T R A N S C R I P T

STANDING COMMITTEE ON THE ENVIRONMENT AND PLANNING

Inquiry into unconventional gas in Victoria

Sale — 1 July 2015

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Witnesses

Mr Robert Annells, Executive Chairman (sworn), and
Mr Tim O'Brien, Operations Manager (affirmed), Lakes Oil NL.

The CHAIR — I welcome to the microphone Rob Annells, the executive chairman, and Tim O'Brien, the operations manager, of Lakes Oil. Perhaps you could give us your addresses.

Mr ANNELLS — My business address is 500 Collins Street, Melbourne.

Mr O'BRIEN — My business address is 500 Collins Street, Melbourne.

The CHAIR — Mr Annells, perhaps I could get you to provide some introductory material, and then we will ask some questions.

Overheads shown.

Mr ANNELLS — Thank you. I would like to thank you, Chair, and your committee for the opportunity to address you. Lakes Oil will be making a formal submission and will provide a full paper regarding its position by 10 July. Today I will speak for a few minutes on the broader issues relating to the terms of reference, and then I will hand over to my colleague Tim, who heads up our operations for Lakes Oil. I am sure you will have plenty of technical questions for him, some of which I will not be able to answer.

My name is Robert Annells, and I am the executive chairman of Lakes Oil. It is very important to relate the history of Lakes Oil to this meeting. Lakes Oil is the oldest oil and gas company in Australia, formed in 1946 to continue the development of a shaft that was sunk at Lakes Entrance during the war by the federal government as part of the war effort. The company continued in that area for many years, until 1957, when it was taken over by Woodside. Woodside is named after the town of Woodside — everyone in Western Australia seems to have forgotten that — which is on the coast not far from here. Woodside changed the name to Woodside Lakes Oil at the time, and in 1987 it was demerged from Woodside and relisted on the ASX in its own right.

For many years we looked for oil and gas in the other states of Australia, PNG and the US. In fact we had production in the US in the late 1980s but unfortunately had to sell those interests due to the economic downturn in the US at that time. But that opened up a lot of contacts in the US that proved to be invaluable in the following years, because it allowed us to monitor developments in the oil and gas industry in that country. That took off much earlier than it did here, particularly in Victoria, which was well behind the technology boom that took place in the early 2000s.

Over the 20 years since Lakes Oil relisted it has spent in excess of $80 million in this area trying to prove potential onshore gas resources in the Gippsland area, and of late we have moved across to the western part of the state, and even later into Queensland.

As part of our exploration activities Lakes has been involved with local communities in this area for the last five, six or eight years. We have a full-time guy in the community who is a retired bank manager. He is a country boy, as I am incidentally, and so we understand fully the pressures of country towns and the problems with employment for sons and daughters and education. I had to leave home when I was 17, so I understand fully the pressures that country towns endure. We have tried markedly to have an influence in the community. We support many football clubs, Rotary clubs, basketball clubs, the CFA and local schools, and I am proud to say that last year our team at Churchill were the premiers. I am sure the people behind me will not like to hear this, but I think they are going to be premiers again this year.

There is no point in hiding our disappointment that a moratorium on exploration was put in place three years ago. At the time we had negotiated a deal with Beach Energy from Adelaide and we had done the hard lifting down here in the Seaspray area. Beach were going to come in and spend $50 million to take that into production. We had proved by fracking — that terrible word — that gas could be produced in that area commercially, and Beach was about to spend $50 million to put that into commercialisation.

As a result of the fracking ban we went back to the drawing board and looked again at that Seaspray area, and we were convinced that we could produce gas economically drawing a horizontal well along the top of the gas zone which produced the gas in the fracks. By keeping out of the very deep stuff and just running along the top we thought we could produce — and Tim will give you a better understanding of this shortly — gas economically without any fracking or damage to the watertable.

Unfortunately we have been unable to prove that, so that is just waiting to be done. Unfortunately we believe that the blanket moratorium has, in our opinion, heightened people's fears where there is sometimes nothing to

worry about. No distinction was made between conventional and unconventional drilling, so many Victorians might have thought that all onshore gas extraction involved fracking. I think that is a pretty common thought unfortunately. Moreover, it was not made clear that CSG activities in Victoria were not under consideration by any proponents of exploration, contrary to public opinion.

There are two major economic benefits to be had for Victoria from developing an onshore gas industry. First, the industry can potentially employ hundreds of people during the exploration, extraction and distribution phases. We had one of the world's biggest petrochemical groups out of China in this region two or three years ago — three years ago to be precise — looking at the possibility of putting industry into this area. They left when the fracking ban arrived.

More recently we have had one of the world's biggest German petrochemical companies visit the Portland region with a vision to maybe put industry into that area, which desperately needs some injection. They were very pleased with what they saw in relation to the deep port and the possibility that we had gas of considerable volumes nearby, but unfortunately we are not in a position to be able to prove to them that we have sufficient gas to enable them to make that multimillion-dollar investment.

Secondly, I believe that by allowing onshore gas you will increase competition in the market, which will keep prices down. This is exactly what we saw in the United States. When the gas boom took place there gas was around $8 or $9. By the time the boom was in full swing it got down to $2.50, and we have seen that many of the cities that were rust buckets in the eastern part of the country are now rejuvenated and industry is working again because of the lower energy prices. Energy is quite low at the moment, but that is only a very temporary situation because I believe that within 18 months the gas price will probably be two and possibly even three times what it is currently as gas is sucked up from the eastern states into Queensland for export at export prices.

Domestic consumption and industry — particularly industry — require low gas prices. We have had deputations from a number of industries in this area — food businesses and petrochemical businesses — looking for long-term gas contracts. Unfortunately we are not in a position to supply them but nobody else will either, and so the industry is having difficulty in getting long-term gas contracts at reasonable prices. Sadly, this is starting to take some effect, with some companies threatening to close and others threatening not to come here.

Victoria has been blessed with very significant natural resources, which in the past have been exploited to make Victoria the manufacturing heartland of Australia. We believe that exploiting these deeper, cleaner onshore gas resources will help rejuvenate industry across the state, especially in regional Victoria, as traditional energy resources become more expensive and less environmentally acceptable.

I might add that the gas we see coming from offshore comes from a very shallow reservoir. Onshore it can be as shallow as 800 metres. Offshore it is a little deeper. But the gas that we are looking at lies below the traditional source, and so it is way away from the watertable. Tim will go through that shortly to explain that in more detail with a diagram.

Lakes Oil would like to assist the committee in carrying out its work — and not only with its submission, which sets out the scientific reasons. I must say there is a lot of confusion between what is onshore gas and what is onshore unconventional gas. We believe that we can produce conventional gas onshore without having to frack, although we did do it here, as I said, 11 times. Specifically we would like to help the committee by addressing clause 4 in your terms of reference, which is identifying the potential of the industry.

