



A GUIDE TO DRILLING, ACIDISATION AND FRACKING IN THE SOUTH EAST

“Oil and gas drilling, along with acidisation and fracking, is a dangerous form of climate change denial. It is an affront to local communities and flies in the face of the scientific consensus. Yet the Government is intent on fast-tracking fracking and other forms of fossil fuel extraction across the UK.

Our beautiful region is set to become pock-marked with unsightly and dangerous wells. Fossil fuels need to stay in the ground if we’re to have any chance of mitigating the worst effects of catastrophic climate change. This unconventional extraction of gas and oil is wholly incompatible with Theresa May’s commitments under the Paris climate agreement.

I want a Britain that values quality of life and works to build a secure future for our children – I am joining campaigners, demonstrators and local communities across the South East in opposing these destructive plans.”

**KEITH TAYLOR GREEN PARTY MEP FOR
THE SOUTH EAST**



CRACKDOWN ON PROTEST

A policing report has revealed an ongoing crackdown on the fundamental rights of British citizens.

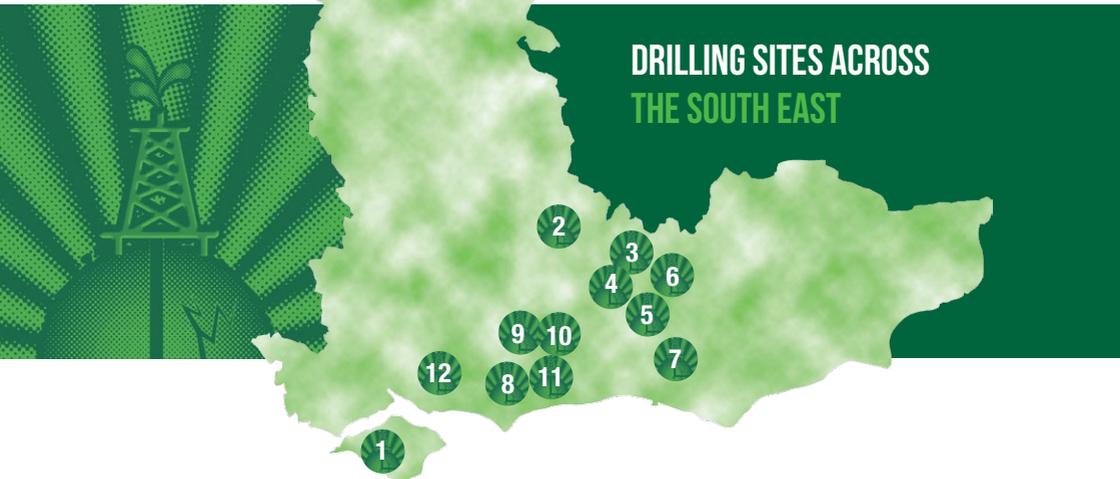
The 'Protecting the Protectors' report from the Network for Police Monitoring (Netpol) exposes the dangers of increasingly politically-charged policing on the freedom to protest, especially in respect of local communities demonstrating against fossil fuel drilling, acidisation and fracking.

The planning of police operations for protests, the scale of intrusive surveillance against campaigners and the 'zero tolerance' approach to civil disobedience is having a chilling effect on the freedoms of assembly and expression, according to the report.

The findings are deeply concerning. Political pressure is being brought to bear on police forces to act as the legal enforcers in a grassroots debate the government is losing.

Acidisation and fracking are dangerous and deeply unpopular methods of fossil fuel extraction. The processes have profound and acute impacts on local communities. The government, in its bid to fast-track fracking and similar processes across the UK, appears to be employing bullyboy tactics in an attempt to silence dissent.

Public opposition has never been higher while support has never been lower. An authoritarian crackdown on British citizens' right to protest will not change that fundamental truth.



ISLE OF WIGHT

1 South West coast

There are two licences (PEDL331 and P1916) activated for oil extraction covering more than 200 sq km of the island and the South West coast. Frack Free Isle of Wight and the Isle of Wight Green Party, along with local residents, are working to resist these licences – which have yet to be granted planning permission.

SURREY

2 Albury Park Well site, New Road, Albury

Surrey County Council have approved plans for this Green Belt exploration site (DL004) in the middle of the Surrey Hills Area of Outstanding Natural Beauty to be converted for gas production. The council approved the site claiming that a Government policy to maximise oil and gas exploration amounted to exceptional circumstances which justified approval.

