



Deepwater Oil Spill - A Longer Term Problem, Personnel - and Open Thread 2

Posted by [Heading Out](#) on June 12, 2010 - 7:40am

Topic: [Environment/Sustainability](#)

Tags: [deepwater horizon](#), [oil spill](#) [[list all tags](#)]

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The recent take-up of oil through the cap and the LMRP to the Drillship Enterprise was at a daily rate of 15,400 bd.

- For the first 12 hours on June 12 (midnight to noon), approximately 7,570 barrels of oil were collected and 15.8 million cubic feet of natural gas were flared.
- On June 11, a total of approximately 15,550 barrels of oil were collected and 31.2 million cubic feet of natural gas were flared..

The Loch Rannoch is on its way, as, possibly, is the Toisa Pisces.

This latter is a Well Testing Service Vessel (WTSV) [Dynamic Positioning ship](#), which has systems for the reception and processing of fluids from well completion, stimulation and repair. For those interested in well flow rates, that measuring capability is among its capabilities.

- Reception of the products from the well via flexible hoses connecting the well to the production system installed on the ship.
- Process and separate water, wasted and un-wasted chemicals, gas, crude oil and solids. The water will be stored in the WTSV's tanks and later re-injected into industrial waste well or offloaded to a processing facility onshore.
- The crude and gas will be measured in quantity and quality. The combination may be returned to the export line, or if this last is not available, the gas will be flared and the crude stored in the WTSV's tanks to later be exported to an onshore or an offshore offloading terminal.
- The solids are stored in containers to be disposed to shore.
- Crude ranges are from low to high (12 to 43 °) API. Pressures up to 10,000 psi at the well head.

It has been suggested that it might arrive on site on the 19th June. The Loch Rannoch should arrive a few days earlier, releasing the Drillship Enterprise, which, I suspect, has other things that it might now be doing.

The Toisa Pisces was formerly a cable-laying vessel, and is not a Floating Production, Storage and Offloading unit (FPSO).



[Toisa Pisces](#)

My main topic for this post, however, is not the possible change in the fleet over the well, but rather some thoughts on how to avoid this happening again. There were likely a cascade of several errors, each of which alone would not have led to the disaster, but cumulatively they did. So how do we stop it happening again?

In some ways the problem is similar to that the Mining Industry faces after more than twice the number of deaths (29) at the [Upper Big Branch Mine in West Virginia](#) in April. In both cases, there were safety concerns reflected in the numbers of citations that the companies had received relative to other companies. So how does one install a different attitude in those who work to produce the fuel that we all need? To a degree, it has to be done through the imposition of regulations that enforce the concept of safety in daily working life. Included in those regulations should be the appropriate recommended practices for carrying out different tasks in the operation.

But even with those regulations in place, they are only as good as the enforcement of them. If my memory serves, you could not become an Inspector of Mines in Britain during the National Coal Board years, unless you had a First Class Certificate of Competency (which is the examination that allows you to manage a mine). The standards of education and training for inspectors must be high, and they need to require a reputable image.

The problems, in part, for both industries, are that the fossil industry historically has been cyclic in nature. Often driven by the price of oil, when that price is high, there are lots of jobs, and both coal and oil boom. The price falls, times get tight, and lots of folk get laid off. It has happened more than once in my career, as we have students go from having many job offers, to students coming back for graduate degrees because there was no work in the industry. The employees that are laid off go find work in other, less cyclic industries.

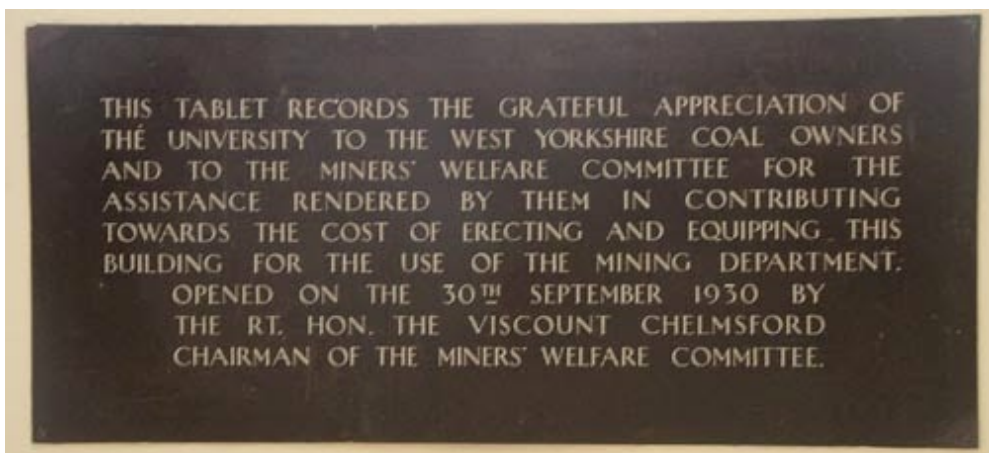
And so when the next boom comes around, they are no longer available. Furthermore, the

teaching departments at the Universities have closed. It is as a result of this boom and bust cycle that there is a dearth of middle management in many companies that work in the fossil fuel business. For many years, they were not hiring, and the folk that they now need as long-time trained and experienced individuals do not exist in large numbers.

