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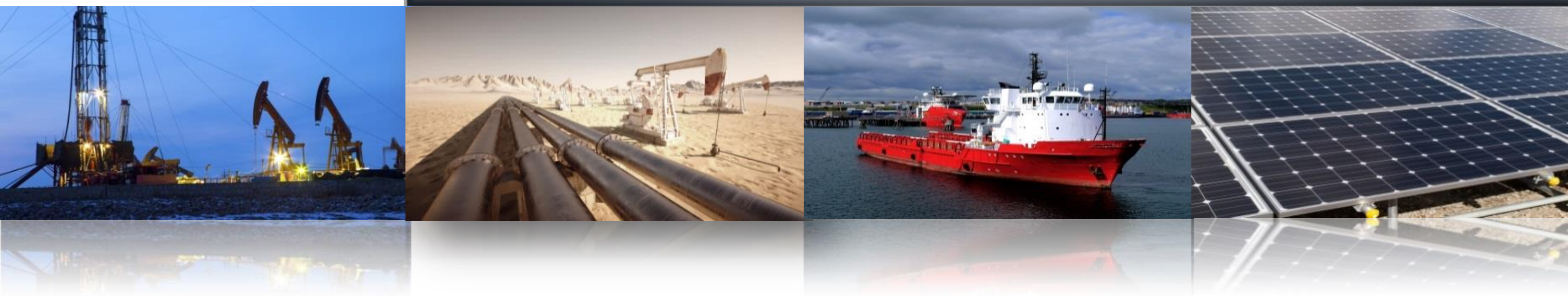

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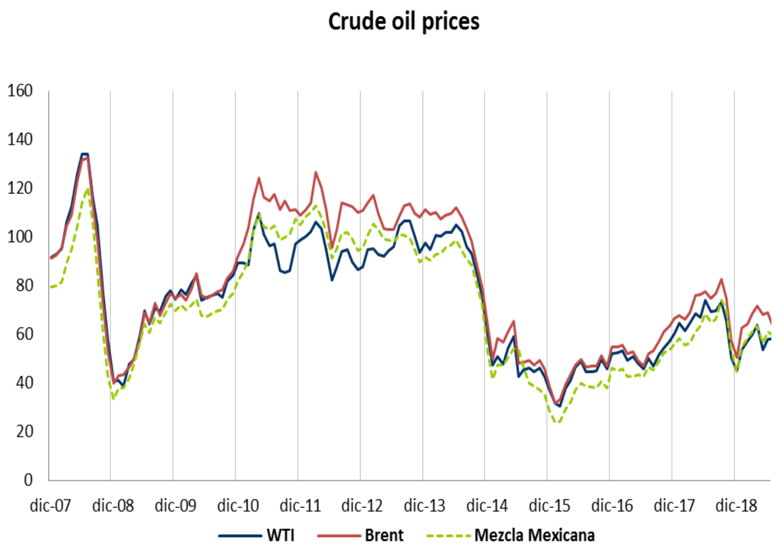

Crude oil Price* US/BD	WTI 54.16 BRENT 59.70 MME 46.97
NG price* US/MMBTU	Henry Hub 2.45
Mx crude production MMbd	1.712 *(Sep-19)*
Mx NG production MMpcd	4,995 *(Sep.-19)*
US crude production MMbd	11.80 *(July-19)*

FX Rate**	19.08

** 24/10/2019 **24/10/2019*
Source: EIA. Pemex BDI, Banxico, and CNH

Oil & Gas

Cairn Energy Mexico drilling update – *Carin Energy Press Release*

The exploration target of the Alom-1 well on Block 9 was to prove hydrocarbons in stacked Pleistocene targets. The objectives were found to be dry and the well will now be permanently plugged and abandoned. Data has been collected and preliminary analysis indicates that the well encountered over 500 metres (m) of high-quality water bearing sands across multiple targets. This information will help Cairn calibrate the seismic data and geological models and is being integrated to improve Cairn's understanding of the petroleum system offshore Mexico.

The well was drilled to a vertical depth of 2,056m below the sea surface and was terminated in the Pleistocene section. The well was drilled ~120 km northwest of Villahermosa.

Alom-1 is Cairn's first operated exploration well in Mexico; the license was awarded in Round 2.1 in 2017. Cairn holds a 50% working interest with JV partners Citla Energy (35%) and ENI (15%). Alom-1 was drilled by the Maersk Developer semi-submersible rig, which will now move to drill Cairn's second operated well on Block 9, Bitol-1, which is expected to commence operations in November 2019.

