is there a reason why?
A. (Mr Duarte-Silva) I thought it was mentioned. I'd have to look. There's no reason why it wouldn't be mentioned.
Q. If we look at this page now on the right-hand side, if we can scroll up a little bit, there's an item called

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15:12
"Going concern risk"; do you see that? And it says:
"There are a number of assumptions underlying the group's cash flow projections which indicate the existence of a material uncertainty which may cast significant doubt on the group and the company's ability to continue as a going concern."
That's a serious statement about the risk of the company's ability to operate and pay its debts, isn't it?
A. (Mr Duarte-Silva) It's -- well, a few things. So one is, again, this is an oil and gas exploration company. They often get these going concerns risks that are -- that are issued. This is, I believe, as of -- here in 2015, right, I think that's what we're talking about?
Q. Yes.
A. (Mr Duarte-Silva) Okay. So the ORR transaction we are always talking about was in January 2015, right? So we're talking about the beginning of the year and the end of the same year.
If you look at year-end 2014, I don't believe you see any such going concern. So a month prior to the transaction, I believe you see no such going concern. So you're talking to me about something that happened a year later.
The other point is, the proof whether it's going to

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15:13
be a going concern, really, is in its market value and willingness to invest in the company and so on. And we've seen that they could raise almost £30 million from external shareholders, residual claimants. They have no claim, no collateral, nothing, and have just invested £30 million into this company, in the middle of the year. And you're telling me that at the end of the year, there was a going concern? I find that wholly irrelevant to whether, at the time of the ORR transaction, they were in dire financial straits.
And, even if they were, they could have shopped around.
Q. So your position is the fact that they may have been able to raise money in the middle of the year, but six months later or so they are facing a going concern risk, is irrelevant to the question of whether the company was in a good or bad financial position?
A. (Mr Duarte-Silva) If the company was in such dire straits, I find it hard to believe that they would have been able to raise that amount from external shareholders, a few -- five months later.
Q. I think, would you agree, however, that the fact that we're having all of these discussions -- and as you have yourself acknowledged, you would need to know more about a lot of these things, and presumably we would need to

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15:15
also know more about exactly the circumstances in which that funding was raised that you refer to -- that we simply cannot, today, know for sure what position San Leon really was in at that time?
A. (Mr Duarte-Silva) We don't need to know more. The shareholders that invested in the company are the proof. They looked at the company and they showed us that the company was worth investing in. And you're pointing out to me to that the going concern appeared a year later? I don't think that's relevant at all. You're pointing me to a loan that was personally guaranteed for $1 million or $2 million?
And this is all -- I need to remind the Tribunal, this is all in comparison to supposedly the company being so desperate for cash that they need to sell the licence for £120,000 when according to Mr Howard's DCF it would be worth at least $60 million. It just defies credulity.
Q. And to confirm, I'm not pointing you to loans or anything because those are the things that I think are relevant; I'm pointing to them because they were the things that you said were relevant in your second report.
A. (Mr Duarte-Silva) I showed them as evidence that the company was not in dire financial straits.

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15:16
Q. In asserting a value based on this -- I'm going to move on from these accounts if you had a question?
MR DRYMER: I just want to be clear. I understand your point about dire financial straits. You're treating this as though it's a binary question: dire/not dire. I think the suggestion is -- well, I don't know what counsel will tell us the suggestion is in due course, but let me put it to you that the suggestion is that the company was in less than ideal financial straits, or was facing certain financial difficulty, something a lot more nuanced than dire or not dire, and that these factors that counsel is pointing up are indications of these somewhat difficult financial straits.
Do you accept that more nuanced description, or would you still say it's not relevant to a consideration of the financial strength of the company at the time of the sale of the royalty?
A. (Mr Duarte-Silva) I believe it's more nuanced than just binary. I believe that I am putting the emphasis in that term because in that extreme condition we could think of a company selling such a valuable asset, according to the Claimant, for just £130,000. That's why I'm putting the emphasis there, because only in that situation could we start to think of that.
MR DRYMER: That's the point. Only in what you -- in a dire

