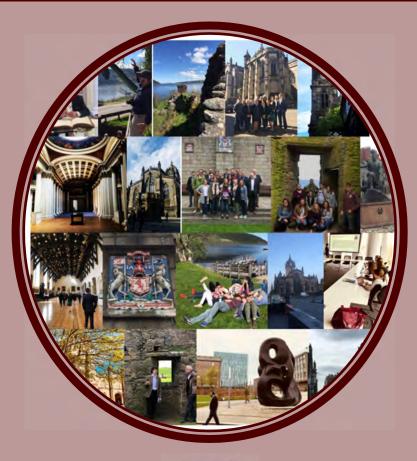
THE SAFE AND EFFICIENT DEVELOPMENT OF OFFSHORE TRANSBOUNDARY HYDROCARBONS: BEST PRACTICES FROM THE NORTH SEA AND THEIR APPLICATION TO THE GULF OF MEXICO

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This is a report for educational purposes only. To learn the details about any given topic, read the current statutes, regulations, ordinances, and policy notices, which can change frequently. These materials cannot substitute for an experienced lawyer who is up-to-date on the latest changes in local, state, and federal laws and regulations.

"[N]ature knows no legal boundaries, resources cannot be stopped by walls, no matter how high some people want to build them because borderlines expand on their own logic, they belong to many nations and they are there for the responsible exploitation of their communities." 1

I. Introduction

Offshore hydrocarbon resources have been developed for many decades, and with technology improvements, many fields which were once impossible to develop, are now economically and technologically feasible. This has led to a growing difficulty in determining the legislative and regulatory framework for resources that straddle the recognized borders between two states. In this paper, we examine a successful framework agreement governing the transboundary resources between the United Kingdom ("U.K.") and Norway in the North Sea, and the agreement between the United States and Mexico governing the Gulf of Mexico. Following the 2013 Energy Reform, the Mexican energy sector has been revitalized, leading to greater exploration, development, and production than ever before. This means that in the near future transboundary resources may be licensed for production, bringing the issues highlighted in this paper to the attention of multiple government and international entities. This paper seeks to recommend improvements to the transboundary framework in the Gulf of Mexico based on the successful framework agreement utilized in the North Sea.

This paper begins by introducing international law for offshore resources in Part II. Part III discusses the offshore regulatory regimes in the U.K. and Norway, analyzing how the two states have successfully used bilateral agreements to facilitate cooperation regarding effective exploitation and apportionment of costs from cross-boundary offshore oil and gas projects in the North Sea. Part IV discusses the offshore regulatory regimes in the United States and Mexico and analyzes the current transboundary agreement in place for the Gulf of Mexico. Part V compares the transboundary agreement governing the North Sea and the same governing the Gulf of Mexico. We highlight the major differences in the agreements and suggest changes to the Gulf of Mexico agreement based on the successful North Sea agreement. Finally, this paper concludes and provides key policy recommendations to improve the rules and regulations surrounding the exploitation of transboundary hydrocarbons in the Gulf of Mexico.

¹ Guillermo J. García Sánchez, Mexico's Energy Reform and the 2012 U.S.-Mexico Transboundary Agreement: An Opportunity for Efficient, Effective, and Safe Exploitation of the Gulf of Mexico, 9 SEA GRANT L. & POL'Y J. 1, 1 (2018).

II. INTERNATIONAL LAW FOR OFFSHORE RESOURCES

Unlike resources on land, which belong to the country upon which they sit, the ownership of offshore resources was not so easy to determine. The law of the seas developed from struggles between states, who sought to expand their control over the marine areas that were adjacent to their coastlines.² Though it was well understood that states had sovereignty over their territorial sea, the breadth of the territorial sea was only considered to be three miles—the distance that a shore-based cannon could reach—and therefore the distance that a coastal state could reasonably control.³ In 1949, following World War II, the United Nations International Law Commission began preparing four draft conventions that would provide a framework codifying international laws and customs.⁴ The conventions, later known as the Geneva Conventions, were adopted at the First United Nations Conference on the Law of the Sea in April 1958.⁵

To further develop the international law of the seas, in 1982 the Third United Nations Conference on the Law of the Sea created the United Nations Convention on the Law of the Sea ("UNCLOS"). UNCLOS divided the sea into distinct territorial zones, each subject to a different legal status and applicable law. UNCLOS went into effect in 1994, and while 168 nations have since ratified the treaty, the United States is among those who have not, stating UNCLOS is customary international law and is therefore binding. UNCLOS establishes a State's complete sovereignty in the sea extending out to twelve nautical miles from the coast. The contiguous zone stretches to twenty-four nautical miles, where the State may exercise the control necessary to prevent and punish infringement of

² Background to UNCLOS, CONT'L SHELF PROGRAMME, http://www.continentalshelf.org/about/1143.aspx (last visited Apr. 8, 2018).

³ *Id*.

⁴ The Conventions included: (1) The Convention on the Territorial Sea and Contiguous Zone; (2) The Convention on the High Seas; (3) The Convention on Fishing and Conservation of the Living Resources of the High Seas; and (4) The Convention on the Continental Shelf.

⁵ Background to UNCLOS, supra note 2.

⁶ United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

⁷ Naama Hasson, *Deep Water Offshore Oil Exploration Regulation: The Need for a Global Environmental Regulation Regime* 4 WASH. & LEE J. ENERGY CLIMATE & ENV'T 277, 281 (2013).

⁸ Id. at 281-82.

its customs, as well as fiscal, immigration, or sanitary laws and regulation. UNCLOS also established that the Exclusive Economic Zone ("EEZ") of each State extends to 200 nautical miles, unless other states' boundaries conflict with the measurement. If there are conflicting boundaries, an EEZ boundary line equidistant from each State would be determined. In the North Sea and the Gulf of Mexico, the maritime boundaries are uncontroverted and well established having been ratified by state legislation.

III. THE NORTH SEA

Since the 1960s, the States surrounding the North Sea have produced and regulated the petroleum resources found below the seafloor. Five countries are entitled to develop these resources—the U.K., Norway, Denmark, Germany, and the Netherlands. ¹⁰ Each of these independent states have legislation and regulations governing the licensing and exploitation of their petroleum sector. Additionally, as with all production industries, expansive health, safety, and environmental regulations have been promulgated by each state. However, questions as to which laws and regulations govern an offshore development occur with transboundary fields. This Section will discuss the North Sea, in particular the U.K. petroleum industry and the transboundary agreement with Norway.

A. U.K. Oil and Gas Sector

1. Actors and Agencies and their interactions

Commercial exploitation of the vast oil reserves in the U.K. Continental Shelf ("UKCS") was enabled by the Continental Shelf Act of 1964, which vested all natural resources found in the subsoil of the U.K. territorial waters (except for coal) in the crown. The Petroleum Act of 1998, establishes the regulatory regime for oil and gas exploration and production in the U.K. The Petroleum Act is supplemented by the 2016 Energy Act, the 2015 Infrastructure Act, and various other environmental, health, and safety legislative and regulatory provisions.

⁹ *Id.* at 281. *See also* UNCLOS, *supra* note 6, at art. 33(2) (establishing the rights of a nation to engage in zones contiguous to its territorial seas).

¹⁰ Though both Belgium and France do have exclusive economic zones in the North Sea, they do not produce offshore oil.

¹¹ Continental Shelf Act 1964, c. 29 (UK), https://www.legislation.gov.uk/ukpga/1964/29/contents.

¹² Petroleum Act 1998, c. 17 § 2(1) (UK), https://www.legislation.gov.uk/ukpga/1998/17/section/2.

The Department for Business, Energy and Industrial Strategy ("BEIS") is responsible for setting energy and climate change mitigation policies, and establishing the framework for achieving the policy goals in those areas.¹³ The Oil and Gas Authority ("OGA") holds most regulatory functions for the U.K. oil and gas industry,¹⁴ including: licensing and regulating the upstream sector; regulating the decommissioning of offshore installations and pipelines; and enforcing environmental legislation as it applies to upstream oil and gas activities.¹⁵ The OGA has the ability to participate in meetings with operators, have access to data, and introduce a range of sanctions such as enforcement notices and fines of up to £1 million.¹⁶ The Environment Agency; Health and Safety Executive ("HSE"); Department of Energy & Climate Change; and Offshore Safety Directive Regulator also play a role in regulating the U.K.'s offshore oil and gas industry.¹⁷

Alongside regulatory requirements, there are a number of voluntary industry-based codes of practice to which many UKCS licensees have agreed. The Infrastructure Code of Practice is a non-statutory code that sets out principles and procedures to guide all those involved in negotiating third party access to oil and gas infrastructure on the UKCS. With respect to transfers of licenses, the Commercial Code of Practice establishes an agreed-upon framework to minimize resources spent on negotiations and promote positive commercial behavior. Ompanies engaging in oil activities through unincorporated joint venture associations also look to the Oil & Gas U.K. (the oil industry representative body) for guidance on contracts and compliance with relative law.

¹³ Philip Mace et. al., *Oil and Gas Regulation in the UK: Overview*, THOMSON REUTERS PRACTICAL LAW (Oct. 1, 2017), https://uk.practicallaw.thomsonreuters.com/5-524-5349?transitionType=Default&contextData=(sc.Default).

 $^{^{14}}$ See David Hough, UK Offshore Oil and Gas Industry 3, House of Commons Library No. CBP 07268 (2017).

¹⁵ See id.

¹⁶ See OGA Corporate Plan 2016-2021, OIL & GAS AUTHORITY (Mar. 2017), https://www.ogauthority.co.uk/media /1019/oga_corporate_plan_march_17th.pdf.

¹⁷ Mace et. al., *supra* note 13.

¹⁸ Code of Practice on Access to Upstream Oil and Gas Infrastructure on the UK Continental Shelf – ICOP Guidance Notes, OIL & GAS UK (Aug. 2017), https://oilandgasus.co.uk/product/infrastructure-code-of-practice-icop-and-accompanying-guidance-notes.

