

Where will it be disposed of next ?

times, one way systems and diversions, increased risk of road accidents involving toxic waste/chemical spillage and additional diesel fume pollution.



In 2011 Cuadrilla Fracked their well at Preese Hall, Weeton, this was the first well in the UK to be hydraulically fractured. It caused two earthquakes and damaged their well (apparently they fracked in or close to a geological fault). The earthquakes damaged many local properties and effects were felt throughout the Fylde, resulting in a two year ban on fracking in the UK. Some residents are still battling Cuadrilla to pay for the damages to their homes.

What regard did Cuadrilla have for the health of the military personnel, their wives and children living next to the well or the nearby residents of Singleton and Weeton?

What has happened to the thousands of gallons of toxic fluid which remains in the ground? – by now much will have migrated considerable distances along the fault lines into other layers of the rock including permeable rock aquifers - this contamination can never be removed!

Cuadrilla has repeatedly made applications for time extensions to enable them to return the Preese Hall Site back to Agriculture - This suggests that they are having serious problems capping and stopping leaks.

Will this be repeated at any new site?

Cuadrilla have not yet successfully horizontally fracked a well anywhere in the UK!

What Cuadrilla has so far demonstrated is that they are able to drill holes but they do not have the competence, experience or disciplines to work safely in our environment.

Many people are of the opinion that they do not know what they are doing !

The Government's Environment Agency has demonstrated gross negligence in re-issuing permits to a company which has failed to demonstrate their competence.

Cuadrilla's P.R. literature and marketing sessions depict fairy tale pictures of the Fylde's Geology.

Geology

Cuadrilla's
Fantasy
Fylde Geology



Factual Fylde
Geology



The Fylde is riddled with faults which will allow frack toxins & gas to migrate into our ground water. Contaminating vast areas!

These toxins can never be removed & will poison you, me & our families!

Fracking is unsafe in ideal conditions but **lunacy** in heavily faulted areas such as the Fylde.

They refuse to admit this and are hoping that they will be allowed to blunder on.

Air Pollution

Up to 20% of the gas produced from fracked wells is lost in to the atmosphere, this is methane which is 30 times more potent a greenhouse gas than CO₂.

This leaking gas is burnt off through tall chimneys, a process known as 'flaring'...



...24 hours a day 7 days a week

Released with this gas are the same toxic and radioactive substances which are contained in the flow back fluid.

You will note that wherever flaring takes place orange flames with dirty smutty smoke plumes are seen, this is because like when a welding torch is first lit there is not enough oxygen in the air surrounding the flame for the majority of gas to be burnt. Toxic fumes and particles vented with the gas in the flare, along

with fumes from site spillage and leakage will be carried on the wind. People and animals downwind will have no option but to breathe in these fumes, toxins and poisons (unlike water which we could buy from frack free regions) **we can never choose what air we breathe!**