15:18
financial circumstance could you conceive of a fire sale of the magnitude that is being suggested; is that accurate?
A. (Mr Duarte-Silva) That's right.
MR DRYMER: Very good.
A. (Mr Duarte-Silva) and there's evidence against those dire financial straits -- I apologise for repeating that term.
MR DRYMER: No, don't apologise.
A. (Mr Duarte-Silva) I keep talking about, we don't need to be assessing every point here --
MR DRYMER: I understand.
A. (Mr Duarte-Silva) -- because shareholders a few months later just invested that money. And at the month prior, at the end of 2014, there's no going concern opinion.
MR DRYMER: Very good. Thank you.
MR NEWING: At the time of the San Leon ORR sale, Discovery had a 50% share in the licence areas; correct?
A. (Mr Acklam) Correct.
Q. But for the valuation you've taken a 25% share on the basis, as I understand it from your second report, that in the but-for scenario, Discovery would have only had the 25% share; correct?
A. (Mr Acklam) That's correct, yes. Based on the Claimant's experts' instructions that in the but-for

15:19
scenario the Claimant would have owned 25%.
Q. Yes, and that's on the basis that a transaction such as Gulf Shores or Akard or something equivalent would have resulted in a 25% share to Discovery?
A. (Mr Acklam) I believe the wording was that some investment would have been available and the Claimant's share would have been 25%.
Q. But at the time of the ORR sale it's accepted that that hadn't yet happened. They still had a 50% share.
A. (Mr Acklam) At the time of the ORR sale the Claimant owned 50%. But our valuation is not at the date of the ORR sale. The relevant valuation dates for our analysis are at the ex-ante valuation date in June 2018, and at the ex-post valuation date, which our latest ex-post valuation date is October 2023. On both of those dates in the but-for situation the Claimant only owns 25%.
Q. And so if you are assessing value based on that 25% share on those two dates, would it not be more appropriate to use a transaction that took place after, or at least resulted in Discovery reducing its interests in that way, rather than one prior to it?
A. (Mr Acklam) I don't believe the adjustment from 50% to 25% is controversial. So I don't believe it makes a difference, all else being equal.
Q. In respect of the other two transactions, Gulf Shores

15:20
and Akard, these took place in March and October 2015; right?
A. (Mr Acklam) Correct. The attempted transactions.
Q. Well, the attempted Gulf Shores transaction and the completion of the agreement with Akard in October 2015 took place in March and then October 2015.
A. (Mr Acklam) I'm not fully up to date on the legal position of the Akard agreement. But from what I recollect from the evidence, there was actually no agreement that was ever signed between Akard and Discovery.
Q. Well, that's actually incorrect. I can take you to it if you need to, but I don't think -- it's not been something that I think is challenged. There is an agreement which has been signed and is on the record.
A. (Mr Acklam) From memory there was an initial agreement which was intended to be translated into a full final agreement, which never actually occurred.
Q. That is correct. That is correct. But there was an initial investment agreement. And, again, both of those took place in 2015, so some nine years or so ago. Or --
A. (Mr Acklam) Yes, or three years prior to the ex-ante valuation date.
Q. And, again, if the analyses that had taken place after

15:22
that date have added value, which I appreciate you do not accept, based on Dr Longman's assessment, it is likely that if those had added value, that those transactions would no longer be appropriate; is that correct?
A. (Mr Acklam) I don't think that's correct, no. I don't think "no longer appropriate" is a correct analysis for that.
Q. So if the analyses that took place after those transactions added value to the licence areas, you consider it would still be appropriate to use the transactions before that date which had a lower value?
A. (Mr Acklam) The transactions before that date could potentially still indicate a fair market value after that date, if there was any evidence or quantification as to whether or not any value had been added.
So it would be possible to adjust those transactions if it were the case that any value had been added by work done.
Q. Could we please turn to Exhibit C-247. This is a Macquarie Equities Research briefing paper on Aurelian published in April 2010; do you see that?
A. (Mr Duarte-Silva) Yes.
Q. If we turn to page 2, at figure 1 there is a breakdown of the price per share attributable to different assets;

