



## ***Katherine – Gasfield-Free Community Surveys***

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**8 August 2017**

***Godinymayin Yijard River Arts & Culture Centre, Katherine***

***Speakers: Jill Emerson-Smith, Lauren Mellor, Vivienne Soebek, Nancy McDinny, Glenys Somers, Petrena Ariston, Kerrie Mott***

Lauren Mellor: Thank you very much to the chair and to the panel. My name's Lauren Mellor. I work with the Northern Territory Frack Free Alliance, an alliance of community organisations in communities across the territory who are looking to stop fracking on their lands.

I'll just pass it on.

Vivienne Soebek: I'm Vivienne Soebek. I'm a resident at Barrow Creek on the old highway. I'm a volunteer for the Frack Free Alliance for the Northern Territory and I'm coordinator for our hub.

Hon. Justice

Rachel Pepper: Thank you.

Petrena Ariston: Hello. My name's Petrena Ariston. I've lived in Katherine since 1979, and my husband and I run a tourism business in Katherine.

Hon. Justice

Rachel Pepper: What's the name of the tourism organisation?

Petrena Ariston: It's Top Didj Cultural Experience and Art Gallery.

Hon. Justice

Rachel Pepper: Thank you. Yes. Thank you.

Glenys Somers: My name's Glenys Somers. I'm from Mataranka. We're in the tourist industry as well, Bitter Springs Cabins and Camping. That's it.

Hon. Justice

Rachel Pepper: Thank you. Sorry. I didn't quite hear your name. What was your name again?

Glenys Somers: Glenys, G-L-E-N-Y-S, Somers.

Hon. Justice

Rachel Pepper: Thank you very much. Thank you. Yes.



Lauren Mellor: Okay. Thank you very much to the panel. Firstly, I'd like to acknowledge that we're on Jawun country, and pay my respects. I'd also like to acknowledge that we're sitting here today in Katherine, where the extent of harm from PFAS chemicals deemed safe just years ago by all levels of government have been dispersed into the environment and leached through into soil and waterways throughout this region. The extent of contamination of underground and surface water is only just starting to be understood, yet we know that already, several dozen households are now reliant on bottled water, while awaiting toxicity tests. Health concerns are growing daily, and the boundaries of known contamination and acceptable levels in the water supply are constantly being updated.

I would like to note that fracking compounds used in Australia have been shown to include many hazardous substances, including carcinogens, neurotoxins, reproductive toxins, irritants, sensitizers, and endocrine disruptors. It is also worth noting that some of these chemicals are toxic, even in extremely small concentrations. To support that, I will first table this Carroll, Mohsin, Blashney paper with the panel and all other reports that I refer to I'll table to the panel.

Hon. Justice  
Rachel Pepper: Thank you.

Lauren Mellor: As we conclude. So, in this presentation we've got a number of speakers from across varied communities in the Territory. We're gonna be hearing from a global perspective down to a Northern Territory community perspective and then giving some clear recommendations for the panel to consider.

I'd like to start by talking firstly about October, 2016. As the world watched representatives of over 197 countries, including Australia, sign the historic Paris/UN Climate Accord. Pledging to keep global temperature rise from climate change, as they say, well below 1.5 degrees. While the Northern Territory government at the time applauded that decision, a 2016 study by The National Climate Change Adaptation Research Facility produced by CoastAdapt provided estimates of future sea-level rise out to 2050 and 2100 for four green house gas concentration scenarios. Those predictions estimate by 2030, the sea-level could have risen by 10 centimetres. By 2050 it would have rise 20 to 25 centimetres, and will continue to trend upward to 2100 and beyond.

In all of the scenarios, parts of the Territory's most populace coastal suburbs, including Cullen Bay, Rapid Creek, Coconut Grove, Bay View, and the Chief Minister's own electrode of Fanny Bay go under water. We just experienced the hottest July in Australia since records began. As we know, the evidence in the speed and intensity of climate changing impacts continue to grow.

As these extraordinary measures committed to in Paris were being adopted at an international level to urgently respond to the rising threat of a



warming planet, fossil fuel companies around the world were counting in their resolves of unburnt coal, oil, and gas, five times what those scientists predict can be safely burned while reliably keeping temperatures below the two-degree threshold. That's from the Carbon Tracker Initiative a good London based climate scientist.

The Northern Territories reserves of shale gas under the spotlight through this inquiry, are not even included in that figure of extra reserves and have never been considered as part of the Northern Territory, or Australia's, emissions budget.

Even if the Northern Territory fracking industry could avoid all operational pollution and put in more expensive technologies to have a two percent methane leakage rate, as the interim report has indicated, burden of new methane emissions from any development of on-shore shale gas fields in the Northern Territory would inevitably shoot us well past a responsible carbon budget. We simply can not be opening up new carbon basins.

The Finkel report outlines that Australia will move from 6% to 3% reliance on gas for electricity into the future. There is plenty of conventional gas available to meet this diminishing requirement for gas. And, currently it is cheaper to back up renewables with storage than it is with gas.

Shale gas fracking in the Northern Territory is bridge to nowhere.

I wanna talk about some of the work that our communities have been doing around the issue of fracking since we first became aware of it. I, myself, in 2013, started becoming aware of the risks and impacts of unconventional gas in Australia, and around the world. At that time, the Australian Council of Learned Academies released a report titled Potential Geological Risks Associated with Shale Gas Production in Australia. This report specifically dealt with the risks and information known about shale gas and the likely impacts of it on the Northern Territory considering the geology and the potential impacts to water. That ACOLA report, in their report, made an assessment based on the best available information at the time, that there would most likely be a shale gas well every 800 metres in the shale gas basins across the Northern Territory. This is outlined on page 27 of their Frogtech report. This is also a similar distance to what are seen in unconventional gas field developments currently and those approved into the future in Queensland.

This gas field lay out, assumption made by ACOLA, was supported by the photographs of shale gas fields that were operating in the world at the time. The testimonies and evidence put forward by the thousands of people living and working in shale gas fields around the world, particularly North America.