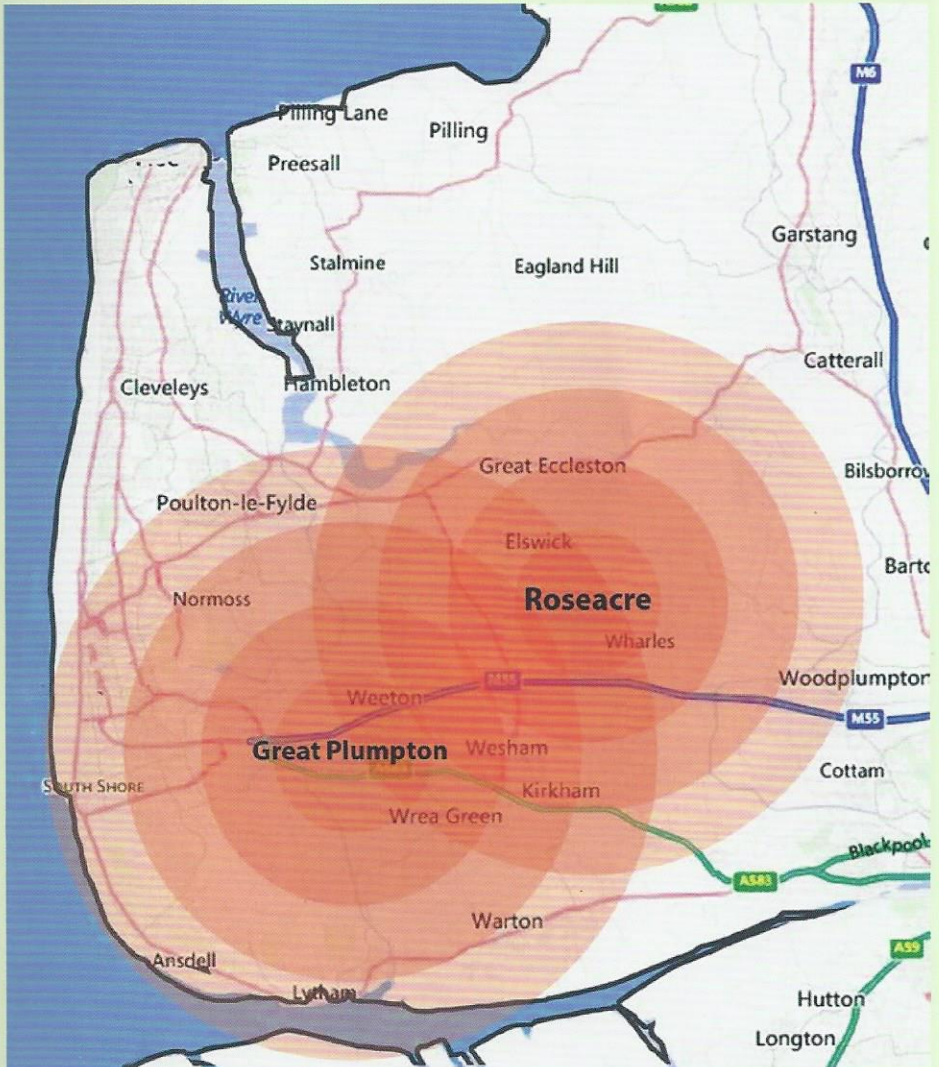
The consequences of exposure to these fumes, toxins and poisons range from the relatively minor i.e. skin rashes, sore eyes, nose bleeds, headaches and joint pain to the more serious such as breathing difficulties, memory loss, intestinal problems and respiratory diseases, along with a 32% increase in the occurrence of cancers above what normally would be encountered in any given area (especially lung and breast cancer). Statistics show a significant increase in congenital heart disease and neural tube defects in new born babies, within a 10 mile radius of a fracking site.

In 2014, over 1000 US doctors signed a letter to President Obama calling for a ban on hydraulic fracturing due to the negative impacts on human health.

The most contaminated areas will obviously be areas, villages and towns closest to the fracking sites. In the case of Preston New Road, Little Plumpton it will be the Plumptons, Little, Great and Westby – with. Followed by Weeton, Wrea Green, Staining, Singleton, Poulton, Kirkham and Wesham, Marton, Blackpool, Lytham St Annes, Warton, Freckleton, Newton and Clifton. Areas between Little Plumpton and Rosacre will be subjected to more days of toxic fumes i.e. Kirkham and Wesham, which will be caught by both west and easterly air flows.

Pollution Fallout

Illustration showing main areas of toxic fume coverage/fallout contamination from just two of the proposed fracking sites in the Fylde. It can be seen that areas between the two sites will be affected by both locations.



Water Contamination

Clean water is not negotiable - we must have 100% total confidence that our water supplies are completely safe. Our tap water may well be tested as it leaves the reservoir but that can be a long way away - the supply pipes which travel through fracking zones will be surrounded by ground water which will inevitably become contaminated by highly toxic flow back fluid. This will be syphoned into these pipes through joints and cracks whenever the water pressure is low i.e. when maintenance works or repairs are being carried out. Open pipes at drilling pads will be a major source of contamination. This contaminated water will then be fed directly into our homes!

We won't know what we're drinking.



A well leak flooding surrounding land.

Effects of Fracking on the Human Body

Brain and Nervous System

Dizziness, headache, confusion, memory problems, impaired motor function: hydrogen sulfide, benzene, toluene, ethylbenzene, xylene, methylene chloride

Lungs

Cough, asthma, difficulty breathing, COPD (chronic obstructive pulmonary disease), silicosis, lung cancer: Fine particulate matter, benzene, toluene, ethylbenzene, xylene, hydrogen sulfide, ozone, silica, radon, methane, Children and pregnant women are especially vulnerable to these impacts.

