

ISSUE 41:  
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# brazilian WAVE

What to Expect in 2015

*A look at forthcoming OSV requirements*

The End of REPETRO?

*Economic issues could impact the scheme*

Will \$45 Oil End Brazil's Pre-Salt

*What future now for the deep oil finds?*



**WESTSHORE**  
DO BRASIL



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Westshore do Brasil, Cover image Navio-plataforma FPSO "Cidade de Angra dos Reis" - Petrobras

# Drilling & Production

## The latest from Brazil

### FPSOs Prepare for Operation

The delivery of the modules package for the FPSO P-66 has been concluded and is set to be installed on the hull at BrasFels shipyard, in Angra dos Reis, within the next few weeks. The FPSO is the first of eight replica FPSOs to be built for the development of the pre-salt projects in the Santos basin. The vessel will have a processing capacity of 150,000 boed and 6 million cbm of natural gas. The P-66 is expected to begin production at the Guara offshore field this year.

Meanwhile the Cidade de Itaguaí, owned and operated by the consortium Schahin/Modéc, also arrived in BrasFels shipyard this month. The hull was converted at Cosco shipyard, in China, and is now in Brazil for the integration of 12 modules. The Cidade de Itaguaí will be installed at a depth of 2,240m in the pre salt of Lula field, located in the Santos Basin, where the beginning of production is scheduled for the second part of this year.

### OGpar begins OSX-1 decommissioning

OGpar is about to disable the Tubarão Azul field however the ex-OGX company is facing problems in relocating the FPSO OSX-1, since the unit was built for the field's specific conditions. The unit can be readapted but OGpar will have to find another oil company in search of an FPSO with relatively similar conditions in their fields, including oil viscosity, operating depth, oil/gas quantity ratio, winds and tides conditions, among others. Indeed, it is a similar problem to that which the company already has with the OSX-2, currently docked at a shipyard in Malaysia with engines and equipment running (so no technical issues arise from idleness), but without producing anything.

### Second Well Goes Ahead

The SS ODN II (NS-42), owned by QGEP, has started drilling the second well in the Carcará discovery, located in the BM-S-O block in Santos basin. The operation plans to estimate data on the size and the accumulated amount in the discovery, increasing the level of information about the well, as well as their productivity. The drilling will reach a depth of 6,400 meters. After completing its activities in the second well of Carcará, the ODN II will operate in its first extension well, reaching a depth of 6,500 meters.

### Sedco 707 Set to Leave Brazil

After getting its contract with Petrobras renewed with Petrobras for few additional months during 2014, the Transocean Semisub Sedco 707 concluded its last well in the first week of January and is set to be decommissioned in Guanabara Bay this month, getting prepared to leave the country to go to Malaysia (Labuan), where it should get maintenance while it expects a new job to be defined. The 218 tbp AHT Ursus from ALP Maritime will tow the vessel at the end of January, from Rio to Malaysia.

### Farewell to Two Diamond Rigs

Two more rigs from Brasdril (Diamond Offshore) did not have their contracts renewed with Petrobras and shall be towed from Brazil during January. The rigs are the SS Ocean Worker and SS Ocean Concord, with this last one set for scraping. Two AHTs owned by Posh Terasea were hired for the jobs: AHT Terasea Falcon (205 tbp) is set to leave Brazil to the Gulf of Mexico, while AHT Salvanguard (158 tbp) will tow one of the rigs to the Mediterranean Sea. SS Ocean Yatzy has also stopped and is set for scraping, and shall also soon leave Brazil. As of now, Brasdril operates in Brazil with a fleet of seven rigs.

# Headline News



## What to Expect in 2015

**A**nother 365 days have passed, and now it is time again to set new targets and hope for a better new year. While a few experts will roll their crystal balls, we as always take a quick look at the past year to see what has been done (or not) and from that we study future projections. So what can we say about 2015?

### Spot Market (IOCs and Drilling Companies)

While in 2014 the ANP's 11th round did not yet mean a big increase of activity, in 2015 we may see a few RFI's and even firm requirements coming up. IOCs like Total, BG, Statoil, Premier Oil, and BHP Billiton are studying their logistical needs for this new frontier with their "block neighbours", while the seismic and environmental activities are either on-going or about to start in 2015.

