

September 2016

NAVIGATOR

THE WESTSHORE NORTH SEA REPORT

WHERE THE MARKET IS HEADED

Weighing up oil price and charterer activity,
Westshore lays out where we go from here



WESTSHORE

SHIPBROKERS AS

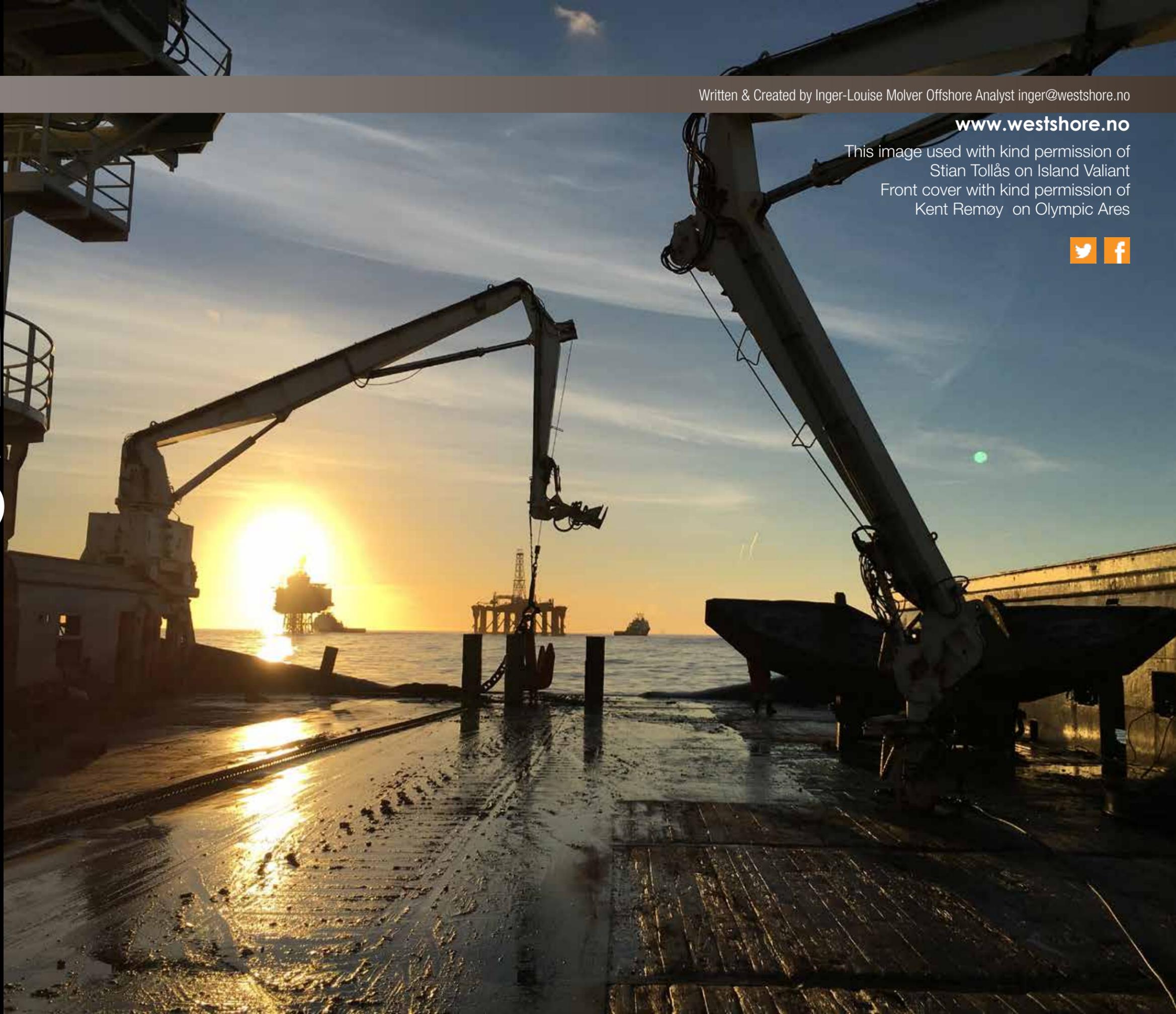
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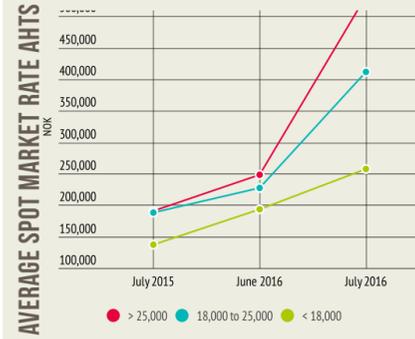
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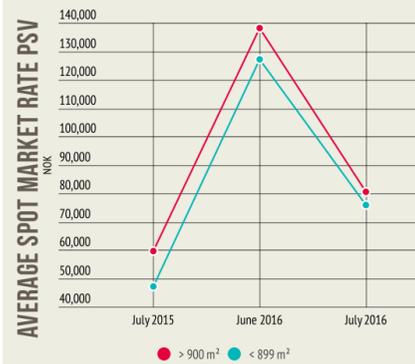
72.2%
Average AHTS utilisation in July

83.9%
Average PSV utilisation in July

	June 2015	July 2016	June 2016	July 2016
Number of supply spot fixtures	81	101	49	70
Number of AHTS fixtures	89	79	55	72