Skin

Irritation, rashes, hair loss: Benzene, toluene, nitrogen oxide

Breast Cancer

Endocrine Disrupting Chemicals

The endocrine system is the body's hormonal messenger and exposures that impact this system can affect any part of the body. Of the more than 600 different chemicals used in fracking, at least 37% are endocrine disrupting chemicals.

Eyes, Nose, and Throat

Rashes, irritation, tearing eyes, bloody nose, cancer of the nose and throat: benzene, toluene, ethylbenzene, xylene, hydrogen sulfide, nitrogen oxide, formaldehyde

Heart and blood

Anemia, chest pain, heart attack: arsenic, carbon monoxide, fine particulate matter, radium

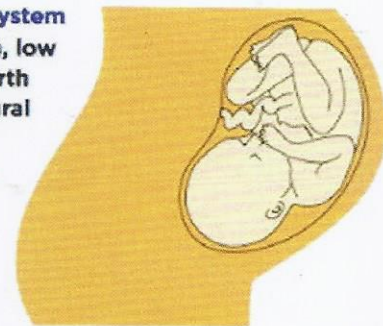
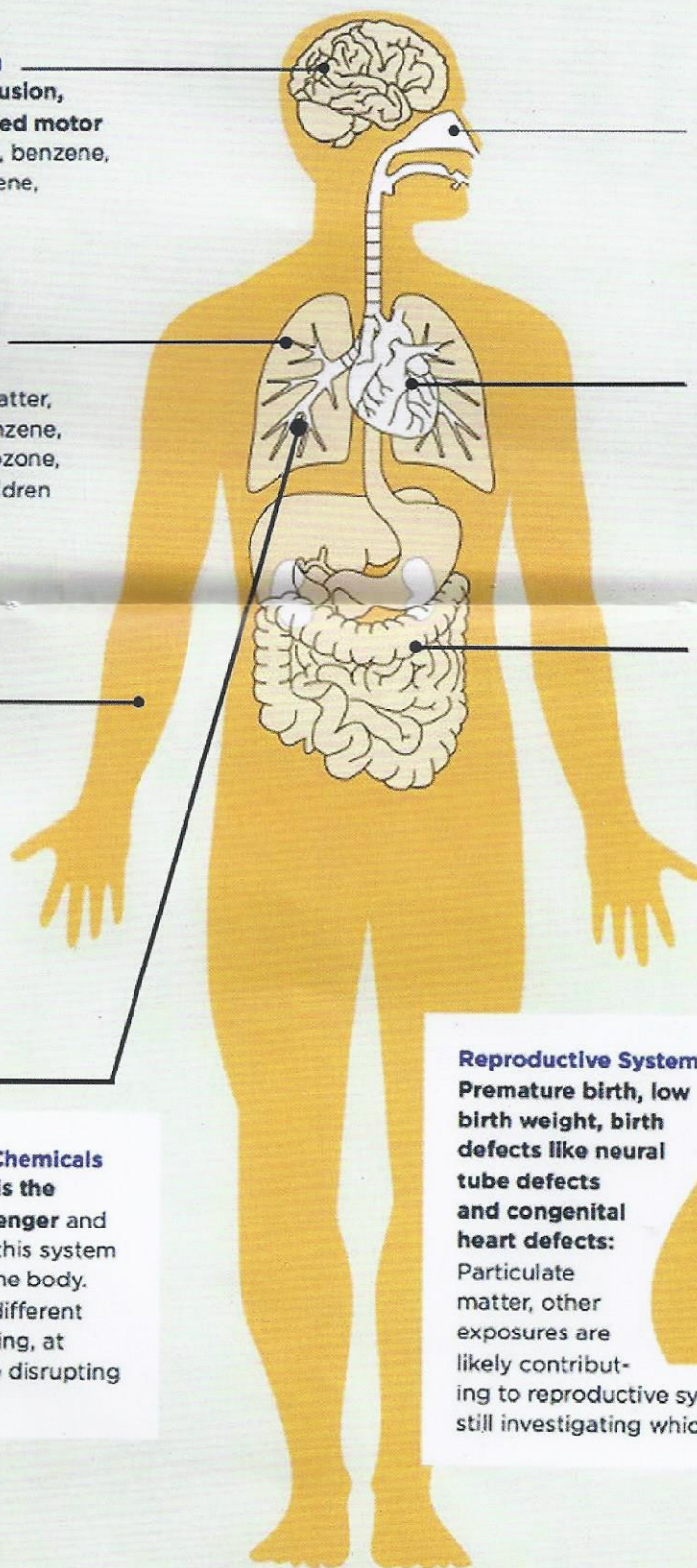
Digestive System and Liver