We will provide data that suggests that there is a significant accessible gas resource onshore in Victoria; however, in examining the data that Lakes and others have that has not been fully attested to. Therefore Lakes would propose to the committee that we be allowed to drill two proof-of-concept wells in the western part of the state near Portland under full supervision of the department and anybody else to establish what we believe is a huge new Victorian resource which should be developed. We have all the proof on paper, but we need two proof-of-concept wells. We would be delighted if the committee, in its interim findings at the end of the September, would allow us to drill those two wells. We could drill them quickly and get the information back to you before your final submission at the end of December. You would have something concrete to work with. We would do our best to do that by the end of December.

Thank you for the opportunity to address the committee. I now hand over to Tim to give you some background information.

Mr O'BRIEN — Thank you, Rob. I am just going to give you a quick overview of what Lakes Oil is doing and what we have done in the geology of the area, because I think one of the big misconceptions with everything comes from misinformation that is going around. There are too many comparisons being done within the state and overseas of what is actually the prospective nature of Victoria, and they are not necessarily relevant, especially to what we are trying to achieve down here.

You can see on the map of Victoria that Lakes has fairly substantial holdings across it, which are very well accessed to pipelines and existing infrastructure. Any gas that we can prove and get to the surface can be developed quickly and efficiently with not a lot of new disturbances needing to be made.

This is a schematic cross-section just running through Gippsland, basically taking it from the edge of the Latrobe Valley off into the offshore fields there and just showing where we are targeting compared to what the traditional production and everything has been offshore. You can see the white interval there is the Latrobe group, which is the aquifer, and that is where all the reserves are being produced, predominantly from offshore. We are looking significantly deeper than that. In the areas where we have been looking you can see there is a small aquifer, the Giffard aquifer or the Boisdale one, depending on exactly where you are, which is down to about 70 metres or 80 metres in the area down there at Seaspray. I will show you on the following slide how we protect those. But as you can see, we are down 1500 metres where those little Xs are marked. They are potential zones that may warrant stimulation. As you can see, we are long way below where the traditional production is and where the aquifer is.

We have a couple of examples. This is the Strzelecki formations. You can how there is the tight rock, and that is the aquifer for the Latrobe group. You can see the difference in comparison with the Latrobe group, where the aquifer is one of the best reservoirs in the world for production. It has very high production rates and recovery rates, whereas the rock we are looking at is reasonably tight and it does not have the same as that one. It is difficult for gas to flow through that, let alone water.

The Strzelecki is regarded as an aquatard by Gippsland Water and Southern Rural Water. There is no interaction between what goes on in the Strzelecki and anything in the underlying aquifers or anything like that. Even in the valley onshore, where the Latrobe group is, that is a surface aquifer. Again we are much deeper — below that — where it is cased off and protected.

When we drill through those aquifers we drill them using the same drilling modes as water bore drillers do, but we obviously complete it in a much more competent way to protect it for the long term. There is a misconception about integrity and that we just do not pay much attention to it. These well bores are our assets. If this well fails, that is it. We have lost it. It is in our best interests to make sure that it is there and that it is competent for the long term and will not require any other intervention in there to try to protect it.

This is an example of a typical well completion for us from our Wombat field down at Seaspray. You can see there are three strings of casing in the hole. The aquifer up at the surface there has three lots of steel plus cement behind it. We drill down generally to 300 metres or so and run the first string of casing, and that is then cemented to surface. The cement we use is harder than the rock surrounding it, so the noise from fractures and earthquakes and things like that are not going to rupture the concrete before it is going to rupture the rock. On the off-chance that you get an issue where there is some seismic activity, which again would not be related to what we do, you are going to have the rock fail or you are going to have a rupture to the surface anyway from the rock. The well bore is insignificant to that. Most faults and seismic activity happen at depth. That is where earthquakes occur; it is not up in the shallow stuff. If you get an earthquake at the surface, then every bit of infrastructure is on the ground and there are a lot bigger issues than one well potentially leaking.

You can see that we then run an intermediate casing through to below the Latrobe group and into the top of the Strzelecki, which is our reservoir zone. We case that off and cement it so the coals and the other aquifer are sealed off. Again, any interaction with water in our wells kills the well, because water flows preferentially to gas. So if we do encounter water or have some issue, then that is it. You have lost the well. Your total investment is gone. We do everything we can to ensure that that does not happen with them.

Rob made mention of the top of the Strzelecki, where we want to put the horizontal well. You can see where the dotted line is across the top. We plan on drilling with Wombat 5. It was proposed and almost approved, until the exploration ban came in, that we would drill 1500 metres through that. We have had very significant flows out of the top of the Strzelecki and our existing wells. In a vertical well, over a 30-metre or 40-metre thickness, if we can get 1500 metres of that, then we should have an order of magnitude greater flow from that naturally without it having to be stimulated.

The little fracture patterns you can see down there give you an indication of how a frack grows out from a well bore. Again there is a misconception that you can frack up to the surface, but it is just not physically possible with the rock. When you pump a frack, the fracture extends until you stop pumping and that is it. It cannot grow any further than that. Once you stop pumping, you relieve the pressure at the well bore, and everything comes back to the well bore because things take the path of least resistance. It is not going to keep fighting out through tight rock when it has a big open well bore that is exposed to atmospheric pressure. It just does not go beyond there. Any fluids that you pump in there go to the extent of the fracture, and then they will come back. As you can see, you generally get maybe 50 metres to at most 100 metres of height growth on a fracture.

The rocks we are looking at are from 1500 metres down to 2500 to 3000 metres for the tight zones. As I say, the aquifer is up at less than 100 metres, and then even the Latrobe aquifer, which is not used in these locations, is still 600 or 800 metres above us. As I said, we do not want water interfering with us. That is one issue where the aim with coal seam gas and tight gas is that the two really should be dealt with as separate resources. With the coal you do have to dewater the coal and produce water. We do not produce any water. Obviously we use water if we are to frack, to pump into it and we recover that, but the volumes you use in that are obviously much smaller than is ever flowed back to try to dewater coal.

Numbers were going around yesterday for the size of fracks. The largest frack that has ever been done in Victoria that we did was 220 000 litres, so 0.2 of a megalitre. The biggest ones we ever think we would be doing, you could maybe do 0.5 of a megalitre in these wells. We are proposing up to 10, so that might be 5 megalitres used for the one well. The talk yesterday of up to 40 megalitres per frack is taking the largest ever total accumulation of fracks in a well and applying it to one frack over in America, and that is just not done here. Even on the largest ones in America they do up to 20 or 30 megalitres, and that is over an 80-stage fracturing of a 3000-metre horizontal well. We do not need to do fracks as large as that, because they are doing shale which has much lower permeability. The rocks we have are low permeability, but they are not anywhere near the scale of the shales, so you do not need to have such large fracks to get it.

