January, 2022

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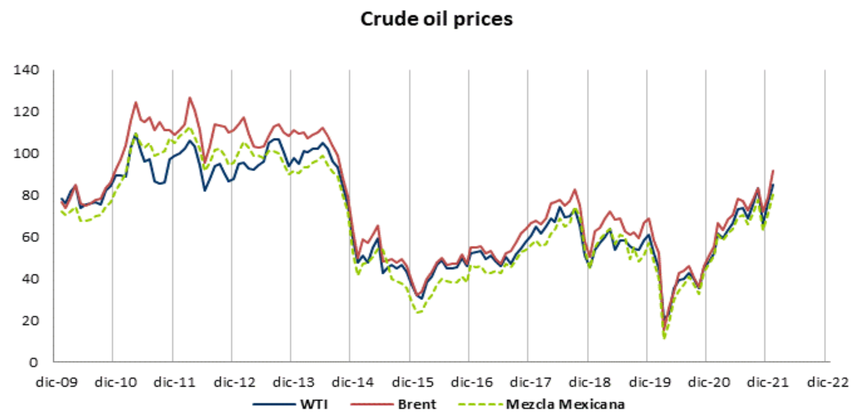
This month in review

** 26/01/2022 **28/01/2022*

Crude oil price MME US/BD	82.1
NG price HH* US/MMBTU	4.2
Mx crude production MMbd – *December*	1.65
Mx NG production MMpcd – *December*	4,697
US crude production MMbd - *October*	11.47
FX Rate*	20.85



Source: EIA. El Reforma, Pemex, Banxico, and CNH

Oil & Gas - Mexico

Mexico approves Fieldwood plan for Ichalkil and Pokoch fields – *CNH*

CNH has cleared a work plan and budget presented by Fieldwood Energy. The approved plan lays out the company's strategy for its flagship Ichalkil and Pokoch fields, with the goal of producing 30,000b/d of oil by the end of the first quarter. It also includes scaling up to 100,000b/d by mid-decade, turning it into one of the most ambitious private hydrocarbons development projects in Mexico.

Following its new goals, the company expects to invest USD $477 million in the area this year to recover 13.5Mb of oil and 20.9Bcf of natural gas. The plan involves spudding and completing three new development wells as well as the retrofitting of three production platforms, Pokoch, Icharlkil and state-owned Pemex's Tumut. It also involves conducting a series of studies.

Pemex tenders undersea pipelines at Ek Balam – *Bnamericas*

Pemex, has launched a tender for the construction of subsea hydrocarbons pipelines and associated works at the Ek Balam shallow water fields.

With tender, PEP seeks an EPC contractor for work on the "south collector and north collector" in Ek Balam's undersea oil and gas pipeline system, including branches and connecting pipelines from the "Sea Horse" to "Tetrapod" platforms. Ek Balam was a flagship project Pemex migrated from its usual concession format to a shared production contract model enabled by the energy reforms of 2013-14. By doing so, the company expected to access more favorable tax conditions. And on December 9, hydrocarbons commission CNH approved a Pemex plan to invest USD $828mn at Ek Balam in 2022.

Pemex expects to spud and complete six wells, and build a platform and several pipelines to extract 32Mb (million barrels) of oil and 7.53Bcf of natural gas.

A session to clarify questions on the tender is set for February 2 with bid presentations scheduled on February 23 and notification of the results on March 22. According to plans approved by CNH, Ek Balam is expected to reach its productive peak of 90,000b/d of oil in April, a volume almost 30% higher than that obtained last October.

Shell completes Deep Park refinery stake sale to Pemex – *Reuters*

Royal Dutch Shell has completed the sale of its 50% interest in the Deer Park refinery in Texas to Pemex for USD $596 million, and Pemex has signed a long-term crude supply contract with Shell as part of its acquisition. Under terms of a deal announced in May 2021, Pemex assumed the 50% from its longtime joint venture partner for USD $596 million, plus the cost of crude inventories, currently estimated around USD $325 million. The final amount for the hydrocarbon inventory will depend on volume measurements and average market prices for January.