Irritation of stomach and intestines, nausea, vomiting, diarrhea, liver damage: formaldehyde, arsenic, xylenes

Reproductive System

Premature birth, low birth weight, birth defects like neural tube defects and congenital heart defects:

Particulate matter, other exposures are likely contributing to reproductive system effects but research is still investigating which chemicals are implicated.



Pollution

Noise Pollution

Noise from drilling and flaring is often described as being similar to the sound of jet engines and will cause sleep deprivation, take away people's peace and tranquillity and cause constant nuisance to people living within a 2 mile radius, for years to come.

Diesel Fumes

Diesel fumes from HGV's, high capacity generators and pumps will cause additional pollution. The World Health organisation has recently classed diesel emissions as carcinogenic.

Light pollution

Flood lights and flares will obliterate ones vision of the night sky, disturb people's sleep 7 days a week - increasing stress, further blighting people's lives and impacting on health.

Seismic activity

Property over much of the Fylde is likely to suffer damage i.e. cracking from minor to major depending on the size of the earthquakes / tremors stimulated by the fracking just as at Cuadrilla's Weeton Site in 2011.

- How intelligent is it to stimulate seismic activity close to above ground reservoirs such as at Westby and Weeton?
- What about damage to existing pipeline infrastructure? (Old pipes soon crack and break allowing contaminated ground water to siphon directly into household water supplies).

Industrialisation

The green and pleasant land of the Fylde would be transformed and bear more resemblance to huge chemical complexes amongst wasteland.



**We all take the Fylde countryside
for granted & like all things we love,
we won't miss it til it's gone!**

The Future

Agriculture in the Fylde

Contamination of the land through leakage, spillage and overflow of toxic fluid will also get in to water courses (dykes and ditches) which will in turn flood vast areas at times of extreme weather, as frequently happens in the Fylde. - Add to this, the constant fall out of toxic particles on to the land from flaring. Most farm land would soon become contaminated which in turn would contaminate our food chain - meat, milk, cereals, fruit and vegetables.

Would you buy this milk to put in your tea or to put on your child's breakfast cereal? – NO WAY and neither would your neighbour.

Fylde produce would inevitably be boycotted by the entire country and banned by other countries resulting in the demise of the Fylde's agricultural economy.

Tourism

Blackpool, Lytham St Annes and Thornton Cleveleys evolved at the end of the 19th Century mainly because it was an area famed for clean air. Many people still retire here for that very same reason. Fracking would deliver a fatal blow to the tourist economy of Blackpool and the surrounding areas especially the numerous caravan, camping and leisure parks.

Polluted gas fields don't offer much of a lure to holiday makers!

Cuadrilla's Marketing

In 2013 Cuadrilla's Community Brochure was banned by Advertising Standards Authority (ASA) for publishing misleading and unsubstantiated information and claiming that it uses "Proven, safe technologies". They were also banned from saying "we know that hydraulic fracturing does not lead to contamination of the underground aquifer". Furthermore, the ASA said that Cuadrilla could not claim: "Fracturing fluid does not contain hazardous or toxic components".

Cuadrilla's Elswick Site

Cuadrilla's PR team take concerned residents on tours of the site to ask, what is all the fuss about? People agree and go away reassured - having been misled, what they have been shown is a very small structure in the middle of a field surrounded by grazing animals. It is the remains of a conventional gas well drilled in 1993, **it has not been fracked**, Cuadrilla didn't even drill it, they bought it in 2010 to use as a marketing ploy! To lull residents into a false sense of security.