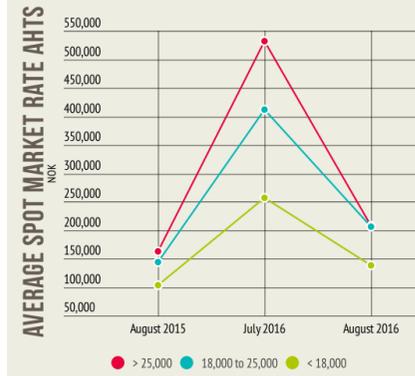
26
Rig moves in July 2016

22
Rig moves in July 2015



JULY

What started as a slow month with not a single AHTS fixture before the 6th of July, soon escalated into the busiest month this year to date. The highest recorded number of rig moves in one month and the highest number of fixtures in one month and a corresponding hike in day rates too. From the outside looking in it looked like the market was finally turning, things were getting back on track. Unfortunately many of these fixtures came as a result of rigs being moved from a drilling location to port where they would be laid up. West Hercules, West Alpha, Rowan Norway, Maersk Reacher, Sedco 712, Scarabeo 8, Safe Bristolia and Rowan Gorilla VII to name some of the rigs that have gone in the last month or so. What it means is this temporary source of work will be doing longer term damage to the spot market for AHTS vessels as there are fewer rigs that will need moved to a new drilling location. For the PSVs while in June charterers took vessels on for longer spot jobs then often extended and extended, the market was more active in July in terms of new fixtures. This can give the impression of it being a better market for owners but the reality produced lower rates on average and more idle time waiting for jobs.



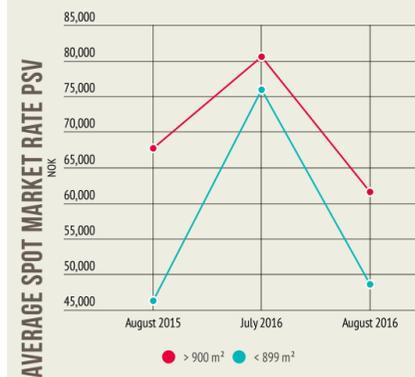
68%
Average AHTS utilisation in August

78%
Average PSV utilisation in August

	July 2015	August 2015	July 2016	August 2016
Number of supply spot fixtures	101	85	70	81
Number of AHTS fixtures	79	71	72	54

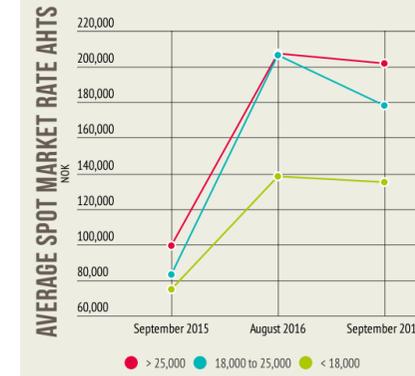
22
Rig moves in August 2016

23
Rig moves in August 2015



AUGUST

The summer bubble experienced in July promptly burst in August, the number of rig moves, the number of fixtures and the average rates took a sharp drop. The rig count continues to decline and the AHTS really felt the bite. We are a couple of months away from any weather complications that can cause a rush to the market but the summer subsea-activity produced very little to take any great quantity of tonnage out of the market. A dire month and worse to come. For the PSVs it was a busier month than July in terms of number of fixtures. But several vessels joining the spot fleet from term contracts that had come to an end meant the growing number of vessels trading the spot sent rates spiraling down.



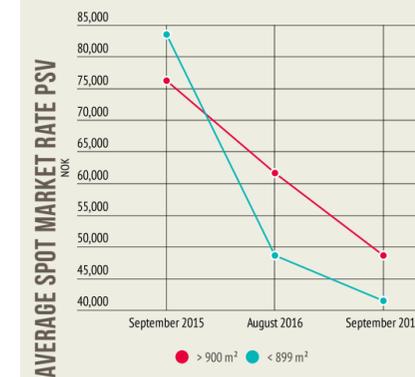
57%
Average AHTS utilisation in September

74%
Average PSV utilisation in September

	August 2015	September 2015	August 2016	September 2016
Number of supply spot fixtures	85	84	81	62
Number of AHTS fixtures	71	74	54	64

