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**Understanding the Recent U.S.
and Mexico Treaty on Shared
Hydrocarbons: Moving Toward
Transboundary Marine Energy
Security in the Gulf of Mexico**

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Understanding the Recent U.S. and Mexico Treaty on Shared Hydrocarbons: Moving Toward Transboundary Marine Energy Security in the Gulf of Mexico

Richard J. McLaughlin¹

Hydrocarbon Development in the Gulf of Mexico: Background Information

The devastating explosion and resulting massive oil spill from the Deep Horizon platform that occurred on April 20, 2010 brought renewed global attention to all aspects of the nearly 75 year old offshore hydrocarbon industry in the Gulf of Mexico (GOM). Since the first oil platform was placed in 4 meters of water off the State of Louisiana in 1938, the GOM has become one of the largest and most important production areas of oil and gas in the world.² About 27 percent of United States oil production and 37 percent of its natural gas production comes from federal leases in the Western and Central portions of the GOM.³ Similarly, Mexico also depends heavily on its GOM offshore fields. Since 2000, the Cantarell Reservoir located in the Gulf of Campeche, has accounted for more than fifty percent of Mexico's hydrocarbon production.⁴

¹ Professor, Harte Research Institute for Gulf of Mexico Studies, Texas A&M University-Corpus Christi, USA. This paper is an adaptation of an article originally published in Miriam Grunstein, Richard McLaughlin, and Luis Gutierrez, "Gulf of Mexico Offshore Transboundary Hydrocarbon Development: Legal Issues Between Mexico and the U.S.," *The Houston Lawyer*, Vol. 50, No. 3, Nov./Dec. 2012.

² Doris Burke, *A Short History of Drilling in the Gulf of Mexico*, Fortune, January 24, 2011. Available online at <http://features.blogs.fortune.cnn.com/2011/01/24/a-short-history-of-drilling-in-the-gulf-of-mexico/>

³ National Ocean Service, NOAA. *The Gulf of Mexico at a Glance*. Washington D.C.: U.S. Department of Commerce, National Oceanic and Atmospheric Administration (2008).

⁴ Jude Clemente, *Aboveground Constraints May Limit Mexico's Oil-Production*, Oil and Gas J., Dec. 15, 2008, at 18.

There is also significant offshore oil and gas potential in Cuban waters. To date, several exploratory wells off Cuba have failed the test for commercially viable production. However, these exploratory efforts will continue and preliminary studies indicate Cuban waters may hold 5 billion to 20 billion barrels of crude oil equivalent.⁵

With decreasing production from Mexico's easily accessible onshore and offshore hydrocarbon fields, and with growing demand in the United States for more drilling in the GOM, technological advances in exploration and exploitation have led to drilling further into the Gulf of Mexico and into ever deeper waters, at least on the U.S. side.⁶ Increasing effort is being placed on so-called deepwater and ultra-deepwater areas of the GOM.⁷ The success of these efforts during the past decade is reflected in the fact that 80 percent of the oil produced in the GOM today comes from deepwater wells. Many of these discoveries are located on a large geological structure known as the Lower Tertiary Wilcox Trend (hereinafter "Wilcox Trend"). The Wilcox Trend is a massive geological formation that stretches over 450 kilometers across the GOM. The Trend is located in some of the deepest and most remote areas in the Gulf ranging from 1,500 to 3000 meter depths and contains a thick hydrocarbon-rich sand section with high commercial potential.⁸ Experts estimate that between three billion and 15 billion barrels of oil may be recoverable in the deepwater area of the GOM that is open to U.S. exploitation, making it the biggest U.S. discovery since Prudhoe Bay in Alaska nearly forty years ago.⁹ Meanwhile, Mexico has estimated 30 billion recoverable barrels on its side of the maritime border.¹⁰

PEMEX, the Mexican national oil company that holds a monopoly on

⁵ *Oil Bonanza Eludes Cuba after Fresh Tests*, UPI.Com, May 25, 2012. Available online at http://www.upi.com/Business_News/Energy-Resources/2012/05/25/Oil-bonanza-eludes-Cuba-after-fresh-tests/UPI-28511337978245/

⁶ M. Michot Foss and M. Wainberg, *Mexico's Upstream Commercial Frameworks: Consequences and Implications*, 10 OGEL at 5 (2012), www.ogel.org.

⁷ The term "deepwater" is defined by the U.S. government as water depths of greater than 1,000 feet (305m) and "ultra-deepwater" as water depths of greater than 5,000 feet (1,524m). Leanne S. French, et al., in *Deepwater Gulf of Mexico 2005: U.S. Department of Interior, Minerals Management Service*, May 2005, OCS Report MMS 2005-023.

