

Comment for planning application WSCC/046/23

Application number

Name

Address

Type of Comment

Comments

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[Letter to UKOG July 25 2016 FINAL.pdf](#)

██████████
UK Oil & Gas Investments PLC
Suite 3B, Princes House
38 Jermyn Street
London SW1Y 6DN
United Kingdom

July 25, 2016

Dear Stephen Sanderson,

We met at UKOG's public event at Forestside last Thursday, July 14th. I came because I was interested in finding out more about the potential environmental impact of the oil drilling that UKOG is proposing at Markwells Wood.

I live near that area and do business in Chichester, Portsmouth, Havant and Petersfield, all of which get their drinking water from aquifers adjacent to your proposed oil well. In short, I want to ensure that there are no risks to my family's health and that of the wider community.

While I appreciate you are not currently proposing hydraulic fracturing (fracking), in which toxic chemicals mixed with water are pumped underground to break up rock and which have contaminated water aquifers in other parts of the world, I nevertheless wanted clarity about just what your proposed "conventional" oil drilling entails and what risks there might be to the water table.

I spoke with your technical geologist who explained that there are two types of liquids used in "conventional" oil drilling. The first is either hydrochloric or sulphuric acid used to dissolve the limestone and release the oil. The second is what is referred to as "Drilling Mud" which helps lubricate the drill as it makes its way underground. Your associate worked out the area (the length and diameter) of your proposed well hole which came to 140 cubic meters, or the equivalent of approximately 7 industrial shipping tankers of "Mud".

He then explained that there are two types of Mud. The first is used for drilling through sensitive aquifers and includes only water and clay to avoid polluting the ground water. The second type of Mud is used for drilling away from the aquifer and includes a bespoke formula of petroleum-based chemicals.

When you and I spoke, you confirmed that there will indeed be Drilling Mud used in drilling your wells and you generally buy this Mud formulation from the US company Halliburton. You said you did not know specifically what chemicals Halliburton puts into their Mud but that you were confident it is not dangerous and you are happy to provide me with the specific names of these chemicals quite quickly (within a few days). I will await your prompt response.

What doesn't make sense to me is the notion that if the petro-chemical Mud is not dangerous, as you maintain, then why is it not also used when drilling through the aquifer. Surely the logic of keeping this type of Mud **away** from the aquifer implies that it is in fact **dangerous**.

You then sought to clarify that even if there are chemicals in the Mud that are not ideal for drinking, you do not believe they are a risk to the local aquifer or the adjacent aquifers which feed Chichester and Portsmouth and other towns because the borehole which goes through the local aquifer has already been safely “cased” (I presume casing means lined with steel and cement). Your supposition is that this casing is infallible and therefore any risky chemicals used in drilling beneath the aquifer could never breach the casing and contaminate the water table.

In all due respect, I do not have that much faith in “casing technology” for three reasons. The first is that the well is underground (making it very difficult to inspect for leaks or other problems). The second is that the ground under our feet is constantly on the move (in fact the aquifer under Markwells woods was first formed millions of years back as far south as the Equator) and this movement will eventually crack oil well casings. And thirdly, oil well casings have a long history of failing (in the US state of Pennsylvania, the rate of immediate well casing failure is between 6%-9% and this failure rate only increases with time). There is endless data available on oil well failure rates, here is the first item from an online google search which documents the probability that leaks frequently occur: <https://www.epa.gov/sites/production/files/documents/ingraffea.pdf>

I don't need to point to the recent Deepwater Horizon oil leak in the Gulf of Mexico to make the case that despite meeting all regulations, despite all assurances and best intentions, accidents do happen which can have horrible results.

I will point out, however, that I've spoken to Southern Water and they confirmed that the South Downs is largely made of limestone which easily fissures and therefore water from one aquifer can easily move to another. In short, if you pollute one, you are risking all the others nearby.

Given my circumspection about your claims of the safety of your oil well casing, I asked what plans you had in place should it turn out that the 7 tankers of Halliburton's chemically-infused Mud leaches into the local aquifer and contaminates the drinking water of hundreds of thousands of people in West Sussex and Hampshire? I further asked what your plan would be should Halliburton's chemicals turn out to be neuro-toxic and/or carcinogenic?

You assured me that neither is a likely scenario.

I then asked that while it might not be likely, the impact of such contamination would be so severe, did UKOG have sufficient funds set aside or sufficient insurance in place to deal with such a disaster? You responded that your drilling meets all UK Environmental rules and regulations and that you do not need funds set aside nor have any insurance for the eventuality of water contamination. You then acknowledged that should there be a terrible leak as hypothesized, and your Limited Liability Company could not afford to cover the costs of remediation, you would simply have to go out of business (the implication was that the local community would be left holding the bag).

My concern with this scenario is that your company stands to make millions in profits if all goes well, but if there is an accident, you are leaving the local population with harmful drinking water and the financial liability of paying for an alternative source (assuming there is one). Surely a “heads we win, tails you lose” situation doesn't seem fair or intelligent for the local population to accept (or its political representatives some of whom I have copied in).