15:23
do you see that?
A. (Mr Duarte-Silva) I do.
Q. And you will see that 19p per share has been attributed to the Smilno prospect; yes? I know it's quite small, but...
A. (Mr Duarte-Silva) It's called exploration upside, 19 pennies.
Q. 19 pence?
A. (Mr Duarte-Silva) Yes.
Q. You will also see on the left-hand side if we scroll up a little bit that there were at that time 339.5 million shares issued; do you see that?
A. (Mr Duarte-Silva) I do.
Q. Would you agree, therefore, that this could be used to imply a potential valuation of the Smilno prospect at that time, by multiplying the 19p per shares by the number of shares?
A. (Mr Duarte-Silva) No, of course not. Of course not. This is -- I mean, just look at the result on the right-hand side. 156, right?
Q. Yes.
A. (Mr Duarte-Silva) Okay. How does that compare to the price up there, 44 pence? On the left you have the fair market value of this company, up there, 44 pence. On the right, down there, you have what this analyst quite

15:25
optimistically thinks this is always worth, and the market is telling him: you're wrong, you're dead wrong.
Q. But isn't this, as you say, an estimate of what the person who is looking at this thinks this would be worth at the time?
A. (Mr Duarte-Silva) Yes. This person is wrong. The market is telling them: you're wrong.
Q. But you make no reference to this valuation in your report, do you?
A. (Mr Duarte-Silva) To which valuation?
Q. Or, rather, to this briefing profile?
A. (Mr Duarte-Silva) I didn't think it was relevant at all. I don't see how this would be relevant to our opinion.
Q. If we turn now to look at the alternative valuations based on what you've described as comparable companies, you've conducted this on an ex-ante basis using your ex-ante date of 7 June 2018, and an ex-post basis of the date of the award, although, as you mentioned in your second report, at the moment that is 31 October 2023; yes?
So if we could turn up your first report, please, at paragraph 64. That's on page 20. (Pause)
You say here that you considered eight potential companies for your valuations, yes?
A. (Mr Duarte-Silva) Yes.

15:26
Q. And then you proceed to consider the ex-ante approach and then two pages over, page 22, you have a graph which sets out the position for seven of those companies; correct?
A. (Mr Acklam) Correct.
Q. But you don't use any of those companies on the ex-ante basis, on the basis that you have assumed that as at 7 June 2018, which is your ex-ante date, AOG would not have had any reserves; correct?
A. (Mr Acklam) That's not our assumption. That's Dr Longman's assumption that as of the ex-ante dates the project would only have prospective resources. I believe that's also the opinion of Dr Moy and Mr Howard.
Q. Well, I'll come to that. The ex-ante date that we're talking about here is 7 June 2018, which is one you've been instructed to use, or chosen? I'm not sure.
A. (Mr Acklam) We were instructed to use that date.
Q. But it's not a date that the Claimant has used, is it?
A. (Mr Acklam) I'm not aware of whether or not the Claimant uses that date.
Q. And you understand that the but-for scenario in which the Claimant's experts have prepared their analysis is that drilling would have commenced by 1 January 2017?
A. (Mr Acklam) Yes.

15:27
Q. And so you understand that in the but-for scenario, drilling would have been taking place for 18 months by the time of reaching your ex-ante date of 7 June 2018?
A. (Mr Acklam) And based on Dr Longman's testimony the project would have prospective resources at that date.
Q. Yes. I think the position you've stated in terms of what Mr Howard and Dr Moy have said is that at that date when it actually happened, because no drilling had taken place, there were prospective resources. But in the but-for scenario, their position is that drilling would have taken place and a discovery would have been made; do you understand that?
A. (Mr Acklam) I don't remember the exact quotation, but I believe there was somewhere in Mr Howard's report where he said it would be absurd to assume that there would be anything other than prospective resources on an ex-ante basis.
Q. But that's on the basis of his ex-ante, which was before the but-for scenario. He's not using your date of 7 June 2018, is he?
A. (Mr Acklam) I'm not aware of what ex-ante date Mr Howard is using.
Q. But if that was in his first expert report, that was prior to you having set out your date of 7 June 2018?
A. (Mr Acklam) Yes -- well, potentially, although I don't

15:29
think I've actually seen the ex-ante date which Mr Howard is using to make that assumption.
Q. So, in fact, when you're making a comparison and saying you believe Mr Howard has said that there would only be prospective resources on an ex-ante basis, you're making an assumption that that is the same thing as your date, but you in fact don't know?
A. (Mr Acklam) Again, Mr Howard uses the terminology on an ex-ante basis. I don't know the ex-ante date that he's using in his analysis.
Q. But you accept that in the but-for scenario, by the time of your ex-ante date, drilling would have been taking place for at least 18 months?
A. (Mr Acklam) And the project would still have prospective resources, yes.
Q. Well, that's Dr Longman's assessment. Yes?
A. (Mr Acklam) Yes. Correct. Yes.
Q. And so on that basis you have compared AOG with only one company at that date, ADX Energy.
A. (Mr Acklam) That's correct, yes. All the other companies in the Claimant's list of comparable companies had 2P reserves by that date.
Q. And you maintain your reliance on that one company only in your second report; right?
A. (Mr Acklam) That's correct.