Shell is expected to supply 200K bbl/day of foreign and U.S. crude to the plant for at least 15 years and has separately agreed to supply the adjacent Shell Chemical plant with feedstocks. The transfer of the 340K bbl/day refinery reportedly comes with a labor agreement allowing Pemex to absorb most of the refinery's employees for two years. The refinery deal will assist Mexico's drive to become more self-sufficient in gasoline and diesel.

Mexico grants Pantera, Jaguar more time to explore onshore projects – *Bnamericas*

Pantera E&P has two more years to carry out exploration plans in three Mexico onshore assignments, following extensions approved by CNH. The watchdog authorized Pantera's request for contracts CNH-R02-L02-A5.BG/2017, CNH-R02-L02-A8.BG/2017 and CNH-R02-L02-A9.BG/2017, all in Tamaulipas state.

The CNH-R02-L02-A5.BG/2017 contract is divided into two blocks in the municipalities of Reynosa and Río Blanco, within the Burgos basin. Pantera signed up to drilling the equivalent of one more exploratory well. Pantera requested the additional time on the CNH-R02-L02-A8.BG/2017 contract, awarded in Mexico's second oil and gas round in 2017, saying it needed more time to complete planned activities and that its initial exploration period begun in October saw delays beyond the control of the contractor. The company complied with the minimum work program in the area. With contract CNH-R02-L02-A9.BG/2017, in the municipality of Soto la Marina, also in the Burgos basin and with an area of 464 km², Pantera committed to drilling the equivalent of an exploratory well.

In the same session, CNH approved extensions for related company Jaguar E&P to complete exploration work on two contracts, CNH-R02-L03-VC-02/2017 and CNH-R02-L03-VC-03/2017, both awarded in round two. At VC-02, Jaguar has agreed to the equivalent of drilling one well. The 251 km² site is in Veracruz state, in the municipalities of Cotaxtla, Manlio Fabio Altamirano, Paso del Macho and Soledad de Doblado.

At VC-03, Jaguar also committed to the equivalent of drilling one well. The 262 km² site is also in Veracruz state, in the municipalities of Cotaxtla, Tierra Blanca and Tlalixcoyan. Last year, Jaguar outlined a plan to increase natural gas production in Mexico, and the company says that by 2024 it can reach 100Mcf/d with an investment of up to USD $450 million.

Mexico cuts Pemex debt burden by USD $3.2B – *Bloomberg*

Mexico's government slashed Pemex debt burden by USD $3.2 billion through a refinancing operation. The government swapped debt that was expiring soon for a new bond with a maturity of 10 years, while also refinancing some medium maturity debt that was cheap, according to a statement from the Finance Ministry.

The operation will reduce the "financial pressure" on Pemex by USD $10.5 billion between 2024 and 2030, the ministry said, adding that the refinancing wouldn't reduce the fiscal budget. The government contributed USD $3.5 billion to the operation, which helped narrow the spread to sovereign bonds by 50 basis points, reducing Pemex's annual financial costs by USD $180 million. Pemex is flailing under USD $113 billion of debt, the most of any major oil producer, struggling to reverse over a decade of crude output declines, and is highly reliant on the federal government being willing to continue paying bondholders.

CNH approves USD $800 million PEP onshore, offshore plans – *Bnamericas*

CNH has authorized offshore and onshore plans of PEP, involving investments of USD $800 million. CNH authorized PEP to transition assignment AE-0151-M-Uchikil in the Pokche field into development. Total cost is USD $268 million, of which USD $237 million is for investments, USD $27.2 million for operating expenses, and USD $3.8 million for other costs. While support for the plan was unanimous, PEP was urged to learn from well development failure at the Xanab field, which saw aggressive water invasion.

CNH also authorized exploration plans for onshore assignments in Veracruz state, covering AE-0186-Llave 3, AE-0187-Llave 4, AE-0188-Llave 5 and AE-0189-Llave 6. PEP seeks to incorporate hydrocarbon resources with the assignments that might continue from already established cretaceous plays bordering the blocks. Under the original assignment contract from March 2021, Pemex has three years to explore the area and 30 years to recover resources.

AE-0186-Llave 3 crosses into Oaxaca state and covers 1,030 km². PEP plans exploratory studies, seismic acquisition and processing, and possibly drilling the Abari-1EXP and Konetl-1EXP wells. A baseline scenario involves an investment of USD $98.3 million and only the Abari exploratory well, while an incremental plan of USD $129 million would entail also drilling the Konetl well.