24
Rig moves in September 2016

25
Rig moves in September 2015



SEPTEMBER

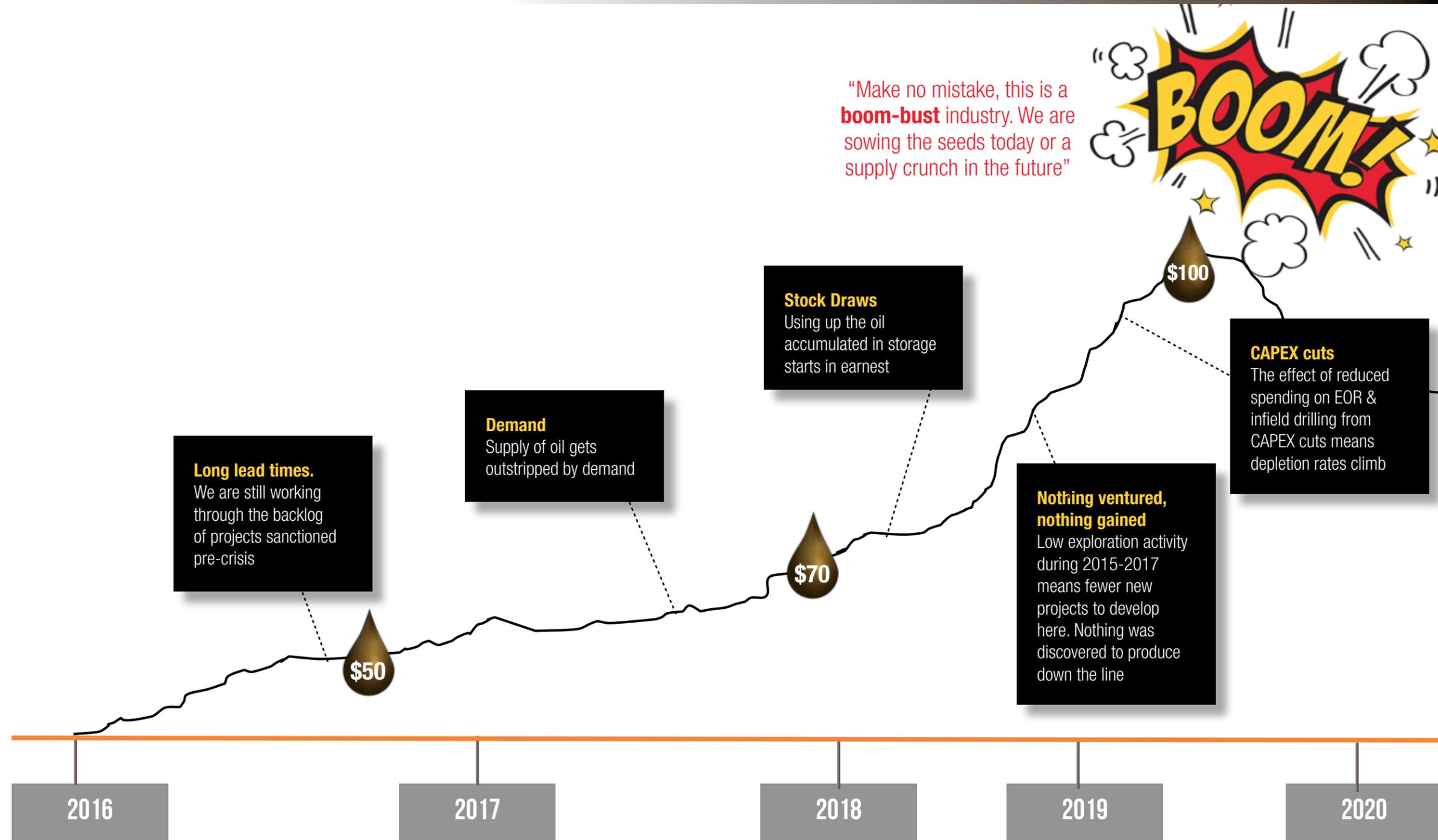
For the AHTS vessels September brought another handful of rigs rolling off contract which boosted activity as tonnage was needed to take the rigs to shore. The fleet of vessels unfortunately swelled further with more tonnage coming off term charters or coming in from other regions. The net result was despite the activity being up on the previous month, rates stayed around the same levels. The PSVs started off September reasonably buoyant, spot utilization went from around 90% then steadily went down and down. There was no real change in the number of vessels trading the spot market but there were fewer fixtures. By the end of the month the average cargo run was struggling to stay above GBP 3000.



THE OIL PRICE

THE EXPERT'S CONSENSUS ON WHERE WE ARE HEADED

At the end of September OPEC ruled to cut production. For the first time in eight years the oil cartel reached agreement that the time was right to curtail the strategy of pump at will. The markets reacted accordingly and the price of a barrel of oil nudged encouragingly upwards. But despite this, experts believe we have some way to go before we reach the 100 dollar highs we saw three years ago. In the meantime the depressed activity over the past two years will have an impact down the line. Here are some key considerations and how the IEA amongst others believe they will play into the oil price fluctuations.



“Make no mistake, this is a boom-bust industry. We are sowing the seeds today or a supply crunch in the future”



ong lead times
We know the offshore oil and gas industry has long lead times. From the extremes of the Canadian oil sands where lead times stretch into decades to a field offshore Norway where the average time between discovery to production is 12 years. And we still have several more yet to come on stream. BP's Kashagan field is reported to come on stream early next year and holds an estimated 7-13 billion boe oil. ENI's Zohr field is tipped to come on stream too next year and is expected to be the Mediterranean's biggest gas field to date – surpassing even the Leviathan field. And of course Johan Sverdrup which will could add 3bn boe oil to the Norwegian offshore reserves, production set for a 2019 start up. So there is much left in the pipeline, a continued addition to the supply which has been for some time the key problem – there's just too much oil and gas being produced. Add this to Iran's supply coming on stream following the lifting of sanctions and the over supply problem just stretches out further and further.

So what is the consensus on when demand will begin to outstrip supply?

The latest research from the IEA and other energy analysts suggest that world demand for oil will outpace the supply around third quarter of 2017. One benefit of a low oil price is that theoretically at least it should spur on the world's economies. It's cheaper to do stuff, so more people do stuff, then they need more energy to do that stuff. And so it goes. But the continued glut of supply

will be a major factor in the supply/demand balance throughout the rest of this year and a good bit into the next according to the IEA. That trend will reverse around the third quarter of 2017 when we will start using up more than we produce on a daily basis. By the end of 2017, the oil price could be in the USD 60 to 75 region.

Next problem – oil in storage

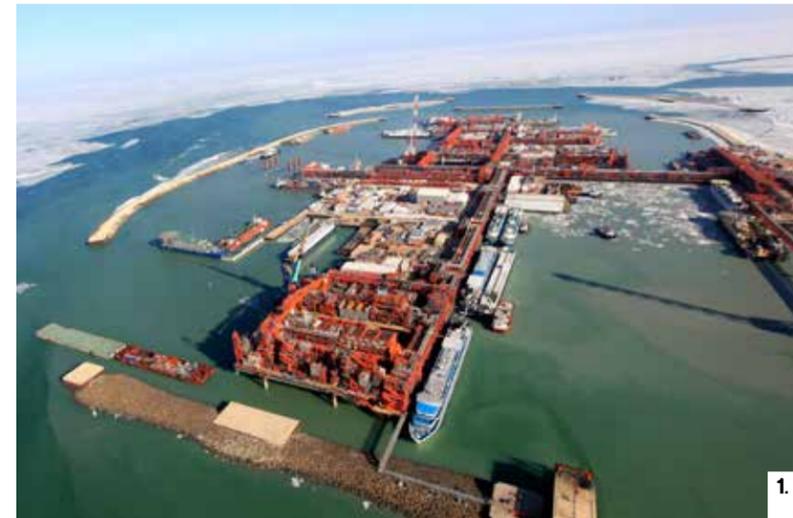
As we have continued to produce more than we need over the past few years, all the excess oil produced has found its way into storage. Current estimates put the amount of oil in storage in OECD countries alone at 4.63 bn barrels – that's the same as 102 days of global supply. So long as this massive amount of oil remains in storage the supply demand balance will continue to be impacted by it. But assuming the demand grows to such an extent next year that it is greater than the supply, that means we start to withdraw stock that's in storage