This year, just like it was in 2014, we should not expect an impressive exploratory activity from the IOCs, due to the oil price drop in late 2014. In terms of potential new

wells, we can cite HRT, OGpar, Chevron and Total. Shell Brasil is not forecasting new campaigns for the country this year, thus focusing only on production Bijupirá Salema and BC-10.

Meanwhile, Statoil is forecasting a new drilling campaign only for 2016 in the new blocks awarded in the 11th ANP round in Espírito Santo basin, but with RFQ to be released this year. Even though ANP has rejected the sale of 40% stake of Maersk Oil in Polvo field to HRT (operator and owner of 60%) in November 2014, which delayed HRT's plans of investing in the drill of 2 new wells, the oil company is currently working on wells re-entries, aiming for a growth in production in 2015. HRT is currently looking for an OSV to cover its logistical needs in 2015, for 150 days firm plus options.

During this month of January, OGpar expects to define the details of a drilling campaign potentially for three wells, two for work over and one for injection at Tubarão Martelo field, with a semi-submersible moored rig. The



campaign's estimated period is eight months. The oil company's OSV fleet is pretty much defined since it follows the drilling of two wells which were concluded in the second half of 2014.

Rumors are in the market suggesting HRT and OGpar are in talks for a merger due to the synergy on their logistics, even though they recently said it is only about unitization agreements for their respective Polvo and Tubarão Martelo fields. Chevron may have one well re-entry campaign by Q4 2015 in the Frade field, linked to the need of an additional large PSV. Meanwhile, Total plans on running some studies regarding the well results of Xerelete field, for which the drilling campaign ended mid-2014, in order to determine the commercial viability during the first half of 2015, and if viable, the company will release their OSV requirements this year for production starting in Q1 2016. Meanwhile, the drilling of at least one well in Uruguay in Q3 2015, which will be interesting for ship-owners operating in Brazil and Argentina, will generate its first OSV requirements by March or April 2015.

Meanwhile, the drilling campaigns from Repsol and Karoon which started in 2014 are still ongoing, with OSVs already assigned to each one of them. Karoon will continue its drilling campaign with the rig Olinda Star, adding two wells in the Santos Basin (evaluation well Kangaroo 2 and exploration well Kangaroo West-1), and having the option of two extra wells. The drilling started in Q4 2014 and may be concluded by Q2 2015, being followed by commercial viability studies. And Repsol Sinopec, which started drilling in Q4 2013 in the Pão de Açúcar Prospect (Campos basin) with OSV contracts of three years plus two options of one year each, still have some time to drill two firm wells plus four optional wells as agreed with ANP.

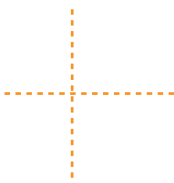
As a consequence of slow exploratory activities in 2015, rigs whose contracts are about to expire and are set to leave the country will keep generating demands on the spot market as seen last year. Further activity will come from rigs' or vessels' term docking and fuel runs, which cannot always be planned in advance, but hopefully will heat up the market and generate some action for vessels available after or in between contracts.

## Petrobras

Owners around the world have been anxiously expecting Petrobras to be back to the contracting pace seen in the last decade. However this has not happened due to the recent corruption allegations, oil price drop and growing focus on production. Leaving the drilling of new wells aside for a while, 2014 was also a slow year of tenders, while most of them are still on-going with conclusion of bids expected in Q1 2015. The current tenders for AHTS 18000 (which is the most critical vessel type), AHTS 18000R (with ROV), PSV 4500, PSV 3000, and PSV 1500 shall have their contracts starting in 2015, but the number of vessels to be hired is still undefined.

The 7th round of newbuildings was concluded last year, however it did not succeed in hiring AHTS 15000 (no offers received) and AHTS 21000 (all 11 vessels offered did not qualify). Therefore, Petrobras is planning on releasing the 8th round of newbuildings to cover the gap in the two vessel types. From the market screenings Petrobras did last year, RSV is also a possibility for a tender in the first half of the year. Petrobras has been demonstrating an interest in increasing its fleet of vessels for shallow water diving support, for up to 50m wd, DP2, 2 ROVs for observation, and may also come up with a tender for this type of vessel in 2015.