3 Feltons Farm, Old School Lane, Brockham

Temporary work carried out at one of the three wells at the site (PL235) in late 2016 was opposed by a temporary roadside protection camp. Environmental permits have been granted for a new horizontal well for oil at Brockham, where a 'conventional' well has been producing from the Portland Sandstone for 20 years. Hydrochloric acidisation is expected at the site, but there has been no planning permission granted or application submitted.

4 Bury Hill Wood, Leith Hill, Dorking

After more than seven years of planning and legal disputes, permission has been granted for this highly controversial Green Belt drilling site (PEDL143) in the Surrey Hills Area of Outstanding Natural beauty. Keith visited the protection camp on the site, which has now been served with an injunction. This has had

a chilling knock-on effect on the freedom of expression of the local community, which has rallied in support of the camp.

5 The 'Gatwick Gusher', Horse Hill, Horley

Keith has visited the so-called 'Gatwick Gusher' site (PEDL137) to meet local residents deeply concerned about the potential use of high-pressure injections of water and chemicals to extract the hundreds of millions of barrels of oil Horse Hill Developments Ltd says it expects to extract from the site. Keith has also offered his support to protesters at the site working to resist the plans and raise awareness of the dangers of unconventional fossil fuel extraction. There is now an application for a new well and a sidetrack well from the main well on site.

6 King's Farm, South Godstone, Bletchingley

Planning permission has been granted for oil and gas production at two Green Belt sites (ML021) for 15 years under delegated powers, bypassing proper local democratic scrutiny. The permission looks to be stage one of plans to double oil production, with iGas, the firm behind the plans, setting out its proposal to drill four new wells in 2014. Bletchingley Central already produces oil, and gas has been found at Bletchingley-2; both sites are less than half a mile away from homes.

WEST SUSSEX

7 Lower Stumble, Balcombe

One of the most infamous sites in the South East is the Balcombe site (PEDL244) operated by Cuadrilla – the firm operating the Blackpool fracking site responsible for causing two earthquakes. They have drilled into Kimmeridge limestone (micrite) and have permission to acidise the well. Keith has supported the extensive campaigns against fracking at the

site, which remains suspended. Protesters, including Brighton MP Caroline Lucas, have been monitored by the Metropolitan Police for their involvement in Balcombe anti-fracking protests. The monitoring has been described by human rights group Liberty as ‘an outrageous affront to the rights to freedom of speech and protest and an assault on privacy’.

8 Lidsey Well, Lidsey Road, Aldingbourne

The first barrel of oil took 24 years to extract from the Lidsey well site (PL241) under the South Downs National Park. The firm currently holding the licence for exploiting the hard-to-extract oil site is now considering drilling an infill well.

9 Singleton oil field, Cobblers Row to Middlefield, Singleton

A South Downs National Park site (PL240) has been granted planning permission for the drilling of two new oil wells in already dug out access trenches at the existing site, the installation of new oil storage tanks and gas exports from the site. The permission allows for oil extraction until 2031.

10 Broadford Bridge, Wood Barn Farm, Billingshurst

West Sussex County Council has approved a proposal for the development of a borehole and well site for the exploration, testing and evaluation of hydrocarbons at the site (PEDL234). The Broadford Bridge wellpad was constructed in 2014 and it has planning and environmental permit consents. UKOG, the firm that now operates the licence after purchasing it from Celtique Energie, has said it will secure the remaining consents for drilling and testing operations from the Health and Safety Executive and OGA. It plans to drill and test in 2017, with acidisation expected at a later stage.

11 Baxter’s Copse, Petworth

The licence for Baxter’s Copse (PEDL233), directly adjacent to the Singleton oil field, was originally awarded as part of the 13th UK Onshore Licensing Round in 2007. Oil was first discovered at the site in 1983. The term of the licence has been extended until 2018. UKOG has a 50% interest in the site and has announced plans to apply for permission to drill an exploratory well at the site.