We could start seeing stock draws accelerating to a greater extent in the first half of 2018

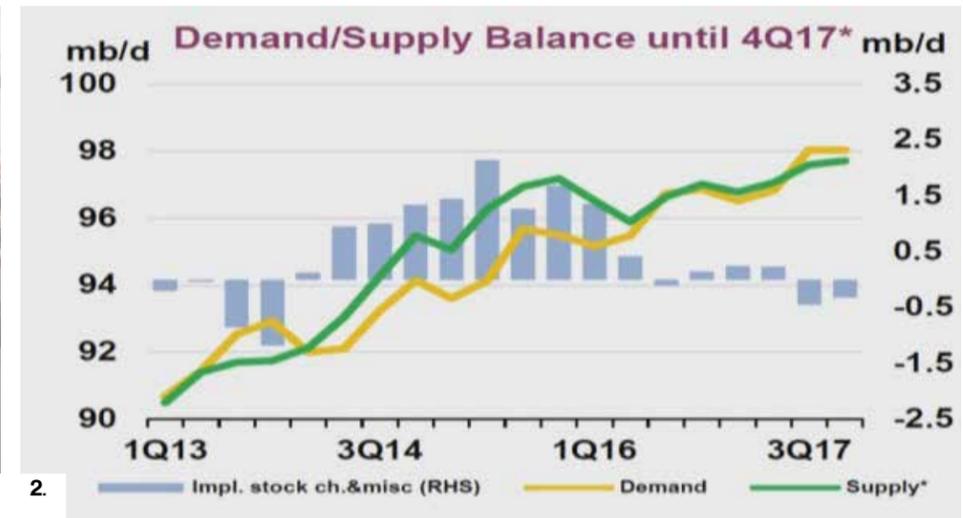
And within six to nine months the draw on stock could be sufficient to produce a big impact on the oil price. But take note, this is forecast assumes we are in for a long haul low oil price. With a sustained low price well into 2018 and potentially beyond.

Cuts today mean supply crunch tomorrow

CAPEX cuts since 2014 have been massive. On a global basis the reduction in CAPEX from 2014 to 2016 for oil companies on a global basis is 250 billion USD. Much of this has been



1.



2.

3.



1. Image of BP's Kashagan field offshore Kazakhstan. Set to come on stream early 2017 with an estimated 13bn boe recoverable

2. Graph courtesy of IEA from August 2016. Graph shows demand for oil outstripping supply around Q3 2017. Graph made prior to OPEC's announcement to cut production.

3. Image of Houston Fuel Oil Terminal, one of the US's largest oil storage facilities. The IEA estimates that there is currently 4.63bn barrels in OECD storage alone. That's equivalent to 102 days of global demand.

CONT...

reduction in supplier rates but what's worth noting is the reduction in spending associated with infield drilling, enhanced oil recovery and critically exploration drilling. This means underlying depletion rates will soon start to come into play. Oil companies have continued to produce oil but not put the same investment into replacing the reserves they have produced. The past two years have been an exercise in cost cutting and streamlining. We have seen hundreds of rigs come off contract and sit idle, exploration programmes have been consistently scaled down and announcements of new finds have been scarce to say the least. Down the line this will result in a supply short fall. The lack of activity during this current downturn will sow the seeds for a supply crunch by the end of the decade. The boom bust oil industry will go from its current bust to a future boom by the looks of it.

Peak Oil or Peak Demand?

Ten years ago the main worry over oil and our usage of it was there would come a time when we had reached a peak in the amount of oil the world could ever produce. From there on it would be depletion and decline, simultaneously with a growing global population, the demand would continue to grow and