After a record number of international vessels hired in 2010 and 2011 that are having their contracts expiring in 2014 and 2015, which are mainly PSVs (around 36 in 2015), we are now noticing a wave of contract extensions, motivated by the growth of PSV availability worldwide, lower demand abroad and, therefore, better chances for these vessels locally. Meanwhile, AHTS 18000 and AHTS 21000 with contracts also expiring are still working on extension negotiations, which, in the case of the AHTS 18000 have also the chance of bidding in the current open bid for better rates.





G R O U P

# Saipem

## Seismic/Environmental

This year shall be focused on seismic and environmental data assessment and interpretation. OSVs to work as chase boats, supply, refuelling and seabed coring will have its place in the requirements. Companies like CGG, Gardline, Fugro Marine Geotechnical, SeaSeep, etc, have gone through an intense tendering process from many IOCs last year and maybe also the first half of 2015, aiming for the mapping of new regions, mainly the north-east and north of Brazil.

Most of the seismic/environmental specialized vessels are expected to come from abroad, as there are very few of these in Brazil; however some operations are expected to be short, which would significantly increase the costs of the projects if not coordinated efficiently and in sequence. Therefore, some of these companies are considering available vessels in Brazil with the capability of working on DP, having at least 15 extra accommodation, large deck area, and a crane (A-Frame or regular, mobile of fixed) to safely deploy and retrieve their equipment. Given that some vessels may become available if not renewed with Petrobras or because of the lack of local demand for supply duties, especially considering new PSVs coming from abroad, these specialized companies may be a good alternative.



## Contractors (Subsea Companies)

When it comes to Contractors, Petrobras has awarded to Saipem the EPCI contract for the Lula Norte, Lula Sul and Lula Extremo Sul Project, to be developed in the Santos Basin Pre-Salt Region. The marine activities will be performed mainly by the Saipem FDS2 within the first half of 2016, therefore, the other supply vessels may be contracted throughout 2015. Meanwhile, the projects Sapinhoá Norte, Iracema Sul, P-55 are still ongoing. Technip does not have any activity planned for 2014, except for the possibility a few spot jobs if maintenance is needed. Meanwhile, the Phase-3 of BC-10 Project of Shell Brasil, which includes the installation of jumpers, umbilicals and other subsea structures, was awarded to Subsea7 and Allseas and it is expected to start subsea installations within the second half of 2015 on a two-year contract, generating OSV demands within this year. And after being cancelled in 2013 due to offers with excessive price, the Route 3 gas pipeline tender was awarded to Allseas last year. This project was planned at first to connect the area of Franco to a petrochemical complex in Rio de Janeiro by mid-2016, but is now late. The production of the pipelines has started and the demand for vessels shall be reconfirmed within this year, while the installation of the pipes may start only in late 2015/early 2016. The expected demand is for 2 Work Class RSVs and 1 PSV with large crane among other smaller vessels. The subsea companies are also working on possible small demands for Chevron, Statoil, Queiroz Galvão, among others, with operations only starting in 2016 as well.

In general, we could say that 2015 will be a year of expectancy, characterized by intensive planning and waiting for the activity growth expected for 2016 and 2017. Indeed we shall see some new activity concentrated in a few seismic/environmental companies and three or four IOCs, while spot jobs are hard to predict, but are always there especially when there is an unexpected situation.

# Vessel News

## Chartering Activity



The AHTS Far Sea is now working on the spot market.

**STARNAV** - PSV 4500 Starnav Aquarius is currently going through some adaptations in Itajaí (Detroit Shipyard) and shall be ready around mid-February, potentially engaging in a new contract right afterwards.

**ECO-TUG** - OSRV Eco-Octo was hired by Shell for a 30-day operation starting in the last week of December, to add to the company's PEI temporarily as a dedicated OSRV with Danko Tide.

**BRAVANTE** - PSV Bravante VI is currently available in Guanabara Bay, pending only customs clearance. Sister vessels Bravante V, VII and VIII are operating for Total in Argentina for 120 days firm plus options,

and started early this month.