This is the type of information communities were requesting about the scale nature impact, the risks from this industry as it was being rolled out, and this was the information that myself, in my role, bring to communities that we've been invited to visit across the Northern Territory.



So, fast forward a couple of years and I see two things now taking place. One, the weight of new peer reviewed evidence of harm or increased likelihood of harm is increasing with hundreds of new papers being released in just a few years. Measured impacts of water contamination from shale oil and gas activities impacting ground water, residential drinking water, and surface water systems is becoming more frequent. Two, the on-shore gas companies have got a new story and rubbery figures on gas wells and water use. In the face of community concern around the number of shale gas wells slated for communities and the impact surfacing from high-pressure horizontal hydraulic fracturing world-wide.

The expected number of frack shale gas wells now put forward by Santos, Origin, Pangaea to the panel defy current practises and are not in line with the extent of their holdings of the shale gas resources in the Northern Territory. The ability for Santos, Origin, and Pangaea to draw mega frack wells of up to six kilometres horizontally through a shallow layer, defies the reality of their extremely limited operational experience in shale.

The extremely high pressure and horse power required, greater volumes of frack chemicals in water and the geological risks and uncertainties are completely unknown and untested. Even more worrying is the lack of information about the well integrity risks and implications of requiring such increased pressure and the far higher number of fracks required along the horizontal.

What does the long distances, higher pressure, and unknown down hole environments do for well integrity for short or long term? We don't know. They can't tell you, they don't know.

The scenarios being put forth by Santos and Origin for long horizontals offer no certainty, are completely untested and create a situation where the residents, waterways and landscapes of the Northern Territory will ultimately be guinea pigs in what has been shown in other jurisdictions to be a dangerous unconventional gas experiment.

Those are my opening remarks, and I want to talk now with the rest of the panel, about the question of a social licence to operate which has been a major feature of discussion through this inquiry. As I've been watching this inquiry, we've seen many previous presenters have made the strong case that the way to scientific evidence demonstrates harm to water, land, community health, and the climate from fracking gas fuels. I'll be tabling a Hays and Shonkoff paper to back up that point.

For an Australian context, just this months new peer review paper was released from the University of Queensland, documenting community responses when asked what their needs were in the face of the calcium gas industry operating in their local shire. The report measured an increase in fast-food outlets, and liquor stores to cater of the CSG workforce having a negative impact on the health of the local community and increasing drug and alcohol abuse, which were linked to increases in local crime and anti-



social behaviour and increased demand on public services on unemployment following the boom period, and the environmental affects of drilling and mining on the town water supply and the fishing. These are important social impacts that deserve thorough consideration in any cost benefit analysis and any social impact assessment being undertaken in the Northern Territory. I'll table that University of Queensland paper with the panel.

We acknowledge the political context though is very different and can be counter posed to the scientific and lived reality of unconventional gas. Hence why we're seeing such an emphasis on attempts to establish a social licence to operate. To be clear, we define a social licence to operate as being a constantly renegotiated status of acceptance, approval, or the absence of conflict between a corporation or industry and the communities in which they seek to operate.

The Australian Centre of Corporate Social Responsibility defines it similarly as the level of acceptance or approval continually granted to an organisations operations or project by local community and other stake holder. With four levels from lowest to highest, withdrawal, acceptance, approval, and psychological identification.

Our panel of community members today, you're going to provide case studies and evidence as to why the fracking industry does not have a social licence to operate across our urban, regional, and remote communities and offer some recommendations on the way for resolving the risks identified in the interim report.

We're going to talk a little bit about the gas field free survey experience and communities and other work that community members here have been doing to establish whether the issue does indeed have a social licence or whether it could even be gained.

I'll first pass on to Vivienne Soebek to talk about the experience in the Coomalie Region of the territory.

Hon. Justice  
Rachel Pepper:

Thank you very much.

Vivienne Soebek:

Thank you very much. Thank you. My work involves working part of Adelaide river, out from the boundary down to Tipperary turnoff. We call this area Sookwood, it was a development of the breaking up of the western part of old Mt. Bundy cattle station. What's in interest there is that the holdings are quite large, from say 350 acres to about minus 1,075 acres. They're the biggest, it's got the country, it's water constrained country some country, down in the flood plain is good cattle country. Some you can do ponding or different small, small enterprises such as ... and native grass and hays, 30% raw protein. There's other opportunities for organic farming, which come people have taken. We've got some people who have made a living from horticulture growing tropical fruit and some vegetables as well. The other riding thing about that area basically is it's water constraint. It's



part of the old Barrow rock formulation, the end of which pops out at the Casuarina Beach and all these little signs they tell you what's part and past and all that. The people who've bought these block seats here in the 90's they're all Territorians. It's not necessarily an age but they're born and bred or they've been here a hell of a long time.

I've been here 49 years and when I see yak, I think they never left. You grow into a country; you grow into it and you grow to have associated cultural attachment to it. So, when you look at country, it's not just a lot of trees or a bit of scrub. It's something that has quite a lot of control over your life sometimes particularly when you get 16 inches of rain in 8 hours and the creek rises 14 minutes then you have 75 centimetres of water running through your house and you thought you'd be fine forever.

This country, don't take it for granted. I think that's one of the important things. The ... at the wet season is one important aspect. You can go okay I'll catch three metres of rain in one wet season and 1,080 in another. The notion that one can depend on each year is gonna roll along in a graceful method, it isn't true.

The nice people live here for longer and longer, they learned to recognise this and they adjust and change their behaviour accordingly. If they don't, it's to their own detriment. When I was doing the survey for the particular area that I actually do personally, I was interested in the way people responded why they didn't want it after they had a two week period of time to look at the CD on sacred ground which was pointing out the pros and the cons. Unfortunately, most of them are the cons of gas fracking. We haven't yet come across that says it's absolutely fabulous and gosh what an opportunity we can't miss. That's the overall thing that came through on the request that people listen to these CDs, look at the notes and I go back in two weeks. Phone them, email them, two would have been overseas so that was emailed.