For the 743 km² AE-0187-Llave 4 area Pemex plans exploratory studies, seismic acquisition and processing, and drilling up to four wells. The baseline scenario includes the acquisition of seismic, seismic reprocessing, four exploratory studies and the drilling of the Tsulaka-1EXP prospect. Investment would be USD $27.6 million. The incremental scenario foresees the acquisition of seismic, seismic reprocessing, five exploratory studies and the drilling of the Machitli-1EXP, Machitli-1EXP, and Iknitl-1EXP exploratory wells. Investment would be USD $137 million. PEP estimates Llave 3 and Llave4 resources could contribute an additional 47.3Mboe to reserves.

Onshore assignment AE-0188-Llave 5 also crosses into Oaxaca and covers 909 km². Pemex plans exploratory studies, seismic acquisition and processing and drilling two exploratory wells. The baseline scenario includes the acquisition of seismic, seismic reprocessing, five exploratory studies and the drilling of the Chantli-1EXP prospect, investing USD $24.4 million. Under the incremental scenario, PEP proposes the acquisition of seismic, seismic reprocessing, three exploratory studies, and drilling the Obba-1EXP prospect, investing USD $112 million. PEP estimates it could incorporate 16.3Mboe from the two prospects.

Onshore assignment AE-0189-Llave 6 covers 899 km². PEP plans exploratory studies, seismic acquisition, seismic processing and the drilling of exploratory wells. The baseline scenario, with an investment of USD $20.8 million, includes the acquisition of seismic, seismic reprocessing, a VCD test, an exploratory study and the drilling of the Makum-1EXP prospect. Under the incremental scenario, PEP would invest USD $152 million in additional drilling of the Malaki-1EXP, Teopan-1EXP and Mancana-1EXP prospects. PEP sees the possibility of incorporating total new resources of 22.5Mboe.

Pemex's 10 energy sector priorities fail to address natural gas issues – *NGI*

The government of Mexico presented a list of 10 priorities for Pemex for the remainder of the López Obrador presidency. The central purpose is achieving energy autonomy, which now includes using the Deer Park refinery in Texas. The volume of crude processed in 2021 at six refineries would almost triple in 2023 with the inclusion of the refining capacity of Deer Park, Dos Bocas and the Cangrejera petrochemical complex. This is the main focus on Mexico 's energy policy.

Looking ahead to 2022, private agents that want to remain in the Mexican natural gas market must not be perceived as contrary to Pemex's strategy, or they must work directly with Pemex. Despite the persistence of a legal framework that promotes competition, Mexico's current energy policy sees competition as contrary to its interests. The same goes for the electricity and gas sector, and the goals of the CFE. These guidelines will mark investment decisions at least until October 2024, when President AMLO leaves his position. Beyond any technical or fundamental analysis, every investor or member of the board of an energy company must ask basic questions that are not typical of a modern market. Does my project affect Pemex? Does it serve Pemex?

Natural gas was not among the priorities revealed by the government, although there was mention of boosting gas processing capacity in the southeast from 1,750 MMcf/d to 2,830 MMcf/d. Officials also discussed developing the Lakach deepwater field, which has reserves of almost 1 Tcf of unassociated gas. The southeastern gas capacity would improve through maintenance at the Nuevo Pemex and Cactus processing centers. But the incremental budget presented by Pemex for this is barely $70 million a year. A change of this nature generally costs four times this much. Government austerity is not compatible with prudent industrial practices and the most likely result is that Pemex will barely manage to process a little more than 2.1 Bcf/d in the best scenario. Furthermore, in an effort to meet expectations with such limited resources, accidents and shoddy work could occur.

Pemex's self-consumption is massive. Improving the crude refining process to obtain more and better gasoline would lead to a greater need for hydrogen. One way to obtain it is with natural gas. Thermal requirements in the six refineries and Cangrejera would grow, and natural gas would meet part of this demand. If the promise of covering half of the national demand for fertilizers is fulfilled, the use of natural gas as an input to obtain ammonia would have a real effect on the remaining balance for the industry and users in distribution areas.