¹⁹ Bob Palmer, *Oil Regulation: United Kingdom*, GETTING THE DEAL THROUGH (July 2018), https://gettingthedealthrough.com/area/24/jurisdiction/22/oil-regulation-2017-united-kingdom/. ²⁰ *Id.*

In 2016, the U.K. enacted the Maximising Economic Recovery of U.K. Petroleum Strategy ("MER UK"), which brings together the government, industry, and the OGA to maximize economic recovery from the UKCS and the value from the U.K.'s oil and gas industry as a whole.²¹

2. Licensing

The Petroleum Act of 1998 lays out the licensing structure for petroleum fields that is currently used today.²² Licensing power is placed with the Secretary of State which, through the OGA and "on behalf of Her Majesty, may grant to such persons as he thinks fit licenses to search and bore for and get petroleum to which this section applies."²³

The OGA has the power to grant licenses so that companies can explore and produce petroleum resources. A company can be deemed fit for either an exploration license, which allows for exploration alone, or an exploration and production license, allowing for both activities.²⁴ The OGA approves licenses based on the company's financial viability and capacity, tax risk, presence in the U.K., and representation by a law firm authorized to act within the jurisdiction.²⁵ If all the requirements are met, the company can bid on "blocks" during one of the annual licensing rounds, and the winning company has exclusive rights to utilize that area to profit from oil and gas production.²⁶ Under the MER UK strategy, where an operator is not able to ensure maximum recovery, the state may require the operator to relinquish the related licenses or infrastructure after a reasonable period of time by divesting itself of the license or asset "to other financially and technically competent persons."²⁷

After winning the bid, and as a part of the license application process, the potential operator must include a work programme and a safety case. The programme outlines the

²¹ See Guidance on Fracking: Developing Shale Gas in the UK, DEP'T FOR BUS., ENERGY AND INDUS. STRATEGY, https://www.gov.uk/government/publications/about-shale-gas-and-hydraulic-fracturing-fracking/developing-shale-oil-and-gas-in-the-uk (last updated Oct. 11, 2018).

²² Petroleum Act 1998, c. 17 § 2(1) (UK).

²³ Petroleum Bill 1997-8, HL Bill [153] cl. 3.1 (UK). See also Mace et. al., supra note 13.

²⁴ *Licensee Criteria*, OIL AND GAS AUTHORITY, https://www.ogauthority.co.uk/licensing-consents/licensing-system/licensee-criteria/ (last visited Nov. 16, 2018). *See also Overview*, OIL AND GAS AUTHORITY, https://www.ogauthority.co.uk/licensing-consents/overview/ (last visited Nov. 16, 2018).

²⁵ Licensee Criteria, supra note 24.

²⁶ *Id*.

²⁷ Mace et. al., *supra* note 13.

minimum work obligations that an applicant must carry out if awarded the license.²⁸ The work obligations generally contain: exploration terms and seismic survey requirements; specific timelines for construction and production; when drilling must begin; the required number of hard "guaranteed" wells; and more.²⁹

The work programme uses a self-regulated, non-prescriptive approach, meaning it allows a company to set many of their own standards, as long as they meet the minimum requirements. This approach, compared to a more traditional "check the boxes" approach found in the United States, allows smaller companies wanting to get involved in the industry an opportunity to bid competitively. It also allows all companies to individualize the drilling process to meet their methods and particular needs.

This licensing regime has allowed the U.K. to contract with diverse commercial operators to explore and produce petroleum. To exploit the resources for the betterment of the State, lessors of blocks own the resource once it is extracted and at that point the Crown is due a low royalty from the operator, such as 12.5%; applicable government taxes; and a nominal area rental charge of £ 2000 annually (roughly \$2,600).³⁰

3. Health, Safety, and Environmental Regulations

Health and safety regulations of offshore drilling in the North Sea are interrelated with the overall environmental regulatory scheme. Countless entities play a role in ensuring safe drilling practices and the regulatory scheme has taken many approaches and shapes over time. Below is an overview of the chronological shift in each regulatory approach, showcasing the evolution of the goals of health, safety, and environmental regulations.

a) Early Regulations and Pre-Piper Alpha

Most of the major changes in environmental and health and safety regulations in the North Sea have been sparked by disasters exposing weaknesses and vulnerabilities in the then-current regulatory regime. The first such incident was in 1965, when metal fatigue

²⁸ See Guidance on the Management of Offshore License Work Programme Commitments, pg. 2, OIL & GAS AUTHORITY (Jan. 2018), https://www.ogauthority.co.uk/media/4526/firm-wells.pdf.

²⁹ Presentation by David Smith, Associate; Laura Fraser, Associate; Victoria Wallace, Solicitor; & Victoria Blair, Trainee Solicitor, of Burness Paull, LLP, Aberdeen, Scotland, at the University of Aberdeen as part of the Texas A&M University School of Law Global Programs (May 9, 2018).

³⁰ Hough, supra note 14, at 12.

caused the BP Sea Gem to become the first operational oil-well to sink in the North Sea, leaving thirteen men dead.³¹ At the time of the Sea Gem incident, health and safety were primarily regulated through a relatively "light-touch" self-regulating approach with individual contractual agreements between operators.³² The Sea Gem disaster demonstrated the inadequacy of the North Sea's health and safety regulations and led to the Mineral Workings (Offshore Installations) Act of 1971, which created a framework for the new "prescriptive approach" of health and safety regulations that would be implemented over the course of the next nine years.³³

The prescriptive approach required comprehensive guides detailing strict acceptance criteria to meet the regulatory requirements. Under this regime, the Department of Energy³⁴ prescribed a specific set of criteria defining new safety requirements that all licensees were required to meet.³⁵ This approach, however, proved to be ineffective and too far removed from realistic operations and had little effect on the industry, as evidenced by the Piper Alpha disaster in 1988.³⁶

The Piper Alpha disaster was caused by a lack of communication following a shift change, coupled with the lack of serious safety procedures, and led to the explosion of what was once the biggest oil and gas producing platform in the North Sea causing the death of 167 workers on-board. Following the tragedy, the government commissioned a Scottish judge, Lord Cullen, to lead a Public Inquiry in to the deaths, resulting in a report recommending 106 changes to safety regulations in the North Sea. The report also resulted in the transfer of health and safety regulatory responsibility from the Department of Energy to the HSE. Until then, the Department of Energy was responsible for regulating health,

³¹ Deepwater Horizon and Modern Offshore Drilling Disasters, Offshore Tech. (May 6, 2010), https://www. offshore-technology.com/features/feature84417/.

³² Regulatory Regimes: Norway, United Kingdom, United States, and Australia, *in* RISK GOVERNANCE OF OFFSHORE OIL AND GAS OPERATIONS 101–240 (Preben Hempel Lindøe, Michael Baram, & Ortwin Renn eds., 2013), https://doi.org/10.1017/CBO9781139198301.023.

³³ *Id.*; *see also* Ministry of Power, Report of the Inquiry into the Causes of the Accident to the Drilling Rig Sea Gem, 1967, Cmnd. 3409 (UK).

³⁴ "Note that at this time the Department of Energy had responsibility not only for licensing and environmental regulation but also for health and safety offshore." John Paterson, *Health, Safety and Environmental Regulation on the United Kingdom Continental Shelf in the Aftermath of the Macondo Disaster*, 4 LA. ST. U. J. ENERGY L. & RESOURCES 259, 262 n.11 (2016).

³⁵ *Id.* at 262.

³⁶ *Id.*; For additional reading about the Piper Alpha disaster, see *The Case for Safety: The North Sea Piper Alpha Disaster*, NAT'L AERONAUTICS & SPACE ADMIN. (May 2013), https://sma.nasa.gov/docs/default-source/safety-messages/safetymessage-2013-05-06-piperalpha.pdf?sfvrsn=3daf1ef8 6.

safety, and environmental standards, and was also responsible for maximizing production—a direct conflict of interest.³⁷

b) Post-Piper Alpha Regulations: the "Safety Case" Approach

Lord Cullen's Report also resulted in the U.K. abandoning "the prescriptive regulatory approach in favor of a goal-setting approach." During this era of regulation, the "safety-case" regime took hold with a goal of again enhancing the health and safety regulations and also incorporating heightened environmental regulations. He safety case approach focuses on "goal-setting" regulation, abandoning specific safety rules developed by government agencies and instead, placing key responsibilities on oil and gas operators. A safety case is a "structured argument, supported by a body of evidence that provides compelling, comprehensible and valid case that a system is safe for given application in a given operating environment."

The safety case regulations are flexible, allowing operators to maintain the choice of technology and systems to meet safety standards. This unique approach recognizes that the oil and gas industry, with its advanced technological innovations, will always have superior knowledge and expertise to government regulators, and as such, safety regulations

³⁷ Presentation by Rona Jamieson, Partner, and Lynne Gray, Director, Burness Paull, in Aberdeen, Scotland, at the University of Aberdeen as part of the Texas A&M University School of Law Global Programs (May 10, 2018).

³⁸ Paterson, *supra* note 34, at 263. *See also* Offshore Installations (Management and Administration) Regulations, 1995, SI 1995/738 (UK); Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations, 1995, SI 1995/743 (UK); Offshore Installations and Wells (Design and Construction, etc.) Regulations, 1996, SI 1996/913 (UK); Pipelines Safety Regulations, 1996, SI 1996/825 (UK); Diving at Work Regulations, 1997, SI 1997/2776 (UK); Lifting Operations and Lifting Equipment Regulations, 1998, SI 1998/2307 (UK).

³⁹ Hasson, *supra* note 7, at 297. "[I]t was from [the Piper Alpha disaster] that the whole concept of the safety case came and the whole concept of independent verification and inspection." ENERGY AND CLIMATE CHANGE COMMITTEE, UK DEEPWATER DRILLING—IMPLICATIONS OF THE GULF OF MEXICO OIL SPILL, 2010-11, HC 450-I, at 9 (UK),

http://www.publications.parliament.uk/pa/cm201011/cmselect/cmenergy/450/450i.pdf.

⁴⁰ Hasson, *supra* note 7, at 297. *See also* John Paterson, *The Significance of Regulatory Orientation in Occupational Health and Safety Offshore*, 38 B.C. ENVTL. AFF. L. REV. 369, 371–84 (2011) (detailing the formation of the UK's safety approach).

⁴¹ James R. Inge, The Safety Case, Its Development and Use in the United Kingdom 2 (2007), http://safety. inge.org.uk/20070625-Inge2007 The Safety Case-U.pdf.

will never be able to provide a "comprehensive code covering all aspects of the industry."⁴² An operator or owner of an installation must prepare a written safety case demonstrating the duty holder's ability and means to control major accident hazards to an extent acceptable to the HSE. The safety case is specific to an installation and the duty holder must ensure that the installation operates only once until the regulator accepts the safety case.

After a license is granted and the safety case is accepted and implemented, the operator is then responsible to self-regulate the installation based on the information, guidelines, and standards in its safety case. The HSE enforce breaches of legislation and regulations relevant to health and safety matters. Liability is criminal and sanctions include fines and imprisonment for individuals. The OGA has the power remove and operator or revoke a license when conditions are not met. The safety case is implemented in transboundary fields as well. It is the system in place for the pads, installations, and activities on the U.K. side of the border, and if the field expands beyond the border, the operators in that field must adhere to the standards in their safety case as well as the standards the other country sets. In practice, the operator applies whichever standard is stricter to all operations.

The safety case regime favors practicality and individuality over heavy-handed legislation and regulation, and is seen internationally as the "U.K. approach."⁴⁵ It has been adopted by other industries and in other parts of the world—Norway adopted a similar approach, and the EU issued the "Offshore Safety Directive" in which it mandated self-regulation of drilling companies, as long as they met certain safety goals.⁴⁶

4. Contracts

Though there are many types of contractual relationships entered into in the oil and gas industry, one common contractual relationship used in offshore production, especially in the North Sea, bares notation; and that is the Joint Operating Agreement ("JOA").⁴⁷ A

⁴² Hasson, *supra* note 7, at 297; Paterson, *supra* note 40.