Despite Cuadrilla's glossy PR Literature (some of which has been banned by the ASA), slick promotion meetings, seminars, donations to village halls / sports clubs, bursaries to schools and sponsorships and even new bar refurbishments such as at Lowther Pavilion, Lytham, **fracking is a dirty business!**

This is emphasised by Cuadrilla's money trail, 12 out of 50 odd Fylde councillors have received money from Cuadrilla.

Most local farmers have received payments from Cuadrilla and who have no doubt been told by Cuadrilla that if they get planning permission and are successful in extracting gas they will likely want to drill on their land next (the prospect of million pound cheques buys a lot of support and silence!)

It's mainly only farmers from outside the Fylde which have voiced concern that fracking could destroy their livelihoods and way of life. We all know that money talks. It's exactly the same strategy that has been employed by the shale gas companies in America. Cuadrilla's vision is that thousands of wells will be fracked in the Fylde meaning that from any one well you would see and smell the dirty pollution from other wells all around you.

Hard to believe but true!



The Jonah Gas Field Wyoming USA

Don't let them turn The Fylde into this!

School Closures?

Nearby schools at Weeton, Wrea Green and Singleton will be exposed to large volumes of toxic emissions (fumes and particulate matter) and will likely become the country's most polluted schools. Will these schools be closed or will children be left exposed to the toxins and allowed to suffer ill health and life shortening diseases?

Ecology

Fracking will have a serious detrimental impact on native wildlife through disturbance of habitat i.e. noise, light pollution, contaminated water and food sources. Little wildlife, if any, would be seen near fracking sites.

Property Values

A sharp fall in house price valuations has already occurred here, near to proposed fracking sites. The threat of fracking being enough to knock approximately 50% off house values and cause offers to be withdrawn.

Property Insurance

Insurance companies will no doubt increase insurance premiums or decline new policies and renewals in regions where fracking is taking place. Additional exclusions and conditions would be applied.

Health Insurance

Much the same can be expected.

Compensation for Illness Caused By Fracking

How is an individual going to be able to claim compensation from a shale gas company, for say contracting a form of cancer, when cancer is already a naturally occurring disease?

What if you or your family are one of the victims, one of the 32% of extra cases caused by fracking toxins/contaminants? You would have to prove it - how?

The fracking companies are in denial of the health risks so you would be faced with huge legal costs and substantial delays, possibly years of litigation.

Unsustainable Water Usage

Public drinking water must be available at all times to all people, vast amounts cannot be taken out of the system. It takes 7 million gallons to frack one well alone. Four wells are proposed initially at the Preston New Rd. Site (just outside the Blackpool boundary) plus an additional four wells at Roseacre (near Wharles).

The total capacity of the nearby Westby reservoir is 38 million gallons.

Almost every year we hear the threat of hose pipe bans and water rationing and that is without the prospect of water being diverted to these frack sites.

Fracking just one of the proposed wells is likely to have devastating effects on the health and wellbeing of residents and future generations.

In ideal geological conditions (not in the Fylde)

- 6% of wells leak immediately
- 50% fail within 15 years (according to Schlumberger 'Oil Field Review'.)

Please learn more, **Google 'fracking'** this will open a mine of information. The more facts you learn the more concerned and outraged you will become!

Where Fracking is Banned

It has been banned by the Governments of France, Luxembourg, Germany and Bulgaria, where they have ruled it unsafe and too great a risk to their citizens.

In other countries in which fracking is currently taking place there is growing opposition to fracking due to the misery and health problems caused by the shale gas industry.

An industry that has expanded through corruption, intimidation, dishonesty and secrecy. Out of court settlements for ill health, due to exposure to toxic substances in the air and water, have only been made when victims have signed gagging clauses to prevent them ever revealing what has happened to them.

District regions of states, provinces and territories are now banning fracking. i.e. in Austria, Argentina, Spain, Switzerland, Italy, Northern Ireland, The Republic of Ireland, Australia, Canada,

New Zealand and increasingly so in America (the home of fracking). The most recent being the town of Denton in Texas.

In excess of 25 English councils have made formal or informal declarations that they are against fracking including Manchester and Preston.