The fracture's only intention is to connect more surface area of rock to the well wall. Chemicals do not do anything to the rock. It is just that instead of having all of the gas having to flow through the rock to get to the well wall, it can flow into the fracture and then along effectively a highway to the well wall. You are just enabling that gas to flow quicker through the formations. We do not need to go as far with the sorts of reserves we have in our rocks.

As Rob has indicated, we have now done a lot of work indicating that we should be able to flow commercial gas. We are very confident at Wombat that we can do that. As Rob said, even over in the west where all the studies have indicated it should be able to be done we need to drill the two wells to prove that once and for all. Then we will know if it is worth continuing this debate, and it may come that the gas will not flow and then all this has been for nothing, or we prove what we think we have got and there is enough gas to underpin this state for the next 100 years. There is talk about more gas making things more expensive, but that is economics 101: you increase supply and the price comes down.

Drilling onshore is also a lot cheaper than offshore. The recent development here offshore needs about $5.50 per gigajoule to break even, which is higher than the normal domestic industry price has been forever in Victoria. We believe we will be down in the $1 to $2 mark for onshore. As I have alluded to, we have signed provisional gas sales agreements with Simplot and Dow to supply gas at less than the market price, because we know we can do it cheaper than everyone else can.

Ms SHING — You said you have signed those agreements already?

Mr O'BRIEN — They are provisional gas sales agreements, on the provision that we can drill the wells and get the gas to surface. We have said, 'As long as we can show that we will sell what we have got to you cheaper

than what the market price is', because they cannot secure those contracts through Esso or other traditional suppliers at the moment. We want to be given the opportunity to prove it. That is what we ask for.

The CHAIR — Thank you for your evidence; that is the first thing. I note the suggestion that has been made, and we will perhaps talk about that later. We might come back to that towards the end. In the first instance let us have some discussion about the general issues, which is our specific purview. You say that the regulatory environment in Victoria is satisfactory to protect health, environment, land and so forth. Are there improvements in the regulatory arrangements that you think nonetheless would be welcome and other places we should look at where those regulatory improvements could be the basis of learning for here?

Mr ANNELLS — I think the existing regulations could be administered better. For instance, when we carried out our fracking in this region there was no visual inspection, and I believe there should have been. The other thing is in relation to the petroleum act itself. It is from 2000, and I believe it is overdue to be rewritten. It applies to conventional gas and does not apply to unconventional gas, basin-centred gas, and we have this terrible problem in Victoria where CSG, if there is any — and I doubt whether there is; that is a personal opinion — comes under the Minerals Act. Really the Acts need to be tidied up.

The CHAIR — Is there somewhere, if we were looking at better regulation elsewhere, in the country or anywhere?

Mr ANNELLS — The South Australians are ahead by a country mile.

Mr O'BRIEN — Alex pointed out yesterday in his presentation that there are a lot of provisions under the petroleum act which are very comprehensive and can be expanded on without the act having to be, and it is the way that the department interprets it. Because coal seam gas was not really a thought when the Minerals Act was written the conditions under that are not the same as under the petroleum act, whereas if they were similar, then a lot of the issues would possibly go away. A lot of accusations being made across the industry are because of the Minerals Act, whereas if you interpret coal seam gas and petroleum under the petroleum act, then the provisions are there to protect it.

I have been looking after the applications and everything for the last 10 years now, and the environmental application has gone from 8 pages to 400 pages now to make sure that everything is covered. The submissions we make are very comprehensive and have to get accepted before we are allowed to do anything on the ground.

Ms SHING — Thank you for that presentation, gentlemen, and thank you for explaining the depth of the inquiry and reporting you do on the effects and managing effects. Throughout your presentation I have heard references to misconceptions, misinformation and confusion. I note that that sits on the one hand, whilst on the other hand you are saying you have done all of this work to make sure you are taking care of mitigating risks insofar as they might be reasonably foreseeable.

Given that part of this issue, at least in terms of the evidence we have heard, has arisen from community concerns on the one hand versus industry positions on the other, what work have you done with councils, water authorities, the Victorian Farmers Federation, dairy farmers et cetera, community groups and individuals to take them through the work that you have been doing in terms of allaying concerns, given the length of time for which this issue has been going on and dividing communities?

Mr ANNELLS — We have addressed local councils in this area over many years, and in recent times we have been active in the western part of the state. They had all the councils together in one room at Portland, and we addressed them together. Since then we have been back down there and addressed two, and we have got another one coming up at the end of this month, so we have been very active with local government. With communities, after the fracking ban came in it was suggested that we should not conduct community consultation ourselves but should take part in the government-sponsored community consultation.

Ms SHING — Suggested by whom, Rob?

Mr ANNELLS — By the department.

Ms HARTLAND — Could you tell us who within the department and when that was?

Ms SHING — That can be taken on notice. That might be something that you can address in your submission.

Mr ANNELLS — We participated in the community consultation that the previous government and current government have both encouraged on both sides of the state. As far as I know we were the only oil company that was there. We addressed councils at those meetings and we addressed farmers and concerned citizens, and I would like to think that they were quite successful. Some people have very fixed ideas and are entitled to those ideas, but I think on the whole my interpretation of those meetings was that the local government were concerned about jobs, as they should be, particularly for youth. The farmers, I think without exception, by the end of the consultation periods that we had understood better what we were about and felt happier about it.

Just on that, as far as the dairy industry is concerned, the areas we are looking at down here, I have never seen a cow there. I have seen kangaroos and emus, but I do not think there are any cows in the area down here at Seaspray. There are a lot of pine trees where we were interested, along the ridge where the pines are. I do not think we are any threat to the dairy industry in this region at all.

Ms SHING — This region being Gippsland, are you talking about?

Mr ANNELLS — Yes, the areas we are interested in are down south of here — south of where we are today. In the western part of the state the areas we are interested in there are to the west of Portland, and that is mainly sheep country. Some of it is not arable at all. It just has volcanic basalt on the service.

Ms SHING — You might want to take that on notice in relation to the consultations you undertook.

Mr ANNELLS — Sure.

Ms SHING — And that might form a part of your submission.

Mr ANNELLS — There is a report on those consultations which I am sure you have access to.

Ms SHING — Yes, but just in terms of talking about the process you went through with the various councils, on the one hand you said that you addressed them, so further detail and specifics that you can provide on that as well as advice and positions that you have referred to from the department would be helpful in terms of the committee's deliberations.

Mr ANNELLS — Certainly.

Ms SHING — Sorry, Tim, did you have something to add?

Mr O'BRIEN — I was just going to say if we are to do any activity, it is stipulated that we obviously have to get an agreement with the landowner first before we can do anything. With all this talk about us being able to go in onto the land without any permission or anything like this, we have always been able to sit down and negotiate with the landowner to get access. Everyone that I have dealt with in the last 12 years, I can ring them up any day of the week and have a good chat to them, and there have never been any problems. If they ever had a problem, they can call me straightaway and we deal with it straightaway. There has been no animosity with any of those.