15:30
Q. And so in using just one company in this way, would you agree that it's even more important to ensure that the assets themselves are actually comparable?
A. (Mr Duarte-Silva) They were deemed comparable by the company itself.
Q. Well, the group of companies that you're referring to may have been deemed comparable for a particular purpose, but if we're looking here at comparing one company only, surely it is important to ensure that the assets of that company are actually comparable, isn't it?
A. (Mr Duarte-Silva) The company defined each of those eight companies as comparable, and then we used the one that had prospective resources in the reserves. Just like Mr Howard defended should be done. Except he made a mistake with Cub Energy, instead of ADX.
Q. And you've calculated a dollar per boe value based on the unrisked volumes that ADX had of prospective resources; correct?
A. (Mr Acklam) We've calculated a dollar per barrel value on the prospective and contingent resources.
Q. But the prospective resources would have been unrisked; correct?
A. (Mr Acklam) I can't recall off the top of my head, I am afraid.

15:31
Q. So is it the case that you don't know what you have used to perform your calculation?
A. (Mr Acklam) I can't recall this. In the weeds of the exhibits, I am afraid.
Q. Would you agree that the calculation should be performed on risked volumes?
A. (Mr Acklam) The calculation should be performed on the basis of prospective or, in the case of ADX, contingent resources, on the resources that it has compared to the resources of the project.
Q. But with unrisked volumes, you simply do not know how much of that will be recoverable, do you, as you don't know what the geological chance of success is, do you, or anything like that?
A. (Mr Acklam) I think it's correct to say with prospective resources full stop, you don't know how much of that will be recoverable.
Q. And that is why all of the other calculations are done on the basis of risked volumes which have taken into account the geological chance of success, isn't it?
A. (Mr Acklam) Sorry, what do you mean by "all the other calculations"?
Q. The other companies. The other seven companies which have reserves and that you have not used, those are based on risked volumes?

15:33
A. (Mr Acklam) They're based on reserves.
Q. Which have obviously taken into account, because they've been found, the geological chance of success?
A. (Mr Duarte-Silva) You keep raising whether they were risked or not risked, and the very fact that there isn't an explicit source that shows they're risked or unrisked should tell you about the speculative value of prospective resources. It should tell you that -- and that's also consistent with the fact that, as mentioned earlier, the Australian Stock Exchange doesn't even allow financial forecast if it's of prospective resources. Risked, unrisked, it doesn't really matter. They don't even allow it.
Q. But you would agree that if they are unrisked, and the calculations you've performed are on unrisked volumes, then the appropriate calculation to make using the Claimant's volumes would be also against its unrisked volumes?
A. (Mr Duarte-Silva) Look, it has to be apples to apples, right? So even if we did relative to unrisked, or risked, we get to a result shown in our slide 7 of $40,000.
Q. But that's on the basis that you have taken the Claimant's risked volumes?
A. (Mr Duarte-Silva) Even if we are wrong by ten times,

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15:34
you're talking about $400,000. Even if it's ten times higher.
Q. But that is on the assumption that ADX has comparable assets?
A. (Mr Duarte-Silva) It's not an assumption. The company defined it as comparable. Mr Howard looked at the companies and selected one of them based, "I'll find the one that has prospective resources", which is what we did after correction -- after performing that correction.
Q. But Mr Howard's opinion is that ADX does not have comparable assets; do you agree? Do you accept that's his opinion?
A. (Mr Duarte-Silva) It has contingent and prospective resources. So we're comparing prospective to prospective. Further, ADX also has contingent. So that's an even higher value.
And again, even if we're wrong by a factor of 10, you are talking about $400,000 in value.
Q. Well, there are two factors of 10 we're talking about here. There's a factor of 10 of risked and unrisked, and there's a factor of 10 you refer to in your second report of if the prospective resources are of a nature which makes them more valuable because they are of a different asset and easier to extract. So in fact, in