As the consequences are being exposed and people are making it clear that they do not want fracking in their area, governments in countries that are currently fracking are making a policy u-turns and allowing many districts and regions to outlaw fracking.

The same applies in an increasing number of states in America and Australia as the consequences of fracking are being exposed.



**Anti-fracking demonstrators
with captured monster Cuadrilla...
DNA tests reveal it to be completely unscrupulous!**

How can we stop fracking in the Fylde?

Only by demonstrating strong and determined public opposition will we stop fracking! It won't be easy! It's on the government's agenda to do, why?

Because of long and persistent lobbying by the oil and gas industry, especially by Lord John Browne, former chief of BP, now the chairman of Cuadrilla and leading business advisor to the Government.

He has painted a picture of fracking as being the answer to the country's economic and energy problems, without revealing the whole picture which shows the appalling consequences facing communities and the environment where fracking would be carried out?

For interesting facts on Lord Browne – Google 'Lord Browne' where you will learn just how powerful an influence he has on the government ministers and the establishments old boy/pal networks.

Another Lord – Lord Howell of Guildford (George Osborne's Father in Law) stood up in the House of Lords and said that fracking should not take place in our pretty countryside locations but would be ok in the "desolate north".

Few will be surprised that the government sees the north as being less important and expendable.

Normally residents of any area that are in fear for the health and well being of themselves, family and neighbours are able to turn to officialdom for help, sadly this is not the case with fracking!

Fylde, Blackpool and Wyre councils have offered residents no help or advice.

Fylde Borough Council

Some senior officials and the majority of the councillors and chairman, able to vote on what recommendations FBC should make as consultees to LCC, the deciding planning authority, have behaved badly at publicly attended council planning meetings (as if on Cuadrilla's payroll). They have followed political allegiances rather than serve their electorate who voted them in, and the rate payer who pays their wages,

a disgraceful shambles where they put their own and political agendas before the health and well being of Fylde residents.

It's very hard to believe this was the case, unless personally witnessed, but it is **completely true.**

County Councillors and MP's

Here again it's an uphill battle as we must remember that although we voted them in to serve us based on their promises. When it comes to politics they jump to their political masters in Westminster – most are career politicians and when directed by the party whip to vote for and not do anything that would hold up or hinder what the party wants – they do as they are told. Very few have the courage to stand up to their leader – those that do risk losing their positions, prospects and are usually forced to resign.

Cuadrilla and the government are in denial as to the human suffering fracking would inflict on the residents of the Fylde, this is because they can only see profits, personal gains and revenues!! They know fracking is dangerous and will expose residents and their own workers to serious harm.

Money is talking louder than their conscience. Remember that if they do impose fracking on us we must ensure that the individuals responsible and those complicit do not escape prosecution for they would be guilty of criminal negligence / manslaughter.

They must not be allowed to hide behind company trickery i.e. name changes, selling on and insolvency.

Politicians usually behave like sheep unless enough of them have the courage, conscience and common sense to oppose what is blatantly wrong.

- **Less than 1% of our gas comes from Russia.**
- **We still have plenty of our own.**
- **Fossil fuel (gas, coal and oil) is destroying our planet, CO2 emissions causing global warming and polluting the land and atmosphere.**
- **Fracking – irreversibly poisons our land, air and water, smashes up the ground beneath our feet causing earthquakes and tremors.**

How gormless and short sighted can our government be?

We have inherited this beautiful countryside! What legacy will we leave to our children and future generations if fracking was to go ahead?

There are other ways – we are surrounded by limitless, non-polluting clean energy - ask any primary school child!

Solar – technology is improving and the costs are coming down

Wind Turbines – make a great contribution

Tidal – the greatest resource available to mankind! A new technology which easily could fulfil all our energy needs. It is totally predictable, reliable, sustainable and a logical choice for a small island nation. So why are we not investing in it?

All three of these renewables are totally non-polluting.

So, why is our Government encouraging fracking and offering tax breaks to the shale gas companies?

Why did the chancellor in the 2014 Spring Budget abolish a key tax break that has attracted millions of pounds of private money to help build Britain's green energy future?

Simply, because they are being heavily lobbied (corrupted) by the traditional dirty and dangerous energy companies, who fear the threat from renewable energy.