⁴³ *Id*.

⁴⁴ *Id*.

⁴⁵ *Id*.

⁴⁶ *Id*.

⁴⁷ Other types of contractual agreements are: Joint ventures, service contracts, and profit-sharing, production sharing, and unitization.

JOA, is an agreement between two or more companies where they collaborate to share their financial and technical resources, as well as expertise, to more efficiently explore, develop, and produce hydrocarbons from the leasehold.⁴⁸ One key feature of a JOA is that, though the resources are jointly owned and exploited, one company is designated as the operator of an offshore development and has a working interest in the lease.⁴⁹ Operator responsibility normally goes to the company with the largest equity interest in the license, but not always as a company with greater expertise in exploration and production in the particular field or formation might be selected regardless of their percentage ownership. Whichever company is chosen as the operator is then responsible for the day to day operations on the platform, such as on-site safety, drilling decisions, and management of employees and sub-contractors.⁵⁰ A JOA allows companies to split financial risks, profits, and costs of a well, while acknowledging that the operator will handle the operation.⁵¹ While a JOA often places risk of liability for accidents on the Operator in a typical UKCS JOA, the operator is indemnified and held harmless by the non-operated parties for any claims that may arise out of joint operations conducted by the operator.⁵² The idea being that the operator does not suffer any extra loss--nor any obtain any extra gain--as a result of undertaking the role as operator of the joint venture that a non-operator would not suffer.⁵³

In the North Sea, agreement between the interest owners—such as JOA's, Decommissioning Security Agreements, Proximity Agreements, and Crossing Agreements—are drafted using OGUK model form agreements.⁵⁴ Model forms are also used for service agreements between operators and sub-contractors; one popular provider of form service contracts between operators and service companies sub-contractors is LOGIC.⁵⁵ LOGIC, a wholly owned subsidiary of Oil & Gas U.K., is a non-profit organization whose goal is to increase efficiency of oil and gas production in the UKCS.

⁴⁸ *Joint Operating Agreement-JOA*, PETROPEDIA, https://www.petropedia.com/definition/7062/joint-operating-agreement-joa (last visited Nov. 16, 2018).

⁴⁹ *Id*.

⁵⁰ *Id*.

⁵¹ Hunton Andrews Kurth LLP, *UK: The Joint Operating Agreement*, MONDAQ, http://www.mondaq.com/uk/x /298684/Corporate+Governance/The+Joint+Operating+Agreement (last updated Mar. 12, 2014).

⁵² Presentation by David Smith, Laura Fraser, Victoria Wallace, & Victoria Blair, *supra* note 29.

⁵³ *Id*.

⁵⁴ The model form agreements are available for purchase at, https://oilandgasuk.co.uk/product/standard-agreements/.

⁵⁵ Standard Contracts, LOGIC, https://www.logic-oil.com/standard-contracts (last visited Nov. 16, 2018); Presentation by David Smith, Laura Fraser, Victoria Wallace, & Victoria Blair, *supra* note 29.

JOA's merit discussion for two reasons: their relationship to the licensing regime and their distinction from unitization agreements, which are discussed at length in other sections of this paper. A consortium of various companies will enter a JOA prior to the licensing procedures described in Section 2 above. Therefore, it is very common for a license to be granted, not to one company, but to a consortium organized under a JOA.⁵⁶ To understand the interactions among parties in oil and gas transactions, it is important to understand that a "licensee" is more often than not a group of companies, each having their own management structure and internal procedures. Additionally, unitization agreements and JOA's have very important distinctions. Unitization will take place when two licensed areas are exploited as a single unit so that the formation will be more efficiently produced.⁵⁷ This normally occurs when the hydrocarbon formation extends between multiple blocks.⁵⁸ In short terms, a unitization agreement governs the conjoined actions of multiple licensees to multiple blocks; whereas a JOA governs the actions of one "licensee" that just happens to be multiple companies working together in a single block under a single license. Therefore, it is very common for two "licensees"—that are each a separate consortium of companies governed by a JOA—to unitize their respective blocks under a unitization agreement.

5. Conflict Resolution

English law governs most modern U.K. oil and gas contracts and generally provides for arbitration as the main form of dispute resolution. However, some contracts may specifically state that the transaction is to be governed by Scottish law. Both Scottish law and English law are quite similar regarding dispute resolution for oil and gas agreements;⁵⁹ however, because Scottish law is a mix of both common law and civil law, there are some fundamental differences.⁶⁰ These differences, can be differentiated by a court if the parties

https://www.lexology.com/library/detail.aspx?g=69912ce0-127d-447e-8a47-50f5d235dcfa.

⁵⁶ Hunton Andrews Kurth LLP, *supra* note 51.

⁵⁷ Hunton Andrews Kurth LLP, *Unitisation—The Oil and Gas Industry's Solution to One of Geology's Many Conundrums*, LEXOLOGY (Aug. 9, 2014),

⁵⁸ *Id*.

⁵⁹ E-mail from Steven Guild, Partner, Burness Paull, to Keeli Lane (Nov. 1, 2018, 11:51 CST) (on file with author).

⁶⁰ Andreas Rahmatian, *The Political Purpose of the 'Mixed Legal System' Conception in the Law of Scotland*, 24 MAASTRICHT J. EUROPEAN & COMP. L. 843 (2017).

plead for the court to make the distinction as the Scottish courts may hear evidence as to the applicability of English law.⁶¹

Although there are applicable laws that lay out the dispute resolution methods for oil and gas disputes, the common practice in the North Sea heavily involves negotiations and collaboration over litigation.⁶² Oil and gas companies will usually negotiate amongst themselves to resolve disputes. "The vast majority of dispute resolution clauses we see in contracts require the managing directors/ CEO's of the parties in dispute to meet each other to try to negotiate in good faith before formal action."⁶³ Due to the existing relationships amongst the companies, and high likelihood of future involvements in other wells in the North Sea, "these negotiations often result in settlements because such persons tend to be very commercial in outlook" and neither party has a desire to commit the time and resources required for litigation or arbitration.⁶⁴ This process of good faith, non-formal negotiation is memorialized by "documentation by lawyers with the usual discharges of claim, non-admission of liability and 'without prejudice' wording."⁶⁵

a) Alternative Dispute Resolution

The Scottish courts, which under certain agreements might have jurisdiction over conflicts between parties, have been reluctant to enforce mediation and other types of alternative dispute resolution ("ADR") based on the policy that dispute resolution should be voluntary instead of mandatory. However, England is "encouraging" parties to, at the very least, attempt ADR prior to commencing or continuing court action "under pain of being penalised in costs if they do not." There is a push in Scotland to encourage parties to attempt ADR as well. In early 2018, the Scottish Parliament Justice Committee held evidence sessions to discuss the importance of encouraging ADR as a cheaper, more

⁶¹ E-mail from Steven Guild, *supra* note 60.

⁶² Presentation by Neil Smith, Partner & Steven Guild, Partner, Burness Paull, in Aberdeen, Scotland, at the University of Aberdeen as part of the Texas A&M University School of Law Global Programs (May 11, 2018).

⁶³ E-mail from Steven Guild, *supra* note 60.

⁶⁴ *Id*.

⁶⁵ *Id*.

⁶⁶ JUSTICE COMMITTEE, THE SCOTTISH PARLIAMENT, SP Paper 381, I WON'T SEE YOU IN COURT: ALTERNATIVE DISPUTE RESOLUTION IN SCOTLAND 16 (2018), https://sp-bpr-en-prod-cdnep.azureedge.net/published/J/2018/10/1/I-won-t-see-you-in-court--alternative-dispute-resolution-in-Scotland/JS052018R9.pdf. *See also* E-mail from Steven Guild, *supra* note 60.

efficient means of settling disputes.⁶⁷ Though the Committee concluded that "people should not be compelled to participate in [ADR]" as to do so "could undermine the benefits derived from the voluntary nature of ADR," they also concluded that something needs to be done to encourage participation.⁶⁸ The Committee recommended that mandatory ADR information meetings should be initiated to inform parties of their ADR options.⁶⁹

Most disputes, especially in the oil and gas industry, are resolved through cooperation; however, if the parties fail to reach a settlement and formal legal proceedings are necessary to resolve the dispute, then arbitration or litigation will likely be initiated. In older North Sea contracts, litigation is the method of choice. However, arbitration has begun to become more common, especially in the context of the hydrocarbons sector. The arbitration process begins by appointing an arbitrator, a process which is often stated in the agreement's dispute resolution clause. Wide discretion is given to the arbitrator to decide the process, including time frame, for the following arbitration, as long as the process is within the confines of the agreement and the applicable arbitration rules. Scottish Arbitration Rules are relatively new (2010) and were not in place for a majority of the development of the North Sea. As is typical of most arbitration rules, the Scottish Arbitration Rules obligate the arbitrator to ensure the arbitration proceeds expeditiously, although there is no real way of enforcing this requirement in practice.

b) Litigation

As mentioned above, when parties are unable to resolve conflicts amongst themselves, they often turn to the courts to resolve the dispute. In Scotland litigation is the preferred method to resolving disputes and is utilized about 80% of the time.⁷⁵ As many of the contracts governing U.K. oil and gas relationships were entered into prior to the rise or ADR, and codification of arbitration rules, the agreements often provide for litigation

https://www.legislation.gov.uk/asp/2010/1/pdfs/asp 20100001 en.pdf.

⁶⁷ JUSTICE COMMITTEE, *supra* note 67.

⁶⁸ *Id.* at 23.

⁶⁹ *Id*.

⁷⁰ E-mail from Steven Guild, *supra* note 60.

⁷¹ Presentation by Neil Smith & Steven Guild, *supra* note 63.

⁷² E-mail from Steven Guild, *supra* note 60.

⁷³ The arbitration rules are available at

⁷⁴ E-mail from Steven Guild, *supra* note 60.

⁷⁵ Presentation by Neil Smith & Steven Guild, *supra* note 63.

instead of arbitration, or lack an ADR clause thus automatically granting jurisdiction to the courts.⁷⁶

Following a growing practice worldwide, the Scottish courts expect the parties to have previously discussed the dispute and possible claims and defenses, and attempted to settle the dispute through non-litigation means such as negotiation or mediation. However, because the legal culture in both Scotland and the U.K. is that mandatory ADR impedes peoples access to the court, even as a pretext to litigation ADR is only optional.⁷⁷ The judge does have the ability to place monetary penalties, or apportion attorney fees, according to a side's failure to accept an invitation to participate in ADR.⁷⁸ The judges involved in litigation, under both English law and Scottish law, are bound and empowered to establish strict timetables to ensure expeditious progress of the cases before them.⁷⁹

B. Norway Oil and Gas Sector

Hydrocarbons have been produced on the Norwegian continental shelf ("NCS") since 1971.⁸⁰ Like the U.K., all petroleum resources on the NCS are vested in the Norwegian state.⁸¹ The Petroleum Act is the main statute providing the legal framework for petroleum activities on the NCS.⁸² The Ministry of Petroleum and Energy ("MPE") and the Norwegian Petroleum Directorate ("NPD") are the main regulatory bodies responsible for regulating petroleum resource management and storage and transport of CO₂ on the continental shelf.⁸³ Other key regulators responsible for petroleum activities on the NCS include the Ministry of Finance; the Ministry of Labour and Social Affairs; the Ministry of Climate and Environment; and the Ministry of Trade.⁸⁴

https://content.next.westlaw.com/Document/Id4aecb4f1cb511e38578f7ccc38dcbee/View/FullText.html?contextData=(sc.Default)&transitionType=Default&firstPage=true&bhcp=1.