Pemex third quarter results – *Pemex*

Pemex reported a net loss of $87.4 bln pesos (USD $4.43 billion) vs. $26.7 bln pesos during the third quarter. Revenues declined by 20.2% to $350.5 billion pesos; compared to a $439.1 during the third quarter of 2018, mainly as a result of a decrease in domestic sales by 19.6% and a decrease in export sales of 21.9%.

During 3Q-19, total crude oil production (including partners) amounted to 1,728 thousand barrels per day (Mbd); a decrease of 6.7% compared to the same period of 2018, mainly due to the natural decline of some mature fields, and an increase in water flow of wells at some shallow water offshore fields.

Pemex natural gas production (without nitrogen) amounted 3,685 million cubic feet per day (MMcfd), a 131 MMcfd decrease as compared to 3Q18.

Total financial debt decreased by 6.1%, as compared to December 31st, 2018, mainly due to the prepayment of debt carried out during the third quarter, as a consequence of the executed liability management transaction. This operation considered a capital contribution from the Federal Government equivalent to USD $5.0 billion to be used for debt prepayment.

Mexico approves Pemex development plan for Suuk field – *CNH*

CNH gave a green light to Pemex for the exploration and production of the Suuk field, the 17th “priority” area approved for development by the state oil and natural gas producer in the past 12 months. Pemex intends to invest USD $710 million in the 46,000 km² area in the shallow waters of the Gulf of Mexico to produce 61 million barrels of crude and 40 Bcf of gas through 2047. The plan includes the drilling of six new wells. Pemex intends to begin production as soon as next year, forecasting 12,000 b/d of new crude output by 2021. Suuk is one of 20 priority fields Pemex plans to develop as part of its strategy to boost hydrocarbon production in Mexico.

Cicsa and Permaducto wins EPC contract with a bid totaling USD $314 million – *El Financiero*

Mexican Operadora Cicsa, in consortium with Permaducto, has picked up a contract from Pemex for engineering, procurement, construction of the Maloob-E and Maloob-I drilling platforms for Pemex in the Bay of Campeche. The contract is for an amount of $2,418 million pesos, plus USD $191.7 million (totaling USD $314 million). The beginning of the work is subject to the signing of the corresponding contract.

Diavaz will invest USD 115.2 million in Ebano field – *CNH*

The National Hydrocarbons Commission “CNH” approved DS Petroleum Services (Diavaz) for the 2020 budget and work plan for the Ebano field. The Ebano field is located in the states of San Luis Potosí, Tamaulipas and Veracruz, within the geological province of the Burgos Basin.

In May last year, CNH approved the development plan, in which DS Petroleum Services promised to invest USD $952 million dollars, to extract 64.5 billion oil and 11 billion cubic feet of natural gas. The Ebano field agreement is under the 30-year shared production contract.

For next year, DS Servicios Petroleros intends to invest USD $115.2 million in several activities to recover a total of 2.69 million barrels and 538 billion cubic feet of gas. The next year monthly production would average 224 thousand barrels per month of oil and 44.8 million cubic feet of gas. Among the activities to be carried out are the drilling of 39 wells next year, construction of access roads, 9 extractive improvements and 50 minor repairs.

BHP strikes oil in Mexico – *Offshore Energy Today*

BHP shared the results of the Trion 3-DEL appraisal well offshore Mexico, which the company spud in July 2019. The company said it was encouraged by the preliminary results, with the well encountering oil in the reservoirs up-dip from all previous well intersections.

The oil firm further stated that the evaluation and analysis were ongoing, with no further appraisal wells anticipated. To remind, BHP set aside USD $256 million for the Trion 3-DEL back in February 2019 following an oil discovery at the Trion field. BHP's well, which made the discovery, was the first well drilled by an international operator in the Mexican deepwater.

BHP successfully bid on the Trion field back in 2016 as Mexico's Pemex was looking for an experienced deepwater player to share costs at the Trion discovery due to its depth and complexity. It has been said that once fully appraised, Trion is expected to be in the top 10 fields discovered in the Gulf of Mexico in the last decade. BHP holds a 60% interest in the Trion field and the remaining 40% is held by Pemex.

Pemex announces new Maya crude formulas for exports – *Pemex Press Release*

Pemex has changed the pricing formula for its heavy sour Maya crude, moving away from high-sulfur oil "HSFO" as a key component. The streamlined formula, to take effect in December, will be based on Argus assessment of WTI crude at Houston, the Ice Brent contract price and Mexico's K-factor, an adjustment factor set by Pemex according to market or quality conditions.