⁸ Russell Gold, *In Gulf of Mexico, Industry Closes in on New Oil Source*, Wall Street Journal, September 5, 2006, p. A1, also available at <http://online.wsj.com/article/SB115742365939953524.html>.

⁹ Huw Thomas, *Hard to Reach*, Oil and Gas, Sept. 5, 2012. Available online at <http://www.ngoilgas.com/article/Hard-to-reach/>

¹⁰ In the past few months, Mexico began drilling its ultra-deep water wells: Trión (with a drilling depth of 2550 meters) and Supremus (with a drilling depth of 2890 meters). Formerly, due to technological limitations within Pemex, it was impossible to drill beyond 500 meters.

oil and gas production, has lacked the technology and financing to carry out deepwater oil and gas exploration, so the Mexican side of the Gulf remains largely unexplored. In contrast, significant quantities of hydrocarbons are currently being produced on the U.S. side of the maritime boundary in a number of widely dispersed ultra-deepwater plays in the GOM. The Mexican and U.S. governments have expressed special concern over the potential production of oil and gas in an area known alternatively as the Perdido Foldbelt or Alaminos Canyon Region, located about 250 kilometers east of Brownsville, Texas. Commercial production in this region has caused unease, particularly in Mexico, because of the possible existence of hydrocarbon reservoirs that may straddle the existing maritime boundary between the two nations, referred to as transboundary reservoirs. In fact, Mexico recently announced two major discoveries in the Perdido area about 39 kilometers south of the maritime boundary.¹¹

While there is no conclusive evidence proving the presence of transboundary deposits, the mere possibility that production on the U.S. side of the boundary may siphon oil from Mexico triggered a series of diplomatic negotiations at the highest levels to address these concerns. The first diplomatic negotiations resulted in the execution of the “Treaty between the Government of the United States of America and the Government of the United Mexican States on the delimitation of the Continental Shelf in the Western Gulf of Mexico beyond 200 nautical miles,” of 2000.¹² This treaty, known as the “Western Gap Treaty,” first acknowledged the possible existence of transboundary reservoirs. The Western Gap Treaty established a ten year drilling moratorium in a “buffer zone” of 2.8 nautical miles measured from each country’s side of the maritime border. The moratorium, while prohibiting exploration and production until 2011, allowed both countries to exchange information and to prepare a strategy for dealing with possibly existing transboundary reservoirs.

Unfortunately, a cooperative solution hasn’t been easy to negotiate or reach. One of the greatest challenges in establishing a regime for joint exploration and exploitation of possible shared petroleum resources in the Gulf of Mexico is the stark difference between the two countries’ petroleum legal regimes. In Mexico, not only is there a state monopoly of the oil industry, but there also exists a constitutional prohibition for the Mexican government to

¹¹ Esther Arzate, *Supremus I is the New Crown Jewel*, Mexican Business Web, October 6, 2012. Available on-line at <http://www.mexicanbusinessweb.mx/eng/2012/supremus-1-is-the-new-crown-jewel/>

¹² Treaty Between the Government of the United States of America and the Government of the United Mexican States on the Delimitation of the Continental Shelf in the Western Gulf of Mexico Beyond 200 Nautical Miles, June 9, 2000, U.S.-Mex., S. Treaty Doc. No. 106-39 (2000).

authorize direct exploitation and production of hydrocarbons by private companies from foreign countries, other than through service contracts.¹³ In 2008, Mexico passed reforms to federal law in an attempt to remove some of the restrictions that limit private contracting. Calls for further reforms surfaced in the context of the recent presidential elections, but the necessary constitutional reforms to allow international oil companies to drill within the Mexican boundaries of the GOM face difficult political obstacles for incoming President-elect Enrique Peña Nieto.

Despite the dramatic differences in their regulatory regimes, on February 20, 2012 the United States and Mexico successfully negotiated an international agreement designed to establish a collaborative relationship that allows for joint development of transboundary reservoirs. Officially known as the “Agreement between the United States of America and the United Mexican States Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico,”¹⁴ “the Agreement” (as it is referred to hereinafter) addresses transboundary reservoirs and attempts to set up a unitization framework for their efficient and equitable exploitation, although it leaves many details for future negotiation and agreement.

The Agreement will enter into force pending the ratification of the treaty by the U.S. Senate and the setting up of the internal regulations for permits and licenses for U.S. operators in order to carry out the Agreement.¹⁵ Significantly more thorough legal and regulatory reform is needed in Mexico before the Agreement can be effectively implemented. Upon entry into force, the Agreement will terminate the moratorium on drilling in the area known as the Western Gap which was implemented by the Western Gap Treaty on June 9, 2000.¹⁶

Agreement’s Scope

Made up of seven chapters and 25 articles, the Agreement seeks to encourage the establishment of cooperative agreements based primarily on the principles of unitization, and leaves open the possibility for the development of

¹³ Constitución Política de los Estados Unidos Mexicanos art. 27, *as amended*, Diario Oficial de la Federación, 5 Febrero de 1917 (Mex) [Mexican Constitution].