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15:35
that scenario, you would be up to 4 million already?
A. (Mr Duarte-Silva) I don't think so. I would dispute that. And as an audit we have introduced this. And the only -- as I noted at the end of our presentation, Mr Howard had plenty of opportunity to calculate the valuation based on market approach, and the only thing we've heard of is $36 million based on ex-ante multiple and ex-post reserves. So there was ample chance to that, and so we're here to comment on the claims being made, but there's no claims being made, and now we're just explaining what we did. But there's nothing for us to rebut here.
Q. In your presentation earlier, you mentioned that in the ex-post scenario, the valuation that you had carried out would come initially to 11.1 million; correct? I think that was the number.
A. (Mr Acklam) Could you remind me of the slide, please?
Q. I am afraid your slides didn't have numbers, so I can't remember.
A. (Mr Duarte-Silva) They were on the left-side.
A. (Mr Acklam) On the bottom right.
Q. I didn't see them, sorry.
MR DRYMER: I think it might be 9. Maybe I'm wrong.
MR NEWING: Correct. Yes, it was too small on my screen. Number 9, yes.

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15:36
A. (Mr Acklam) Was it the 11.9 million?
Q. It was the 11.9 million, sorry, 11.9 million. It was the 1.1 million that confused me.
And then what you have done is you've discounted that down to 5-10% of that value; correct?
A. (Mr Acklam) Correct.
Q. And this is on the basis again that in your view, based on Dr Longman's assessment, they would still be prospective resources and so should be discounted to take that into account; correct?
A. (Mr Acklam) Because those prospective resources are worth less than reserves, correct.
Q. Would you agree, however, that if the Tribunal has found that in the but-for scenario a discovery has been made, such an adjustment would not be appropriate?
A. (Mr Acklam) If there are reserves in the but-for scenario then the $1.44 per barrel is based on a ratio of enterprise value to reserves. So yes, in that case no adjustment would be required.
Q. But isn't it the case that an adjustment is not appropriate anyway if the valuation is being carried out on risked volumes where a discount has already been applied to them by way of the geological chance of success?
A. (Mr Acklam) They are still prospective resources in that

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15:38 scenario, so they're still worth less than reserves.
Q. But if they've already been discounted to take into account the geological chance of success, aren't you applying a double discount to then also discount them further, because they've already been taken into account that they are prospective resources?
A. (Mr Duarte-Silva) That requires examining the discount that we're applying to determine if that discount is double-counting or not. What we have seen is we have applied a 5-10% discount, based on the SPE paper that we cite.
Q. But that's a 5-10% discount that you've applied after the geological chance of success has already been applied. So you are applying two levels of discount here. You haven't applied the first, that's been applied to the volumes that are used, but you are then applying a second discount?
A. (Mr Duarte-Silva) That's your view.
Q. Can we turn, please, to the second report of Mr Howard. On page 26.
So here Mr Howard has shown in his table that in fact, taking into account the GCOS that has already been applied in the P50 scenario is the equivalent of having applied a 9% RAF factor, i.e. a discount of over 90%; do you see that? It says at the bottom:

15:39 "RAF equivalent (P50 Scenario)".
A. (Mr Acklam) Sorry, could you expand a little bit on what we're looking at here?
Q. So here in his second report, Mr Howard sought to explain why a further discount was not necessary, and showed that in fact by already having taken into account the geological chance of success, this was the equivalent to having already applied a reserve adjustment factor of 9.19%.
A. (Mr Acklam) There's a lot of numbers here and I'm not following where they match up or ... or exactly the calculation.
Q. So you did not review this for the purposes of your second report?
A. (Mr Duarte-Silva) I just don't recall these numbers right now, but ...
Q. But you didn't comment on this at all in your second report?
A. (Mr Duarte-Silva) On these particular numbers, no. We applied a 5-10% discount based on the SPE paper. And also the fact that even that is conservatively high.
Q. So even though Mr Howard had an entire section in his report challenging the use of that factor and explaining why it was not relevant, you did not review or comment on that to explain why you disagreed with him?