Argus WTI Houston assessment makes up 65pc of the new formula while 35pc will be based on the front-month Ice Brent contract price, in addition to the K-factor adjustment. Had the incoming formula been in place for September and October with the existing K-factor adjustments, the outright value of the crude to the US Gulf coast would have been higher an average an additional $5.80/bl in September and $5.63/bl more for October to date.

But that theoretical price increase would be lower if the K-factor adjustment under the new formula reflects the price spread between sweet and sour grades, as some market participants said they expect. They believe that the K-factor was used to counteract volatility in high sulfur fuel oil HSFO prices in recent months. Sour crudes sell at a discount to sweet crude, which could lead to a negative K-factor.

In the case of the Americas and the Caribbean region, the new formula for the price of Mayan crude oil is:

- *Maya = 0.65 WTI Hou + 0.35 ICE Brent + K*

For the region of Europe, India and the Middle East, the new Mayan crude oil price formula is:

- *Maya = ICE Brent + K*

Where:

- "WTI Hou" is the arithmetic average of the high and low prices of the West Texas Intermediate Crude in Houston, published by Argus Media, in USD p/bl;
- "ICE Brent" is the closing price of the day of the Brent Crude Futures contract for the first month, published by the Intercontinental Exchange (ICE), in USD p/bl;
- "K" is the adjustment for quality and market conditions for each region, expressed in USD p/bl.

Talos surrenders offshore acreage – *CNH*

CNH has approved Talos Energy's surrender of offshore acreage. According to the provisions of CNH-R01-L01-A7/2015, Talos' request for an extension of the exploration deadline required that it give back at least half the exploration and extraction contract area.

While the largest minority stake in the area under exploration is that of US-based Talos Energy, development is led by a consortium where Talos works with Sierra Oil & Gas and Premier Oil. The consortium was originally awarded the shallow water block in Round 1.1 in 2015. Two years later, it announced discovery of the Zama site, marking the first major oil discovery by a foreign firm in some 70 years.

In September, Talos requested a two-year extension on the site's exploration deadline. But by CNH granting that request, it triggered a contract clause whereby the Talos consortium had to surrender 50% of the area where it has a plan, amounting to 232km² being given back to the CNH. As the commissioners made clear, "the spirit of the clause" was to prevent firms from squatting on blocks without ever developing them. In the 232 km² that will hold, the consortium will be able to continue with the exploratory activities as well as with the evaluation of the Zama prospect, which has a prospective potential of between 400 and 800 million barrels of equivalent crude oil.

The surrender of the Block 7 site does not impair the consortium from continuing the assessment of the discovery made in the Zama field, nor impair its ability to continue developing assets contained in the surrounding area. Beyond the three Zama wells under development (right corner of gray area above), Talos consortium has two prospects of interest in that area. Talos Energy will invest USD $2,036 million up to December 2019, to conduct geophysical and subsoil studies, with the aim of defining whether it continues with the exploration or begins with the process of returning the rest of the polygon, remaining only with the fraction of the field where the Zama prospect is located.

Chevron buys 40% stake in three Mexico deepwater blocks from Shell – *Reuters*

Chevron Corp signed an agreement with a unit of Royal Dutch Shell to buy a 40% stake in three deepwater blocks in the Mexican Gulf that the Anglo-Dutch firm won in auctions under the nation's energy reform. The deal was approved by the National Hydrocarbon Commission. Chevron's Mexico unit is the lead operator of two consortiums for exploring and developing deepwater blocks in the Mexican Gulf: one in block 3 of Perdido Basin and the other in block 22 of Salina Basin.

For its part, Shell snapped up nine of 19 offshore oil and gas blocks awarded last year in the most competitive auction to result from Mexico's 2013-2014 landmark energy opening. Shell won approval from Mexico's oil regulator earlier this year to invest $2.4 billion in a drilling plan that can include up to 13 deepwater wells in Mexico over the next four years. He did not disclose the value of the deal.

Maersk expands Mexico footprint – *Maersk Press Release*

Maersk Supply Service has won a 1.5-year contract with Blue Marine Group to support Pemex from the subsea support vessel Maersk Installer.

According to Maersk, the Installer is the company's second "I-class" vessel that will help Pemex to achieve its targets of increasing production and carrying out safe operations. The Maersk Implementer had already been deployed to Mexico. Maersk stated that both vessels will operate in the Bay of Campeche and perform general support duties, well stimulation and inspection, maintenance and repair services for Pemex's platforms. The Maersk Installer arrived in Mexico on

Sept. 23, 2019, and began its contract following Blue Marine and Pemex inspections, Maersk noted.