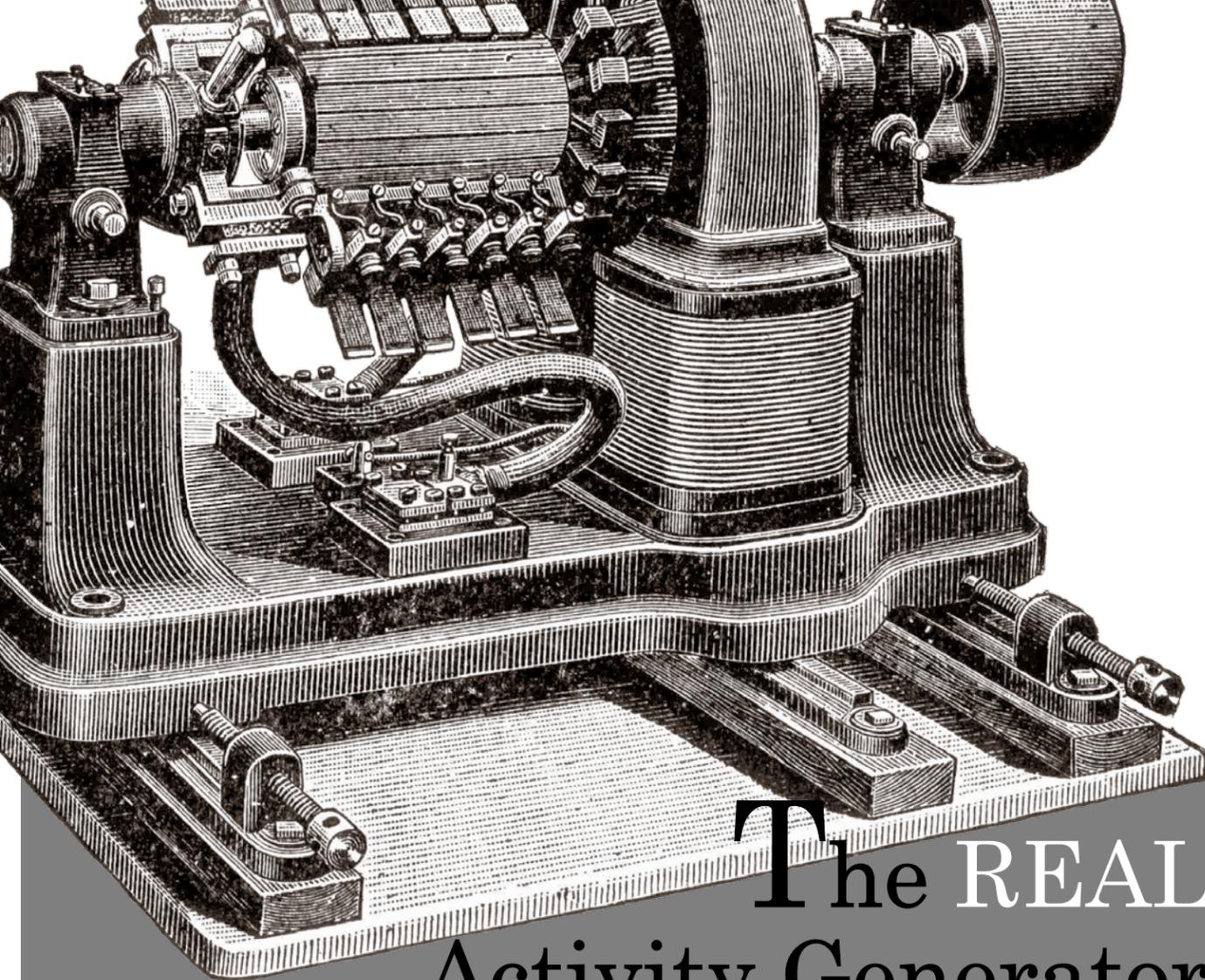
we would at some point in the future find ourselves in serious hot water. Not enough oil and too many people, et voilà oil price through the roof. That's Peak Oil in a nutshell.

If you had suggested a completely opposite theory of Peak Demand a decade ago, you would likely have been laughed at. But that's where we are now. The Paris agreement in 2015 reached a consensus on trying to reduce carbon emissions so as to reduce global increase in temperature to below 2 degrees Celsius.

Now while the move towards cleaner fuels has largely seemed to us working within offshore oil and gas as something distant and largely irrelevant. You can bet that in ten years' time it will be a huge factor. Has the demand for oil reached its peak? If as the experts say that the future is electric cars, ships and who knows what else. Battery technology is advancing at a rapid pace and electricity generated from solar PV and wind turbines is getting cheaper and cheaper. And not just a bit cheaper, so cheap it will shortly be a major competitor to oil and gas. We could be facing a future where the world simply doesn't want oil, or anyway not in the same quantities.

How will the world's energy demand be met in 2040? For now at least it looks like the future is green, not black.

**IMAGE BY RONNY STEVE JOHANSEN**



The REAL Activity Generator

Spending cuts and efficiency drives have had huge impacts on offshore oil and gas. In many ways the turbulent past two years has revolutionized the industry and heralded a new era where more will be possible thanks to costs being so heavily reduced. You could say that with so much headway made in reducing the cost of finding and extracting a barrel of oil, it has become more of a driver than even the oil price itself. Oil companies have been brutal in their quest to slash costs, not least Statoil. It was announced in September that the breakeven price for a barrel of oil for Johan Sverdrup had been shrunk to just 25 dollars. In addition plans for the Barents Sea campaign in 2017, despite the challenges associated with Barents drilling, were expected to be the cheapest wells the company has ever drilled. Up to seven wells are on the cards for next year in the Barents Sea, another ten in the Norwegian sector and three in the UK sector.

Several other operators have made inroads to reducing CAPEX on new developments. DEA's Zidane field offshore

Norway is reported to have had CAPEX for the development reduced by 20%, a formal go-ahead for the field is expected at the start of October.

Det Norske is expected to ramp up its involvement in Norway – following on from its merger with BP Norge through further M&A activity. CEO Karl Johnny Hersvik said at the ONS conference “Our goal is simple, and that is to sanction new projects with a break even below \$35 per barrel, all in”.

Trimming the costs of developing new fields has been a successful exercise. The average reduction of developing a field on the NCS has dropped a massive 40% since 2014 say the Norwegian Petroleum Directorate. Over on the UK side the UK Oil & Gas authority said this month that there has been a 45% drop in the cost of operating a field on the British sector.

We are now in a very different industry than the one we were in two years ago. Standardisation over bespoke, cost efficient over state of the art – these are tangible changes that will mean more activity is possible.

IN & OUT

Making a leaner organisation means cutting out the areas you no longer wish to focus on and potentially ramping up efforts in those you do. This has meant several companies are looking to exit the North Sea, while others are buying up assets and building a larger footprint.

ExxonMobil – looking to sell off assets in the Norwegian sector. Was conspicuous in its absence from any award in the latest round of pre-defined areas. Currently operator at Balder, Ringhorne, Sigyn and Jotun which is in the process of being shut down.

Total – It has been reported that Total is seeking to sell a portion of its stake in Martin Linge, the large gas field offshore Norway which would have taken them back to being an operator again on the Norwegian sector.