**DRACARES** - Supply vessel DRS Ipanema successfully concluded its 30-day job with Fugro in the last week of December, and is currently located in Itajaí and available in the spot market.

**LABORDE** - PSV 1500 LAB 151 was redelivered by OGpar in December after over one year of operation and is currently available in the spot market. Sister vessel LAB 152 will undergo sea-trials after leaving the shipyard this week, and could also operate in the spot market.





The Normand Borg has returned to the spot market after finishing term work with Petrobras.

**SOLSTAD** – After conclusion of its term contract with Petrobras, the AHTS 18000 Normand Borg is available in the spot market, pending customs clearance, until its next potential long term charter.

**CHOUEST** – Since mid-December, AHTS Elizabeth C is currently replacing Waterbuck in a contract with Shell, while the vessel gets its main engines repaired.

**FARSTAD** – AHTS Far Sea is working on the spot market, and was fixed for 3-day operation with Brasdril to assist one of their semi-sub rigs around Macaé area, before it leaves Brazil.

**DEEP SEA SUPPLY** – AHTS Sea Leopard was fixed to Transocean to assist the rig Sedco 707 for five days firm plus options, which is getting prepared to leave Brazil for Malaysia.

**“Oceanpact’s OSRV Clarisse and the LH Antonio David are now prompt in Guanabara Bay.”**

**OCEANPACT** - OSRV Célia (300m3) is prompt available in Guanabara Bay. OSRV Clarisse is currently docked, getting prepared for its next contract.

**ASTROMARITIMA** - Brazilian built and flagged Astro Badejo is currently on maintenance and shall be back on the spot market in late January. Meanwhile, prompt available Astro Pargo is having its tanks cleaned in order to increase supply capacity in the spot market.



# Operator Update

## Brazilian Activity

### More Time

ANP has given Anadarko and BP a few more months to conclude their pre salt deepwater campaigns in the Campos basin. Both companies had until July last year to declare if the Wahoo and the Itaipu discoveries were, respectively, economically commercial. Now Anadarko has until the end of this month to present a plan for an extended well test and to inform if the Wahoo area is or is not commercially viable by September this year, while BP has until May to submit an extension well test plan for the Itaipu Discovery and must declare if the discovery is economically viable by December 2015.

### Successful Drilling Campaign

Australian company Karoon has concluded production testing over the Paleocene A, B and C oil bearing reservoirs of its Kangaroo-2 well in its jointly held block S-M-1165 in the Santos basin (Karoon hold 65% and Pacific Rubiales 35%). Preparations are underway to commence a sidetrack program to better define the resource size and recovery factors. The exploration and appraisal drilling campaign is expected to continue through the first half of 2015.

### Atlanta Field to come On Stream in 2016

QGEF has revised its Development Plan for the Atlanta field, located in Santos basin and informed that the first oil is scheduled to the end of the first semester of 2016. According to the original plan, the company was supposed to put on stream the Anticipated

Production System in May 2014 but the FPSO responsible for the production will arrive in Brazil only next year. QEGP also plans to drill a third well but it will depend on the oil price by the end of this year.

### Merger Denied

The rumors of a plan for the union between HRT and OGpar (mentioned in our last edition) have been denied by both companies which confirmed that negotiation is regarding unitization agreements only, for their respective Polvo and Tubarão Martelo fields.



# Inside Story



Could the current economic climate lead to the sun setting on REPETRO?

## The End of REPETRO?

**T**he year 2014 was marked by economic turmoil, with large changes in the dollar, oil price, as well as allegations of corruption at Petrobras and higher inflation, affecting the expectations of entrepreneurs and investors.

2015 also promises major challenges: the Brazilian economy is facing a major reorganization of public accounts and weak economic activity. Meanwhile, entrepreneur and consumer confidence remain at low levels, which compromises investment and inflation that will have to absorb pressures such as the fuel adjustment. The question is how will this period of adjustment affect the OSV market?

Amid the Petrobras corruption crisis, the government needs to urgently regain fiscal credibility, at the risk of losing the highly regarded investment grade of credit rating agencies, which guarantees Brazil access to international markets with lower interest rates and better financing conditions. However with all the attention focused on these necessary adjustments there are worries about what will this year bring for Brazil.