The result of this sort of collective consciousness that came to the people making up their mind. Not based on mother goose statements, it was based on experience living in this part of the Northern Territory in the Top End and it went along with a history of remembering their long-term Territorians, they left holding a baby. Beginning with the uranium industry around the Batchelor area. The Batchelor people have very long memories, they remember. The Lake Bennett is really based across the highway to the east of Batchelor. There are a lot of Territorians there as well, so that the whole root, and Adelaide River it got people who had been third generation cattle industry people here so they're not really bright eyed and bushy type, they're also very good, can I say crap detectors. They know how to research, they know how to admit work, they know how to talk, they know I can talk to this guy. Well he's got a son-in-law that's this, that, and the other.

The information comes from networking and it is very, very strong. We talk to each other and information goes like fire around the community. We may not go to the pub together and all that sort of stuff; but, it is there. On this





particular issue, it's very clear that being a Territorian and being reasonably experienced in what works well and what doesn't work well. Also, being networked literally if you'd like with the internet has been an amazing thing. They're very good at working out what is just a motherhood statement or what's a lot of hype versus what is really good data.

The data keeps coming out, I actually had a phone call from one lady that call me yesterday, Viv how'd that Katherine thing go? I said well it hasn't yet, it'll be tomorrow night and I'll have more information. Cause they're keen to know. They want to know what's going on.

The overall outcome, was overwhelming for the Coomalie region. No, we don't want fracking, it's not safe enough. The evidence is not there to support it and the way it went, Adelaide River's probably got about 200 people in the town, we had 150 responses so that's adults over, basically I think maybe three or four didn't respond or said I'll be fabulous we had some fracking, of course that would be good for the town, it'd be good for business, and that sort of thing. Of the 150 responders Adelaide River, 96.5% said we do not want fracking, we do not believe that it is appropriate, it's not safe, and we don't need it.

Comments like, well what the hell have we got all this sunshine for? Now these sorts of comments are coming out, I know they're ground level but that's what drive people's perceptions of life. Batchelor has the biggest population. There were 231 responses in Batchelor they have a large non-permanent population with the students from the Batchelor Institute too so that didn't qualify. Out of that 98.1% said no thank you to fracking. Like Lake Bennett, 15 people lived there and 100%, no we don't want fracking, thank you very much.

We also went to council, Coomalie Community Council and they actually wrote a letter to the Minister, to Mr. Turner supporting the communities view that fracking was to be reserved from the Coomalie Region. We thought that that had actually been granted, but it was initially and then suddenly when the new map came out, what section was it? One of the sections had suddenly been removed. So, where I am is now at risk again. Where as I thought it was safe because that was what we were led to believe by the minister and the leader of the, the chief minister at that time.

When it comes to trust, there's not a lot. So, if you haven't got the trust, it's going to be an uphill battle for a social licence to operate. That social licence isn't really getting any good support because the latest still have to come out from America from their own EPA regarding long term pollution of water tables. It's pretty compelling. The anecdotal evidence affects residences of the Chinchilla and Roma area who can not sell their properties, they've moved too close to Adelaide River, but they can't even sell it because there is no value because the water tables are destroyed.

All of these things feed in to how ordinary human beings, the long term Territorians, think and how they respond to these different ideas that come



in. It's not only development but what it's a recognition that you can't have multiple land use if you're going to have fracking. We have rules regarding fires, but if you're going to have a flare all the time when there's a 40 kilometre south-easterly blowing, not easy. We're on a fire bed and the fire's are still flaring. How are we going to work around those sorts of things?

All in all, in a nut shell, the answer from Coomalie Region is no thank you, we do not want fracking. I've got one little bit more.

Lauren Mellor: ...

Vivienne Soebek: I do?

Lauren Mellor: ...

Vivienne Soebek: Oh well, okay, no I've done mine.

Lauren Mellor: ...

Vivienne Soebek: So, thank you for listening.

Hon. Justice  
Rachel Pepper: Thank you, yes, next speaker

Lauren Mellor: Just to be clear about the survey question that was put to respondents through the process it's do you want your region to be gas field free. So, the survey respondents had a chance to answer either yes, no, or unsure through that process and obviously only over 18s were able to answer. Every resident was given the chance. We don't have the resources of the census, obviously, but certainly gave it a red hot go to absolutely come back and see people multiple times so they could have an opportunity to answer. It was proposed through public meetings in these places and the teams of surveyors were combined of people voluntarily putting their hand up from that meeting and saying I would like to conduct these. So that was generally the process in which these surveys took place everywhere.

Petrena Ariston: Hello, Yes I got involved in this, I think it was about 2012 when we had our first meeting in town, just said that, I forget who did the meeting. It was Pangaea, it was something that came along and of course they were talking about the gas and how wonderful it's going to be. They showed us this glossy pamphlet and it all just didn't seem right. Of course, since then I started to look into this and of course we've had ... I joined Don't Frack Katherine organisation with a group of us that went to these meetings. We all go together, we've had people come over from Queensland to tell us about what's happened there and also I've had people come over from America come over and have talks to us. Of course, I've done a lot of reading.





What happened, one day, I was listening to the ABC radio and Stan Gavity who I think's with Pangaea, who was resigning and the interviewer was talking to him and Stan was saying how everything's alright, we've got social licence, nothing's happened, there's nothing for people to be worried about. I just thought well what's going on here? They haven't even started, of course there's nothing's happened yet. So, I rang up the ABC, and said, 'cause the interviewer wasn't doing a very good job, I just said could I ask a few questions. They said oh well you've got to send a text. I don't know how to send a text. I sort of worked out a text and by the time I got my text ready, he was off the air.