⁷⁶ E-mail from Steven Guild, *supra* note 60.

⁷⁷ John MacKenzie & Matthew Phillip, *Compulsory Mediation on a Voluntary Basis?*, SHEPHERD & WEDDERBURN (June 30, 2017), https://shepwedd.com/knowledge/compulsory-mediation-voluntary-basis.

⁷⁸ *Id. See also* E-mail from Steven Guild, *supra* note 60.

⁷⁹ E-mail from Steven Guild, *supra* note 60.

⁸⁰ Thomas K. Svensen et al., *Oil and Gas Regulation in Norway: Overview*, Country Q&A, THOMPSON REUTERS PRACTICAL LAW (2014),

⁸¹ *Id*.

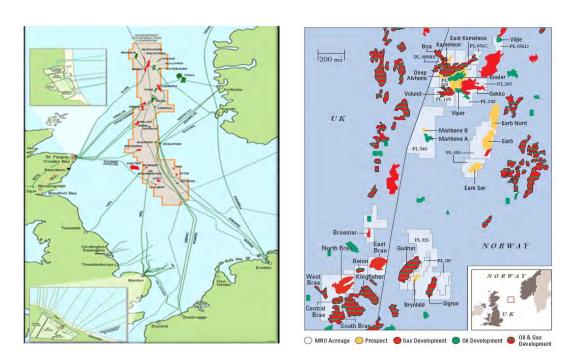
⁸² *Id*.

⁸³ Regulations, NORWEGIAN PETROLEUM DIRECTORATE (Jan. 18, 2018), http://www.npd.no/en/Regulations.

⁸⁴ Svensen et al., supra note 81.

Notably, Norway as a state plays a key role in implementing government laws and regulations through its state-owned companies. For example, the MPE is responsible for the independent state-owned companies Petoro, Gassco, Statnett, Enova and Gassnova, and the agency holds a 67% ownership interest in Equinor (formerly Statoil), which is the leading operator in the NCS. Norway has separate licensing, health and safety, and environmental regulations; however this paper will not discuss those in detail as it is beyond the scope of our research.

C. Transboundary Resources: U.K./Norway Framework Agreement



Oil and Gas fields close to the boundary line in the North Sea.⁸⁷

⁸⁵ Wholly-Owned Companies, MINISTRY OF PETROLEUM & ENERGY (July 20, 2016), https://www.regjeringen. no/en/topics/energy/state-ownership-in-the-energy-sector/wholly-owned-companies/id2353253/.

⁸⁷ Photo 1: Eva Halland, *Fiscal Measurements When the Requirements of Different Nations Should be Maintained*, NORWEGIAN PETROLEUM DIRECTORATE (2011), https://nfogm.no/wp-content/uploads/2014/02/NSFMW-2011-Key-Note-v-Eva-Halland.pdf. Photo 2: *Norway: Marathon Receives Approval for Production Drilling on Alvhein Field*, ENERGY-PEDIA (April 8, 2010), https://www.energy-pedia.com/news/norway/marathon-receives-approval-for-production-drilling-on-alvheim-field.

⁸⁶ *The Norwegian State*, EQUINOR, https://www.equinor.com/en/investors/our-dividend/the-norwegian-state.html (last visited Nov. 15, 2018).

1. Actors and Agencies and their Interactions

Prior to 2005, the U.K. and Norway operated under individual bilateral agreements specific to each transboundary oil field in the North Sea, such as the Frigg field.⁸⁸ Aiming to avoid the need for multiple field-specific treaties, the U.K. and Norway created a working group focused on increasing cooperation between the nations and generating a stable regulatory environment for investors. Ultimately, the working group recommended the creation of a Framework Treaty and a set of parallel guidelines (collectively the "Framework Agreement").⁸⁹ The working group estimated that the potential profits from cooperative efforts could be \$2 billion by 2010.⁹⁰ In 2005, the U.K., Northern Ireland, and Norway signed the Framework Agreement to encourage cross-boundary cooperation regarding effective exploitation and apportionment of costs.⁹¹

To supplement the U.K./Norway Framework Agreement the countries jointly issued guidelines.⁹² According to OGA, the guidelines "are designed to help companies through the process of seeking government approval for the development of transboundary reservoirs that extend across the median line between the U.K. and Norway."⁹³ The guidelines break down the practical steps to completing various phases of offshore projects and provides references and links to both U.K. and Norwegian legislation and guidance.⁹⁴ The document also explains the roles of licensees and operators and their relationship to the Regulatory Authorities in U.K./Norway.⁹⁵

 $^{^{88}}$ Denis V. Rodin, Offshore Transboundary Petroleum Deposits: Cooperation As a Customary Obligation 36, University of Tromsø (2011),

https://munin.uit.no/bitstream/handle/10037/3894/thesis.pdf.

⁸⁹ UK-Norway North Sea Co-operation Workgroup, Unlocking Value through Closer Relationships (Aug. 2002),

http://webarchive.national archives.gov.uk/20101224184332/http://www.pilottaskforce.co.uk/files/workgroup/308.pdf.

⁹⁰ Gregory F. Treverton, Dividing Divided States 91 (2014).

⁹¹ Framework Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Kingdom of Norway Concerning Cross-Boundary Petroleum Cooperation, U.K.-Nor., Apr. 4, 2005, Norway No. 1 (2006) Cm 6792 [Hereinafter Framework Agreement].

⁹² UK–Norway. Trans-Boundary Oil & Gas Fields: Guidelines for Development of Trans-Boundary Oil and Gas Fields, OIL AND GAS AUTHORITY, https://www.ogauthority.co.uk/media/2721/transboundary-fields-1016.pdf (last visited Nov. 11, 2018).

⁹³ Transboundary Fields, OIL & GAS AUTHORITY, https://www.ogauthority.co.uk/exploration-production/development/transboundary-fields/ (last visited Nov. 7, 2018).

⁹⁴ *Id*.

⁹⁵ *Id*.

Some of the benefits of the Framework Agreement have already taken place in the form of the Enoch and Blane fields, which were the first transboundary developments approved under the agreement. Also, investments in the region have continued to rise as GlobalData estimates there will be \$43.1 billion worth of new North Sea project investment between 2018 and 2025.

2. Licensee Requirements and Unitization

As a reflection of the good diplomatic relationship between the states and the clarity provided by the Framework Agreement, transboundary resources in the North Sea are often allocated between states based on the processes outlined in the Framework Agreement without extensive conflict.⁹⁸

"If, as a result of geological/geophysical mapping, a petroleum structure is considered to extend across the delimitation line and the licensees want to start development then the operating company, acting on behalf of their co-licensees, will inform the authorities of its home country," NPD for Norway and the OGA for the U.K.⁹⁹ The agencies will review geological surveys of the petroleum formation to determine its nature and shape. The licensees will also start technical discussions aimed at agreeing to a possible timetable for development. ¹⁰⁰ Importantly, both "Governments shall use their best efforts to facilitate CrossBoundary Projects and shall not prevent or impede such projects by unreasonably withholding Authorisations. The two Governments shall coordinate their relevant Authorisation procedures and where both Governments issue Authorisations they shall be given simultaneously, unless agreed otherwise, and shall be compatible with each other." ¹⁰¹

⁹⁶ Nick Terde, *Talisman Forging Ahead on Rev, Yme*, OFFSHORE (Oct. 1, 2007), https://www.offshore-mag.com/articles/print/volume-67/issue-10/construction-installation/talisman-forging-ahead-on-rev-yme.html.

⁹⁷ Aimee Knight, *GlobalData: Energy Companies Set to Spend US \$43.1 Billion on New Projects in the North Sea from 2018-2025*, ENERGY GLOBAL (Oct. 25, 2018, 5:30 PM), https://www.energyglobal.com/upstream/special-reports/25102018/globaldata-energy-companies-set-to-spend-us431-billion-on-new-projects-in-the-north-sea-from-2018-2025/.

⁹⁸ Presentation by David Smith, Laura Fraser, Victoria Wallace, & Victoria Blair, supra note 29.

⁹⁹ See Framework Agreement, supra note 98.

¹⁰⁰ UK–Norway. Trans-Boundary Oil & Gas Fields: Guidelines for Development of Trans-Boundary Oil and Gas Fields, supra note 93.

¹⁰¹ Framework Agreement, *supra* note 92, at art. 1.4.

Per the Framework Agreement, if after initial consultations between the government and their licensee both governments agree that a petroleum reservoir is transboundary, it shall be exploited as a single unit. To effectuate this, a unit operator—who will be responsible for coordinating development contacts with both governments—will be appointed and approved by agreement between the licensees and both governments. The licensees of both states will hold joint meetings to review the geological, seismic, and technical data and to clarify technical issues. The licensees will then prepare and draft Joint Development Plan and a Licensees' Agreement. In one side of the boundary line, a license has not been awarded, the applicable state authority will represent that area during this process until a license is awarded and all reasonable efforts will be made to award a license for the area as soon as possible.

The Licensees' Agreement normally takes the form of a Unitization and Unit Operating Agreement ("UUOA"). In the basic sense, a UUOA is an agreement between all mineral interest owners and lessees of the transboundary blocks that combines the interests of all owners for production purposes. A field is unitized for greater efficiency as it is more cost-effective to work together to produce the field than to fight over the allocation of the resource or force both sides to drill separate wells into the same reservoir. The hydrocarbons produced, or the sum gathered from selling the resources, are divided among the interest holders according to the allocation of the resources in the formation between the states—for example 60% in the U.K. and 40% in Norway. UUOA typically results in a unit whereby each participant's share of the costs, liabilities, and production is based

¹⁰² *Id.* at art. 3.1.

¹⁰³ *Id.* at art. 3.7.

¹⁰⁴ UK-Norway. Trans-Boundary Oil & Gas Fields: Guidelines for Development of Trans-Boundary Oil and Gas Fields, supra note 93, at § 1.1. The Licensees' Agreement is required by Article 3.2(1) of the Framework Agreement. Framework Agreement, supra note 92, at art. 3.2(1).