The Government has been struggling to render clarity and trust to the market. The new minister of finance besides metaphoric and enigmatic speeches which have generated a lot of speculation from the market, has recently announced few measures mainly related





The OSV sector needs to be set into the context of the complicated fiscal situation in Brazil.

to increase of taxes. Given the fact that the re-elected President is doing everything she said she would not do, it does not bring much confidence and predictability to the market. One speech by the new minister of finance Mr Levy, stated that he would be looking at sectors of the industry with privileged exemptions and criteria. This may indicate the tax exemptions given to the car manufacturing industry, or to domestic appliances, which have been systematically getting exemptions to stimulate production and consumption. However, at some point, one could look at the REPETRO as a target.

This system currently benefits those importing all goods related to the oil industry, including OSVs, by suspending all of the federal importation taxes. The consequences of ending the Repetro could include millions if not billions of dollars of additional revenue to the government. However, it would also add a burden to Petrobras, who would ended up paying for this additional cost due to the fact that existing contracts would be imbalanced and new ones would have suppliers including this cost for the Oil Company to absorb.

In the midst of such a complicated fiscal environment, both national and international, caution is a common sense approach for the Brazilian naval sector this year.

**“In the midst of a complicated fiscal environment, caution is the common sense approach for the Brazilian naval sector.”**

The problems caused by Petrobras scandals, low oil prices in the international market and the lack of public policies for the sector are the factors having most impact on the shipping industry. The pressure to enable the relaxation of local content and the Government's closeness with local engineering companies that are involved in corruption scandals could be a threat for the local

industry but also an opportunity for foreign companies and suppliers.

ANP's long awaited 13th offshore concessions bidding round should come in 2015 but could now be delayed to the end of the year due to the present low oil price. This could

lead to disinterest from oil companies and compromise the collection of funds.

In this period of economical sacrifices, the market should keep an eye on the long term effects on any fiscal measures that could impact the oil and gas markets. Emergency measures should not be preferred over sustainable and long term approaches even if this means more effort is required at this stage, although authorities should not disregard the need for prompt and punctual adjustments. This is not an easy task at all, but predictability would help the market to sustain a steady development through the years, in these turbulent times. ■

# Petrobras News



## Are There Pre-Salt Stakes for Sale?

Petrobras is studying the possibility for the sale of stakes in the pre salt areas as a short-term solution to deal with financial difficulties. Financial and oil investors overseas are being consulted to assess whether there is interest in the investment. According to the market, the project is part of a disinvestment plan for the company, which so far has been concentrated on selling assets abroad. As of this year, the company will direct efforts at exploration and production assets in Brazil, mainly in attractive areas for investors, without, however, compromising the goal to achieve the production record of 4 million boepd until 2020.

## Only for Foreigners

Petrobras has re-opened the tender for the construction of the FPSOs “Replicantes” modules, but the Brazilian oil giant only invited foreign companies due to the corruption scandals which excluded 23 big national construction companies from Petrobras’s suppliers list. The new list includes mainly Chinese and Singapore companies such as Keppel Fells, owner of the BrasFels shipyard in Angra dos Reis (RJ), but also brings companies from other countries, such as Cobra from Spain, and Modec from Japan. Everything indicates that the work will not only be conducted by foreign companies, but will also be performed outside the country despite the local content rules.