Tullow – Tullow formally exited Norway earlier this year saying it was seeking to divest all Norwegian assets and concentrate on its West African portfolio

BP/Det Norske - The new BP/Det Norske company has a clear vision to sanction projects below 35 dollars as said previously whilst also growing the company through M&A and particularly on the NCS. Announced at start of October it was the buyer of the eight licenses held by Tullow.

Faroe Petroleum – The company has been on the hunt for bargains having bought up five fields on the NCS.

ConoccoPhillips - Talks of a redevelopment of the Tor fields are ongoing plus operatorship was awarded in two fields on the NCS last year as part of the Pre-defined areas license round last year.

Maersk Oil - Recently in the press over buying up Shell's assets in the North Sea as it looks to divest business following its merger with BG.

Built	PSV			AHTS/AHT		
	Large PSV	Medium PSV	Small PSV	Super AHTS	Medium AHTS	Small AHTS
2016	-0,5%	-1,1%	+0,0%	-0,1%	-0,2%	-0,3%
	5200	3600	1700	24000	8000	5200
2011	-1,7%	-2,3%	-0,4%	-0,3%	-1,5%	-0,7%
	4800	3300	1600	24000	8000	5200
2006	-2,1%	-3,0%	-0,6%	-5,5%	-3,5%	-2,8%
	4800	3300	1600	23500	8000	5100
2001	-2,8%	-3,6%	-0,9%	-5,9%	-5,0%	-4,2%
	4700	3100	1600	18500	8000	5000
1996	-3,2%	-4,1%	-1,1%	-6,2%	-5,2%	-4,8%
	4700	3100	1200	18500	8000	4800
1991	-3,5%	-4,5%	-1,5%	N/A	-5,5%	-5,0%
	4600	3100	1200	--	7200	4800

VesselsValue Launches OSV Valuations

VesselsValue Offshore currently values and maps the global OSV fleet (AHT, AHTS, PSV, FSV and Ocean Going Tugs), circa 7,000 vessels with a market value of \$47 billion.



What is VesselsValue? VesselsValue provides instant, accurate and unbiased data and analytics that can be accessed from anywhere in the world at any time. We have over 1,000 regular users including leading banks, funds, owners, traders, commodity companies, brokers, accountants and lawyers. VesselsValue launched in May 2011 providing instant vessel specific valuations, updated on a daily basis provided with full supporting information (time series, transactions, vessel specifications, fleet stats etc). Following strong customer demand, we expanded to additional vessel types (i.e. Offshore Support Vessels) and services including GIS offshore infrastructure and AIS vessel mapping (VV@). To research each individual ship (VV does not rely on third-party data) requires considerable resources, and today, VV has a team of 40 analysts and researchers, based on the Isle of Wight and in London, plus direct access to the Sale and Purchase market through the shipbrokers at SeaSure. The result is a continually updated and hugely accurate system that reacts in real time to the market.

How did VesselsValue Develop an Offshore Vessel Valuation System?

The starting point was capturing the data, which took 12 months prior to launch of VV Offshore. The difficult part of the job is to find

and input each ship individually with its own set of specifications. Every asset specification is validated by the team who then update the offshore fleet on a daily basis. The next stage is to value the offshore vessels on the database, by scoring the features of the vessels. There are five factors that make up a valuation:

- 1.Type (VLCC, Large AHT and so on)
- 2.Features (shipyard, deck size, and so on)
- 3.Age
- 4.Freight Earnings and other key market indicators
- 5.Second hand sales

As there are hardly any transactions in this market it is very difficult to tell what the vessels are really worth. Due to volatility in rates, VV Offshore Values work off a strong historical correlation between crude oil price and values, ultimately using oil price as an indicator for the state of market. The values are then run overnight, and can be compared to any sales that take place that day. We produce an accuracy report showing the distribution curve of the values produced the day before against the latest sales, which is available on our website.

There is more to come for VV offshore. To compliment the recently launched OSV values VV will be adding MODU and OCV values and mapping in the next year.

Offshore Support Vessels

The Next Two Years

by Inger-Louise Molvær, Senior Offshore Analyst

If we assume the oil price is going to go up again, or perhaps more pertinently that oil companies are making the assumption that the oil price will eventually go up again. What happens between now and then? How tough will the market be and what state will it be in if we have to endure another two years of depressed activity?

We are in for at least another six months of declining rig count. Oil companies have become leaner and more capable of functioning in a lower oil price environment

and will ramp up drilling activity but we are quite simply not there yet. In the meantime more rigs will keep rolling off contract. There are currently 50 rigs warm or cold stacked in the North Sea and another 10 that could come off contract before the end of the year. As it stands today the rig count will continue to drop through the first half of 2017, a further 15 potentially becoming available. Though new exploration programmes have yet to really take off, plug and abandon programmes might be one to watch. Repsol Sinopec is expected to announce the results of its rig tender out at present by mid-October. Both a jackup and a semi are being sought to undertake P&A work at various fields in the UKCS starting in the second quarter of 2017. This source of work will really escalate over the coming 10 years in the UK sector and we have not seen the last of rig tenders for such a work scope. The P&A work is estimated to account for up to 50% of the total cost in a decommissioning programme, but with declining rig rates the opportunity to secure a unit for a work programme that needs to be done could prove to be very tempting. It is estimated that as many as

1224 wells need to be plugged and abandoned in the UK sector before the end of 2024 and the cost of hiring a semisubmersible has tumbled 70% - the time to fix the roof is when the sun is shining they say. So roll up, roll up, get your semis and jackups today at rock bottom prices before the regulator says those wells must be dealt with and you can't get a rig for love nor money.

1. Image of NAO Thunder taken by Ronny Steve Johansen

2. Image of Skandi Nova taken by Kristoffer Sætre



1.