Talos Energy, partners give up oil contract at Mexico's Gulf: sources – *Reuters*

The consortium led by Sierra Oil & Gas, Talos Energy and Hokchi Energy requested CNH to waive the entire contractual area A2, which was granted by the Mexican state during the first tender of round one due to lack of commercial discovery.

The block is operated by Hokchi Energy. The shared production contract was signed on September 4, 2015 with a validity of 30 years. A2 has an area of 194 km² and is located in shallow waters of the Gulf of Mexico off the coast of Veracruz. The company announced that both wells; Acan-1EXP and Yaluk-1EXP are not commercially viable.

CNH approves Uchukil exploration plan – *CNH*

CNH approved to Pemex the exploration plans for the assignments AE-0150-Uchukil and AE-0151-Uchukil. The assignments are located in the Gulf of Mexico, off the coast of the state of Tabasco.

The objective of the proposed exploration plan for the AE-0150-Uchukil assignment is to evaluate the oil potential within the area, as well as exploring new exploration prospects. Pemex has identified the drilling of two prospects, Tetl-1001EXP and Paki-1 in the baseline scenario, which have prospective resources of 37 and 64 million barrels. The incremental scenario includes the drilling of four wells, Coatzin-1, Amatl.1, Xuu-1 and Macuil-1, which have reserves of 53-65-58 and 56 million barrels of oil equivalent. The investment in the base scenario is USD $92 million and USD $248 million in the incremental scenario.

For AE-0151-Uchukil, the operator considers in the baseline scenario the drilling of the Xolot-1, Suuk-1001, Sasan-1 prospects, which are estimated to contain prospective resources for 81, 95 and 42 million barrels of oil equivalent.

The incremental scenario includes the drilling of the Siyan-1, Sukuum-.1, Yolpachi-1, Natza-1, Cushale.1, Xanab-1001 and Yah-1 prospects, which Pemex expects to host prospective resources for 90, 48, 57, 22, 24, 34, 50 million barrels of oil equivalent. The investments contemplated in the baseline scenario are USD $148 million and USD $397 million in the incremental.

CNH approves Cactus modification to the development plan – *CNH*

CNH approved to Pemex the modification to the Cactus field development plan, in which USD $342 million dollars will be invested, of which 84% will go to production tasks and 11.46% to the development of the field, which will be made until the end of the assignment.

The field has an area of 102.5 km², is located 25 km from Villahermosa, Tabasco. It was discovered in 1972, has 16 producing wells of 92 drilled in which it extracts 40° API oil. Pemex intends with this modification the drilling and completion of one well, 9 major repairs and 5 minor repairs for a production of 6.9 million barrels of oil and 15.9 million cubic feet of natural gas.

CNH approves Manik modification to the development plan – *CNH*

CNH approved the modification to the development plan of the Manik field to Pemex. The field is located in shallow waters of the Gulf of Mexico off the coast of the states of Campeche and

Tabasco, 142 km from Dos Bocas. Pemex plans to recover 8.17 million barrels of oil and 4.34 billion cubic feet of gas, with an investment of USD $163 million.

CNH approves Onel modification to the development plan – *CNH*

CNH approved the modification to the Onel field development plan. The field, is located in the shallow waters of the Gulf of Mexico off the coast of Tabasco and Campeche, and was granted to Pemex on August 13, 2014.

Onel has certified remaining reserves of 108.3 million barrels and 251.5 billion cubic feet of natural gas. The current production is 73,000 barrels per day of oil and 96.9 million cubic feet of gas. Pemex contemplates a change in the extraction strategy including the drilling and completion of five wells, five major and 33 minor repairs, the construction of three pipelines and a platform, to extract 98.6 million barrels of oil and 207.7 billion cubic feet of gas, with an investment of USD $1,721 million.

Power/Renewable Energy

Puebla solar investment worth US $235 million – *El Economista*

Two companies have announced an investment of USD $235 million to build a solar electricity plant in the municipality of Cuyoaco, Puebla. The Spanish company Iberdrola and Mexico's Grupo Alquimara will start the project later this month and expect it to be finished by the end of 2020.

The Cuyoaco plant will have a capacity of 300 megawatts, equivalent to the energy consumed by 162,800 homes. Around 1,500 people will be employed in its construction. The plant will cover 755 hectares of agriculture land in the municipalities of Cuyoaco and Ocotepec, where solar panels will cover 674 hectares, and substations will occupy the remainder. This is the third project carried out by Iberdrola and Alquimara in Puebla. The consortium has built a wind farm in the municipality of Esperanza, which was inaugurated in 2015 and has a capacity of 65 megawatts, and another wind farm in Cañada Morelos, which will be inaugurated later this year and will have a capacity of 220 megawatts.