## The Largest Oil Producer

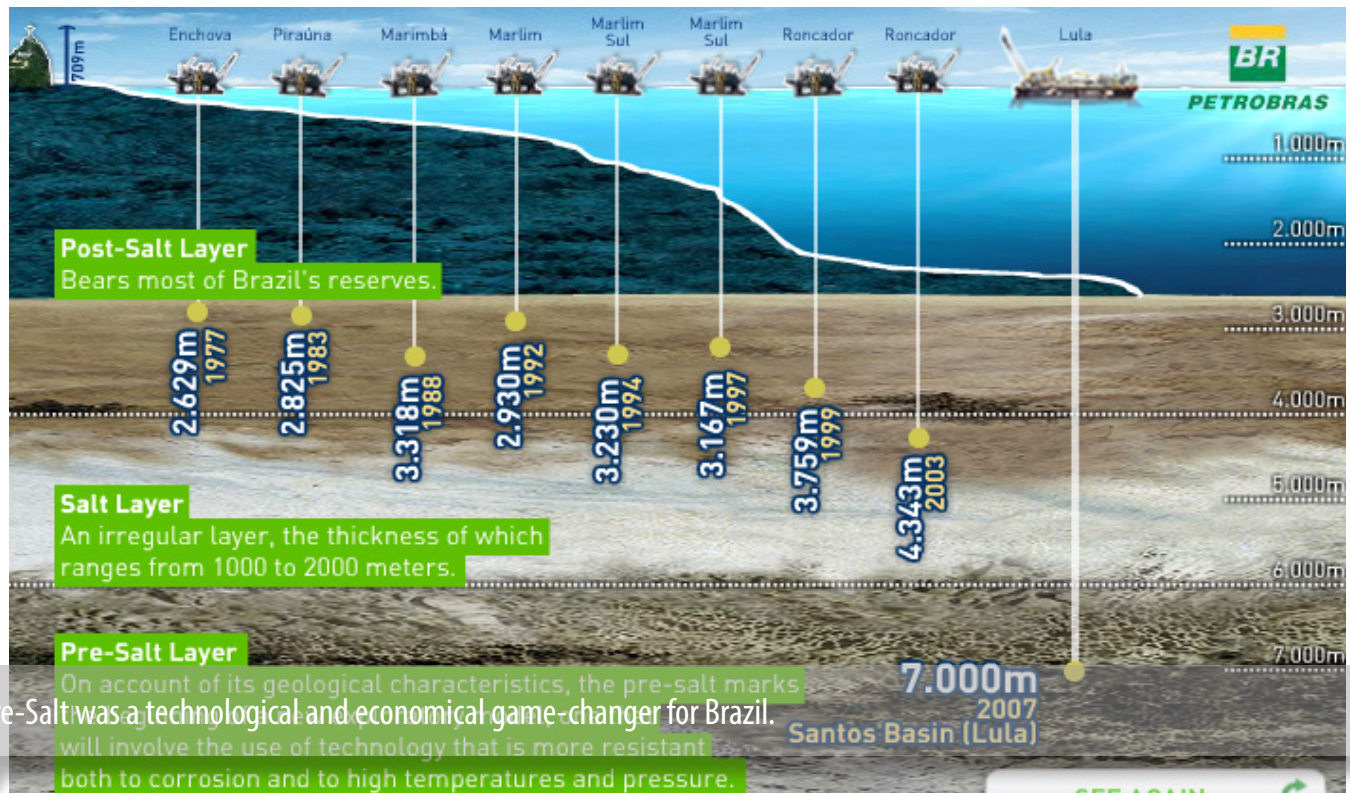
Petrobras has become the largest oil producer among publicly traded companies in the world, after moving ahead of the American firm ExxonMobil in the third quarter 2014. ExxonMobil produced 2.065 million boepd in the third quarter, according to the balance sheet of the company, while Petrobras produced 2.209 million boepd in the same period. When added together with the gas production, Petrobras still comes fourth in the ranking.

## Light oil in Sergipe basin

Petrobras has announced that it has found a new accumulation of light oil and gas in the Farfan area after reaching a final depth of 5,900 meters. The discovery was made from one of the pioneer wells that the oil major is drilling in the region. According to the company, the oil is of good quality (between 37 and 40 degrees API). Petrobras said it will continue the Discovery Evaluation Plan, as approved by the National Petroleum, Natural Gas and Biofuels (ANP). The Brazilian state is the operator of the consortium (60%) in partnership with IBV-BRASIL (40%).



# Look Ahead



## Will \$45 Oil End Brazil's Pre-Salt?

**P**etrobras is facing a turbulent time with corruption scandals and their consequences coming alongside a sudden low oil price drastically changing economic feasibility of projects and uncertainties all over the oil market in 2015. The question is how bad will this all affect Petrobras in such delicate moment?