¹⁰⁵ UK–Norway. Trans-Boundary Oil & Gas Fields: Guidelines for Development of Trans-Boundary Oil and Gas Fields, supra note 93.

¹⁰⁶ King & Spalding, *Oil and Gas Unitization: Specific Considerations for Cross-Border Unitization*, JDSUPRA (June 3, 2016), https://www.jdsupra.com/legalnews/oil-and-gas-unitization-specific-17185/. Additionally, the Association of International Petroleum Negotiators have drafted a model unit agreement for guidance. *See Model Contracts*, AIPN,

https://www.aipn.org/forms/store/ProductFormPublic/unitization-and-unit-operating-agreement-2006 (last visited Nov. 15, 2018).

¹⁰⁷ If the licensee for one state is a consortium of companies, the national oil company is included, or the license requires the state to retain a certain portion of the production, these apportionments will be separately figured from that licensee's total allotment after the two sides take their cut.

on its proportionate share of the field, regardless of the location of facilities.¹⁰⁸ The key terms of a UUOA are the creation of the unit; determination of participations; redetermination requirements;¹⁰⁹ unit operating committee procedures and voting; non-unit operations; and the use of facilities, whether current or newly constructed.¹¹⁰

According to the Framework Agreement, the Licensees' Agreement will contain the terms for joint operations, procedures, protocols, and agreements. These will usually include such procedures as appointment/approval of the Unit Operator, determination of reserves, appointment of expert, etc.¹¹¹ The Licensees' Agreement will be subject to approval by both Governments.¹¹² "The Agreement should identify the limits of the petroleum structure and include proposals for determining the extent of the proposed field, the hydrocarbons initially in place, the method of calculation, and the distribution of the reserves between the licensees on each side of the delimitation line."¹¹³

Along with the Licensees' Agreement, the Unit Operator must submit a joint Development Plan, which is labeled differently depending on the state in which drilling facilities sit. ¹¹⁴ A U.K. Field Development Plan ("FDP") will be drafted if the facilities are wholly located on the U.K. side of the maritime boundary, and a Norwegian Plan for Development and Operation ("PDO") and Plan for Installation and Operation will be drafted if the installations are wholly located on the Norwegian side. ¹¹⁵ If the facilities are located on both sides of the boundary, a composite plan will be needed. Whatever type of agreement is used, it will need to meet the requirements of both states. For example, a PDO

¹⁰⁸ King & Spalding, *supra* note 107.

¹⁰⁹ Redetermination is an often hotly contested, excessively expensive process. Redetermination can be triggered automatically by an increase in the unit size, or even on the passage of time. Other common triggers include the availability of new data which indicates that the percentage allotments may not be "fair and equitable" or production of unit substances reaching a definite volume or percentage. *See id.*

¹¹⁰ Stabilization clauses provide that any changes in the host countries legislation, administrative acts, or governmental policies will not adversely affect the fiscal regime or relevant terms of the oil and gas contract.

¹¹¹ UK–Norway. Trans-Boundary Oil & Gas Fields: Guidelines for Development of Trans-Boundary Oil and Gas Fields, supra note 93.

¹¹² Framework Agreement, *supra* note 92, at art. 3.2(2).

¹¹³ UK–Norway. Trans-Boundary Oil & Gas Fields: Guidelines for Development of Trans-Boundary Oil and Gas Fields, supra note 93, at § 1.2.

¹¹⁴ Framework Agreement, *supra* note 92, at art. 3.9.

¹¹⁵ UK–Norway. Trans-Boundary Oil & Gas Fields: Guidelines for Development of Trans-Boundary Oil and Gas Fields, supra note 93, at § 2.1.

consists of the Plan itself and an impact assessment; however, this is not required in a U.K. FDP. ¹¹⁶ But, in any transboundary field being developed between the U.K. and Norway, an impact assessment will need to be included in order to satisfy the Norwegian requirement. Finally, both a Norwegian production permit and a U.K. production consent will be required before production can commence. ¹¹⁷

3. Health, Safety, and Environmental Regulations

Regarding health, safety, and environmental regulations, the states shall "encourage, where possible, the adoption of common health, safety and environmental standards and requirements. In any event, the two Governments shall seek to ensure that their respective standards and requirements are compatible"¹¹⁸ In addition to cooperation regarding the adoption of regulations and standards, the two Governments also agree to cooperate regarding inspections and allowing access to health, safety, and environmental reports. The Framework Agreement provides security that the states will work together regarding the creation and enforcement of regulations; however, the actual governing regulations are those of the host country themselves. To be clear what regulations apply, the Operator would need to confirm with the applicable state agency.

4. Conflict Resolution

The Framework Agreement also includes dispute resolution processes related to the distribution of the petroleum resources. Additionally, the Framework Agreement provides methods to resolve disputes between the licensees, between licensees and contractors, and disputes between the two United Kingdom an Norway. 121

The Framework Agreement sets forth processes to resolve the following: issues involving compliance with terms and conditions laid out in contracts and transaction paperwork; tariff concerns between the companies involved; and disputes relating to

¹¹⁶ For further guidance on the Norwegian regulations, see *Regulations*, *supra* note 84.

 $^{^{117}}$ UK–Norway. Trans-Boundary Oil & Gas Fields: Guidelines for Development of Trans-Boundary Oil and Gas Fields, supra note 93, at \S 4.

¹¹⁸ Framework Agreement, *supra* note 92, at art. 1.5(2).

¹¹⁹ *Id.* at art. 1.6.

¹²⁰ *Id.* at arts. 5, 3.4, 2.7.

¹²¹ *Id*.

transboundary access.¹²² The different sets of disputes have separate resolution types, placing the burden of dispute resolution in the hands of the government most equipped to make the best decision based on guidelines set out previously in the agreement. Certain dispute types require both governments to resolve the issue together, encouraging haste due to the necessity of a speedy resolution.¹²³

In the event that the governments fail to reach an agreement on the "interpretation or application of the Agreement, the duty of resolution will fall to the Conciliation Board," which consists of five members. ¹²⁴ "Each Government shall designate two members, and the four members so designated shall designate the fifth member (who shall be a national of or habitually reside in the United Kingdom or in the Kingdom of Norway) who will act as the Chairman of the Conciliation Board." ¹²⁵ The Framework Agreement also sets forth an amount of time allowed to each Government to designate said members, and if either Government fails to appoint a member in that time, the designation will then be the obligation of the President of the International Court of Justice. ¹²⁶

The actual dispute resolution is not under a time limit and the board is allotted a "reasonable time limit to reach a decision (taking into account the need for a speedy resolution)."¹²⁷ The Board shall also be entitled to "all relevant information and may carry out necessary consultations."¹²⁸

The laid-out specifics of the Conciliation Board and the processes for handling conflicts make a clear determination for dispute resolution, but the discretion left to the board in the form of unspecified time frames and the types of materials they are allowed when handling disputes may lead to more differences in interpretation and basic disagreements. Allowing the Board a "reasonable amount of time" and "all relevant information . . . necessary" creates more points of dispute and opens the door for future disagreements regarding appropriate action by the board.¹²⁹ This process for the

¹²² Framework Agreement, *supra* note 92, at art. 2.7(1)(a)-(c).

¹²³ *Id.* at art. 2.7.

¹²⁴ *Id.* at art. 5(1)(i).

¹²⁵ *Id.* at art. 5(1)(ii).

¹²⁶ *Id.* at art. 5(1)(iii).

¹²⁷ *Id.* at art. 5(1)(vi).

 $^{^{128}}$ *Id.* at art. 5(1)(v).

 $^{^{129}}$ *Id.* at art. 5(1)(v)-(vi).

Conciliation Board, although involving the U.K. and Norway, is not commonly followed outside of Norway. "In the U.K., parties are pretty much free to proceed as they see fit." ¹³⁰

IV. THE GULF OF MEXICO

The Gulf of Mexico is the "ninth largest body of water in the world" and its shoreline comprises "3,540 miles along the nations of the United States, Mexico, and Cuba," all of which have the right to explore and develop the resources located therein. The predominant activity in the Gulf is hydrocarbon development. There are currently "[m]ore than 3,500 structures and 33,000 miles of offshore pipelines" in the area, making it "the most extensively developed offshore production area in the world." This Section will analyze the agencies, legislation, and regulations governing the licensing and exploitation of U.S. and Mexican petroleum sectors. It will then introduce and analyze the Agreement Between the United States of America and the United Mexican States Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico ("2012 Agreement").

A. Mexico Oil and Gas Sector

- 1. Actors and Agencies and their Interactions
- a) Executive Figures and the 2013 Mexico Energy Reform

In 1938, under President Lázaro Cárdenas, Mexico expropriated all foreign investments and actors involved in the hydrocarbons sector, leading to a national monopoly. Following the 2012 election of President Enrique Peño Nieto, the energy sector re-opened to private and international investment and participation. The

¹³⁰ E-mail from Steven Guild, *supra* note 60.

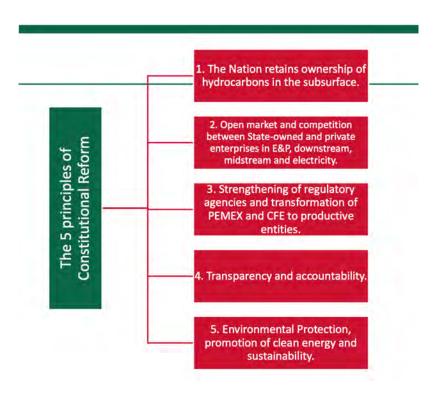
¹³¹ Richard J. McLaughlin & Kateryna M. Wowk, *Managing Areas Beyond National Jurisdiction in the Gulf of Mexico: Current and Developing International Legal Authority and Future Challenges*, 9 SEA GRANT L. & POL'Y J. 16, 16 (2018); *see*, *e.g.*, *EPA's Work in the Gulf of Mexico*, ENVTL. PROT. AGENCY, https://www.epa.gov/gulfofmexico (last visited June 29, 2018).

¹³² McLaughlin & Wowk, *supra* note 132; Mark J. Kaiser, *The Louisiana Artificial Reef Program*, 30 MARINE POL'Y 605, 605 (2006).

¹³³ Mexican Expropriation of Foreign Oil, 1938, U.S. DEPT. OF STATE, https://history.state.gov/milestones/1937-1945/mexican-oil (last visited Nov. 12, 2018).

¹³⁴ Mexican President Signs Landmark Energy Reform into Law, REUTERS (Aug. 11, 2014), https://www.reuters.com/article/us-mexico-reforms/mexican-president-signs-landmark-energy-reform-into-law-idUSKBN0GB26R20140811.