From a national perspective, the 10 goals of Pemex will not change the trends in the natural gas industry, and therefore it does not seem to solve the present problems. The plan places industrial transformation activities as a priority without warning that the operating levels of Minatitlán, Salina Cruz, Cangrejera and Dos Bocas would undeniably affect the precarious natural gas supply in the southeast region of the country. The industrial sector won't be able to grow because of the persistent shortage that prevents long-term gas delivery commitments.

The only way to increase the supply of dry gas would come from new operators. However, the lack of infrastructure and the market power that Pemex controls limits this. For natural gas, Pemex not only charges a processing fee, it also withholds many of the liquid hydrocarbons obtained. Clearly, the economic incentives to improve supply are perverse in the extreme.

Private operators and users lose with the Pemex plan. Neither economic rationality nor an understanding of industry risks form the basis for the 10-point plan. For example, Pemex justifies the investment of $1.459 billion in the Lakach field as a way to avoid losing out on previous investment. This vision not only exhibits limited financial expertise but also fails to consider other options. Pemex said it is unable to substitute gas imports with production at a cost level that allows it to compete with the basins north of the Rio Grande.

Eni's FPSO reaches Mexican waters – *Eni Press Release*

The FPSO "MIAMTE" arrived to Mexican waters to become a part of Eni's production infrastructure for its "Area 1" development, known also as AMT for its fields of Amoca, Mizton and Tecoalli.

MIAMTE is expected to be integrated into the configuration of offshore platforms, pipelines and onshore delivery facilities that will allow Eni to continue increasing its production capacity as its field development progresses. MIAMTE has a crude processing capacity of 90,000b/d, a gas processing capacity of 75MMcf/d and a reported total storage capacity of between 700,000 and 900,000 barrels. This will add to the 15,000b/d currently being produced at AMT's Mitzon field through the WHP-1 wellhead platform, according to a report from Upstream.

The FPSO's construction began after Eni awarded a contract to Japanese EPCI MODEC in 2018, explicitly for the purpose of oil production in Mexico. The vessel's construction involved five shipyards in three different countries, including Mexico where five modules were built, and took over 17 million man-hours to complete. MIAMTE was completed in Singapore on Aug. 26 2021 and it departed for Mexico on Oct. 27, arriving 67 days later.

Area 1 was supposed to have reached a production level of 25,000b/d by Oct. 2021 but failed to do so, which led Eni to submit a revised development plan to CNH in early December. This revision was rejected by the state regulator, which argued that the plan did not accelerate production increases at a fast enough pace. Eni argued that production levels have taken longer to increase because the delivery of MIAMTE was delayed by a number of factors, including the pandemic.

Eni Mexico's Managing Director Giorgio Guidi specified that "the main strategy for Block 1 is the implementation of an accelerated development plan with an early production phase on Mizton field, in order to start producing at the earliest while the production ramp up will happen by early 2022 with the arrival of the FPSO. Eni has also announced plans to order two additional wellhead platforms, WHP-2 and WHP-3, to be installed in Amoca and Tecoalli by early 2025.

Eclipse of Mexican Light – *Dallas Morning News*

My article published in Oil & Gas Journal on June 22, 1981, had the playful title "Eclipse of Mexican Light." The title referred to the decline of Mexico's light-grade crude oil, known as "Isthmus," and the parallel rise of the heavy-grade "Maya" crude oil.

The frenzy of activity during between 1977and 81 is remember red in Mexico as the years of the Oil Boom. Mexico was one of the hotspots around the world where oil companies were eager to find new sources of non-OPEC supply (the North Sea and the Alaskan North Slope were other hotspots).

Mexico would not regain its 1921 place as the second-ranked crude oil exporter (after the United States), but crude exports by Mexico's state oil company Pemex in 1981 to U.S. refineries contributed to the oversupply in the market. In June that year, sensing that the market had turned, Pemex Chief Executive Jorge Díaz Serrano ordered a price reduction of $2 for both Maya- and Isthmus-grade oils

What happened next tells us about what's wrong with Mexico's oil industry today: Mexico's president intervened. Pemex CEO Díaz Serrano was sacked and the discount was rescinded. In the next 60 days, Pemex would lose customers for 1 million daily barrels.

Furious to defend the rightful value of its oil exports, the Mexican government threated a French railcar company with the cancellation of its contract unless the French oil company respected Mexico's prices.