I was very disappointed and very disillusioned because I thought the people I've talked to, they've not given the social licence. I live on Gorge Road, which is about 36 kilometres, we're starting from this Giles Street and then Gorge Road. I just thought, I've got to do something about this. I went and purchased a map, found out all the properties on the Gorge Road, it took me three months, I went and spoke to all the people on the properties, I went to 62 properties, I spoke to 112 people. One of them was a Gorge campus well where there's about six houses in that little area. Everybody I spoke to, well the result was ... There's a little road off Gorge Road which is Jaensch Road and there's about seven properties there, so I saw everybody there. Everybody on Gorge Road and the result was 98% for Gorge Road don't want ... They answered those questions that Lauren just spoke about and 100% in Gorge Road said they don't want it.

They're all aware of them, nobody I spoke to wasn't aware of what was happening. They've sort of looked into it a bit. They don't trust the Government, they don't trust the mining companies. They just said no, we definitely don't need it. Also, what about, we live in a Country, we live in a State, Territory sorry, with such sunshine why aren't we looking to that. There's so many things happening around the world, even in Europe where they don't get as much sunshine as us, why aren't we tapping into that and this is what people were telling me that, that's the way we should be going.

I speak to tourist all the time and we have an experience where we have tourist coming in and after the tour, we do have anti-fracking postcards that say if you're away of them ... fracking and a lot of people are, especially when they've come from other states in Australia, Western Australia particularly in Queensland, I've asked them to sign this because we want to get so many of them, give them to our chief minister and they say oh for god's sake, don't let it happen here and they've told me stories of what's happened in their areas. One postcard that I got from a guy that lives in Geneva and I just said to him, how's your experience been in the NT? He said, I'm just blown away by the fact there's no industry. You go everywhere and every thing's pristine and everything's clean. I said well it might not be like that for too much longer. We just sort of had a little bit of a discussion about it, but everybody comes here and they're just overwhelmed by the beauty. The fact that they can go and drink the water, breath the air and we want it to stay like that and so do they.



It's interesting that we always talk about the case study of Beetaloo and around that area there. We have to realise that we are all connected. The water's all connected so if anything happens down there, it's going to affect other areas as well. I'm happy to have had this opportunity to talk to people, that we've got the panel and we can talk to you people. We're all individuals and we find it very hard to get our word out there because sometimes the papers and the TV, I don't know who pays them or whatever, but we don't get much of a say. So, we've got to go out there and find our information and we do look at all the information.

I'm very appreciative that we've had the chance to come and talk to you people. Just realise that we're really depending on you guys to get the story right, which I know you will. I know you're very busy, I'm hoping you do get the chance to see a bit of the Territory while you're here. Take your shoes off, go out there, feel the ground, have a swim, make sure there's no crocodiles of course. But just get out there and just say how beautiful the Territory is and we don't want it to be spoiled because the future is in tourism and agriculture and stuff like that. I don't think mining will only last for a little while and it could be so detrimental to the area. Thank you very much.

Hon. Justice  
Rachel Pepper:

Thank you. Yes.

Glenys Somers:

Okay, I'm Glenys from Mataranka. In our survey, we did a survey of 109 people and we broke it up for different people because we're well spread out. Each one took a street, we don't have a lot of streets, but they're spread out. Also there was 109 people got surveyed, 104 do not want fracking, two said they want it, three were undecided. With most of those people they were very vocal about it. They were very angry 'cause Mataranka's just left off the map for so many things. Yet, Mataranka's is a very old town and we have a lot of history and also with the Roper River. The Roper River runs, we are at the start, we're right at the start at the Little Roper. Now if that stops, that's spring fed as well so that runs all year and that runs all the way out to the gulf.

The last few years we've had dries, dries/wets. But, also we've had mining out there that have destroyed an area. That was Western Desert and they went broke, another one. That's cause to be issue because a lot of the water's contaminated already and there's areas that we can't go fishing anymore. The Aboriginals in the area can't. It affects everybody. We all share the land. We've got the stations, also agriculture which we got the biggest mango farm in the Territory. We've got two big melon farms, that are large ones and now we've got sandalwood but the sandalwood's trying to buy off everybody's water licence because they haven't got enough water. That's another issue. Then mining comes in on top of that, which is the gas and everything. They're gonna use a big chunk of our water.

The thing is each one of those industries takes a big toll on our ecosystem there, it's suffered for the last few years, really suffered. Now, this year the river's come up because we had a, not over the top wet, but we had a good



wet. Basically at the end of the day if we don't get the water where we are, it doesn't go all the way out to the Gove. Feeds all the fish, you've got the fishing industry, the prawning industry, and all of those along the chain. It's a whole ecosystem that's been there forever.

Stuart found Bitter Springs, like the Aboriginals have had it for a long time, but Stuart he discovered it when he explored the Stuart Highway. That saved his life a number of times and it's always been there. As soon as they start drilling, it's going to collapse, the whole system because it's all limestone and it'll be hollow. You do see bits and pieces every now and again of things caving in and that. But it's not gonna be there anymore and that's worth a goldmine in tourism, it's been going forever.

Hon. Justice  
Rachel Pepper:

Thank you.

Glenys Somers:

...

Lauren Mellor:

Thanks everyone. I just want to add to that two more survey results that were done and unfortunately the community members who would have present those can't be here today. Those are the old east side suburb in Alice Springs. The question again was put do you want Central Australia to be free of shale gas fracking. That was self-declared by the community to be gas field free. They surveyed a total of 603 residents in that suburb, the response to that question was 538 in favour, 17 against, and 48 unsure. So, the results, they were 89.2% of the old east side suburb wanted to see it gas field free. So, that's a really strong result, there shows a high level of understanding about the industry and people's values regarding it there.

Most recently we just had the remote community of Borroloola in the Gulf of Carpentaria declare their community gas field free based on a survey of approximately 400 residents with 382 in favour of a gas field free region there and just two unsure, which also demonstrates a high level of awareness across remote communities here which are largely surrounded by fracking permits.