- Please write to your MP

To help to stop fracking

- Complete the enclosed objection letter and return to LCC or drop in to Maple Farm, Moss House Lane, Westby with Plumpton, near Blackpool PR4 3PE, from where they will be officially handed in to ensure the numbers are correctly recorded. (Please make copies before completing to enable other members of your household, friends and work colleagues who have the same concerns or fears to be involved).

We are told that the objections will be accepted right up to the date before the planning meeting which has not yet been decided but it is thought that it will be in January - Please don't delay as it could be sprung on us!

- Please join any anti-fracking group i.e. Frack Free Lancashire , RAFF - Residents against Fylde Fracking www.stopfyldefracking.org.uk
- Display the Frack Free Lancashire symbol in your car or house window to show your support
- Delve beyond all the PR hype - Google 'fracking'
- Research for yourself – make up your own mind
- View on-line 'The Promised Land' and type in 'Frack Free Lancashire'
- View on-line, the UK's leading professional medical journal 'The Lancet' - articles on fracking
- View on-line, Breast Cancer UK – Fracking
- View on-line, Breast Cancer Action.Org - Fracking

Even if the County Council rejects the application it can be overturned by central government so please be prepared to demonstrate your opposition by taking direct but peaceful action – Demonstrations will need to be large and persistent!

France's Government banned fracking when 30,000 people showed their opposition by walking peacefully through their towns.

Cuadrilla's vision is for the Fylde to become Europe's largest on shore gas field, drilling and fracking 1000's of wells in Lancashire.

Cuadrilla have recently intensified their promotional tactics in a frantic attempt to normalise and create social acceptance for this hideous industry, by offering training for young people and the prospect of jobs – The truth is that very few long term jobs would be created and those workers would suffer grave health risks and face the prospect of years of litigation against their employers.

Britain's largest union UNITE are strongly opposed to fracking, fearing the health risks to their members.

This is a booklet that has been prepared and funded by outraged and frightened residents.

Fracking in the Fylde

This is certainly the most serious,
life threatening health and
environmental issue to have faced
Fylde residents in many years!

Please keep for future reference



Fracking in the Fylde

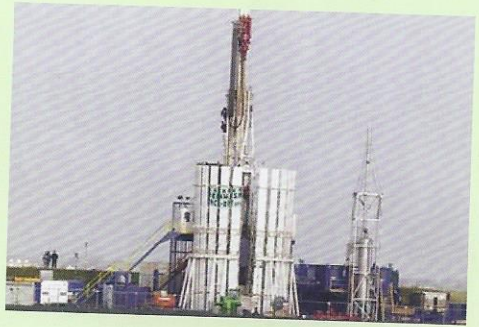
What you need to know!
What Cuadrilla,
Your Local Council
& the Government
won't tell you...

THE TRUTH

**PLEASE READ THIS BOOKLET
& KEEP FOR FUTURE REFERENCE**

**THE HEALTH AND WELL BEING OF ALL FYLDE RESIDENTS
ESPECIALLY OUR CHILDRENS DEPENDS ON HOW YOU REACT!**

A typical Cuadrilla drill assembly.

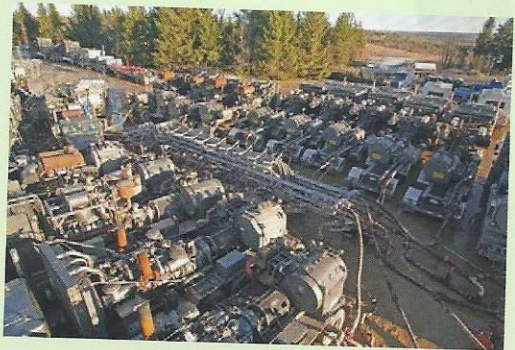


**This booklet has been difficult to write.
Please keep in mind as you
go through it the old saying:-
“The truth is often stranger than fiction”
You are assured that
the truth prevails throughout!**



Light pollution from a
fracking site.

Generators, pumps
and tankers for a medium
size fracking site.



SO WHAT'S WRONG WITH FRACKING?

Quite simply it's unsafe!

If allowed to proceed fracking will inflict misery, ill-health and death on Fylde residents along with the demise of the regions agriculture & tourist economy!