We have to notify out to 1.5 kilometres before we put the submission in, and then once the activity is approved we then do the letter drop out to 5 kilometres. There was mention yesterday of me dropping letters off in the middle of the night. I know that was from when we were doing the testing a couple of years ago. I was back in Melbourne at 8 o'clock that night. There was one letter I dropped off heading back up the Seaspray road at about 6 o'clock. All the rest were done at midday at the same time as I put the letter up at the Seaspray store, and all that sort of thing.

We do not have anything to hide. We did it the day before because it had taken so long to get approval, and we had a date for when all the equipment was coming on site. We cannot notify when the commencement is going to be until we actually know when the commencement is, so that is why it was done the day before. It was two days before, actually, at the start when the letters when out. Everyone has my contact details and Rob's contact details, and they know Lakes very well. We have been active in the community for a long time, and there are even people in this room who have called me up to have a chat on the phone and ask why don't we come down

to the meetings and things like this, and we have put our hand up and said we would love to, but as Rob said, we were advised not to initially. Now we are more than welcome to, but the invites have not been extended beyond that.

So, as I said, we are more than happy to debate the facts in this. As we said, we have supported this process along the way because we think once the facts come out everyone will be a lot more comfortable with what the process is and realise that the risks can be managed and are not as great as what has been put out there.

Mr LEANE — The ex-tradie in me is intrigued by the slide you have got up, and sorry, my eyesight is not real good.

Mr O'BRIEN — It is a bit small.

Mr LEANE — The distances you have on the side on those arrows there, what are they?

Mr O'BRIEN — So it is 1.4 kilometres down to the top of the Strzelecki. That is the inside line. The outside line is again 1.4 kilometres from the aquifer down to below the zone where we are targeting. We are nearly 1.5 kilometres below the used aquifer in that region.

Mr LEANE — So in your presentation in speaking on this slide you indicated that the bore is done and then encased in concrete to — —

Mr O'BRIEN — So we run steel pipe down, and then you pump concrete down through the steel and squeeze it up the outside, which fills what we call the annulus, which is the space between the rock and the casing, and secures that in place. As I said, that cement is harder than the surrounding rock, so it is much more competent. We then drill the next intermediate stage, run another set of steel casing all the way to the surface and cement that back up to a minimum of 200 metres inside the other casing, so the entire formation that was open below the surface casing is now totally covered in cement. Then, with that particular design, we will drill the production hole to whatever the bottom of the hole is and run a third string of casing and then cement that back up inside in intermediate casing. So at no point in the hole is there any formation open at all. Every bit of formation has cement across it, and then you have the wellhead and everything on the surface. These wells are overengineered to ensure that — and if it is a well that is to be fracked, there are big safety factors we put into engineering the casing design to ensure that the casing strength well exceeds any maximum pressures that may be experienced in that well to ensure that the integrity is maintained.

Mr LEANE — So we are working our way in. The first bore is done, and then there is a metal sled — is it like a sleeve? How does it — —

Mr O'BRIEN — Steel pipe. A 12-metre length of pipe — —

Mr LEANE — A steel pipe? And that is fed in, and then there is an internal sleeve as well?

Mr O'BRIEN — For instance, you drill, for that one, a 12¼-inch hole down to 300 metres, one 9 and 5/8th-inch casing inside that — cement that back. You are then out of the 9 and 5/8th-inch casing. You drill an 8½-inch hole down to 400 metres. You then run 7-inch casing inside that hole and cement that back. Then we drill a 6 and 8-inch hole down to the bottom of the hole and run 4½ casing inside that.

Mr ANNELLS — The cement is between the steel — between the casings.

Mr LEANE — Yes. So the sleeve is in place, you pump in the concrete — —

Mr ANNELLS — You pump it down the middle, and it comes up the outsides.

Mr LEANE — Right.

Mr O'BRIEN — So you have two one-way valves on the bottom of the casing. So you pump it down through the pipe and then push it down with water and it squeezes it out the bottom of the casing and then feeds up the outside, so it fills in every crack in the hole and opens a bit behind the pipe.

Mr LEANE — So the first bore is done. On this you have the two aquifers.

Mr O'BRIEN — The top one is the Giffard aquifer, right up the top, up at Jemmys Point.

Mr LEANE — So the first bore actually travels through those three — —

Mr O'BRIEN — Yes. The surface hole goes through the top aquifer. The intermediate hole goes through the Latrobe one, and then there is no aquifer below the Latrobe one.

Mr ANNELLS — The Giffard aquifer is the most commonly used here. Some farmers are lucky enough to have access to the Latrobe.

Mr LEANE — Yes, okay.

Mr O'BRIEN — But in the Latrobe Valley they are obviously using the Latrobe, and the coalmines are there. There are obviously the separate dewatering issues. What we drill through — that top section — is with the exact same drilling mode as what the water bore accessing the same aquifer would use.

Mr ANNELLS — Maybe if we draw it for you afterwards — —

Mr LEANE — No, that is fine. When you say a water bore, does the water bore go down to those — —

Mr O'BRIEN — Not to those ones, no. Covino have two bores that access that formation down — you will drive past them later. The local bores go down to 100 metres at most, just to get us at the top one.

Mr LEANE — Yes, to get the top one. So the first bore has the potential of the water — you do the first bore before you can put the sleeve in. You have done the bore. You have to pull the bore out to get the sleeve in, no?

Mr ANNELLS — Yes.

Mr O'BRIEN — You drill the drill pipe, so the drill pipe will obviously pull that out of the hole, and then you run the casing in. So it is the same as drilling a water bore. You drill the hole with water — the drill pipe. You pull the drill pipe out, and then they generally run your PVC pipe or something, or screens or whatever, and then it is gravel packed. It is not cemented. A water bore is not sealed; that aquifer is not sealed off, effectively, necessarily, depending on whether they cement it or not, whereas we cement that fully to surface, so that aquifer is completely isolated from the well bore.

Mr LEANE — So in the first process, contrary to someone boring into the first aquifer of water, the bore actually travels through those — —

Mr O'BRIEN — Just the first one. See, there is casing there — —

Mr LEANE — Okay. I know what you meant.

Mr O'BRIEN — And then we put the second string of casing into the lower ones, and then we go into the production zone below that.

Mr LEANE — So there is no process where — —

Mr O'BRIEN — There is no interaction between the two different aquifers, no. It is one of the big things with abandonment of wells. If it is not successful, we have to isolate every single formation and every single potential aquifer there to ensure that there is not any cross-flow or contamination between them. That is standard practice and has been for a long time.

Mr LEANE — Thanks.

Mr ANNELLS — You will find on the DPI website that there are something like 30 000 wells with drills through the watertable in the Latrobe Valley, delineating the brown coal reserve.

Mr LEANE — Thanks.

Mr YOUNG — Thanks, guys. I am also after a bit more technical advice. After a well has been used and they have extracted all the product, can you just outline the process of decommissioning that — what happens to it and how long those processes last?