Those are the survey results that we've concluded thus far and there are other communities taking on this work as we speak to demonstrate the views and attitudes of their residents. I also wanted to refer the panel to a ReachTEL poll that was conducted just before the 2016 territory election in which the question was put to members of the Darwin electorates, whether people were concerned about the impact or risk to water supplies from shale gas fracking. 84% of residents polled in those Darwin electorates reported being concerned or highly concerned about the impacts of fracking on their water and on past releases was a second question so we can table the entirety of those questions and the responses there. But, it shows even in urban areas people are quite concerned about the impact on our natural resources and water.

Also, I know the panel's been referred to it before, but I wanted to reiterate that 17 Northern Territory cattle stations also signed a pre-election



statement calling for their water to be protected through a ban on fracking or lifting of permits in their region over past releases. Also, local councils have done quite a lot of work to reflect residents attitudes around these and to do their own research and currently Wagait Beach, Coomalie, Alice Springs, and the Katherine councils all positions calling for permits to be lifted in those municipalities.

As you can see from this, community members have done the hard work of talking to their neighbours, learning about the on-shore fracking industry and engaging fully in this inquiry and bringing what they know to the views of the panel. Northern Territory residents the right not to be forced to live in a gas field and want the right to participate in the decisions that will affect their land/water resources and their livelihoods. The panels focus on the Beetaloo Region through this process does leave some concern that other communities and regions will be in the dark about their future and experiencing continued anxiety with the conclusion of this inquiry.

Living under an approved fracking exploration permit, I'm still not sure if the Northern Territories population is at present, is incredibly stressful. People need certainty to invest in their families and their businesses across these regions. We would ask how would these contested regions and the wide range of exploration licences and applications be dealt with outside of the Beetaloo Region at the conclusion of this inquiry.

Due to the sheer amount of evidence that's coming to light through this inquiry, we put forward that no government department, landholder, or land council had access to the full picture of shale gas fields in production nor the full gamut of risks that should be considered before an exploration licence is granted. We heard about that just in the last presentation. There was a lot of new information coming to light despite these legal agreements being in place. We put to the panel that the Northern Territory government and the fracking company should relinquish the exploration licences where they are contested as has been done in other jurisdictions to allow for better informed consultations and participatory decision making about these.

I just wanna go to another issue that's come up in this inquiry quite a bit before we conclude. That is the lack of trust not just in the government regulators of this industry but in the companies, themselves. The inquiries been hearing from many stakeholders, there's little trust in the government regulators to oversee this industry. I would also say there's no trust in the gas companies themselves, and with good reason. The fracking companies are not even giving the true picture of the risks of their industry to the panel as we sit here under the Inquiries Act.

I refer the panel to Santos's statement from a couple days ago in their submission and they stated that in about 50 years of operational licence, we've had no incidents across our gas fields. So, I researched the compliance reports for Santos in South Australia, I just want to give the panel some examples of some of the spills and incidents that were picked up by the



regulator. I'll table those for the panel to consider. For example, in the Cooper Basin where Santos has been operating in for a couple of decades. In 2012, Santos reported 17 flow line failures, pin hole leaks on their 5,000 kilometre steel flow line network in the Cooper Basin. The failure mechanisms related to external and internal corrosion with the primary root cause being inadequate monitoring and maintenance.

In September, 2011 Santos reported a leak adjacent to crude oil storage tank 1,000 on a separate buried crude line to that which failed in November, 2009. In December 2011, Santos reported a failure detected on it's 10 inch buried crude run down line from the crude stabilisation plant to tank 3,000. This was attributed to defects in the corrosion protective wrap at the location where the pipes failed.

In January, 2011, Santos reported hydrocarbon on ground water at 22 metres below ground level, dissolved hydrocarbons had been detected beneath the decommissioned burn pit adjacent to the Toolachee gas processing facility within petroleum licence 14 in the Cooper Basin. The oily sludge pit at the Moomba plant is lined, but leaking during operation. This allowed for vertical migration of contaminants through the soil profile and hence seepage into the underlying shallow aquifer. Not only has Santos but water at risk, they've put lives at risks through their operations.

In 2011, the South Australian Industrial Relations Court ruled that 13 employees had been placed at risk due to critical safety shortcomings. These included inadequate risk assessment, which failed to identify the likelihood of plant failing due to liquid metal rendering it brittle. The company pleaded guilty to breaching the OH and Safety Welfare Act after a safe work prosecution and was fined \$84,000.

On it's Queensland side of operations, the Santos oil spill in 2013 released about 250,000 litres of oil to the Cooper Creek flood plain. A freedom of information investigation was launched into this spill, a July 2015 department briefing document noted Santos has historically had both major and minor spills which can be attributed to ageing infrastructure and poor maintenance and management.

The incidents and spills continue over time, for example in 2015, Santos reports that they had 75 spills of hydrocarbons and non hydrocarbons of over 10 litres per spill. The total was over 2,600 cubic metres of un-contained volume, this is only measuring the fluid spills. The methane and other airborne pollutants are not even considered here. I have a table which I can leave with the panel, with six years of data and continuous problems with uncontrolled fluids from Santos' own data and government regulators.

It's also available online for anyone who cares to look on the 2015 Santos sustainability report.

Hon. Justice  
Rachel Pepper:

Thank you.





Lauren Mellor: So, that's just a small summary of the reports that are available through the public record and I'm sure there's also many more that could be accessed by the panel, but it does really put into question, Santos' truth in coming before this panel on those issues. I'd like to pass to Viv just to make some concluding remarks and recommendations to the panel now.

Vivienne Soebek: This inquiry in large part is really about establishing how the fracking industry can gain a social licence to operate. As the interim report states trust is a critical issue in gaining this outcome. The criteria from page three is the anxiety if not hostility surrounding fracking was on display during the first round of community consultation so by the inquiry. Overwhelmingly, the message received from the people who attended those meetings was that fracking was not safe, it was not to be trusted, and it wasn't wanting in the Northern Territory. This is clear feedback from the population of Territorians and it should logically, then, conclude that fracking does not really have a SNL social licence to operate in the Northern Territory. Therefore, it should proceed. We also, think that, on top of that, the data is available that says that the risks that the industry presents at the time now cannot be proven to be reduced significantly to acceptable levels that Territorians will take and accept themselves.