"It was the decision to rescind the discounts that plunged Mexico into its 'Lost Decade' of growth in the 1980s," Díaz Serrano told me years later at lunch at his residence in Mexico City.

Move forward 30 years from 1990: Mexico's president, AMLO, has committed Pemex to eliminate crude exports by 2024. The president is trying to make a virtue out of a half-century of failed oil policy.

In 2004, Pemex exported 1.9 million daily barrels of heavy crude oil—most of it from a single, super-giant field, Cantarell, which was believed to have 30 billion barrels of recoverable hydrocarbons. By 2021, however, Pemex's oil exports had fallen to 1.02 million, down 46% in just 16 years.

What was wrong with Pemex, with Mexico?

Of the many ways to explore this question, the path that I find most promising leads back to the framing of Article 27 of Mexico's constitution of 1917. The framers, in the heat of a populist revolution, made a historic intellectual blunder: they mistook ownership for sovereignty. What should have been discussions of regulation became discussions of ownership. Mexico—then and now—does not understand that granting a license to an oil company is not about conferring ownership of hydrocarbons in the ground; it's about granting commercial right to future production (if any).

In 1938, Mexico's last military president expropriated the assets of the foreign oil companies, ignorant of the deep truth that the exploration side of the oil business is a global community—a community that Mexico had rashly left. Mexico's Congress made a second mistake in 1958 by amending the Petroleum Act, making Pemex a legal monopoly: Only Pemex could have commercial rights to oil and gas production and the retail sale of refined products. All energy prices would be state-controlled. That misguided law would last to 2014 when it was finally abrogated.

In 2014, the congress established a framework for oil companies other than Pemex to be paid in cash or in kind from successful oil exploration and to open their own gas service stations.

What lawmakers failed to do, however, was to cut the cord of authority between the president of Mexico and the administration of Pemex. AMLO, elected in 2018 for a six-year term, seeks to restore as much of Pemex's former monopolistic control of oil markets in Mexico as he can by regulation, intimidation and bravado.

AMLO progressively has sought to disassemble the pro-market framework of his predecessor on both the oil and power sides of the energy industry. His policies have soured investor confidence and damaged public finances.

Consider his decision to stall the development of the 600 million barrel Zama discovery by Houston's Talos Energy in 2017. Production should have started two years ago, had the intimidated regulators and energy ministry adhered to global practices. Consider the vanity project to acquire full ownership of the Deer Park refinery 25 miles east of Houston. Mexican taxpayers paid out $1.7 billion to buy a century-oil refinery that has been posting losses since 2018 ($320 million in 2021). The refinery will become a money-losing asset of Pemex, which is technically bankrupt. AMLO has brought about another eclipse of Mexican light.

By: George Baker - publisher of Mexico Energy Intelligence.

Power/Renewable Energy – Mexico

Mexico's CFE poised to launch natural gas pipeline tender for Salina Cruz – *NGI*

CFE is seeking private sector firms to build new natural gas infrastructure and utilize capacity on its existing pipelines. CFE Internacional (CFEi) and CFEnergía expects to launch multiple tenders over the coming weeks. CFEi and CFEnergía are the company's international and domestic fuel procurement arms, respectively.

CFEi will launch a two-phase tender for the construction and operation of a natural gas pipeline to supply gas sourced from the United States to existing and planned combined-cycle gas-fired power plants in Baja California state. CFE will require 280 MMcf/d of capacity to be available by the first half of 2024 and 490 MMcf/d by January of 2028. CFE would be the anchor shipper under a leveled rate for a period of 25 years. Additionally, CFEnergía will launch a tender for engineering, procurement and construction of a section of the Guaymas-El Oro natural gas pipeline that has been out of commission since 2017 due to conflict with a local faction of the Yaqui Indigenous tribe. Guaymas-El Oro is part of the 510 MMcf/d Sonora pipeline system owned by IEnova.

CFE's budget insufficient to fulfill Electric Reform – *Business Mexico News*

In an effort to subsidize electric energy to consumers the Mexican Institute for Competitiveness "IMCO" has reported that CFE will require MX $66 billion (USD $3.24 bn) in infrastructure investment, in addition to the MX$73 billion (USD $3.59 bn) budget. This information was shared by IMCOs director, Valeria Moy.