15:41 A. (Mr Duarte-Silva) We didn't have to. We have the SPE paper instead of Mr Howard's calculations. And like I said, even that is conservatively high if you consider that the Australian Stock Exchange doesn't allow even forecasting based on it.
We presented to Mr Howard an academic paper showing that they're not even factored in market valuations of oil companies. You can even look on an ex-ante basis. Look at the ADX multiple, just on contingent and prospective, and compare it to the multiple on the other companies that have reserves. It's less than 5%.
So these things are highly uncertain. There's very little value. We're applying a 5-10% discount. That's not really pessimistic.
Q. Well, I put it to you that that is a double discount and is inappropriate. I understand you don't accept that, but I'll put it to you that that's what you've done.
I'd like to look now, finally, at the Claimant's alternative claim for sunk costs. And paragraph 70 of your second expert report, please, this is on page 23.
So you state here that:
"... the evidence used to substantiate this claim... is unreliable."
As you mentioned in your presentation earlier.
And you state:

15:43 "... we understand that the annual reports submitted in evidence are not audited, but simply sent to the Ministry of Environment."
Do you see that?
A. (Mr Duarte-Silva) I do.
Q. So this is your reference to the reports which AOG sent to the Ministry of Environment, setting out what it had incurred. And your basis that it's unreliable is that those reports were unaudited; correct?
A. (Mr Duarte-Silva) They were unaudited.
Q. You don't make any reference in this paragraph to AOG's own financial statements, do you?
A. (Mr Duarte-Silva) No.
Q. Mr Fraser's evidence is that the amounts in the Ministry reports correspond with those financial statements; do you recall that?
A. (Mr Duarte-Silva) I recall that, yes.
Q. Did you review those financial statements?
A. (Mr Duarte-Silva) I looked through them.
Q. Mr Fraser states that those were prepared by Baker Tilly initially and Grant Thornton latterly. They are both reputable accounting companies, aren't they?
A. (Mr Duarte-Silva) I'm not going to comment on whether they're reputable, but I will tell you that Mr Fraser said they are unaudited.

15:44
Q. But you would have no reason to believe that those financial statements, which had been prepared by external accountants, of those firms would be incorrect, do you?
A. (Mr Duarte-Silva) Without auditing, there's no guarantee that those companies did anything but organise the numbers that they received and put them into a financial statement. They just put the numbers together. There's no signing at the end: this is audited. Meaning there's no verification these numbers are accurate.
MR NEWING: No further questions. Thank you.
MR DRYMER: Is there any indication that they're inaccurate?
A. (Mr Duarte-Silva) No. They just received the numbers and put them together.
MR DRYMER: And when you say that the calculation is unreliable, remind me, please, what the standard for reliability is that you apply, that you use?
A. (Mr Duarte-Silva) For sunk costs to have been incurred there should have been disbursement of amounts. There's no indication they were disbursed.
I would expect, if the evidence is going to be based on financial statements, for those financial statements to be audited. They are not audited. Meaning they're not verified for accuracy.
MR DRYMER: You know this as well as anybody; this is the

15:45
sort of argument that occurs regularly in this sort of context.
Is there a standard for reliability or unreliability? I don't know the answer to that question. I'm asking you as an expert.
A. (Mr Duarte-Silva) In almost all cases where in arbitrations a claimant makes a claim for costs incurred, we expect to see proofs of payment of those. And I've worked in numerous arbitrations where actually the bulk of the work was checking the proofs of payment. And there is no proof of payment here.
MR DRYMER: So is it that one is unable to determine the reliability, or that it is unreliable? Maybe that's a lawyer's question, not a financial expert's question, but I put it to you anyways, as somebody who has been in this situation many times before.
A. (Mr Duarte-Silva) I'm going to hesitate now to use the word "reliable" based on that question. But I would say I look at these numbers and I don't know if they're true or not.
MR DRYMER: Very good.
A. (Mr Duarte-Silva) And I don't know, if for example they were invoiced for a thousand dollars, did they actually pay those thousand dollars, or are they just trying to get those thousands now.