December 20th, 2013 enactment of the Constitutional Reform in Energy Matters (the "Energy Reform") substantially affected the oil and gas exploration and extraction industry in the Gulf of Mexico.¹³⁵ While the Energy Reform led to much change in the oil and gas industry, both domestically in Mexico and on the international level, ¹³⁶ one unchanged circumstance is that the Mexican Government continues to have sole ownership of underground resources.¹³⁷



The goals of the Energy Reform. 138

¹³⁵ Jesús Rodríguez Dávalos & Raúl Fernando Romero Fernández, *Oil & Gas Regulation 2018: Mexico*, INT'L COMPARATIVE LEGAL GUIDES (Feb. 12, 2018), https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/mexico#chaptercontent1.

 ¹³⁶ See generally id.; Juan Carlos Serra & Jorge Eduardo Escobedo, Oil and Gas Regulation in Mexico:
 Overview, Country Q&A, THOMSON REUTERS PRACTICAL LAW (July 1, 2018),
 https://content.next.westlaw.com/Document/ Id4af1a831 cb511e38578f7ccc38dcbee/View/FullText.html.
 ¹³⁷ Id.

¹³⁸ José Manuel Carrera Panizzo, CEO, PMI Comercio Internacional, *Mexico's Energy Reform*, slide 13, Presentation at the U.S. Energy Information Administration Energy Conference (July 15, 2014), *available at* https://www.eia.gov/conference/2014/pdf/presentations/carrera.PDF.

Prior to the Energy Reform, private companies were excluded from direct involvement the exploration and extraction phases of the oil and gas industry in Mexico. The state owned company Petróleos Mexicanos ("PEMEX") was the only company allowed to conduct hydrocarbon activities: this included exploration and extraction for underground resources, as well as any imports of oil products. Due to the inefficiency, corruption, and heavy taxation of PEMEX, production was falling uncontrollably. As of 2015, Mexico reported 13 billion barrels of proven oil reserves, a 21% decline from 2014; additionally, production from Cantarell, Mexico's largest oil field, had fallen 80% since 2004. Oil production had begun a decade-long decline, falling by almost 1 million barrels per day by 2015; natural gas production was also declining, resulting in increased imports from the U.S. It was these declining figures that spawned the Energy Reform.

The Energy Reform resulted in amendments to Articles 25, 27, and 28 of Mexico's Federal Constitution; issuance of 22 secondary laws and regulations; and creation of new government regulatory bodies. 143 These changes allow for exploration and extraction of hydrocarbons via companies other than PEMEX, including other international oil companies like Chevron and Shell, as well as national oil companies from different states like Venezuela or China. 144 To manage national revenues from these varied exploration and extraction activities, the Energy Reform created the Mexican Petroleum Fund for Stabilization and Development. 145 Both the National Hydrocarbons Commission and the Energy Regulatory Commission were strengthened "... for the better development of the national energy sector," and the National Natural Gas Control Center was set to "... be created as a public body in charge of efficiently operating the national system of transportation and storage of natural gas pipelines." A newly-created, decentralized agency was also deemed necessary for regulating and supervising "... the activities of the

¹³⁹ *Id.* However, many foreign companies such as Halliburton and Schlumberger were used as subcontractors in Mexico.

¹⁴⁰ *Id*.

¹⁴¹ Richard H. K. Vietor & Haviland Sheldahl-Thomason, *Mexico's Energy Reform*, Case No. 717-027, HARVARD BUSINESS SCHOOL 3 (2017).

¹⁴² *Id*.

¹⁴³ Serra & Escobedo, *supra* note 138.

¹⁴⁴ Presidencia de la Republica, 10 Puntos clave de la Reforma Energética [10 key points of the Constitutional Reform on Energy matters], GOB.MX (Dec. 22, 2013), https://www.gob.mx/presidencia/articulos/10-puntos-clave-de-la-reforma-energetica.

¹⁴⁵ *Id*.

¹⁴⁶ *Id*.

hydrocarbon sector in terms of industrial safety and protection of the environment."¹⁴⁷ In short, the 2013 Energy Reform intended to affect (1) hydrocarbon activities for PEMEX and privately owned companies both upstream and downstream on domestic and international levels; and (2) governmental oversight of such activities, on all fronts. ¹⁴⁸

On July 1, 2018, Mexico elected Andrés Manuel López Obrador as the new President. President elect López Obrador, has made it known that he intends to reevaluate the Energy Reform and wants to make sure that a licensing structure is in the best interest of Mexico. López Obrador is a longtime advocate for a nationalist approach to Mexico's economic development and its abundant natural resources, and even used his opposition to the reform as the centerpiece for previous elections and attempted to launch a national referendum to stop the reform. The National Regeneration Movement party and coalition partners now control not only the Presidency, but also both chambers of Congress giving them significant power to change legislation.

"President-elect López Obrador has identified four energy policy priorities: 1) increase domestic oil and gas production; 2) refurbish PEMEX's six existing refineries; 3) construct a new refinery in the State of Tabasco; and 4) increase electricity generation, mainly by updating existing hydroelectric plants." However, the President-elect has stated in reference to the contracts signed for blocks already licensed, "We won't act in an arbitrary fashion, nor will there be confiscation or any expropriation." Only time will tell what changes—such as a shifts away from licenses to joint-production agreements or profit-sharing agreements—will occur under the new administration.

https://lopezobrador.org.mx/temas/consulta-popular/.

¹⁴⁷ *Id*.

¹⁴⁸ *Id*.

¹⁴⁹ See Keith Johnson, *Mexico's Populist New President Unlikely to Derail Energy Reform*, FOREIGN POL'Y (July 3, 2018, 1:42 PM), https://foreignpolicy.com/2018/07/03/mexicos-populist-new-president-unlikely-to-derail-energy-reform-amlo-pemex-oil/.

¹⁵⁰ See id. See also Morelos Zacualpan, Acudirá AMLO a la CIDH para denunciar que la SCJN violó la Constitución al negar la consulta sobre reforma energética, MORENA (Nov. 1, 2014),

¹⁵¹ Mexico- N. Oil and Gas, Export (Oct. 12, 2018), https://www.export.gov/article?id=Mexico-Upstream-Oil-and-Gas.

¹⁵² *Id*.

¹⁵³ See Johnson, supra note 150.

b) Primary State Actor: PEMEX

As the monopolistic Mexican oil and gas industry actor since its inception in 1938 until the 2013 Energy Reform, PEMEX broadly operated under two umbrellas: domestic and international. This reflects the fact that PEMEX was, and continues to be, involved in every phase of the oil and gas industry, and thus is a primary Mexican actor in the domestic and international oil and gas market. PEMEX continues to sell, buy and transport oil products in the international market via trading companies. In this way, the operations of PEMEX International were untouched by the Energy Reform.

Prior to the Energy Reform, the ineffectiveness of PEMEX was caused by many things including heavy taxation, a strong labor union, and overstaffing and corruption. Prior to the reform, PEMEX was heavily taxed providing up to one-third of government revenue; "by the 1980s the company was taxed at 69% of its total income." Because of this heavy tax burden, PEMEX's resources for increasing exploration and downstream investment were limited. PEMEX was also controlled by the oil workers' labor union. Most oil workers were represented by the *Sindicato de Trabajadores Petroleros de la República Mexicana*, which held significant power in PEMEX by commanding high salaries, medical care, and other benefits that earned them the reputation of an "aristocracy of labor" by the rest of Mexican society. Lastly, PEMEX was inefficiently overstaffed and managed. "Between 1989 and 1995 Pemex cut its staff nearly in half, though it still had more

¹⁵⁴ Pemex-Statistics & Facts, STATISTA, https://www.statista.com/topics/2888/pemex/ (last visited Nov. 4, 2018). See also Mexico- N. Oil and Gas, supra note 152.

¹⁵⁵ Phases "along the entire value chain" of the oil and gas industry in which PEMEX is a relevant actor include the following: exploration and production, drilling and services, industrial transformation, logistics, ethylene, fertilizers, and international trade. *PEMEX's Business Plan 2017-2021*, at 4, PEMEX, http://www.pemex.com/acerca/plan-de-negocios/Documents/businessplan-pemex2017.pdf (last visited Nov. 4, 2018). Broken down slightly differently, "[c]urrently, PEMEX operates through the following nine business segments: exploration and production; industrial transformation (comprised of refining and gas and aromatics); drilling and services; logistics; ethylene; fertilizers; trading companies; and corporate and other subsidiary companies." *Petróleos Mexicanos: Key Facts and Statistics - H1 June 2018*, at 2, PEMEX (Aug. 30, 2018), http://www.pemex.com/en/investors/debt/Calificacin%20 crediticia/PBC_1137888.pdf.

¹⁵⁶ Pemex-Statistics & Facts, supra note 155. See also Mexico- N. Oil and Gas, supra note 152; Petróleos Mexicanos: Key Facts and Statistics - H1 June 2018, supra note 156.

¹⁵⁷ Petróleos Mexicanos: Key Facts and Statistics - H1 June 2018, supra note 156.

¹⁵⁸ Mexico- N. Oil and Gas, supra note 152.

¹⁵⁹ Vietor & Sheldahl-Thomason, *supra* note 142, at 2.

¹⁶⁰ *Id*.

employees than firms such as Exxon, which generated 5 times Pemex's revenue." ¹⁶¹ On his first day as CEO at PEMEX, José Antonio González Anaya met inefficiency and corruption head-on when he saved the company 3 billion pesos with one decision by cancelling a contract upon realizing that the 50,000 computers PEMEX was buying had a 100% markup. ¹⁶²

While PEMEX remains a prominent actor, the legislative changes of the Energy Reform directly and significantly affected PEMEX. Not only did PEMEX undergo corporate restructuring, but in October 2014 PEMEX transformed "from a decentralized public entity to a productive state-owned company." In this new role PEMEX would seemingly become more of a competitor on a level playing field competing with other companies for rights such as those for exploration and production; but in what is commonly referred to as "Round Zero" of the Mexican Ministry of Energy assigning exploration and production rights, "PEMEX was awarded rights to 95.9% of the proved reserves that it had requested." Percentages of PEMEX's market dominance likely vary across the varied phases of the oil and gas industry phases, but this example of Round Zero assignments illustrates PEMEX's continued role as a predominant actor in the industry. Importantly, in any block that contains transboundary resources, PEMEX is required to have 20% involvement. 165

c) State Agencies

Several governmental bodies regulate the Mexican oil and gas industry. The discussion below focuses on the responsibilities of those agencies that are exclusive to the oil and gas industry.

The Mexican Ministry of Energy ("SENER") is responsible generally for Mexico's national energy policy. ¹⁶⁶ Following the Energy Reform, SENER's planning faculties and stewardship strengthened. ¹⁶⁷ SENER can be thought of as the first necessary authority for

¹⁶¹ *Id*.

¹⁶² *Id*.

¹⁶³ Petróleos Mexicanos: Key Facts and Statistics - H1 June 2018, supra note 156.

¹⁶⁴ *Id*.

¹⁶⁵ Carrera Panizzo, *supra* note 134, at slide 18.

¹⁶⁶ Secretaria de Energía, ¿ Qué hacemos? [What do we do?], GOB.MX, https://www.gob.mx/sener/que-hacemos (last visited Nov. 4, 2018).

