

U - Gas News Report

Unconventional Gas Activities in the World

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by *Constancio Silva*

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SHALE GAS

EXPLORATION

UNITED KINGDOM:

Bid to halt drilling plan fails

A BID to suspend test drilling for shale gas in the Chester area has failed after the borough council decided against discussing it.

Campaigners fear the process could leak chemicals into the city's water supply, pollute the environment and even spark earthquakes.

Labour councillor Mark Henesy had proposed a motion that the council “states its opposition to any application by any company carrying out shale gas or coal gas methane testing or extraction in Cheshire West and Chester until such time as the Council is satisfied as to the safety of the process and the risk of adverse environmental impacts have been fully addressed”.

However, the council chose not to discuss it at a meeting on Thursday evening as CWaC had already set up a working group to undertake a fact-finding mission in relation to conventional and unconventional gas and oil techniques, including fracking.

A council spokesman said the authority would have “no policy” on fracking until the working group presented the findings of its research, but added that the meetings were well-attended and people's opinions were being listened to.

An iGas spokesman said recently: “We are engaging fully with CWaC's working group and we remain confident, as several previous studies have shown, that shale gas can be produced in the borough without risk to public health, and with minimal impact on the environment and local community.” (March 2, 2015)

03/02/2015

AUSTRALIA:

Chevron pulls out of Australian gas project with Beach Energy

Chevron Corp. withdrew from a natural gas exploration venture in central Australia, as the second-biggest U.S. energy producer curtails spending.

Chevron decided that “the opportunity does not align strategically” with its global exploration and development portfolio, its partner Adelaide-based Beach Energy Ltd. said Friday in a statement.

The move follows San Ramon, California-based Chevron’s announcement earlier Friday that it’s selling its 50% stake in Caltex Australia Ltd. to institutional investors.

In 2013, Chevron had agreed to pay as much as \$349 million to join Beach in its first shale investment in Australia.

Beach will now look at opportunities to bring in another partner after Chevron said it won’t go ahead with the second stage of the Nappamerri Trough gas project, according to the statement. Beach will carry out further studies through the year ending in **June 2016**, with minimal spending, it said. The project is still “potentially significant on a global scale,” Beach said in an e-mailed response to questions. “Beach remains committed to this resource” that has potential to supply gas to the east coast and export markets. (March 27, 2015)

03/27/2015

EUROPE:

EU Member states evasive on shale-gas activities

The European Commission's attempts to gain an overview of shale-gas extraction and exploration in the EU have not been greeted enthusiastically by most member states. Asked to provide information about shale-gas activities, many member states submitted responses that were incomplete, evasive, and, in some instances, appear to be misleading.

The Commission has been under pressure from environmental groups and some member states to come up with legislation covering the process of hydraulic fracturing, also known as fracking, used to extract unconventional hydrocarbons such as shale gas.

The United States has revolutionised its energy landscape with the exploitation of newly discovered shale reserves, and several member states, notably Poland and the United Kingdom, want to explore the potential of shale reserves. But other countries, including France and Bulgaria, object to the practice on environmental grounds, and have banned fracking.

Although the Commission drew up draft legislation on shale gas, at the beginning of 2014 it decided against taking a legislative approach and instead issued a set of guidelines for member states to follow. (March 2, 2015)

03/03/2015

SOUTH AFRICA:

Shell's shale decision a blow to state

SHELL's announcement that it is scaling back its shale gas exploration is a blow for the government, which has punted shale gas as a "game changer" for the economy. The African National Congress's 2014 election manifesto said the party would intensify the pace of oil and gas exploration — including shale gas — as part of attempts to ensure "national self-sufficiency and energy security".

The country's energy situation remains dire and diversifying energy sources is a key priority for the government.

Shale gas forms part of the government's energy security plans, with President Jacob Zuma describing it as a "game changer" for the economy in his state of the nation address last year.

But the slow pace of creating a legislative and regulatory framework for shale gas exploration has reportedly contributed to Shell's decision to "scale down".

Shell SA chairman Bonang Mohale on Monday confirmed reports that in light of the low oil price, the company had "critically reviewed the competitiveness" of its projects and opportunities worldwide.

"As part of this review, we have adjusted activities in tight/shale oil and gas opportunities outside of the Americas as well as the local exploration resources, such as staffing, in SA," he said. (March 17, 2015)

03/17/2015

UNITED KINGDOM:

Suitable drilling sites and complex geology will constrain UK shale gas

The biggest constraint on a UK shale gas industry could be finding land suitable for drilling sites, the Shale UK conference heard this afternoon. Complex geology would also limit how, and where, companies can drill.