Why is it even being contemplated?

Because the oil and gas industry see fracking as a quick return on investment. They have used their old boy/pal networks to influence government ministers to promote fracking. We have all learnt through repeated scandals that many ministers and MPs are money driven men and women who are in positions of great financial opportunity depending on how they use their influence – lots of nests will no doubt be feathered if not already! What's new?

We are especially concerned that this is the case as our representatives are choosing to play down and ignore the serious health risks to populations living in the regions where fracking is proposed.

“It's powered by greed!”

This is certainly the most serious life threatening / health issue to have faced the population in many years, particularly Fylde residents.

WHAT IS FRACKING?

Fracking is an unconventional and extremely contentious method of extracting methane gas from shale rock thousands of meters underground.

A vertical drill bores 2 to 4,000 meters down and is then turned to drill horizontally up to 4 kilometres away from the surface drilling site (well pad).

As the drilling is taking place water and chemicals are added to lubricate the drill and soften the rock.

When the well is fractured, more water (between 3 and 7 million gallons of drinking water) is mixed with approximately 9.5% silica sand and .5% additional chemicals (drinking water must be used as it is of a consistent quality to ensure the correct composition of the chemical mixture). This concoction, known as slick water, is pumped down the well under ever increasing pressure until an explosive force is created at around 15,000 p.s.i. and at an injection rate of around 265 litres per second, which fractures the shale (the frack), this opens fissures which are kept open by the grains of silica sand and the corrosive effects of chemicals used allow methane gas to be released from the shale, which then travels along and up the well bore to the surface taking with it up to 70% of the fracking fluid which was injected, now referred to as "flowback".

The remainder of the injected fluid water plus chemicals is left in the ground, some of which will migrate in to more permeable rock, even into drinking water aquifers where it can spread over vast areas.

The Chemicals Used in Fracking

Cuadrilla claim that only water, salt, polyacrylamide and hydrochloric acid will be used - **look out for pigs flying!**

Similar claims have been made in America to pacify concerned residents prior to fracking but has not been adhered to. Once fracking is under way - the practice is that more and more chemicals are added to improve lubrication, flow rates and porosity. The number of chemicals and the volumes used are not usually disclosed (for commercial reasons they say). But are known to be comprised of many human carcinogens such as benzene, acrylamide, formaldehyde, ethylene oxide and other chemicals such as toluene, bisphenol A and Diethylhexyl phthalate (DEHP). These chemicals are known to be endocrine disrupting chemicals with strong links to cancer, including breast, and myeloid leukemia (Polyacrylamide has been found to cause an increase of tumours in rats!)

But it is not just the chemicals injected which flow back to the surface and escape into other rock formations including aquifers which are of great concern, it is the naturally occurring toxins presently locked away and isolated from our living environment deep underground which are released by the fracking process into the flowback fluid. These include lead, arsenic, barium, chromium and benzene along with radioactive substances such as Radium 226, Radon 222, Uranium 238 and Strontium.

All these chemicals referred to are highly toxic human carcinogens or poisons which will resurface in the flow back liquid and must be disposed of – where?

Toxic Waste

There is currently no effective treatment of flow back waste!

In 2011 many hundreds of thousands of gallons of toxic fracking fluid from Cuadrilla's Preese Hall site at Weeton was discharged into the

Manchester Ship Canal!

Where Next?

Landfill sites at Clifton Marsh, Woods Waste Anna's Rd. Peel or Jameson's Rd. Fleetwood? Where a high percentage would inevitably leak into water courses and end up in the Ribble or Wyre estuaries poisoning marine life, wildfowl, migratory bird populations and fish.

Or maybe Halite's proposed gas storage caverns under the river Wyre at Preesall / Knott End which are also in an area of questionable geology ?

Before the toxic flow back fluid is taken away from the well pad it is stored in either open pits or tanks and as the flow is continuous a convoy of tankers, the largest permitted on UK roads, must continuously travel to and from the well pad to the disposal site. Any logistical problems would result in overflow and spillage contaminating land, water courses and ground water.

The increased volume of heavy tankers transporting waste along with HGV's transporting sand, chemicals and construction materials will inevitably lead to road congestion/grid lock at peak