Mr O'BRIEN — Let us say you are ready to plug an abandoned well because you have depleted the reservoir. You go down, and generally you have shot perforations through the casing, which is how it allows the gas to flow into the well bore. That is what you can see — the different fracture zones down there. So you go down and squeeze the cement off to seal off those open perforations in the well bore. There are 1 or 10 zones you do. You squeeze it all off across it. You then set a couple-of-hundred-metre cement plug as a minimum within the casing above that and ensure that the whole zone is isolated. Depending on the depth and depending on if there are any major issues, you may fill the whole well full of cement, but at a minimum you at least put another 100-metre plug a metre below the surface. You then remove the wellhead and any surface infrastructure, chop off the casing below the surface of the ground, cover everything back over and rehabilitate the site as far back as humanly possible to what it was originally.

As Rob said, there have been 30 000 or so wells through and around Gippsland. You would not have a clue where most of them were because they are ones that have rehabilitated. We have a number of well sites where we can show where we had drilled, and you would not be able to tell the grass there from the grass somewhere else.

Ms SHING — Sorry, you would not have a clue where they are?

Mr O'BRIEN — No, we know where they are —

Mr ANNELLS — We know where ours are.

Mr O'BRIEN — but if you were driving past looking at it, you would not see any difference. We know exactly where ours are.

Ms SHING — Important to clear that up!

Mr ANNELLS — Incidentally, in many cases when we do abandon a well that is unsuccessful, as Tim said, we fill it with concrete, but quite often the farmer will ask us if we can leave the top aquifer open. So we fill it up as far as the aquifer and then perforate the casing, and he can have it as a water bore.

Mr O'BRIEN — So that image Jo showed earlier of Boundary Creek 1 — that was actually left in that state at the request of the landowner because he wanted to potentially use it as a water bore after. That was a shallow borehole that was done back in 99, I think. That is why it was left in that way, so he could still actually access that if he needed to. The other site is the one we still have further work or desire to do work on.

Ms BATH — I have three questions, so stop me when I keep asking too many. The first thing I guess I would like to know, and part of the reason why we are here, is in terms of Lakes Oil's position or consideration, are there commercially viable unconventional — and by that I mean tight, shale and CSG — sites in Gippsland? Could you expand on conventional gas as well?

Mr O'BRIEN — I am not going to, obviously, talk about the coal seam gas potential, because we do not do that, but the tight gas and shale — we believe there is a very large potential for it in this region. Otherwise we would not be here. This is an expensive industry.

The CHAIR — What does 'very large' mean?

Mr ANNELLS — We have a published figure.

Mr O'BRIEN — Gaffney Cline have done assessments for us — sort of recoverable contingent resources out of just the Wombat field of 370 billion cubic feet. That is just over the one 12-square-kilometre structure. Gaffney Cline — there is a set of rules about how they can assess a resource. They could only go down to the lowest depth that we have recovered gas from. So even for that, which is about 1800 metres, they only effectively looked at the top 400 metres even though we have drilled down to 2500 metres and have had gas in the wells in that, but because we have not physically done a test of that zone, they could not include the depth down to that. So you can straightaway nearly triple that number just based on the extra column there. That is

your recoverable. The Kipper Turrum development is 1.7 TCF. So the $4.5 billion Esso is spending up there is only going to get four or five times more gas than what we get from this one onshore field. We believe we can develop that up for $100 million or so, hence why our costs are a lot less than what the offshore one is.

This talk of 30 years of gas left offshore is a number that has been put there and used very widely, but it is not — the development they are doing now is the best one they have, and that is at a price of $5.50. Everything else is going to get harder and deeper.

There was a mention yesterday about the contaminants and stuff in there that Esso is talking about in the deeper stuff. I think you mentioned the mercury and things. That does not exist in the Strzelecki foundation. That is in the formation above us. Esso has traditionally been looking up at the Latrobe. They are now going into the Golden Beach and Emperor subgroup, which is where the volcanics are which cause the CO_2 and the mercury. We are in the Strzelecki below that where there is zero CO_2, there is zero mercury and there is zero H_2S. We do not have those contaminant issues to worry about: it is very clean gas. The CO_2 from offshore just enters into the atmosphere. It is as high as 20 per cent or more. The mercury sits on the ponds out there doing whatever. We do not have to deal with any of that. Again, our service infrastructure is cheaper because we do not have to worry about cleaning the gas up and everything as well.

Ms BATH — Tim, you spoke before about the cross-contamination between aquifers. Can you explain a little more about the consequences of that? What does that mean?

Mr O'BRIEN — It can. One of the problems I guess with the reports coming out up north is if you do have producing from a lower aquifer and you do not have the upper aquifer isolated, you can get cross-blow, because you obviously have a higher pressure the deeper you are underground so it can force its way into there. We do not have that problem because we seal off the aquifers when we get down to the next, so it has already got casing and cement across it before we get to the next aquifer. Basically, as soon as we drill through that we are running the casing and cementing that off very quickly after that as well, so again it is isolated.

As I said, the cement is harder than the surrounding rock, so it is more likely to flow naturally through something to contaminate something, if it was possible to. But the fact that these aquifers are separated shows that there is no communication across these zones geologically. The wellbore is designed and drilled in such a way that ensures there is not flow out the outside and there is no contamination that way. Where we produce from down in the Strzelecki, there is no aquifer down there. You do get some pockets of isolated water but again it is saline, not like the fresh ones above, so you know there is no interaction between the two because otherwise they would be contaminating it. Again, we isolate any water, because as I mentioned that would flow instead of the gas and we would lose our investment if we did that.

Ms BATH — With respect to western Victoria, you spoke about proof of concept in conventional wells. Just go through that quickly again for us: what are you hoping to achieve on conventional well sites with conventional gas?

Mr ANNELLS — Yes, we are. We have only recently arrived near Portland and we purchased the permits. They are not ones that have been issued in recent times; they are ones that we purchased from another company. When we looked at the historic data over the last 50 years, back into the 1960s and 1970s, we found there were a lot of wells built in this area by Shell and Rio Tinto using their company at the time, which was InterState Oil, and others. In fact 14 wells were drilled in the zones in the areas we were looking at. In every case they were looking for oil in the basement rocks.

Unfortunately, looking around the room, none of you are quite as old as I am, and you would not remember that the first gas that was found in the 1960s by Esso was the first commercial gas in Victoria. Henry Bolte, who was the Premier of the day, gave Esso/BHP an exclusive contract for gas into Melbourne for 30 years. That took us through to the late 1990s. The gas price was very cheap and the Melbourne industry prospered as a result of that very courageous decision by Mr Bolte. However, it had an effect — there is always an effect of something like that — and the effect was that everybody ceased looking for gas onshore. Even if you had drilled a well in Collins Street, there was no market to sell that gas.