Jeremy Lockett, subsurface manager with Centrica, said the result could be a few very large production pads with large numbers of wells.

Mr Lockett said shale gas companies in the US drilled very fast. "They whack out drills, day in and day out", he said. "Anything that gets in the way kills the economics."

The geology of US shale areas, such as the Marcellus, was boring, he said. "Boring is good. Anything that is complicated makes thing difficult. Within reason you can drill where you like."

But in the UK large areas would be denied to companies. There would be, he said, at least a 200 metre exclusion zone around occupied properties.

"Surface access is always going to be a constraint in the UK and may be the key constraint".

"Surface restrictions limit subsurface access", he said. "Large areas will be inaccessible and this will mean poor acreage efficiency".

Mr Lockett said that unlike the US, the Bowland shale area of northern England had lots of interesting geology. "From a development point of view you don't want that. It's going to be a challenge to drill."

The Bowland basin had lots of fault of relative short length, he said. "This means drilling horizontally is going to be interesting".

"Complex geology will constrain the length of horizontal wells. Drilling across major faults is undesirable and you won't want to frack into a fault zone.

"Areas will probably have major faults spaced 2-3km apart. Combine this with limited drill pad locations and that means that lateral well lengths will inevitably be limited at some locations. If wells need to follow maximum stress direction this may increase the constraint."

He said the UK solution could be: "a few very large and operationally-efficient pads with tens of lateral wells." (March 4, 2015)

03/05/2015

GENERAL INFORMATION

UNITED KINGDOM:

Creating a fracking regulator 'would boost confidence in sector'

A new UK regulator for onshore underground energy should be established to give the public more confidence in the fledgling shale gas industry, a task force has recommended.

The new regulator should conduct proactive, independent monitoring of fracking sites, particularly assessing the integrity of wells to make sure any problems that could lead to leaks are discovered and remedied, a report by the Task Force on Shale Gas said.

And the local community should be given the chance to be involved in the monitoring to verify the process, it said.

Engagement by shale companies with local communities must begin before proposals for schemes are formally submitted, and a readily understandable risk assessment - rather than a complex environmental impact assessment - should be produced by all operators.

The current responsibilities of the Environment Agency and the Health and Safety Executive for onshore underground energy and the regulatory activities of the Department of Energy and Climate Change should be handed over to the regulator, the report said.

The task force, which is funded by shale companies but says it operates independently from its funders, urged a new government after May to legislate for a new regulator as soon as possible after the general election.

Chairman of the Task Force on Shale Gas, Lord Chris Smith, said: "Speaking to local communities, we have been struck by how complex the regulatory framework appears, and how this leads to a lack of confidence in the system.

"We believe the creation of a new bespoke regulator for onshore underground energy would command more public confidence for ensuring proper monitoring and regulation of any proposed shale gas industry." (March 25, 2015)

03/25/2015

EUROPE:

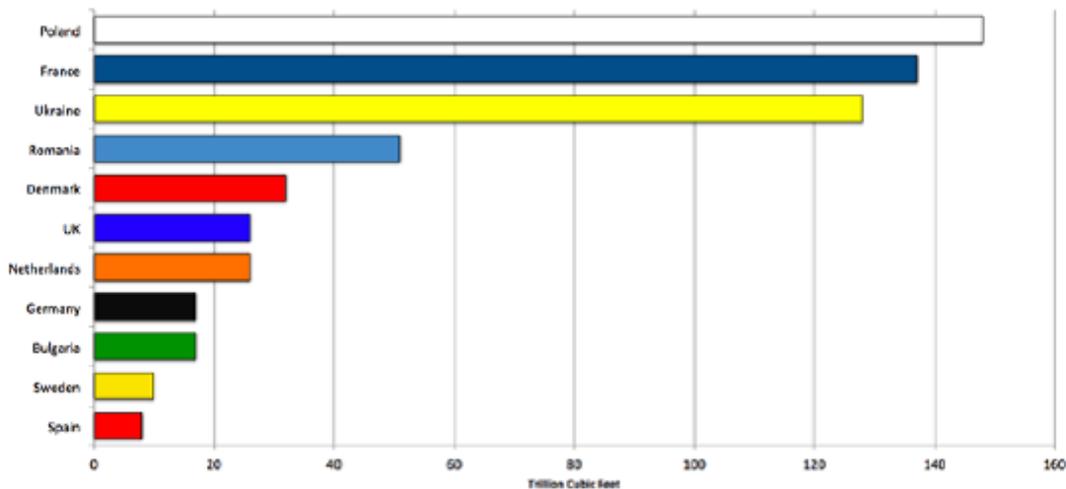
Whatever happened to the great European fracking boom?