¹⁶⁷ *Id*.

oil and gas production: SENER determines geographical areas available to be awarded for exploration and extraction, determines the type of contract to be awarded per geographical area, and issues pertinent permits.¹⁶⁸ Contract types SENER may award include those for services, profit sharing, production sharing, licenses, or any combination thereof.¹⁶⁹

Even more exclusive to the oil and gas industry is the National Hydrocarbon Commission ("CNH").¹⁷⁰ The mission of CNH is to "efficiently and reliably regulate exploration and extraction of hydrocarbons in Mexico to promote investment and economic growth."¹⁷¹ Although the CNH pre-dates the Energy Reform, the newly monopoly-free business opportunities in Mexico's oil and gas sector post reform made CNH's role even more crucial; CNH was strengthened post-Energy Reform "with its own legal personality, technical and managerial autonomy, and budgetary self-sufficiency."¹⁷² CNH has six primary responsibilities:

- [t]o organize the bidding procedures for the awarding of exploration and extraction contracts;
- [to] sign and manage exploration and extraction contracts with companies successful in the bidding procedures;
- [to] review technical information related to hydrocarbons onshore and offshore fields;
- [to] approve authorizations filed by the state-owned oil company PEMEX to farm out allocations awarded to PEMEX in Round Zero of the auctions;
- [to] provide technical support to . . . [SENER] in matters related to hydrocarbons; and
- [to] approve exploration and extraction plans. 173

¹⁶⁸ Serra & Escobedo, *supra* note 138.

¹⁶⁹ See generally id.; Analysis of Mexico's New Hydrocarbons Legal Regime, MAYER BROWN (Aug. 14, 2014), https://www.mayerbrown.com/files/Publication/69fe7acd-ca5b-4d1c-a172-

³¹⁶⁷⁸b13ec06/Presentation/Publication Attachment/75b0fe83-d4a2-4523-b8e2-3f7ae78102a7/UPDATE-Analysis-of-Mexicos-New-Hydrocarbons-Legal-Regime.pdf.

¹⁷⁰ Comisión Nacional de Hidrocarburos, ¿ Qué hacemos? [What do we do?], GOB.MX, https://www.gob.mx/cnh/que-hacemos (last visited Nov. 4, 2018).

¹⁷¹ *Id*.

¹⁷² *Id*.

¹⁷³ Serra & Escobedo, *supra* note 138.

The Energy Regulatory Commission ("CRE") has administrative authority over the energy sector. The CRE is responsible for regulating and issuing "permits related to transport, storage, distribution, compression, liquefaction, decompression, regasification, commercialization and public selling." Specifically on gas, CRE is responsible for determining "the geographical zones for the distribution of natural gas through pipelines."

Sectored to SENER and operating alongside CRE in monitoring gas pipelines is the National Center for Control of Natural Gas ("CENAGAS"), which is a decentralized body with a mission "to guarantee the management, transportation and storage necessary for the safe, reliable and efficient supply of natural gas in the country." CENAGAS took ownership and management authority over gas pipelines from PEMEX after the Energy Reform. 178

Another ministry of importance, but not exclusive to the oil and gas industry, is the Ministry of Finance and Public Credit ("SHCP"). ¹⁷⁹ In 2014, the SHCP established the Mexican Petroleum Fund, "which is responsible for managing the revenues obtained from contracts and assignments for oil exploration and extraction activities." ¹⁸⁰

Health, safety, and environmental standards are regulated primarily by the Environmental and Natural Resources Ministry, which acts through the National Agency of Industrial Safety and Environmental Protection of the Hydrocarbons Sector. These agencies are discussed in more detail in Section IV(A)(3) below.

2. Licensing

The Energy Reform also significantly changed the licensing structure for the Mexican hydrocarbons industry. To effectuate the reform, the Mexican government

¹⁷⁶ Id.

¹⁷⁴ *Id.*175 *Id.*

¹⁷⁷ Centro Nacional de Control del Gas Natural, ¿Qué hacemos? [What do we do?], GOB.MX, https://www.gob.mx/cenagas/que-hacemos (last visited Nov. 4, 2018).

¹⁷⁸ Serra & Escobedo, *supra* note 138.

¹⁷⁹ Gaspar Franco & Yolanda Villegas, *Mexico's Exploration & Production Regulations*, OIL & GAS MEX. (Dec. 11, 2017), http://www.oilandgasmexico.com/2017/12/11/mexicos-exploration-production-regulations/.

¹⁸⁰ Secretaria de Energía, *supra* note 167.

enacted new regulations and rules for the main aspects of the hydrocarbon industry including planning, exploration and production, transport and storage, use of associated natural gas, infrastructure, and measurement. Though the reform provides for different tools and processes for effectuating exploration and production, including licenses, joint operating agreement, and direct assignments to PEMEX, the Nieto administration appeared to prefer licenses for offshore blocks due to the flexibility and protection they provide Mexico based on the risk associated with offshore drilling.

The licensing structure created following the Energy Reform differed significantly from the prior regime, as licenses were not required due to the PEMEX monopoly. CNH issued rules and procedures for the new bidding process, by which international oil companies could bid on and procure the rights to develop hydrocarbon resources in Mexico. Though many methods were available, the Nieto Administration decided that a licensing structure would best meet their goals.

The licensing structure enacted following the Energy Reform, allows private companies to secure a permit exploration and production of hydrocarbons in Mexico. As discussed above, the Nieto administration made Constitutional amendments and enacted 22 pieces of secondary legislations or transitory articles, thereby predominantly placing the Energy Reform in legislative "fine print" as opposed to fighting the battle to effectuate reform via constitutional amendments. The licenses CNH awarded are for an initial term of 35 years with the potential for a five year extension, and a 10 year extension. During a bidding round, an interested company (or consortium) will submit a bid for the specific block for which they wish to obtain a license. This bid will include changed variables that will be entered into a formula to determine the highest bidder. These variables or factors include additional royalties owed to the government, an additional investment factor to be added to the minimum work requirements (units), and a bonus to break ties. Ultimately and rather simply, the highest bid wins the block. 184

¹⁸¹ Nora Katia Cañipa Morales, Deputy Dir. Exploration, CNH, Monitoring Compliance with Contracts in the Border, Presentation at the Symposium on Improving Cooperation for a Sustainable Gulf of Mexico After the 2014 Mexican Energy Reform (Feb. 26, 2016), in Transcript from the Symposium on Improving Cooperation for a Sustainable Gulf of Mexico After the 2014 Mexican Energy Reform, 9 SEA GRANT L. & POL'Y J. 71, 85 (2018).

¹⁸² Guillermo J. García Sánchez, The Fine Print of the Mexican Energy Reform 5–6 (May 2018) (Mex. Inst. Working Paper, Woodrow Wilson Int'l Ctr. for Scholars) (available at: https://ssrn.com/abstract=3189024). See also Vietor & Sheldahl-Thomason, supra note 148, at 4.

¹⁸³ Serra & Escobedo, *supra* note 138.

¹⁸⁴ *Id*.

The actual bidding process is very transparent, leading to greater trust and confidence in the process. First, the entire process, from the company's presentation of the sealed bid envelopes to the words written on the bids, is filmed. Every company participating in the round approaches the front table with the boxes containing their sealed bids for the blocks in full view of all in attendance. The CNH official goes block by block, opening each envelope on camera. If there is a bid, it is placed on an easel and shown on camera so that every single person in attendance and every person viewing the video can read the bid for themselves. Variables are then entered into a spreadsheet, again on camera, and calculations are made. The winning bid is then clearly shown during the bidding round. This process is incredibly transparent, and makes it clear to the world that Mexico intends the process to be as fair and uncorrupt as possible.

As many as 70 companies—including national oil companies and major international independents like Shell, Chevron, Total, and BP—have participated in bidding rounds, resulting in at least \$180 billion of investments in the Mexican hydrocarbon industry. Shell procured one of the most notable fields, "the Whale." Based on seismic information obtained six months prior to the bidding round via involvement in a U.S. field located at the maritime boundary with Mexico, Shell determined that "the Whale" would be profitable if produced on both the U.S. and Mexico sides of the border. Shell estimates that the formation could be capable of producing 900,000 barrels of oil equivalent ("BOE") per day by 2020, or 700 million barrels in its productive lifespan. However Shell did not disclose this information until after the bidding round commenced. Andy Brown, Upstream Director at Shell, noted that "Post the Whale discovery we had some geological insights. It is not by accident we didn't announce it until the day of the

To watch bidding round one for deep-water blocks, see *Ronda 1. Aguas Profundas*, GOB.MX (Feb. 28, 2017), https://rondasmexico.gob.mx/l04-ap-multimedia-2/.

¹⁸⁶ Mexico Awards 19 Offshore Blocks. Hopes for \$93B Investment, Offshore Energy Today (Feb. 1, 2018) https://www.offshoreenergytoday.com/mexico-awards-19-offshore-blocks-hopes-for-93b-investment/. See also Johnson, supra note 150.

¹⁸⁷ Shell Announces Large Deep-Water Discovery in Gulf of Mexico, SHELL (Jan. 31, 2018), https://www.shell.com/ media/news-and-media-releases/2018/shell-announces-large-deep-water-discovery-in-gulf-of-mexico.html. See also Ron Bousso & Marianna Parraga, How Shell Hid a Whale Before Placing Mexican Oil Bet, Reuters (Mar. 2, 2018), https://www.reuters.com/article/us-ceraweek-shell-reserves/how-shell-hid-a-whale-before-placing-mexican-oil-bet-idUSKCN1GE1G2.

¹⁸⁸ Shell Announces Large Deep-Water Discovery in Gulf of Mexico, supra note 194; Tsvetana Paraskova, Shell Outsmarts Competition in the Gulf of Mexico, OIL PRICE (Mar. 5, 2018), https://oilprice.com/Energy/Crude-Oil/Shell-Outsmarts-Competition-In-The-Gulf-Of-Mexico.html.

bid. The nine blocks give us significant potential."¹⁸⁹ Shell made the winning bid on 9 of the 19 blocks, all close to the U.S. maritime border.¹⁹⁰ Shell's cash payment for the blocks totaled \$343 million, which is roughly 65% of total payouts from that round of \$625 million.¹⁹¹ Because of the proximity to the border, this find might initiate the transboundary framework agreement discussed in Section IV(C).