15:46
MR DRYMER: There's just no back-up?
A. (Mr Duarte-Silva) There's no back-up, yes.
MR DRYMER: Thank you.
MR NEWING: I have no further questions, thank you.
(3.47 pm)
Re-direct examination by MR PILAWA
Q. I just have one question on re-direct, and this is to Mr Acklam.
You were being asked questions about a part of Mr Howard's second expert report about prospective resources and ex-ante; do you remember that?
A. (Mr Acklam) I do, yes.
Q. Okay. Can we pull up Mr Howard's second expert report, and if we can go to page 16, paragraph 62.
Mr Acklam, is paragraph 62 what you were trying to recall?
A. (Mr Acklam) Yes, it is.
MR PILAWA: Thank you.
No further questions from me, Madam President.
THE PRESIDENT: Thank you.
(3.48 pm)
Questions from THE TRIBUNAL
THE PRESIDENT: I have questions, which in large part have been asked, about the sunk cost reliability. There's three categories of sunk costs claimed, right: there is

15:48
the amount paid to acquire AOG. That is not disputed. Or is that disputed?
A. (Mr Duarte-Silva) We are not disputing that.
THE PRESIDENT: No. Then the second one is the payment for the royalty in January 2015. That is not disputed either, or is it?
A. (Mr Duarte-Silva) We're not disputing it.
THE PRESIDENT: So what you have said about the lack of reliability is about the third category. That is the expenditures. Do I understand this correctly?
A. (Mr Duarte-Silva) Yes, that is correct. And slide 11 perhaps explains that more clearly than the report itself. It says:
"The sunk cost calculation of 2.8 million ... is unreliable."
So it's that third category.
THE PRESIDENT: Good. And I think you've explained why you consider it unreliable, so I will not belabour that.
So that leads us, then, to the end of your examination, gentlemen. Thank you.
DR DUARTE-SILVA: Thank you.
MR ACKLAM: Thank you.
THE PRESIDENT: So today we were extremely -- you were extremely efficient, I would say. We could barely follow the pace.

15:50 No, so I think we need to briefly discuss now what we do tomorrow. There's a few points that the Tribunal would like, indications that the Tribunal would like to give you.

First, there's a question and it's a simple question for the Respondent, but it's a clarification: your request for relief, paragraph 737 of the Rejoinder, says simply dismiss the claims. Do you mean dismiss the claims as a matter of merit? I understand that you also seek a declaration that there is no jurisdiction. It's just to have clarity on what the requests are.

MR ANWAY: Is that a question that you would like us to put on the agenda for tomorrow?

THE PRESIDENT: You could say "Yes" now, if that's right. Or if it requires an explanation, then you will give the explanation tomorrow.

MR ANWAY: To be clear, we request dismissal of the claim on jurisdictional grounds. We also request that the claim be denied on the merits. Even if there is jurisdiction and liability found, we request that it be denied on causation. And even if that were all wrong, we still request that the claim be rejected because there have been no damages.

THE PRESIDENT: Fine.

MR ANWAY: In addition, of course, to our request for costs.

15:51 THE PRESIDENT: That is in your request for relief. Absolutely.

Fine, so that is clarified, and we now have it in the transcript.

For the rest we have asked ourselves on whether we have specific questions, and we don't think we have specific questions because you covered the ground quite well in your written submissions and in the course of the hearing.

But we have a number of areas on which it would be helpful for us if you would like to focus on those areas. We do not expect you to address -- it's not a prohibition, but it's an indication that we think we have what we need to rule on these points: no specific interest in jurisdiction; none in issues of attribution, and; none in issues of technical and quantum evidence.

Now, where it may be helpful that you address us would be -- and I take the list of measures that we were presented in opening, there's a chart that will be well known. We would appreciate if you could summarise your positions, including of course by adding what is new as a result of the evidence on the measures numbered 8, 9 and 10, which is: the MoA's failure to approve the lease extension, the refusal by the MoE to grant the

15:53 compulsory access order under Article 29 of the Geology Act, and then; the suspension of the Article 29 proceedings. That is one topic.

Another topic is the EIA, and that covers measures 11-14, and there we have been struck by two aspects on which you may want to give us more clarification, but of course you may have other aspects about the EIA that you wish to stress. On the one hand Mr Lewis explained in his oral evidence that the EIA issue was, I think you said the nail in the coffin or the death blow, or however you want to call it. And on the other, we have also heard that the Claimant made a voluntary offer to conduct preliminary EIAs, and how can we fit this together, we are not certain about that.