The European shale gas boom has not materialised in the way that some were predicting. We are a far cry from the situation a few years ago, where interest in fracking in Europe was gathering pace on the back of the successes in North America.

The UK appeared to be leading the way, with drilling activities in north-west and south-east England. Companies started snapping up exploration licences right across the continent, and prospects from Scandinavia to the Urals found themselves being eagerly appraised.

So what's happened, and what do the prospects for Europe look like now?

Shale Gas by Country in Europe



Technically recoverable resources EIA 2013

Western Europe

Of the countries in mainland western Europe, France has the most potential for unconventional hydrocarbons. The shales of the Paris Basin are thought to have major shale gas and minor shale oil potential, while the Jurassic shales in the south-east of the country may also have some shale gas potential. But a fracking moratorium has been in place since 2011, and was upheld in 2013. For the present, therefore, France ne frac pas.

Germany, like France, has not permitted fracking since 2011. But unlike France, it does not have huge quantities of prospective shale. Most of the potential interest in fracking is for gas from low permeability sandstones and coal beds, and there have been moves recently to permit fracking at depths of more than 3,000 metres.

The only other mainland western European country with significant shale gas potential is the Netherlands. There is considerable public opposition, however, particularly with conventional gas extraction having been linked to subsidence and induced seismicity in the Groningen area. No fracking for shale gas has been permitted so far. (March 11, 2015)

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PRICE

EGYPT:

Egypt sets price for shale gas at \$5.45/mmBtu

Egypt has set the price of shale gas expected to be extracted from a recent concession to foreign firms at **\$5.45 per mmBtu**, an official at the oil ministry said on Monday.

Egypt signed its first contract to extract gas by hydraulic fracturing, or fracking, in a deal with Apache and Shell Egypt in December that includes investments of **\$30-million to \$40-million**, the oil ministry said at the time.

"The shale gas agreement signed with Shell Egypt and Apache Corporation provides for a price of **\$5.45 per mmBtu** of gas extracted," the official, who declined to be identified, told Reuters. Under the contract, three horizontal wells as deep as **14 000 ft in Western Sahara fields** will be drilled.

"The shale gas agreement is at an experimental stage for a year while we make sure the search for shale gas is feasible," the source said.

Egypt aims to boost domestic production and foreign imports of oil and gas to help address persistent energy shortages. (March 9, 2015)

03/09/2015

PRODUCTION

UNITED STATES:

Fracking worsens earthquakes in heartland

Last year, Oklahoma had 585 earthquakes with a magnitude 3.0 or greater (big enough for people to easily feel) – almost three times as many as California had and up from an average of just two a year before 2009. Not coincidentally, that's when oil and gas drillers began injecting wastewater from fracking operations into thousands of underground wells.

The phenomenon isn't mysterious. Geologists have known for many decades that when pressure underground is changed – when people inject water, for example, or extract geothermal energy – latent earthquakes can be triggered.

While the great majority of fracking-wastewater wells have no such effect, some – especially those in which great volumes of water reach crystalline basement rock that lies close to a fault – induce earthquakes that otherwise might not have happened for hundreds of years.

So far, the injuries to humans and damage to chimneys and foundations from the uptick in seismic activity have been mostly minor. But scientists aren't able to predict this seismicity, or whether it is likely to continue to grow in frequency and strength.

In 2011, one Oklahoma quake registered magnitude 5.7. And 1,300 years ago, the geological record shows, an area that is now within the state withstood a quake of magnitude 7 – far more powerful than anything anticipated by local building codes.

For the moment, it's not even clear whether the problems are caused by individual wells or a bunch of them applying pressure in concert. Sometimes well injections can trigger earthquakes miles away, and sometimes the effect is delayed by months or even years.

Yet there are ways to manage the threat, U.S. Geological Survey scientists Arthur McGarr and William Ellsworth and several colleagues argued in a recent article in *Science*. It would be wise, for example, to keep wastewater wells away from cities. And it's important to monitor seismicity more precisely.

By finding out exactly where small quakes are happening, it may be possible to map any larger faults that wastewater injection is nudging to life. At the same time, oil and gas drillers should report publicly where they're drilling wells, how much water they're injecting and how deeply.

Then regulators can keep an eye on any trouble using a so-called traffic-light approach: If seismicity in a certain area reaches a threshold magnitude, injections are slowed. Colorado officials tried this successfully last year with a well that had triggered unaccustomed shaking near Greeley. In some cases, a well may need to be shut down – as the Oklahoma Corporation Commission did with a well near Cherokee after a 4.1-magnitude quake in January.