Moy presented IMCO's insights in regards to the potential costs of the electric reform proposed by President AMLO. The impact of the bill shows the increased cost in two directions: investment and subsidies. "Not only would the subsidies rise pressure over public finances, but for CFE to suffice the electricity demand, it would have to invest in new generation plants through an investment that is not considered in the current budget," said Moy.

The bill demands CFE to produce 54% of the electricity consumed nationwide. Changes to the 2014 Energy Reform requested CFE to prioritize the purchase of the cheapest electricity in the market, also promoting the use of green energy. Now the Federal Government's proposal focuses on strengthening the CFE. Most of the cheap and clean electricity was produced by the private sector and was later sold to CFE. With the new bill, CFE will only be able to purchase 46% of electricity demand to the private sector, the rest must be produced in-house, no matter how expensive or polluting the processes could be.

According to IMCO data, in 2020 CFE produced 38% of electricity in-house, the rest was produced by the private sector. Many CFE production plants function through carbon, coal and fuel oil. Not only are these production mechanisms extremely pollutant, but they are also more expensive. CFE's average production cost equals MXN $1,413/MWh (USD $69/MWh) while private productions account for MXN $401/MWh (USD $20/MWh). The production of green energy is up to 72 percent cheaper than CFE's average production cost.

To fulfill the remaining 54% of national electricity, the CFE will need to reactivate some of its old plants, this entails further investment which has not been considered by the federal company. IMCO's estimates report CFE will need an investment of MXN $489 billion (USD $24 bn) between 2022 and 2028.

Aside from the pressure in public finances due to required investment for production, the electric reform is expected to bump prices. As electric energy production will become more expensive, electric rates will equally increase. The Federal Government assigned MXN $73 bn (USD $3.59 bn) in the Federal Expenditure Budget for 2022 just to absorb higher subsidies in electricity rates. President AMLO has repeatedly declared the electric bill will not affect consumers and that energy prices will remain steady, even though data shows otherwise.

The double pressure in public finances due to investment and subsidies add to the downsides of the bill while experts show their concern. The bill will be voted in Congress in the following months. Before that, open parliament sessions will begin on January 17.

Mexican regulator plans tougher entry rules for power generators – *S&P Global Platts*

The Regulatory Commission "CRE", is proposing to increase the requirements to obtain a generation permit in a proposal presented Dec. 23 and now open for comments from the industry. Among the many proposed changes, CRE will require companies to present the results of an interconnection impact study of a project prior to obtaining a permit. The move represents a material change as companies present a study only after obtaining a permit under the current regulation.

The proposed modifications would alter the order of the legal steps to develop and operate energy projects in Mexico. The information required as per the new regulation would force companies to initiate the process at an earlier stage of development. The changes would also require companies to provide more data about the project's ownership, such as direct and indirect shareholders and their rights, as well as more information about the project, including investment return rates, total income projected, the share of equity and debt, and its financing period.

CRE said the modifications were required to "better allocate" companies' resources and "protect consumers". Observers warn if the proposal is approved it could make it more challenging for private companies to compete with the state.

The proposed regulation comes as the Congress prepares to discuss and vote a presidential initiative to modify the constitution to give CFE overall control of the power sector. The initiative contemplates making CFE a constitutionally independent agent in charge of planning and transferring the regulatory attributions of CRE to the energy Secretariat. The initiative calls for CFE to generate 54% of all the power needed in the country with its own plants, higher than the current 38%.

CFE approved to build 10 MW Amata small hydroelectric project – *Bnamericas*

CFE can move forward with a 10 MW small hydro plant in Sinaloa state after winning approval from environment ministry SEMARNAT. The Amata hydroelectric project will be in Cosalá municipality, at a cost of MXN $429 million (USD $21.1 million) and with construction expected to last 2.5 years. SEMARNAT's approval came on Dec. 9 and that CFE launched a tender to purchase equipment for the project in late November, which is still pending adjudication. The tender does not appear in CFE's online listing.

Amata is part of a larger push to expand Mexico's hydroelectric capacity, with hydro hailed by the current administration as a critical factor in meeting clean energy targets. The modernization plan for hydroelectric power plants includes adding 248 MW to the more than 12 GW of installed capacity. The project's construction will take advantage of existing infrastructure around the dam to complement it with civil and small-scale electromechanical works. The small hydro generator will be fed by runoff from the San Lorenzo River, discharged by the Raúl Jaime Marsal Córdoba hydroelectric plant.