That was based on hundreds of conversations with Territorians and we still do not think that any regulations, sorry that, social licence, can be gained through improved regulation. For example, we've only got one or two mining inspectors available in the Northern Territory..

Lauren Mellor: Five

Vivienne Soebek: Five and we're going but, is there a designated environmental scientist or a group of them would be necessary. If you think that some places might have 2 to 300 wells, that's a lot of monitoring for someone in a large area like the Northern Territory to try and maintain at a level that kept everybody safe including the companies themselves so that they're not standing up to litigation and their public image is destroyed.

With those limitations in how well things can be regulated and/or concerned that regulations are being kept in place, the support for the current level of safety is pretty clear from the submissions that have been made today. We've had a look as the Frack Free Group here at the terms of reference and we still feel that a ban on the industry should be a recommendation made and this then until such time as the terms of reference can bring about a reduction in risks and impacts and that's going to be over time.

Item 5 of the Terms of Reference does state that the inquiry will identify any scientific technical policy or regulatory requirements or resources that are in addition to the reforms that are being implemented through the existing environmental reform process that are necessary to reduce environmental risks and impacts associated with the hydraulic fracturing of unconventional reservoirs to acceptable levels. In that sense, it sort of really does give the





panel the right to ban hydraulic fracturing until such risks are going to be accounted for to an acceptable level.

In item 6 of the Term of Reference it says that identify prior areas for no go zones which allows the panel to be clear, theoretically, that the entire Northern Territory is a prior area of being a no go zone. It would seem that there is the legal ability for the panel to not just make a recommendation, but saying sorry guys, but this is the way it's gonna be.

What we would like to recommend as The Frack Free Alliance that we would like to recommend that region by region votes, or Territory wide referendum would be the simplest, quickest way, and the fairest to decide on this issue once and for all. We ask the panel to give serious consideration to recommending a pathway forward to this affect for the Northern Territory Government to consider.

As you're scientist we also submit to you that the precautionary principle should apply with regard to land and water contamination and risks to exasperation climate change through methane emissions. One of the distrustful aspects of you folk doing that and it going to the Northern Territory and the Northern Territory going yes, we'll do that. You have to remember that the federal government can overturn legislation that we may wish to make in the Northern Territory, that experience comes from the euthanasia legislation which was passed, very successfully, and stomped on by Canberra, that again, see we have a two tier level of mistrust. It's going to be a hard job is all I can say. Thank you.

Hon. Justice  
Rachel Pepper:

Thank you very much. Thank you very much for your detailed and thoughtful presentations. I look forward to the papers that you've tabled. Thank you again for engaging on quite an important aspect of the inquiry which you've identified. Which is, of course, that the notion of social licence to operate.

I just want to make three comments. It's my and I think the panel's very firm view that we do not have encompassed within the Terms of Reference the ability and we will not be making a recommendation that the government lift the moratorium or not, that is absolutely a political question for the government.

What we will be doing though is where there are data gaps, further information that's required and that needs to be obtained. Rest assured that we will be making recommendations that, that information, that data, those studies are conducted and that information is contained, we will be doing that.

As for referendum, again that is a political question which will be entirely up to the government. But, no doubt, they will take on board what you have said. I'll not risk making any comments about how we decide social policy by postal votes.



Lauren Mellor: And the computer.

Hon. Justice  
Rachel Pepper:

The clear feedback from the Territorians that this wasn't wanted and so on, that you quoted from the report, the panel was quite careful to note that, that encompassed and encapsulates views from those people who came to the community meetings. We're quite careful not to say that this represents the views of all Territorians. I just want to make that perfectly clear; but, you're quite right to identify that of the people who came to the community meetings, overwhelmingly that was absolutely the view. We have, as I hope is reflected in the interim report taken that absolutely on board as well. Just a question for you Ms. Mellor, the information that you got from Santos, which I'm quite interested in, on the incidents including spills. You obtained that from the South Australian Regulators website? Is that how you got that information? Or, was that through trolling through-

Lauren Mellor: Yes.

Hon. Justice  
Rachel Pepper:

Santos material?

Lauren Mellor:

It's a combination of both. So, the Santos yearly reviews, there's also a document there that looks at 2011 to the present day incidents, breaches and that sort of thing. Also, from the industrial court down there which ruled against Santos in a number of those breaches as evidence from there. So quite a number of sources; but, I've compiled everything we have which really contradicts the claim that they haven't had any incidents worth noting to the panel at that time.

Hon. Justice  
Rachel Pepper:

Yeah, no we're grateful for that.

How easy, I just want to explore this, and there's a reason why I'm asking for this, asking these questions. How easy did you get that information?

Lauren Mellor:

It was very difficult. This was only brought to light by people in South Australia who have been looking at this because Santos has impacted their communities and so they've spent quite some time trolling through databases to compile this information as well and we're concerned that this wasn't being brought to light for the panel here. I imagine that there is this sort of log of incidents and breaches for each other company that has presented here to you similar to these. But, for us, in terms of the resources that we have, it's incredibly difficult to access it. These are generally not publicly available and it's very difficult for us to bring it to light of the panel. But I imagine that all of these are contained with the regulatory departments of each particular state and could be obtained though there.

Hon. Justice  
Rachel Pepper:

I'm asking because one of the things that we're looking at is sort of the transparency in terms of reporting. There seems to be a lack of transparency-



Lauren Mellor: Absolutely.

Hon. Justice  
Rachel Pepper:

Across different jurisdictions, they operate differently in terms of reporting. One of the things might be to consider recommendations around real time reporting of all incidences perhaps within certain parameters on a website somewhere that's easily obtainable and easily researchable and so everyone can go on and have a look and see exactly what companies are or aren't doing.