When you go back and look at the data and you are old enough, which I am, to put it into some perspective of the time, you realise that these people were drilling these wells in the 60s and 70s with no market for gas. They were looking for oil only. When you look at all these old wells, the data is filed in the DPI. One of the great

things we have in this country is that that data is freely available to anybody. In the United States you have to pay for it. Here it is free, so we go to the data room in the DPI, we get all the data on the 14 wells, the seismic that has been shot there over the 40 or 50 years — probably $150 million worth of data — and we sent the whole lot to the United States to be analysed and assessed. It came back, and all 14 wells had encountered big sections of gas in rock not dissimilar to that — in fact it is the same age. It has a different name in the west than it does here but it is the same rock. We found in one case one well had 2000 metres of continuous gas. That is a lot of gas. We had the wells assessed and the advice we are getting back from the United States is that those wells, if they had been tested — and they were not tested — would have flowed.

We have used other technology which is brand new to this country, that is coming out of Kentucky University in the US. We believe we can isolate the sweet spots in the area so that we do not have to frack. We are taking a lot of surface samples — and I hear the talk about the effects of methane. Methane is leaking to the surface all over the place. What we do is we isolate where the best leakages are on the surface by taking surface samples of the soil and sending them to the US for analysis. That is where we believe the sweet spots are, that is where we want to drill and we believe we can produce gas over there without having to frack — just drill a straight-down well, hook it up and go. But we need to do it to prove that what I am saying is true. We have got all the books, we have got all the reports, but we need to do it.

The CHAIR — We will come back and talk about that in a minute in detail.

Mr BOURMAN — I have a few questions. During the break I had a concern raised with me which you partially covered regarding the rehab of old sites or old whatever. Is it a guarantee that it will be rehabbed to more or less the landowner's satisfaction? With what you said before, the one we saw pictures of, I understand it was left as that.

Mr O'BRIEN — As still suspended, yes. The landowner has to sign off on the rehabilitation and that is a couple of years after we have done the rehabilitation, so it has had a couple of seasons of growth to get back to it. If they are not happy, we have had times where the grass has not taken as well. We have gone back and had to re-sow and things like this, but as I say the DPI or the department of economic development or whoever they are does not release the bond until there is landowner sign-off. They do a site inspection as well and sign off on it, yes.

Mr ANNELLS — Quite often the landowner asks that we scoop all the gravel up into a big pile and leave it for him, which we are delighted to do. That is a sort of partial rehab at his request.

Mr O'BRIEN — They get it how they want, yes. It is their land.

Mr BOURMAN — Yesterday we heard some evidence that there is a 5 per cent failure rate on the casings in these wells. Have you got anything to say about that?

Mr O'BRIEN — We have 20-odd wells and we have never had any casing fail. I know there is that report going around. It has been disputed and debunked by lots of other studies as well. Well failures do happen but most, if they do, are not catastrophic failures like you see with the Macondo or something like that — and that is an extreme case. Most of the times if you do detect a leak in the casing, you can go down and squeeze cement into it and seal it off — you deal with it. Or a wellhead valve may leak or something like that, so you replace that valve. It is not like you have had a blow-out or an escape of hydrocarbons to the surface. The wellhead has secondary containment things in there as well, so even if you do have a leak on one point, it is not leaking to the atmosphere. It is just contained in the well and you can go in there and deal with it.

Ms SHING — Was that the 40 per cent figure as well after the 5 per cent?

Mr O'BRIEN — It was 50 per cent after 40 years or something. If that was the case, you would have 15 000 wells leaking across the state.

Mr BOURMAN — It was 5 per cent more or less on completion.

Ms SHING — What do you have to say about that figure as well?

Mr ANNELLS — There are not too many leaking out in Bass Strait!

Mr O'BRIEN — Esso has 100 or so wells out there. Some of them are 40-plus years old. You have to maintain it if you are continually flowing through it and that sort of thing. You monitor it and check it. Again, this is your asset so you want to make sure that you preserve the integrity of it because intervention is expensive and losing a well and losing production is very expensive. Again, as I said, those studies have been counter-argued by other industry-based ones as well. It is like every study — you can have one that says one thing and one that says the other, but we certainly have not had anything near that rate of failure with our wells.

Mr BOURMAN — We also heard evidence that if there was coal seam gas — and I understand that is still not a given, but if there was coal seam gas — and it came out, that there is a parity pricing type of scheme and that in fact gas prices would go up. I would like your comments on that.

Mr ANNELLS — That is extremely unlikely. One only has to look at the evidence of what happened in the United States; when they increased the volume the price there dropped. It is supply and demand, like any other market. If you increase the supply, the price drops. As Tim has said, we believe we can produce our gas onshore significantly lower than the offshore gas, and we are going to put pressure on those guys if we ever get into production.

Mr O'BRIEN — There is also not an infinite capacity to supply out of Gladstone. They have got a set volume that they can compress and freeze and send off on a boat. Most of that is to be serviced from the Queensland market. There is going to be a shortfall for a couple of years because of the floods and because drilling has been behind and the productivity has not been as good. That is why there is this fear of a price spike. But once they are all online those LNG contracts will be met by Queensland, and Victorian gas will be used in Victoria. As Rob has been saying, we have been proposing that we are willing to sell it to industry cheaper in Victoria to value-add to the gas in Victoria rather than selling it off as the raw product, which unfortunately Australia does way too often, in order to bring industry into the country, into regions like Portland, which are screaming out for it.

Ms HARTLAND — I have several questions around consultation, and some you may need to take on notice. Could you supply to us your consultation plan, which you would have presumably done before you were told to stop the consultation; who you had doing the consultation — was it a PR company or was it a company that actually understood community engagement; and the correspondence between yourselves and the department when you were told to stop the consultation?

Yesterday we had quite a bit of evidence from farmers and local residents who felt they had been quite badly treated, had not been consulted and had not been kept informed. Can you speak to why the community feels you have not done that, whereas you clearly feel you have?

Mr O'BRIEN — As I said, the rules for any operation are that we get landowner permission to get into the site. We then personally inform and speak to everyone within 1½ kilometres of that area. Once the approval or the acceptance of the plan is given, we then have to notify via letter drop or public notice or coming out to 5 kilometres of the region in which we are operating. That is what the departments stipulates we do before anything is allowed to progress. In the past we have always done that. I have never had any objections to any of the activities we have done.

The CHAIR — Is that consultation plan in regulation? Is it negotiated individually?

Mr O'BRIEN — It is not stipulated like that in the regulations. Initially when I was doing it, as long as we had the landowner's consent, we could get on. We then had to start notifying wider and wider. At first it was 1 kilometre, then it was 1½, and then it was 1½ and the 5 kilometres. With the change in people's perceptions and requirements we have been notifying for longer, as has been stipulated by the regulator.

Ms SHING — So you have never had any objection?

Mr ANNELLS — Strangely enough the biggest objection we had was in the western part of the state where we wanted to drill on Origin's farm.

Ms HARTLAND — So you have never had a community objection? You have never had any community member coming to you objecting? You have never had any community member complaining about your operations?