The number of both mining and petroleum engineering schools have fallen, and student enrollments, until the recent rise in the price of oil (the \$140 one) were bringing other departments closer to that action. At one time, for example, Leeds University in the UK had one of the largest mining departments. At that time, it was housed in a building that was funded by those in the Industry in 1928. That building is now occupied by the Art Department and somewhere – not quite sure where (this from the alumni office and the secretary in the building that houses the remaining odd faculty member) – there is still someone that teaches the odd course (he was out). There is only one other Mining School in the UK, and it studies hard rock mining at Exeter (used to be [Cambourne School of Mines](#)).



The [Old Mining Building](#) at Leeds



The commemorative plaque

It is hard to criticize University leaders, who must look to where the students are, and which faculty hire will bring the best return to the University. In recent years that has not been within the ability of the fossil fuel departments, and so they are closing – though the demand for their product is now rising again.

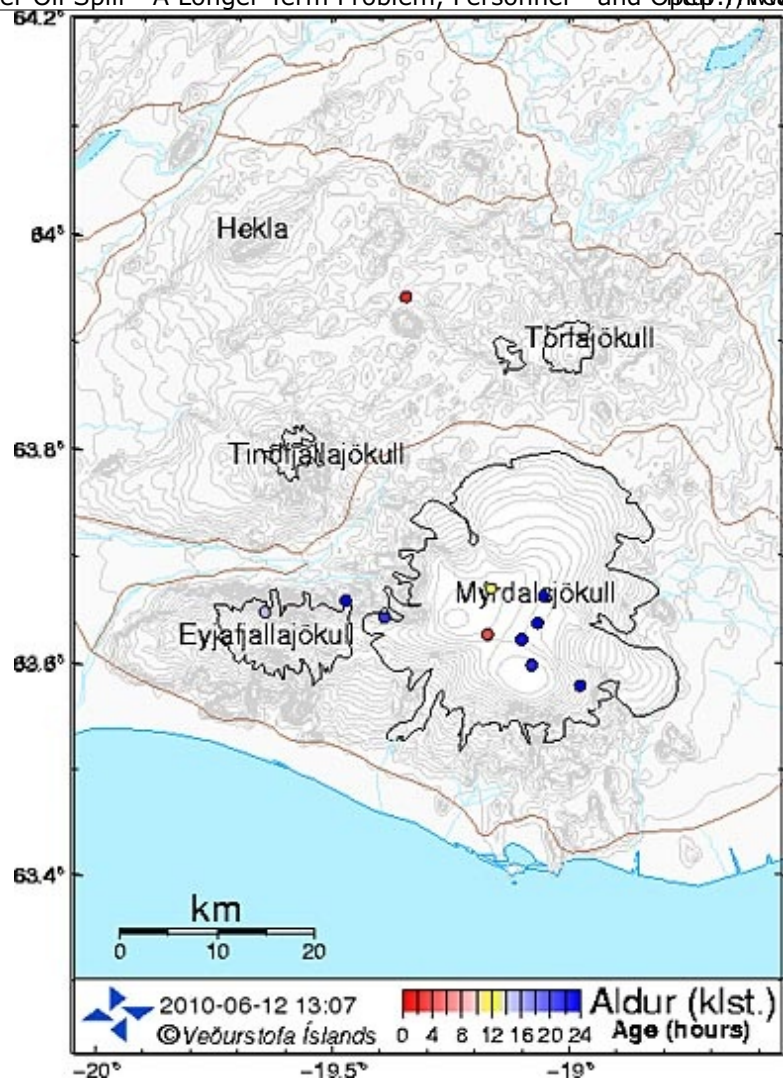
It is one of those interesting items to note that the latest reviews of world oil supply are beginning to suggest, increasingly, that the world is approaching if not past the point of peak global oil production. That will require more mining and petroleum engineers, though at places like Leeds (my *alma mater*), they will likely only be able to produce the modern version of Thomas Hair, to record the modern version of his “[Art of Mining](#),” rather than the subjects of that art.

So what does all this have to do with regulation and responsibility? Well, it is very difficult to maintain high quality folk in industries that go through severe manpower cycles. When regulations are severely enforced under one administration and then almost neglected in another, either because the industry is in disfavor, or the apple of the administration’s eye, it is hard to keep the regulatory inspectorate that is a vital part of running a safe industry. The regulations should be fair, be strict, and must be enforced by individuals that have been properly trained to a high level of understanding as to both the technology that they are reviewing and the consequences of error.

Historical evidence is clear that Universities cannot be left alone to provide that education, and supply those individuals. The [National Mine Health and Safety Academy](#) at Beckley is a start in the right direction for the mining industry, but there are other changes that must be made, in the investment in research into new technology, in the general attitude to those who work to provide the fuels that we need (and will continue to do so).

Treating the industries and those who work in them as pariahs is not the way to solve this problem.

Oh, and not to get anyone excited, but for the first time in the recent past [there is some earthquake activity](#) under the Myrdalsjokull glacier in Iceland, the home of the Katla volcano. The map shows the age of recent earthquakes. Eyjafjallajokull is the site of the currently active volcano.



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