Lauren Mellor: Absolutely, that would be important.

Hon. Justice  
Rachel Pepper:

Okay. Any ... Yes, Dr. Anderson.

Dr Alan Anderson:

Thank you. I'd like to explore further the concept of social licence to operate. In particular, refer to a submission that we had this morning that made the argument that social licence to operate is not really based on evidence. The illustration that was given to us was contrasting the situation with the gas industry, which clearly doesn't have a social licence to operate, with the pastoral industry which clearly does. Let me just characterise the pastoral industry for this example.

Locks away vast areas of land from the public, much of it's controlled by foreign interest and employs relatively few people. It's a very dangerous workplace, it uses vast amounts of ground water, it causes very considerable damage to terrestrial ecosystems, and it's a major emitter of methane.

All those statements are true.

Lauren Mellor: Mm-hmm (affirmative)-

Dr Alan Andersen:

I guess that's a question of how do you explain such a contrast in community for sections of one industry over another, at least on the face of it, does not seem to reflect the evidence that we have available.

Lauren Mellor:

I think off the cuff, at least the pastoral industries producing something of greater need to people. They're producing food generally. What the gas industries doing is adding gas reserve to an already overburdened climate. We don't need any more gas essentially, I think the arguments been made to you quite clearly, we are washing that resource and why then you would force land owners to open up their land to extract ever more gas for a very small return to a very small return to a very small number of corporations.

People don't see that as being in the public interest the same way that they do see pastoralism and the production of food because you could make the same argument about food farming and monocultural farming and that sort of thing. It does damage the land, it does deplete resources; but, the reason why there is a different perception in the community is because they are producing something of need that is distributed far more widely in terms of



its benefit through the community than producing yet more gas in a region that certainly doesn't need it. The toxic legacies left behind, I think, by the mining industry and in particular the shale fracking industry is far worse for people to consider and in a lot of cases we don't have a resolution to a lot of those problems. I think it's for those two reason that the pastoral industry maintains a social licence and the shale fracking industry can't gain one.

Vivienne Soebek:

I think that the pastoral industry sometimes is seems a bit negative. But, in fact pastoralist are probably the group of people that have to be the most aware of ecological sustainability. Some of that evidence comes through in terms of the way dingos have been treated for example. They now realise that if you reintroduce the dingos you don't lose the cattle that you used to lose if you had foxes and other feral animals, feral dogs, big dogs that've gone wild and that sort of thing. So, there's that realisation. I think it was from Orange Creek, south of Alice Springs, just recently on the country there, which is a very good ABC programme, he was talking about the splendid wet season was for the desert mop. Matt Bran, who's the anchorman he said oh well, I bet you'll be flogging the country with cattle this year and he said no, no, no, that's not what you do. The countries been so good for the last five years in spite of doubt, it's resting this year.

You see, the perception of people who aren't very close to the country, they see that it's been flogged, you go past Tipperary and you see there's 600 acres that've been stripped and they're growing, whatever they're growing. But the rest of the country's fine because it's how you run your cattle. As long as you don't flog it, it'll last. Some little animals, who are under threat, but that's been the cane toads. Since they came to Borroloola in 2000. That has been the demise.

I've had research conducted at my place from Uni of New South Wales from the students. They looked at small mammals and that was done in 2007, we had everything except rock rats. We had short-eared rock-wallaby, we've got all the small under two kilo mammals. It wasn't anything except fire at that time that was interfering with them. Three years later after the cane toads arrived, we've only got ... mice, ... are gone, the small mammals are suffering badly everywhere. The same with ground dwelling birds and that has to do with loss of habitat; but, more so it has to do with the introduction of cane toads to be honest.

Hon. Justice  
Rachel Pepper:

Yes, Professor Hart.

Professor  
Barry Hart AM:

I had two questions. The first one is related to your survey particularly the question. I'm interested, because you made some comments about the question but you didn't tell us what it actually was. I'm interested actually as to whether people were concerned broadly about their own area or the broader region. Is it the NIMBY Syndrome, Not In My Back Yard that they're responding to, or more broadly?



Lauren Mellor: Sorry, I did think that I told the panel what the question was, which is do you want your region to be gas field free and the answers could be yes-

Professor  
Barry Hart AM: The region?

Lauren Mellor: We asked by region at that point in time cause the survey was being conducted at a local level and so we felt that that would get the most accurate response as to people's views in that region rather than asking Territory wide; but, the reason that we do ask that a Territory wide referendum be put, I do actually think that this is something the panel really should look at and discuss with the Northern Territory Government is that the Terms of Reference do allow for policy prescriptions that could remedy and reduce the level of risk to an acceptable level and if the feedback from Territorians is that we don't accept this level of risk, then it ought to be that the panel should then feel free to make the recommendation that there is a pathway for making a decision regarding this and the government can choose to accept or not that recommendation but I do feel like that would be the most clearest way to resolve this issue of can this industry gain a social licence is to put that as a Territory wide vote or even region by region.

I think in travelling around the communities as I have done for the last few years and from the feedback through all of these survey processes it's not that people want to see anywhere sacrificed to this industry. People just do not see a broad public benefit or even a localised public benefit from shale gas fracking. The Beetaloo has been talked about at length during this inquiry. The feedback from people is we don't want to see anywhere sacrificed whether it be the Beetaloo region because we are sitting here in Katherine, we are drinking water here that's connected through that Beetaloo region. If they're fracking at a Amungee Mungee Station, it's a concern for people up here and ultimately people don't see why they should be put at risk because of the views of one or two land holders who may have agreed to.

Professor  
Barry Hart AM: Okay, thanks. You clarified my question about, the question. The other one you actually just mentioned that is in your summary, you talked about recommending that we ban it, ban fracking until there is enough information to decide that the risks were at acceptable levels. That's what we've got to do too, is now question that now in Terms of Reference.