Mr ANNELLS — We have not drilled for four years.

Ms HARTLAND — No, I am asking about during that period, and you do operate the Wombat site?

Mr O'BRIEN — Wombat is suspended at the moment. We are not allowed to do anything there. There was one instance where we did a week-long flow test back in 2012. There were objectors at the site when we went to it. That is the only time there have ever been people at the gate, effectively. We obviously spoke to them as we tried to get through the gate. Then Rob and I came back and spent an hour chatting with them, quite happily copping everything that — —

Ms HARTLAND — I just want to get this really clear. You have never had a phone call from a resident objecting? You have never had a letter from a resident objecting? You have never been to a public meeting where residents have objected?

Mr O'BRIEN — No. There have been opposing views et cetera, and as I said, I have had phone calls from people inquiring about what we are doing and saying, 'We don't want you here', and that sort of thing. I said, 'Let us explain what we're actually doing, and rather than being upset about shallow issues which are not relevant to what we're doing or accusing us of blowing huge amounts of water, which we don't do, let's sit down and address the facts'. I have offered to go to the Seaspray meetings that were had, and I was speaking to Kerrin in March, or whenever it was, and had a long conversation on the phone with her. She was going to invite me to the May one, and that never came about.

Ms HARTLAND — All right. So if the community invited you, you would definitely attend a community meeting?

Mr O'BRIEN — Everyone has our contact details.

Mr ANNELLS — I think it is important to draw a line at the time of the moratorium. There was very little concern in the community until then. Things have changed dramatically in the community since that time. Yes, since that time we have had letters, we have had telephone calls, but also we have not drilled. But prior to that time, there was nothing. In fact in terms of the school just up the road, which gets mentioned quite often, the children came down one afternoon with a teacher and drew pictures of the rig —

Mr O'BRIEN — They saw the drilling.

Mr ANNELLS — and wrote letters to me saying, 'One day I want to be an oil worker'. It is completely different today, but that is what was happening. So there was a big change at that time in the community.

Ms HARTLAND — Why do you think that change occurred? Do you think it is because people then understood what was happening?

Mr ANNELLS — No. I think there is a lot of misinformation.

Ms HARTLAND — So you did not supply the community the information so that they could actually make an informed decision?

Mr ANNELLS — We were in moratorium.

Mr O'BRIEN — But we have supplied booklets and information packs. They have been distributed around the community. We then get accused of trying to — —

Mr ANNELLS — We have got some booklets here, which we will leave with you, which I think will help you understand.

Mr O'BRIEN — We have some information on our website and everything on what we are actually doing, rather than what we are being accused of doing. Again, it gets confusing between the issues associated with coal seam gas and shallower aquifer issues as compared with what we are doing.

Ms HARTLAND — This is an issue that I have a lot of experience with, having gone through a dozen or more community consultations where companies have presented information that was not a lie but was not all of the information and then have misrepresented the community view. So I think it is very important, because

the evidence we have received from the community, from farmers, from councils, is that they do not feel that they were consulted. They do not feel they were informed. So I can only go by what we heard yesterday.

Mr ANNELLS — I just reiterate the time point is quite important.

Mr O'BRIEN — Everyone whose property we have operated on is more than happy. There are no objections from them. Most of the people who have the issues are the ones who are not directly affected. We are not on their land or neighbouring lands or whatever. They are in the region and the area, so they have legitimate concerns, and we obviously now do have to consult more widely. Now the condition is you have to consult with any interested party, so they can be someone in Perth who has got an issue with what we are doing or whatever. You have to address that. That was not a requirement with the previous operations that we have done, but obviously lots of things have changed. But we have been sitting idle, effectively, for three years, at least in this region.

Mr DALLA-RIVA — Thank you, gentlemen. I will just ask a couple of questions, if I may. Your presentation states that energy equals jobs. How many jobs do you expect in this region as a result of the proposed development?

Mr ANNELLS — As I said in my address, we brought one of China's biggest petrochemical companies to this region about two weeks before the moratorium was brought down. They were not impressed, but in more recent weeks we have had one of the world's biggest petrochemical plants — German — in Portland. They actually flew people in from overseas to visit. We met with the Portland council and their development officer. The council are very anxious to get that operation going there. But we cannot give them any further encouragement because we have not got any gas. We think we have, but we don't — —

Mr DALLA-RIVA — Okay, the perfect world for you tomorrow, no moratorium — —

Mr ANNELLS — That would be 1000 jobs.

Ms SHING — For which area, the whole state?

Mr O'BRIEN — For that particular plant.

Mr DALLA-RIVA — That is the development. Post development?

Mr O'BRIEN — This is a $2 billion — —

Mr ANNELLS — That would be the development, at the end of the day.

The CHAIR — The final number.

Mr DALLA-RIVA — What is the anticipated financial return? In other words, we have heard from the dairy industry how much they generate. What are you anticipating out of the process in Gippsland and in Portland?

Mr ANNELLS — That we would make?

Mr O'BRIEN — The overall.

Mr ANNELLS — That is a pretty hard question, I am afraid.

Mr DALLA-RIVA — Take it on notice, but I think it is important.

Mr ANNELLS — We are subject to the ASX requirements; it is not really an answer we would like floating around out there.

Mr DALLA-RIVA — We realise you have got shareholders. That is why I said you could take it on notice, but it must be something in your prospectus or something that you have got on the public record.

Mr ANNELLS — We are happy to disclose those numbers in confidence, but I do not think they should be public.

Mr O'BRIEN — There was a report released by Harvard Business School that it added $430 billion to the US economy last year — the unconventional gas industry.

Mr DALLA-RIVA — I just want to know what it is in Australia — in Victoria in particular.

Mr ANNELLS — We can give you some numbers, but they would have to be in confidence.

Ms HARTLAND — Can I just jump in here. That is a bit concerning, because the front page of your presentation says that energy equals jobs, but you cannot, or will not, tell us how many jobs there are.

Mr ANNELLS — I just did.

Ms HARTLAND — No, you just said it would have to be in confidence.

Mr ANNELLS — No, no — —

The CHAIR — He said 1000.

Mr ANNELLS — I said we were looking at probably 1000.

Mr O'BRIEN — The proposal for Portland is around 1000 jobs and $2 billion expenditure.

Ms HARTLAND — Yes, I heard that, but you are saying that other numbers would have to be in confidence.

Mr ANNELLS — No, the profit numbers and the production numbers would have to be in confidence — our profit numbers.

The CHAIR — I think he has made a distinction, Colleen, on two things: one is the general number of people who would be employed, and the other is their internal company figures.

Mr ANNELLS — Correct. Incidentally, the Chinese met with the department and the minister of the day's secretary, and they publicly said that they were looking at $1 billion here and 1000 jobs.

Ms HARTLAND — That is at the Portland site?

Mr ANNELLS — No, that is here.

Mr O'BRIEN — This is Sale; this is the urea plant here.

Mr ANNELLS — That is on record — not my words; theirs.