¹⁴ Agreement Between the United State of America and the United Mexican State Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico, U.S.-Mexico, art. 20, Feb. 20, 2012, *available at* <http://www.state.gov/documents/organization/185467.pdf> [hereinafter Agreement on Transboundary Reservoirs].

¹⁵ Agreement on Transboundary Reservoirs, *supra* note i, art. 22. (The Mexican Senate ratified the treaty on April 12, 2012 however the U.S. Senate has not yet ratified the Agreement as of the date of publication of this article.)

¹⁶ *Id.* art. 24.

cooperative agreements outside the framework established in the Agreement.¹⁷ The application of the Agreement is limited in scope to those reservoirs that extend beyond the maritime boundary of the countries and which are entirely located beyond nine nautical miles of the coastline of any party.¹⁸ The Agreement points out that if any of its provisions require the modification of a U.S. License existing before notification of the Agreement's ratification, then those provisions of the Agreement will not apply to that License.¹⁹

Reporting Requirements and Information Sharing

Article 4 of the agreement sets up several reporting requirements for activities conducted near the maritime boundary. Generally, written notice must be provided if either party is aware of the existence of a transboundary reservoir or if a licensee has submitted an exploration plan within three nautical miles of the boundary.²⁰ If a licensee has submitted a plan for "Development" or "Production" of an area within 3 miles of the boundary, parties must go beyond just a written notice and must provide the plan to the other party.²¹

Determining the Existence of a Transboundary Reservoir

Article 5 sets up the framework for determining whether a transboundary reservoir exists. The Agreement requires the parties to consult each other in order to determine the existence of a transboundary reservoir and to share geological information provided for by their licensees which may be relevant to the determination of whether a transboundary reservoir exists.²² In case the parties fail to reach an agreement on the existence of a transboundary reservoir, this article, in conjunction with others, sets up the framework in which the determination may be made by a Joint Commission²³ or Expert Determination.²⁴

Unitization

¹⁷ *Id.* Preamble.

¹⁸ *Id.* art. 1.

¹⁹ *Id.*

²⁰ *Id.* art. 4.

²¹ *Id.* art. 4(2)(f).

²² *Id.* arts. 5 (1), 4 (2)(a), 4 (2)(d).

²³ *Id.* art. 5 (2).

²⁴ *Id.* art. 14 (6).

Chapter 2 deals with the exploration and exploitation of a transboundary reservoir or unit and it is here that the Agreement's emphasis on the principle of unitization is explained. Article 6 requires that any joint exploration or exploitation of a transboundary reservoir pursuant to a unitization agreement must be approved by both the U.S. and Mexico. In addition, the executive agencies are required to make a joint determination estimating the amount of recoverable hydrocarbons in the transboundary reservoir and the amount on either side of the maritime boundary.²⁵ Along with this estimate the parties will have to jointly determine the associated allocation of production²⁶ and in the event the executive agencies are unable to reach this determination, the question will be submitted to expert determination.²⁷

Although it highly encourages unitization, it is possible under the agreement for a licensee to proceed with exploitation of a transboundary reservoir without having to unitize. If either of the parties does not approve a licensee's unitization proposal or if any licensee fails to sign a unitization agreement after it has been approved, then either nation may authorize its licensee to proceed with the exploitation of the reservoir.²⁸ The non-unitizing licensee however, will, among other things, still be subject to the determination of allocation of production mentioned above and required to share production data on a monthly basis.²⁹ It is worth noting that, in order for unitization to legally occur in Mexico, it is widely opined that the nation's constitution will need to be amended.

Cooperation and Facilitating Access to Facilities

The Agreement calls for to parties to facilitate cooperation between the licensees in carrying out the exploration and exploitation of a transboundary unit³⁰ which includes facilitating access to facilities near the maritime boundary for those workers participating in activities related to the Transboundary Unit.³¹

Dispute Resolution

²⁵ *Id.*, art. 7 (2)(b).

²⁶ *Id.*

²⁷ *Id.* art. 7 (3).

²⁸ *Id.* art. 7 (5).