The oil and gas industry has every reason to want to track and manage the problem: Injection wells aren't cheap, and no one wants to drill one that can't be used.

To the extent that drillers can learn to clean and reuse their fracking water (up to a million gallons for every wellhead), they'll be able to ensure they maintain a reliable water supply – and stop shaking things up so much above ground. (March 4, 2015)

03/06/2015

UNITED STATES:

Obama puts new rules on fracking

The Obama administration announced Friday new rules on hydraulic fracking, the contentious process behind the U.S. natural gas boom.

The rules, issued by the Interior Department, include new standards for the construction of wells and the disposal of waste water in fracking conducted on federal land.

"Current federal well-drilling regulations are more than 30 years old and they simply have not kept pace with the technical complexities of today's hydraulic fracturing operations," Interior Secretary Sally Jewell said in a statement. "This updated and strengthened rule provides a framework of safeguards and disclosure protocols that will allow for the continued responsible development of our federal oil and gas resources." (March 20, 2015)

03/23/2015

CHINA:

Sinopec, PetroChina persevere with shale gas as drilling costs fall

China's top two state-owned companies PetroChina and Sinopec are pushing ahead with efforts to commercialize their dedicated shale gas projects in China, mainly because drilling costs have fallen.

Speaking last week at the company's annual results briefing, Sinopec Chairman Fu Chengyu said shale gas and unconventional gas will continue to be a strategic point of growth for the company, despite falling oil prices and a **12% cut in its capital budget to \$22 billion**.

This is primarily because gas prices are largely divorced from global oil prices.

"There is no one price in the world for natural gas. Natural gas is priced by location," he said, adding that in China, gas prices are at a healthy level and are able to sustain development.

Sinopec's main focus is on its Fuling shale gas project in southwestern Chongqing municipality.

The company said it has made progress in the first phase, with production capacity of **5 Bcm/year**, while daily output of all its producing wells exceeded their design targets last year.

Production capacity is expected to reach **10 Bcm/year by 2017**. Fuling gas is currently piped into the company's **8.5 Bcm/year Sichuan-Eastern China gas pipeline network**, which also transports gas from its conventional Qingxi, Puguang and Yuanba fields to cities in the eastern region. (March 30, 2015)

03/31/2015

RESERVES

AUSTRALIA:

Northern Territory shale gas potential more than hot air

The Northern Territory's shale oil and gas potential has geologists excited.

The shale industry is in its infancy in the Territory, with only a handful of gas wells drilled so far, however a reserve known as the Beetaloo Sub-basin, within the McArthur Basin, has encouraged further exploration.

The sub-basin is situated about **500 kilometres south-east of Darwin**.

"A lot of new information is coming out about the geology and the scale of the potential for shale gas in that area," he said. "It's a really exciting developing area." Mr Scrimgeour said the region had attracted the attention of four energy companies, but admitted the NT needed to convince more companies to come.

"The Territory does suffer from a lot of natural disadvantages, around remoteness and infrastructure," he said. "There's also a real lack of appetite for risk in the financial markets, and a lot of the Territory is inherently high risk exploration because not a lot of exploration has been done."

He said the recent resurgence in gold exploration in Tennant Creek and Tanami was evidence of the Territory's potential.

"The bidding war that's going on for Tanami Gold's project, Northern Star and Metals X are both putting bids in to get involved in that project, shows there's suddenly a lot of interest in gold in the Territory again."

The NT's shale oil and gas potential was the main talking point at a geoscience exploration seminar in Alice Springs. (March 18, 2015)

03/18/2015

SUPPLIES - IMPORTS - EXPORTS

UNITED KINGDOM:

IGas strikes shale gas deal with Ineos

Britain's largest shale gas developer IGas has signed a **£30 million shale gas deal** with Switzerland's Ineos which gives the latter access to shale sites outside of Scotland and brings IGas another partner to fund its projects.

As well as a **£30-million payment**, **Ineos has committed to covering investments of £138 million** for developing various shale gas fields across the England, giving IGas access to additional cash to bring shale gas wells on stream.

The British government is counting on companies tapping the country's shale gas resources to stem its growing dependence on gas imports as North Sea fields are producing less and less.

IGas has already signed so-called farm-out deals with French energy firms Total and GDF Suez, bringing the total investments gained from partners to **\$285-million**.

"Ineos's commitment of upfront cash and considerable capital investment will help fund us through the next steps of our shale appraisal and production programme," said IGas chief executive Andrew Austin in a statement.

Ineos, a Swiss petrochemical and refining company, said last year it planned to invest **\$1-billion** in British shale gas exploration. It currently has acreage in Scotland. (March 10, 2015)

03/10/2015