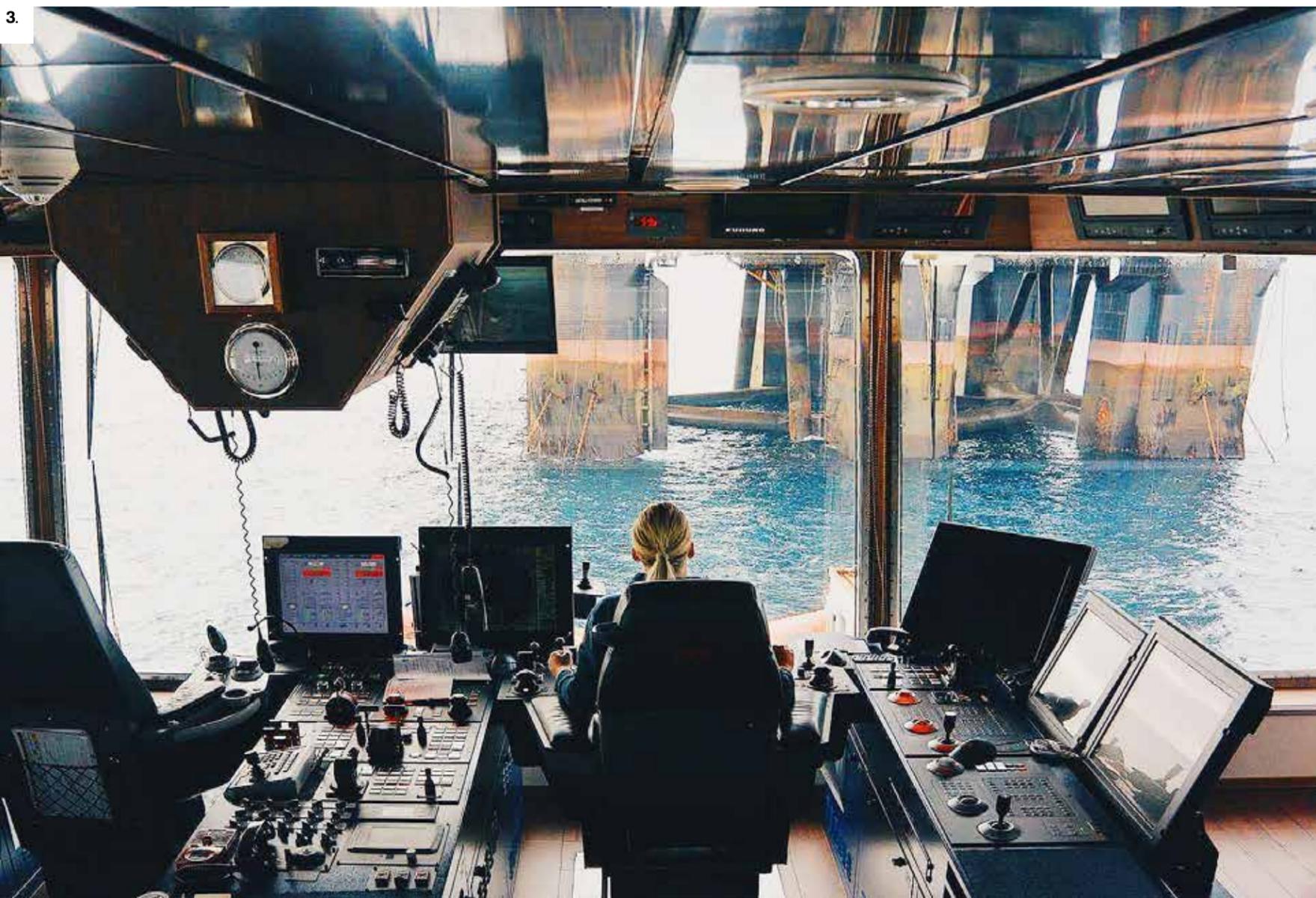
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Fewer rigs means fewer vessels

For the AHTS vessels we may see more layups but with an already drastically reduced fleet, we don't expect there to be many. But it will be another six months at least of a very quiet market. Beyond that the rig market should begin to pick up. Between new exploration programmes as oil companies gear up to focus on areas it believes to be core competence (see drilling and production section) to P&A work.

For the PSVs the oversupply problem looks more pronounced. There needs to be fewer vessels trading. Consolidation has been the ubiquitous topic of conversation these past few months and it is definitely amongst the PSV fleet that this is most evident. Of the total spot fleet of PSV there are over 30 different entities managing the vessels. Many of these represent just one or two vessels. If you're talking decreasing costs and increasing efficiencies, reducing the number of players in this segment could be a serious consideration. When deliberating this with one ship-owner the other week it was suggested to us that reducing the number of shipbrokers might also be beneficial. . . . No comment.

Out of layup?

Some of the first vessels went into layup over 18 months ago. The question of how well these vessels have been maintained will really come into question in the months to come. Aside from basic maintenance, class surveys are expensive things

and when cash is strapped how many of these vessels have had their class surveys deferred? The longer the period of layup and the longer the downturn period drags on – and with it financial woes for the owners, the more unlikely it is that the vessel could emerge and recommence trading in the North Sea. Something to factor in when we talk about increased activity down the line. The boom bust cycle once again.