What's your feeling about what is acceptable? It's a very difficult question.

Lauren Mellor: Again, it's a perception of whether the trade-off risks as we said before the pastoral industry, no industry is without some-

Professor  
Barry Hart AM: Sure.

Lauren Mellor: Some level of degradation to the environment and that sort of thing. It's about what level of trade off people are willing to accept and they do that by assessing is there a broad public benefit, do we require these minerals that need to be extracted at this particular location. Or, Is the farmland



overtop that oil body, more important. I think people's perceptions of what is the broadest public benefit inform the level of risk or trade off that they're willing to accept from any of those imposed industries.

Professor

Barry Hart AM: Public benefit, you see that as the very important component.

Lauren Mellor: I think so, that's my opinion.

Professor

Barry Hart AM: Yeah.

Glenys Somers: One thing that everybody's forgotten about, the most valuable thing on this planet is drinking water. We've only got 5% or less now. You tap into our water system the whole territory lives on that ground water.

Professor

Barry Hart AM: Sure.

Glenys Somers: Doesn't matter where you come from.

Professor

Barry Hart AM: Sure, sure.

Glenys Somers: That's it and they're all linked together if you really look at it all. If we have to turn around and just get drinking water that is going to cost us a hell of a lot more than the gas companies have ever given us back and that's going to be the biggest draw card. Is staying natural. Tourist, now we get them from all over the world. Every country, they've been fracking at all of those and they come here and like you said, they just say thank god you're not doing it yet. I say, it's already happening and they say, no, no, no. They've lost their drinking water so they're paying a fortune for water now. You get the ads on TV every night, oh look they're playing drinking water, well hang on, we're gonna be in that boat if it's gonna happen. The steel they use, it doesn't matter what steel, we all know, we all have bores, you put the steel down it will deteriorate and then it cracks and then you've gotta put a new bore down. They using Chinese steel, now it's supposed to be to a standard, we can't guarantee that. Ours was supposed to be to a standard and it lasted 12 months, it was steel from china.

We had our other bore lasted 75 years. We've got a new bore that lasted 12 months, falling apart. That's just from the drilling down. In that situation, I know for a fact, we have one rain water tank, once we run out, that's it we go back onto to bore water, that doesn't bother us because that's all we can do, we've only got a small roof to cover from. Now if everybody else in the territory had to rely on rainwater to get drinking water, we're all buggered because what's the most valuable thing, drinking water. Soon as that threat, it's all over.

Petrena Ariston: I'd just like to say too, a lot of the meetings I've gone to with the gas companies and that questioning, when it's put to them. If you contaminate





and aquifer what can you do about it and they just can not answer that. I think that's a very important question because they still don't know what to do if that happens. Going through an aquifer and how things corrode and stuff, it's going to happen. I don't think we can afford that to happen.

Lauren Mellor:

I think what this inquiries trying to resolve is how the Northern Territory government should really deal with the natural resources we have an allocate those to particular industries, to land holders. I think that what we see and the reason that there isn't a social licence to operate for this industry is that ultimately it is taking away those things that we all rely on, it is taking away water, it is taking away space in the atmosphere for additional carbon and methane emissions. These resources are finite, the availability to produce waste for the production of energy, we're coming down to crunch time, you all know that as scientist that we need to be making some hard decision. We can not accommodate every form of industry that leaves behind a legacy such as shale gas fracking and other fossil fuel development does.

I think that should be the overall consideration here is not to use the water resources that we have, the clean drinking water resources that we're lucky enough to still have here in the Territory to produce more gas from market that is already awash with gas. To ultimately take away from the generations that are going to rely on those things into the future. I see shale gas fracking as a form of intergenerational theft and we're thinking about the next generations in our families here and what they'll have to rely on. It's not just about today and what money can be made off those resources.

Professor  
Barry Hart AM:

Thank you.

Vivienne Soebek:

Just one thing about the Territory not having any infrastructure and therefore the fracking would be a fabulous industry and give us a great benefit. I think investment, if the same amount of money was available from the federal government and the NT government is they were happy to pour into foreign companies then pour it into infrastructure for ourselves. For example into the construction of solar energy, to use that. There's an export industry waiting on our doorstep, it's call Southeast Asia. The possibilities are endless in terms of having non-polluting, of having sustainable kinds of industries in the Northern Territory. It's perfect because the majority of solar systems are built for temper climates. In that case the early stuff that came into Australia worked beautifully down in Hobart and Sydney, but when it got up here once it got over 35 degrees the efficiency was dropping off. Since then there's been some stunning stuff down with the University of South Wales and they have got panels now, which they're not going to produce themselves because they're the research people. So, instead of it going off shore, why cannot we have our own infrastructure here? We're in the right spot in the Northern Territory. Hours and hours of sunshine.

There's other possibilities, governments, I don't know, sometimes their brain tumoured when they enter politics somehow because they just don't



seem to see possibilities that will take the place of and in fact be better than what there was before.

Hon. Justice

Rachel Pepper: Fair enough, yes Dr. Beck?

Dr Vaughan Beck AM: Ms. Mellor, thank you very much for your presentation and information provided. I know that at the beginning of your presentation you said that you had a lot of references in the material you were presenting. I just wanted to clarify, with respect to those, excuse me. Those Santos incidents, would you also be providing references for each of those incidents?

Lauren Mellor: Yes, absolutely, they're all referenced and I have the incident reports compiled here for all the panel members.

Dr Vaughan Beck AM: Alright. Thanks very much for that.

Hon. Justice

Rachel Pepper: Excellent, thank you very much. Any other questions? Thank you, thank you very much for coming here today and giving us a presentation. A lot of time and effort has gone into that presentation and the panel's grateful. The papers and documents that you do have if you could just give that to a member of the task force, I would be very grateful.

We are now going to break until 1:45 for lunch, thank you.

Lauren Mellor: Thank you, very much.

Vivienne Soebek: Thank you.

Petrena Ariston: Thank you.