²⁹ *Id.*

³⁰ *Id.* art. 12 (1)

³¹ *Id.* art. 12 (3)

The Agreement also establishes mechanisms for resolving disputes, mainly a Joint Commission, arbitration and expert determinations. The Agreement establishes the Joint Commission as the competent body that will examine any dispute or matter referred to it by the executive agencies relating to the interpretation and implementation of the Agreement.³²

In addition to the Joint Commission the Agreement encourages consultations between the two parties, and allows for nonbinding mediation. If disputes are not resolved through consultations or mediations and are not resolvable through expert determinations pursuant to the Agreement, either party may choose to refer the dispute to arbitration pursuant Article 17.³³

The details of arbitration are left to the Joint Commission to decide.³⁴ However, the agreement does suggest that any arbitration decision will not be final since, “The Joint Commission will have 30 days in which to consider the final recommendation in any arbitration instituted pursuant to Article 17. If the Joint Commission is unable to resolve any remaining differences within that time, the dispute will be returned to the parties.”³⁵

As is customary in oil and gas contracts, the Agreement calls for expert determinations in settling certain disputes; and although it leaves many of the details on how these determinations will work to the Joint Commission, it does set up a temporary mechanism for expert determinations and describes what issues may be submitted to such determination.³⁶ One of the most interesting aspects concerning expert determinations is that unlike arbitration, they shall be considered final and binding on the parties.³⁷

Inspections

The Agreement also allows for inspections by both parties in their respective offshore facilities. The details of when these inspections can take place, under what circumstances and what procedures are to be used are left not specified as such in the Treaty and further regulation in this matter will be necessary for adequate implementation.³⁸ The agreement does, however, setup a procedure in which inspectors from one country can request that the other

³² *Id.* art. 14 (5).

³³ *Id.* art. 15 (2).

³⁴ *Id.* art. 17.

³⁵ *Id.* art. 14 (7).

³⁶ *Id.* art. 16.

³⁷ *Id.* art. 16 (9).

³⁸ *Id.* art. 18 (2).

party cease activities in case of emergencies where there is a risk of loss to life, serious bodily injury or damage to the environment.³⁹

Safety and Environmental Protection

Article 10 of the Agreement contains rather broad language concerning safety and environmental protection. It is somewhat insufficient as it does not establish any specific environmental or safety regulations and instead provides general language about adopting common standards and requirements whose adequacy and compatibility is yet to be seen.⁴⁰ As is recurrent in this agreement, it leaves the development of specific procedures for the implementation of this article for later.⁴¹

Termination

The Agreement sets forth that it can be terminated either by mutual agreement or by either country at any time via written notice within a specified time period.⁴² Interestingly, the Agreement provides that in the event of termination the two countries must begin consultations to develop a new agreement addressing transboundary reservoirs.⁴³

Conclusion

As is readily apparent from this brief article, offshore transboundary hydrocarbon exploitation triggers a broad range of legal and policy challenges. The Agreement, while a rather positive first step, is as notable for what it lacks as for what it contains. It was clearly the intention of both nations to leave some sections of the treaty indefinite and ambiguous so that details could be clarified in later negotiations or developed through state practice. Legitimate questions are raised as to whether Mexico's current constitutional and legal framework will allow this Agreement to be carried out in a successful manner.⁴⁴ Similar questions emerge on the U.S. side of the boundary. The

³⁹ *Id.* art. 18 (5).

⁴⁰ *Id.* Art. 19 (1).

⁴¹ *Id.* art. 19 (2).

⁴² *Id.* art. 23 (1).

⁴³ *Id.* art. 23 (3).

⁴⁴ Miriam Grunstein, "Unitized We Stand, Divided We Fall: A Mexican Response to Karla Urdanteta's Analysis of Transboundary Petroleum Reservoirs in the Deep Waters of the Gulf of Mexico," 33 *Houston Journal of International Law* 345 (2011) at 365.

U.S. has never been a party to an international agreement to jointly develop hydrocarbon resources that extend across international boundaries.⁴⁵ Consequently, it will have to develop a completely new regulatory structure capable of governing the unique set of issues common to international unitization agreements.

In light of the newest hydrocarbon discoveries on the Mexican side of the maritime boundary, and favorable economic conditions for expanded production in U.S. waters, it is essential that the two nations resolve existing political and regulatory conflicts and inconsistencies and move forward with implementation of the Transboundary Agreement as quickly as possible. Unilateral production by either nation is possible under the terms of the Agreement. However, enhancing the opportunities for successful unitization agreements and actively putting into place coordinated environmental and safety policies should be pursued and implemented as quickly as possible. Moreover, once established, these institutional mechanisms between Mexico and the United States may serve as a model for a GOM-wide approach that includes Cuba and other potential offshore oil producing nations such as the Bahamas and Jamaica.

⁴⁵ Richard J. McLaughlin, “Hydrocarbon Development in the Ultra-Deepwater Boundary Region of the Gulf of Mexico: Time to Reexamine a Comprehensive U.S.-Mexico Cooperation Agreement,” 39 *Ocean Development and Ocean Law* 1 (2008) at 21-22.