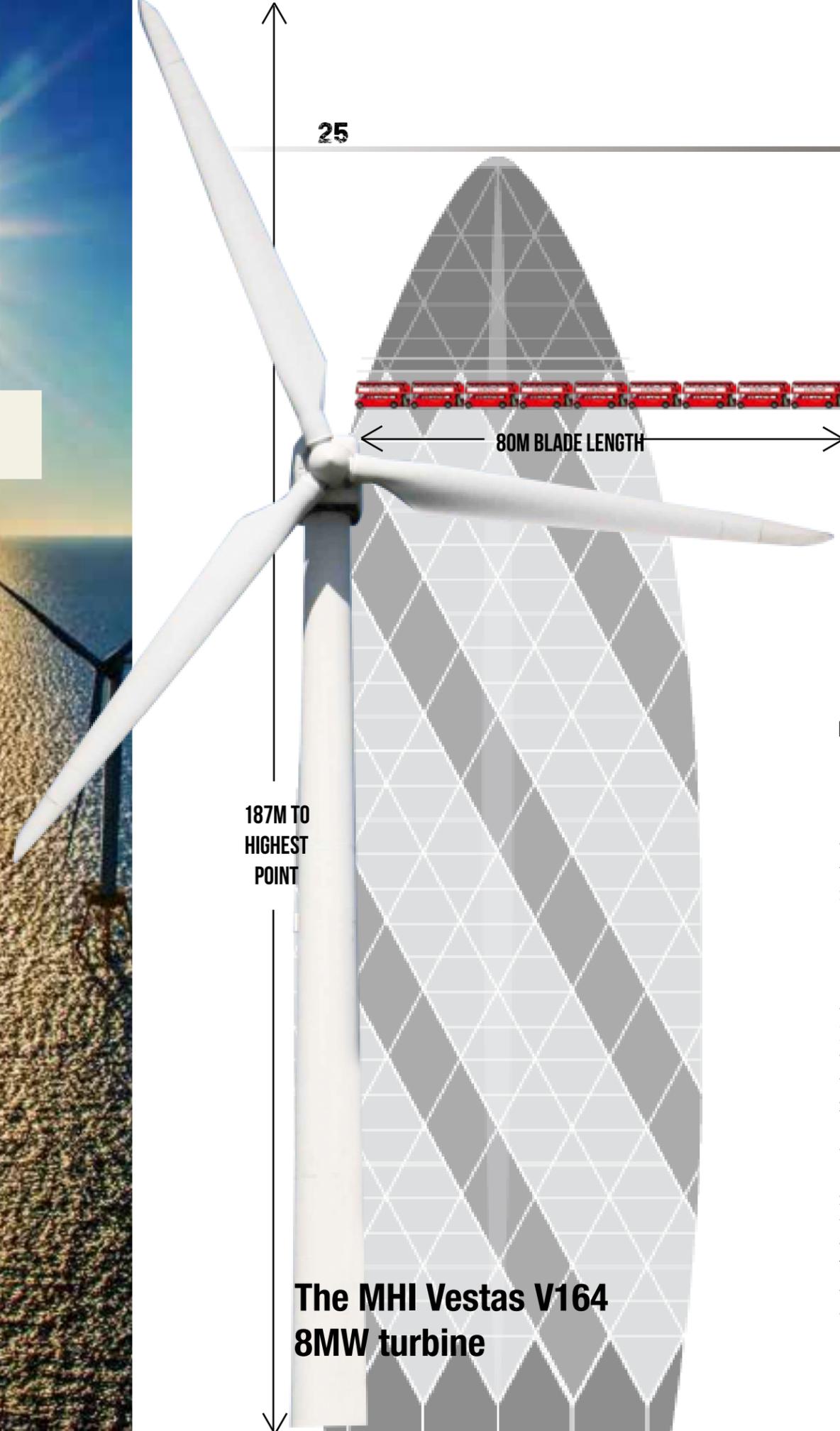
1. Songa Encourage
from NAO Storm.
Image by Tor Hanssen

2. Gulf PSV in North
Sea. Image by Inge
Sandvik

3. Image by Ida Louise
Fammestad, Deck
Cadet KL Sandefjord

BLOCK ISLAND, AMERICA'S FIRST OFFSHORE WIND FARM

Five kilometers off the coast of Boston, USA lies a first for the US energy story, the country's first fully installed offshore wind farm. Installation of the final turbine was completed this summer and the blades of the five 6MW turbines have begun to turn. The total power generation from Block Island is expected to be the equivalent of 17,000 homes, a fraction of the government's target for power supplied by clean energy. But it's a start. A second project off the coast of Massachusetts is currently in the planning stage and Deepwater Wind, the company behind Block Island, are vying to be part of it. By 2050 the US government aims to have 86GW of offshore wind capacity installed – and some of this will come from floating turbine parks as is being planned at Statoil's Buchan Deep field off the coast of Peterhead. While action is being taken in so many countries around the globe to look into offshore wind, the scale of the potential in the US makes it one of the industry's best-kept secrets. The US offshore wind story is to be continued...



Breaking records at Burbo Bank

The first 8MW turbine, currently the largest in the world, was installed off the coast of England in September at the Burbo Bank field. The new turbine produced by MHI Vestas was years in the making but isn't expected to hold the title of world's largest for long. The breakneck pace of development in the renewables sector is evident in turbine design and development. Siemens is now offering an 8MW turbine and Adwen will shortly be doing the same. There are talks of a 10 MW turbine which could be available by 2025. Interest in the 8MW turbines has meant turbine manufacturers have little option but to push ahead. Vattenfall placed an order for 11 of the MHI Vestas turbine for the EOWDC field off the coast of Aberdeen at the end of September, 8MW will be industry standard before you can blink. It was reported in September that GE and Senvion were facing an uphill struggle in wind tenders offshore Germany for next year because they were not offering the 8MW turbines. At 187 meters high, these giants will shortly be the norm in offshore wind.

The MHI Vestas V164
8MW turbine

WESTSHORE ON LOCATION

Jørgen W Knudsen on board KL Sandefjord as it carries out the pre-lay of Deepsea Metro 2.

This month Westshore broker Jørgen went out with the crew of KL Sandefjord. We would like to take this opportunity to thank the master Trond Bruarøy and the crew onboard the vessel for making Jørgen's stay both comfortable and interesting. In addition thank you to K Line for the opportunity to see the vessel in action.