The hugely unprecedented corruption scandal added to by the drastic drop in the oil price (from USD100 in September 2014 to USD46 in mid-January 2015) has raised doubts over Petrobras' pre-salt feasibility. As a result, over that same period, Petrobras' share

price went from R\$ 24.00 down to R\$ 8.00, generating losses in the Company's market value, culminating in several legal actions from minority shareholders seeking compensation due to alleged reckless management. We foresee huge challenges ahead but it is definitely not the end of Petrobras or the pre-salt, and we'll explain why.

It is not the first time oil price has reached below USD50,00 per barrel and probably will happen again in the future. The last time was in December 2008 when oil price reached USD 33.73 per barrel. Market conditions were at that time different from now as the

world was facing its worst economic crisis which led to a contraction in oil demand until OPEC decided to cut production.

Although different now, the increase in the oil stock has not to do only with the demand but the increase in the stocks, mainly led by development of the US shale oil. While the most abundant reserves from Saudi Arabia is said to have a lifting cost potentially below USD 5,00 per barrel, US Companies are said to need up to incredibly USD 80,00 to produce one barrel of oil, using a technology (fracking) that is old fashioned, brings environmental risks and was resurrected only due to the high oil prices seen in the last years.

When it comes to Petrobras, the cost of its offshore barrel, including governmental participation has historically ranged around USD30. As to the pre-salt, with the oil barrel price at USD 45, this is expected to generate a 25% IRR, without taking into consideration that the cost on the pre-salt has been constantly optimized, and its productivity level raised higher.

For example, the time spent drilling one well in the pre-salt layer of Lula and Sapinhoá fields went down from 126 to 60 days four years later, and one single well producing around 30.000 barrels per day. The pre-salt corresponds to around 20% of Petrobras total production, is expected to reach 50% by 2018.

Adding to above is the fact that Petrobras is not an oil exporter nor does it use all of the oil it produces, but is an importer. Most of Brazil's refineries are still old and retain old fashioned hardware which is suitable only for processing light oil, not heavy oil which is the majority produced by Brazilian offshore fields. Petrobras is obliged to export part of its heavy oil and import light oil, in addition to the "clean products" e.g. oil derivatives. This means that Petrobras just after increasing the gasoline price, has been buying oil and

products for much less than before, without passing the reduction to the end user.

At the same time, Petrobras has never been dependant on the revenue from oil exports, differently from Venezuela, Russia and other exporters. OPEC's majority decision to retain market share as opposed to possibly raising the price by cutting oil production, has generated frustration among the oil exporters. This is due to their shortage in revenue but it has also put pressure on the high cost oil producers, who have been caching finds to collect the prize at a later stage.

Despite the market's desire to have a crystal ball when it comes to oil price, history has proven that world economic growth is directly related to low oil price. Economies which grow due to low energy prices may lead the world to cycles, where consecutive periods of high growth generate an overall inflation which is imbalanced from time to time.

On the Petrobras' side, their main concern should be to detach its activities as much as possible from political issues which can corrode the company's values and potentially threaten its future capacity to finance itself. ■

**"It is more important for Petrobras to distance its activities from political issues which could damage it."**

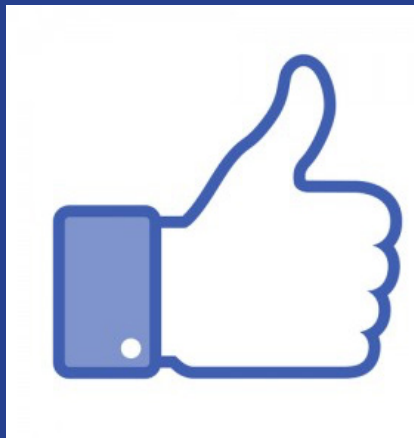


**PETROBRAS**



# É Isso Aí

## Brazilian Wave Satisfaction Survey



Brazilian Wave's goal is to offer all readers high quality information and analysis on the Brazilian OSV market, in an accessible format. And so, in order to keep improving, we would like to hear your sincere thoughts on our magazine. Please click on the link below to access our Satisfaction Survey. The responses are completely anonymous and it will only take a couple of minutes! Thank you for your support.

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