And the third and last point is the Smilno -- now I've covered Krivá Ol'ka, and then the EIA which covered everything, and now I'm going to Smilno -- is the road issue. We have heard a lot about the road issue this week, so you don't have to repeat all of what we heard.

However, we noted that the courts have ruled on this issue. The Claimant's legal expert -- both experts have given their views on the road characterisation. But we've also noted that the Claimant's legal expert said there is no reason to doubt the independence of the courts in making these decisions. We're not here to

15:56 decide on the domestic law issue of what type of a road this is. We're here to decide whether whatever the state did was a breach of an international standard. And so how do we bring these issues together with the international standard; what exactly is being challenged, and obviously what is disputed on the other side.

I think that is all we had to say in terms of substance, and we can discuss how we proceed. But let me just turn to my co-arbitrators to make sure I have covered the discussion we had over lunch.

PROFESSOR SANDS: You have indeed, Madam President.

For both parties, just in relation to the last point, it's Day 4 of the transcript, page 34, in which Mr Fogaš says at lines 24 and 25 onwards in relation to the question of the status of this thing -- I'm not going to call it anything myself: it is one of several questions to which there is no clear answer.

On the basis of --

THE PRESIDENT: This is, of course, the Respondent's expert.

PROFESSOR SANDS: Yes, the Respondent's expert, Mr Fogaš, I think it was.

On the basis of that answer, what's the theory of the case on the side of the Respondent in relation to that issue -- and obviously for -- sorry, what is the

15:58 Claimant's view on that, on the theory of the case; how do you make a case, that being the evidence? And it would be good also obviously to hear from the Respondent on the same point.

THE PRESIDENT: And of course the Claimant will also include the evidence of the Claimant's expert on this issue. Professor Števcek was the ...

PROFESSOR SANDS: Yes.

THE PRESIDENT: Good.

So we had said an hour. That has been reserved for tomorrow. Maybe you don't need an hour. It's up to you. And as we mentioned already yesterday, we don't look for slide presentations. If it's helpful to you to have a few slides, of course you're not barred from doing it.

Should we start at 9.30, as we had scheduled, then first hear the Claimant, and then hear the Respondent, and then wrap up with procedural issues?

And I can say that what you have mentioned this morning about no procedural -- no post-hearing briefs is fine with the Tribunal. And the deadlines for the corrections of the transcript and the marking confidential of the recording and the transcript is, of course, fine, and costs statement as well. We didn't see any other point with respect to further process that

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16:00 we need to address.

So that would be the programme for tomorrow. If there's anything that you would like to raise now, or any clarification that you need.

PROFESSOR SANDS: Just to come in on this issue, it was Professor Števcek who made that statement, my mistake, not Professor Fogaš. It was the Claimant's expert.

THE PRESIDENT: So your reference was Števcek.

PROFESSOR SANDS: Števcek, yes, Day 4, pages 33-35. My apologies.

MR DRYMER: Is the hour total, or half hour each?

THE PRESIDENT: We had said an hour each.

MR DRYMER: Okay.

THE PRESIDENT: So maybe we stick to the rules that we have set, unless you want to change them, and that's by agreement.

MR NEWING: I don't intend to change that rule, and this is something I haven't yet had a chance to raise with the other side. But on the basis that we're not having post-hearing briefs, we were wondering whether we might be able to start a little later tomorrow, to just give ourselves a bit more time in the morning to finalise any preparation, on the basis that it's only an hour each anyway?

THE PRESIDENT: Yes. 10.00, 10.30?

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16:01 MR NEWING: 10.30 would be good with us.

MR ANWAY: I promise we won't be preparing slides, but yes, I think 10.30 would be helpful. A little extra time.

THE PRESIDENT: That's fine.

MR NEWING: Thank you very much.

THE PRESIDENT: No objection from this side.

Good. Is there anything else that you wish to raise?

MR NEWING: No, not from my side. Sorry, Mr Tushingham is sitting behind me so just making sure I have taken his view.

MR ANWAY: Nothing from Respondent.

THE PRESIDENT: Nothing from your side.

Then I wish everyone a good evening and we'll see each other tomorrow at 10.30.

MR NEWING: Thank you very much.

THE PRESIDENT: Thank you.

(4.02 pm)

(The hearing adjourned until 10.30 am the following day)

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