Ms HARTLAND — I am just asking.

Mr DALLA-RIVA — Economics 101, Chair — supply and demand, price — is all good in theory. The aluminium price — I was involved with the issues around what occurred in Portland, at Point Henry and elsewhere. The local price had nothing to do with it; it is about the international market. Clearly the international market is going to have an impact on the price of gas locally. I have just done some quick research to see if I am correct in my assertion. It appears that there is a lot of evidence. There was a recent report done by the Independent Pricing and Regulatory Tribunal. It said the amount of coal seam gas extracted from New South Wales had minimum impact on what the state's residents paid for gas and that the price has now been set in the international market. Then it goes on to say i is simply misleading to assume that local gas reserves will affect global prices because global prices will be set by other factors.

Mr ANNELLS — That is all true.

Mr DALLA-RIVA — So I hear what you are saying, but I do not quite necessarily believe what you are saying.

Mr ANNELLS — The problem is — and this has been proved in Western Australia — when the North West Shelf came into existence they put a pipeline to Perth as part of the deal. Charlie Court gave them a take-or-pay contract of $3, which was unheard of in the 1990s, because Woodside said, 'We are getting a higher

price for our export'. That was for 10 years. At the end of the 10-year period Woodside said, 'We are still getting a higher price for our gas out of the North West Shelf. The new price is $9. Take or leave it'. So the Western Australians have taken the ugly pill that we are about to have here.

What has happened here is that the whole of the eastern states, from Brisbane down to South Australia, are all connected by pipeline. The gas is flowing round and round and in and out and back and forth. Putting gas into the pipeline is like putting money into the bank. You can take it out somewhere else. Put gas into the pipeline in Melbourne, and you can take it out in Brisbane. What is happening, or what is forecast to happen, is that when all the LNG plants are working in Gladstone there will not be sufficient gas to meet the contracts that have already been written. Therefore they are going to start raiding the south, and a lot of gas from down here will be sucked into Queensland, which is going to drive the price up and which comes back to supply and demand.

The CHAIR — There are constraints on that, though, on the pipeline?

Mr O'BRIEN — The capacity.

Mr ANNELLS — They take it out of Moomba. We have to send it to Adelaide. It is hard to control.

Mr DALLA-RIVA — There is a lot of discussion about Portland.

Mr ANNELLS — Yes.

Mr DALLA-RIVA — And coal seam gas extraction down there.

Mr ANNELLS — No, there is not — —

Mr O'BRIEN — Tight gas.

Mr DALLA-RIVA — Tight gas, sorry. I am learning. You have said there are two sites you are looking at.

Mr ANNELLS — Yes.

Mr DALLA-RIVA — So what happens here?

Mr ANNELLS — We have one here; we have an application before the department to drill right now.

Mr DALLA-RIVA — The question that has been asked, and certainly I have asked it on other occasions, is: do we know there is a supply of gas on those Wombat sites?

Mr ANNELLS — We can show you a video. There is a huge amount of gas down there.

Mr O'BRIEN — We have proven it to the point here that we are comfortable that we can produce commercial gas here once we are allowed to go. We need to do the work over at Port Fairy, Portland.

Mr DALLA-RIVA — How many years supply do you anticipate out of that?

Mr ANNELLS — We have given them one reserve figure, but there is more than that. That is one figure that we have given —

Mr DALLA-RIVA — And what was that again?

Mr ANNELLS — which is the Wombat figure of 280 — —

Mr O'BRIEN — So it is 370 BCF. We think that will supply for 20 years or so out of those wells. We would need 12 wells to access all of that — so not hundreds of thousands of wells, as has been put. But then there is still the deeper stuff. That is just one structure; there is another field directly to the north of that which is actually larger, but we do not have as many wells into that. But we have still proven that there is commercial gas in it. We think we have got enough gas here to supply this state, similar to the time frame America is looking at with their new discoveries. It is in the foreseeable future.

Mr ANNELLS — I did say in my address that Beach were prepared — they actually let the contract for the equipment. They were moving it down here to Wombat; 50 million they were going to spend to bring that into production. So it is not just our thoughts; there is somebody prepared to put hard money on the table.

The CHAIR — And you had signed a contingent contract on — —

Mr O'BRIEN — A provisional gas sales agreement, yes, with Simplot and Dow Chemical.

Mr ANNELLS — Contingent on being able to prove the gas up. So there is a price and a volume.

The CHAIR — And the price is lower than the standard rate.

Mr ANNELLS — Yes, but we have not disclosed that. We are happy, again, to disclose that in confidence, but that is not a public figure.

Ms BATH — At Wombat Creek would there be fracking?

Mr ANNELLS — No. We have proven that it is commercial use in fracking. We believe we can do it with the horizontal well without any fracking at all.

The CHAIR — If I can come back to the other point you made at the start, aside from the general points, what you propose is that two sites be built in the west of the state?

Mr ANNELLS — Correct.

The CHAIR — To prove up the capacity — —

Mr ANNELLS — Yes.

The CHAIR — Just let me get this clear: that that comes out of the old arrangements, the old tests that were done back in the 60s — —

Mr ANNELLS — No, they are new wells. We will drill completely new wells. We drill straight down — —

The CHAIR — In similar structures.

Mr ANNELLS — Not very far away from some of the old wells, I might add, but they are a kilometre away. So we will drill a vertical well, which we believe will give us sufficient volume to justify all the studies we have had done: yes, this is correct, and we do have a major new resource for Victoria. Let us sit down with everybody concerned — the government, the Greens, Lock the Gate, everybody; how are we going to develop this state with this new resource?

Ms SHING — Why would you not do them on the same sites as had originally — —

Mr ANNELLS — Because there are better sites. We just moved about a kilometre away because we think it is better.

Ms SHING — On what basis do you think it is better?

Mr ANNELLS — On all this data that we have. You are welcome to have a look at it, but I do not — —

Ms SHING — That is developing new technology.

Mr O'BRIEN — But also the old wells were targeting oil, not gas, so they were drilling on the side of structures, because that is where the oil is. We want to drill on top of the structure, because that is where you going to get a better sweet spot.

The CHAIR — So there is a technical reason. What I think is important today is that the committee is obviously not in any position to make comment —

Mr ANNELLS — No, I understand that. It is just a suggestion.

The CHAIR — and if you have specific points to make, you probably should make them in a letter to the committee, and we can consider that in a thoughtful —

Mr ANNELLS — It is in our submission.

Mr O'BRIEN — We are putting in a detailed submission, obviously.

The CHAIR — way from there. But we are obviously not in any position to make any statements —

Mr ANNELLS — I understand that.

The CHAIR — or take any steps of any kind at this point. We clearly have a longer term purview to understand this industry and to understand what is right for the state or not. Thank you for your submission. We look forward to your formal submission. The secretariat may be in contact over the next period to clarify a number of points.

Mr ANNELLS — Thank you.

Witnesses withdrew.