Oil & Gas - LATAM

Wintershall Dea to exit Brazil – *Oil and Gas Journal*

Wintershall Dea will terminate all its operations in Brazil and close the current office in Rio de Janeiro after the execution of all required measures. The company has nine exploration licenses, spread over Potiguar, Ceará, Campos, and Santos basins, which were awarded to the company in bidding rounds in 2018 and 2019, the business highlights. The decision is the result of a thorough analysis of the company's global portfolio and how projects fit with the long-term strategy. Termination of operations in the country will be made in accordance with all contractual and legal regulations. The company has no remaining minimum work commitments in the licenses or other material financial obligations.

Also, Wintershall Dea Argentina revealed that it had reached an agreement with Vista on the sale of its 50%, including operatorship of, the unconventional Aguada Federal and Bandurria Norte blocks in the Argentine province of Neuquén. The company, which noted that it is one of the leading gas producers in the country, said Argentina remains an important core country for Wintershall Dea's global gas production.

YPF expects new offshore project to produce up to 200 Mb/d oil – *S&P Global Platts*

CAN 100, the first project the company is developing offshore in years, "has the potential to generate 200,000 barrels of oil per day, a production similar to that currently produced by all of YPF." YPF produces about 253,000 b/d of crude, according to data from the Argentina Oil and Gas Institute, an industry group. Chairman Pablo Gonzalez said the offshore resources "could equal those in Vaca Muerta," referring to the country's huge shale play in northern Patagonia that is driving a recovery in Argentina's overall oil production and boosting exports.

YPF, the country's biggest oil and natural gas producer, is beginning to explore CAN 100 after farming in Norway's Equinor in 2019 and subsequently Shell. The companies, which are also exploring other blocks in the North Argentina Basin off the coast of Buenos Aires province on the maritime border with Uruguay, gained environmental approval for CAN 100 and other blocks at the end of December 2021. The companies plan to invest a total of $6 billion in developing CAN 100, Gonzalez said.

He said this could put Argentina in the offshore league with Brazil, which has been developing its offshore acreage for years and is becoming a leading global supplier.

Gonzalez said Argentina could replicate this growth in its offshore acreage, much of which is unexplored. Any offshore production likely will be for export, given that Argentina is already running a surplus on its mostly onshore output coupled with some offshore crude output in the far south. This combined is more than the average domestic consumption of 450,000 b/d to 510,000 b/d. CAN 100 is one of the first projects to get underway since a 2019 offshore licensing round attracted a total $720 million in exploration investment by a host of companies including YPF, Equinor and Shell, as well as ExxonMobil, France's TotalEnergies and UK-based BP.

Brazil's Petrobras declares commercial viability at four offshore concessions – *Reuters*

Petrobras has declared four offshore concessions in the states of Alagoas and Sergipe commercially viable in presentations to the nation’s oil regulator. The company has proposed installing two major oil platforms known as FPSOs in the region.

Petrobras and Novonor to sell $1.5B Braskem Stake – *Bloomberg*

The controlling shareholders of Braskem are seeking to raise about $1.5 billion by selling shares in the petrochemical firm in what is expected to be one of Brazil’s largest equity offerings this year. Petrobras and Novonor, the industrial conglomerate previously known as Odebrecht, filed for a secondary offering to sell as many as 154,886,547 preferred Braskem shares. They can raise a combined 8.1 billion reais (USD $1.5 billion).

Morgan Stanley, JPMorgan Chase & Co., Banco Bradesco BBI, Banco Itau BBA, Citigroup Inc., UBS BB Investment Bank, Banco BTG Pactual SA and Banco Santander Brasil SA are handling the transaction. If the offering is fully sold, Petrobras and Novonor will virtually scrap all of their Braskem’s preferred stock, keeping just common shares. Novonor, which has been struggling to recover from the Carwash corruption probe, said it will use part of the proceeds to pay debt with creditors Bradesco, Itau and Santander. For Petrobras, the sale is another breakthrough in its strategy of divesting from non-core assets to focus on the pre-salt region in Brazil’s deep waters.