And while I acknowledge that oil is a part of the modern economy, wouldn't it make more sense to look for oil in locations that won't cause substantial problems with our drinking water. For example, drilling for oil in the desert of Saudi Arabia (which has few people and little water to contaminate) does not pose the same risk as drilling for oil directly uphill from large towns like Chichester, Portsmouth, Havant and Petersfield. And as I'm sure you are aware from the Paris Climate negotiations and LSE Professor Nick Stern's research is that if we are to stop climate change, we must only burn a fraction of available global fossil fuel reserves. It would seem logical that if we must ultimately strand some oil assets in order to stop climate change, we ought to leave the oil underground which poses the greatest extraction risk to people and the environment. Moreover, the sooner we decide to stop using oil altogether, as Germany and Denmark have committed to doing by 2050 (and the UK could too), the sooner we can start investing in clean technologies that don't put the climate or our water at risk. For that matter, come 2050 when we will hopefully have moved to a fossil-fuel free future, clean water will have become a far more important natural resource than oil. How short-sighted will it then appear that in pursuit of a resource we know we will soon not need, we are putting at risk a resource we know we will need?

Unfortunately, as you are a listed company and by your corporate governance obliged to prioritize enriching your shareholders regardless of the impact on the local population, it would not make sense to fully trust your judgement as to the risks to our water and health as you have a clear conflict of interest.

Finally, one further risk worth addressing is a scenario in which a leak occurs but UKOG is not immediately aware of it (as leaks are underground, it might be years before it is discovered). But imagine 10 years down the line (you might be happily retired) and some dangerous chemicals start appearing in drinking water in Portsmouth (children are sick, birth defects are increasing, you get the picture). The problem will be identifying where these chemicals came from. You wouldn't think it fair if UKOG was blamed as the chemicals could have come from some other oil well, not yours. You would likely contest any responsibility as there was no proof UKOG had caused the problem.

To reduce the possibility of either your company or another being unfairly blamed (or shirking responsibility), I propose that UKOG put a small amount of a benign molecular "tag" into all of the chemicals the government allows you to pump underground. Such a tag acts as a unique fingerprint for your fluid. Companies offering such a tag include BaseTrace and FracEnsure (these might also be helpful for any fracking you undertake elsewhere). By using such a technology, should any toxins with your tag in it ever appear, we will know it was you. If some chemicals appear without your tag, we will know it was not you.

If we combine such a tagging procedure with the requirement that UKOG take out comprehensive insurance and fully disclose the chemicals you are using, then in the event of a leak, there will be more information available to protect our children's health and the public's interest.

I would therefore kindly request confirmation of the following:

- 1) That you will soon follow through with your pledge to fully disclose all the chemicals you propose to pump underground before you pursue any further planning applications (so

the local community has time to contest such pumping if there are any risks). Obfuscating trade names for such chemicals are not sufficient here. The public needs to know what specific chemicals will be injected underground. If you do not know what chemicals these are or if there is any chance they might change, I believe you should halt your proposed drilling planning until local citizens are fully informed of the chemicals to be used.

I further hope you do not intend to hide behind the argument that you cannot disclose the chemistry because it is a trade secret or try to hide behind the argument that these drilling fluids "meet all regulations" as such regulations may well have been drafted by **pro-drilling** "environment" agencies. Instead of any such Mickey Mouse double-speak, we are looking for some honourable straight talk.

- 2) Clarification on what plans UKOG has made to address any future leak from your well and any resulting water contamination. More specifically, can you confirm the exact level of insurance, if any, you are taking out to deal with what could be a catastrophic contamination of local aquifers which could affect all the people in the region.
- 3) Lastly, can you confirm whether you are willing to "tag" your drilling fluid so that the public has some means of verifying whether your drilling operations are responsible for any future water contamination?

While I would like to think that UKOG would unilaterally recognise the legitimacy of the concerns voiced in this letter, you may not perceive it to be in your financial interest to do so. In fact, we may need to rely on our elected officials to intercede if this information is not forthcoming or on determined local citizens who have the fall back option of "locking the gate" (blocking access to your drilling site through peaceful sit in protests).

I am eager for a prompt response to all of these issues as to my understanding the three Government groups currently in the process of evaluating and sanctioning your drilling plans (the Environment Agency, the Health and Safety Executive and the South Downs National Park Authority) are poised to green light drilling in the next few weeks. In other words, unless we are quickly made aware of what chemicals are being used, whether sufficient insurance is being taken out and whether your drilling fluid is being tagged, it may be too late for the public to weigh in.

In the meantime, to ensure that the decision as to whether these environmental and human health concerns should be considered is not left to UKOG, but is being debated both by the public and our local representatives, I am copying in the MPs and councillors for the local area as well as the local and national news media. Hopefully, we can shine a large amount of light on a drilling process to ensure the risk is not buried deep underground.

I greatly appreciate your willingness to openly discuss and address all of these concerns.

Sincerely,

Reed Paget
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CC:

The Guardian

The Independent

The Daily Mail

The Mirror

The Sun

The Times

The Telegraph

The BBC

Portsmouth News

West Sussex Today

Hampshire Chronicle

Petersfield Post

Chichester Observer