HAMPSHIRE

12 Markwells Wood, near Rowlands Castle, South Downs National Park

Keith is joining local councils, the Environment Agency, and Portsmouth Water in objecting to an application for what would be unconventional oil extraction at the South Downs National Park site (PEDL126) which passes through a chalk aquifer supplying thousands of people with drinking water. UK Oil and Gas, the firm operating the licence, have applied to drill a side-arm to the well drilled there in 2011, plus three more production wells and a water injection well. They want permission to acidise and produce oil at the site for 20 years. Local residents have been frustrated by the firm’s refusal to fulfil their promise to be upfront about plans for acidisation. Ann Stewart, a local objector, said she ‘found it impossible to trust [UKOG]. I do not believe [they] intend to protect our National Park. I find it difficult to believe [they] can be trusted with our drinking water.’ More information is due to be submitted for a public consultation.

FIND YOUR LOCAL CAMPAIGN!

Visit frack-off.org.uk to find and join an anti-fracking or anti-drilling campaign group in your local area.



MY VISIT TO LEITH HILL

In villages, towns, and cities across the region, the frontline fight against fracking and oil and gas extraction is being led by dedicated residents and campaigners from all walks of life.

Locals in Leith Hill, near Dorking, have been locked in a bitter dispute with Europa Oil and Gas for more than seven years over controversial plans to drill for oil in an Area of Outstanding Natural Beauty situated in the Surrey Hills.

An on-site protection camp was erected towards the end of 2016, with campaigners fearing drilling was drawing closer. I visited the site soon after its construction to offer my support.

Oil extraction at Leith Hill not only risks damaging our local environment and health, it is a distraction from the work that must be done to build a sustainable future based on a clean, democratic energy system.

The truth is we can't develop any new fossil fuel reserves or push ahead with fracking or acidisation if we hope to uphold our commitments under the Paris Agreement.

I will continue to offer my support to campaigners, like those in Leith Hill, Horse Hill, and Brockham too, who put their lives on hold to defend our planet, our heritage, and our future.

WHAT IS ACIDISATION?

We've all heard of the 'F word' by now, but acidisation has been a well-kept secret. Like hydraulic fracturing in shale, acidisation is a 'stimulation technique' used to release oil and gas from unyielding rock such as limestone and sandstone. Acidisation involves injecting solutions of acids and other chemicals into the ground and is a process that could be employed across the South East. The oil and gas industry divides acidising or acidisation into three 'tiers'.

- 'Acid wash' is a weak acid solution that cleans the wellbore at low pressure.
- 'Matrix acidising' cleans and dissolves pathways through rock near the wellbore at a pressure insufficient to fracture the rock.
- 'Acid fracking' is done at high enough pressure to fracture the rock, creating longer pathways.

WHAT'S THE PROBLEM?

Acidising uses a higher concentration of chemicals than hydraulic fracturing. Fracking fluid for shale typically consists of water with 0.5% chemicals. Matrix acidising and acid fracking fluids can contain up to 18% chemicals.

Acidisation shares many of the negative effects of hydraulic fracturing: traffic; air pollution; flares; intensive water use; potential drinking water pollution; spills, leaking wells and faults; large volumes of toxic liquid waste, and stress on communities.

Planning applications tend to be loosely worded. They may mention unspecified 'stimulation techniques'. Companies may

propose an 'acid wash', but later decide to 'matrix acidise' a well during testing and, in some cases, acidise more vigorously, at pressure, during the production stage.

WHAT ACIDS AND CHEMICALS?

In limestone, the main acid used is hydrochloric, typically used in concentrations of up to 15%.

In sandstone, it's hydrofluoric, a highly corrosive acid and a powerful contact poison, typically used at much lower concentrations of up to 3%.

There will also be biocides, polymers to make the liquid gloopy, corrosion inhibitors, detergents, solvents and other potentially harmful chemicals. However, oil and gas firms routinely keep secret the exact chemicals and acids they plan to use.

IS IT 'CONVENTIONAL'?

'Conventional' sounds safe. 'It's what we've always done,' the industry might claim. But there is no legal definition of 'conventional'.

For geologists, 'conventional' fossil fuel extraction means without 'stimulation'. Therefore, like hydraulic fracturing, acidisation is an 'unconventional' extraction technique.

HOW IS IT REGULATED?

There have been attempts to regulate it or ban it in California, Florida and elsewhere in the USA. But, until recently, acidisation has been barely regulated in the UK. New regulations are set to be introduced in 2017, but campaigners have branded the proposals 'weak' and are calling for much stronger safeguards.

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