3. Health, Safety, and Environmental Regulations

The primary agency responsible for overseeing health, safety, and environmental regulations in Mexico is the Environmental and Natural Resources Ministry ("SEMARNAT"). SEMARNAT is broadly "responsible for the protection, restoration and conservation of [Mexico's] ecosystems and natural resources, as well as pollution control, climate change prevention, and water resource management." With the goal of environmental conservation harmonized with natural resource development, SEMARNAT supervises all hydrocarbon activities, including pipeline construction, emissions monitoring, and hazardous waste disposal. 193

SEMARNAT fulfills its responsibilities through the newly created National Agency of Industrial Safety and Environmental Protection of the Hydrocarbons Sector ("ASEA"). 194 Creation of ASEA resulted from the 2013 Energy Reform and ASEA's overarching goal is to ensure that the "industry operate[s] with safe and environmentally responsible standards." 195 It is responsible for monitoring ongoing hydrocarbon activities as well as any accidents or emergencies, and is tasked with "issuing technical regulations, restrictive rules, and performance-based regulations." ASEA has one of the broadest mandates compared with its counterparts in other countries, and its jurisdiction is vast. It supervises and implements the safety and environmental standards of "all hydrocarbon-related activities in Mexico: from the deep-water fields in the Gulf all the way to the gas

¹⁸⁹ Bousso & Parraga, *supra* note 188.

¹⁹⁰ Paraskova, *supra* note 189.

¹⁹¹ Bousso & Parraga, *supra* note 188.

¹⁹² Secretaria de Medio Ambiente y Recursos Naturales, Bus. NEWS AMERICAS, https://www.bnamericas.com/ company-profile/en/secretaria-de-medio-ambiente-y-recursos-naturales-semarnat (last visited Nov. 4, 2018).

¹⁹³ Secretaria de Medio Ambiente y Recursos Naturales, ¿Qué hacemos? [What do we do?], GOB.MX, https://www.gob.mx/semarnat/que-hacemos (last visited Nov. 4, 2018).

¹⁹⁴ Serra & Escobedo, *supra* note 138.

¹⁹⁵ García Sánchez, *supra* note 1, at 3.

¹⁹⁶ *Id*.

pumped in retail stations."¹⁹⁷ The development, implementation, and enforcement of those standards requires adequate resources and staffing at every level of production, which could prove challenging due to its limited resources.¹⁹⁸

ASEA inherited responsibilities previously allocated to PEMEX and is reforming its health, safety, and environmental standards by creating "a regulation and supervision model . . . designed so that all operators can achieve effective risk management for their activities." MSEA's model depends on six elements:

- 1. Safety and Environmental Management Systems ("SEMS") All operators in Mexico must function under SEMS. ASEA (of Mexico) collaborated with the BSEE (of the United States) in developing its SEMS to ensure the programmes of both countries are compatible and aimed "holistically at the company and their safety performance."²⁰⁰
- 2. Sufficient Financial Responsibility ASEA ensures adequate liability insurance coverage in the event of an accident. Operating under the mandate of insurance is mandatory.²⁰¹
- 3. Regulations ASEA implements technical regulations, prescriptive regulations, and performance-based regulations, and is focusing most on performance-based regulations.²⁰²
- 4. Corrective Enforcement ASEA favors correction of non-compliance prior to enforcing fines. 203

¹⁹⁷ *Id*.

¹⁹⁸ ASEA currently has only 280 employees. *Id. See* Alejandro Carabias Icaza, Deputy Dir. for Normativity & Regulation, ASEA, Perspectives from the Mexican National Agency for Industrial Safety and Environmental Protection of the Hydrocarbons Sector ("ASEA"), Presentation at the Symposium on Improving Cooperation for a Sustainable Gulf of Mexico After the 2014 Mexican Energy Reform (Feb. 26, 2016), *in Transcript from the Symposium on Improving Cooperation for a Sustainable Gulf of Mexico After the 2014 Mexican Energy Reform*, 9 SEA GRANT L. & POL'Y J. 71, 80 (2018); Allyson Anderson Book, Assoc. Dir. for Strategic Engagements, BSEE, Implementation of Environmental and Safety Protection Measures: Collaborative Efforts with ASEA, Presentation at the Symposium on Improving Cooperation for a Sustainable Gulf of Mexico After the 2014 Mexican Energy Reform (Feb. 26, 2016), *in Transcript from the Symposium on Improving Cooperation for a Sustainable Gulf of Mexico After the 2014 Mexican Energy Reform*, 9 SEA GRANT L. & POL'Y J. 71, 82 (2018).

¹⁹⁹ Carabias Icaza, *supra* note 199.

²⁰⁰ *Id.*; Book, *supra* note 199, at 83.

²⁰¹ Carabias Icaza, *supra* note 199.

²⁰² Id.

²⁰³ *Id*.

- 5. Risk-Based Inspections ASEA leads inspections based on SEMS reports and SEMS audits.²⁰⁴
- 6. Insurance Company and Third-Party Inspections ASEA authorizes and approves independent third parties to assist in safety and inspections.²⁰⁵

Regarding oil spill prevention and response, ASEA complies with Mexico's National Offshore Energy Response Protocol (known as "Plan Nacional de Emergencias," which the Mexican Navy oversees), which acts as a regional contingency plan, by monitoring and supervising protocol execution and by defining technical elements for emergency preparedness and response projects. 206 The 1979 Ixtoc oil spill in Mexico created a transboundary issue when it spread to Texas beaches, and as a result, the two countries created the Joint Contingency Plan between the Secretariat of the Navy of the United Mexican States and the United States Coast Guard Regarding Pollution of the Marine Environment by Discharges of Hydrocarbons or Other Hazardous Substances ("MEXUS Plan").²⁰⁷ The MEXUS Plan is implemented when a spill in one country "impacts or threatens the other country," and its purpose is to "promote a coordinated system for regional preparedness, planning, and response to incidents in adjacent waters by providing guidance that supplements the existing national response system of each country and facilitates joint response at the regional level."208 Although the MEXUS Plan is legally non-binding, it is "[s]till the overarching guiding document for marine environmental pollution cooperation," and requires obligations under national and international laws.²⁰⁹ The plan is reviewed every five years and was significantly modified in the most recent review.210 Under the previous framework, the two nations could

²⁰⁴ *Id*.

²⁰⁵ *Id*.

²⁰⁶ *Id.* at 81.

²⁰⁷ Joint Contingency Plan Between the Secretariat of the Navy of the United Mexican States and the United States Coast Guard Regarding Pollution of the Marine Environment by Discharges of Hydrocarbons or Other Hazardous Substances, U.S.-Mex., July 11, 2017,

https://response.epa.gov/sites/5083/files/MEXUS%20Plan%202017%20--%20Signed.pdf [hereinafter MEXUS Plan].

²⁰⁸ LCDR JEFF PLATT, MEXICO-UNITED STATES JOINT CONTINGENCY PLAN MEXUS PLAN (2018), available at https://www.oilspillresponse.com/globalassets/external-links/mexico-forum-2018/ppt-4b---review-and-discuss-mexus-plan.pdf.

²⁰⁹ *Id*.

²¹⁰ Richard McLaughlin, Endowed Chair for Coastal & Marine Policy & Law, Harte Research Inst., International Legal Considerations of Collaborative Energy Development in the Gulf of Mexico, Presentation at the Symposium on Improving Cooperation for a Sustainable Gulf of Mexico After the 2014 Mexican Energy Reform (Feb. 26, 2016), in Transcript from the Symposium on Improving Cooperation for

"physically move into each other's water in responding to spills," but the changes now mandate that each country is responsible for oil spill clean-ups on its side of the boundary, although it still mandates that they "coordinate, cooperate, and communicate." This shift illustrates a "gap in collaborative management" and could potentially set back progress made by the two countries. The MEXUS Plan is problematic in other ways—it is retroactive in that "it only contemplates coordination once a disaster has occurred" and it fails to include important actors like ASEA and CNH, which have no authority. 213

4. Unitization on Blocks in Mexican Waters

Until recently the framework in Mexico did not truly have a necessity for unitization agreements or JOAs because of the PEMEX monopoly, thus it simply applied the rule of capture to reservoirs that crossed unit boundaries. This incentivized the extraction of resources as quickly as possible and led to inefficiencies. There was no rule making unitization in Mexico possible, and unitization was likely unconstitutional. Per the Energy Reform, operators are now obligated to inform SENER "when they have evidence of a shared reservoir within Mexican territory." The adjacent operators must present a preliminary unitization agreement that outlines the joint exploration and production they would undertake. The operators may work under the preliminary agreement for up to two-years. 216

CNH would assist SENER, who has the responsibility to approve or reject the agreement, with reviewing this preliminary agreement.²¹⁷ SENER is also empowered to act as an arbiter for disputes. If the operators are unable to come to an agreement on the final unitization agreement, SENER would establish the terms based on "principles of

a Sustainable Gulf of Mexico After the 2014 Mexican Energy Reform, 9 SEA GRANT L. & POL'Y J. 71, 100 (2018); MEXUS Plan, supra note 214.

²¹¹ McLaughlin, supra note 211; MEXUS Plan, supra note 214.

²¹² McLaughlin, supra note 211, at 101.

²¹³ García Sánchez, *supra* note 1, at 5.

²¹⁴ Jim Chisholm, *Huge Discovery Highlights Mexican Unitization Policy Requirements*, Bus. News AMERICAS (May 29, 2018), https://www.bnamericas.com/en/news/oilandgas/huge-discovery-highlights-mexican-unitization-policy-requirements1.

²¹⁵ Peter de Montmollin, *Mexico Unitization Rules Issued as Pemex Begins Sharing Stage with Other E&Ps*, NAT. GAS INTELLIGENCE (April 2, 2018), https://www.naturalgasintel.com/articles/113895-mexico-unitization-rules-issued-as-pemex-begins-sharing-stage-with-other-eps.

²¹⁶ *Id*.

²¹⁷ Chisholm, *supra* note 215.

economics, competition, efficiency, legality, transparency, industry best practices and best use of the hydrocarbon," per the language of the rules.²¹⁸

The final unitization agreement should include dispute resolution, create the scheme for joint operation and management of the reservoir, and specify the procedures and triggers for redetermination of field apportionment.²¹⁹ Once agreed upon by the operators and approved by SENER, the unitization agreement becomes a binding contract for the parties involved in the unit.²²⁰ This reform to the rules creates a regulatory system that emphasizes safe, efficient extraction of the hydrocarbons instead of quick, wasteful extraction based on the rule of capture. If implemented correctly, Mexico should be able to maximize revenue from the resources and create safer drilling conditions.

5. Conflict Resolution

In general, alternative dispute resolution mechanisms such as conciliation, mediation, and arbitration are widely practiced in the Mexican legal system.²²¹ The Commercial Code allows for the recognition and enforceability of conciliation agreements.²²² Over the past decade, Mexican courts have encouraged mediation.²²³

As a result of PEMEX's decades long monopoly,²²⁴ there is little history of contract disputes in the Mexican oil and gas sector. Following expropriation of foreign investments in the oil and gas sector in 1938, Mexico continued to engage in some service contracts

²¹⁸ *Id*.

²¹⁹ *Id*.

²²⁰ *Id*.

²²¹ Antonio M. Prida, President, ICC Mex. Mediation Comm., Settling in Mexico: The New Mexican Mediation Law, Presentation at the U.S.-Mexico Bar Association Conference (Sept. 28, 2017), http://usmexicobar.org/images/downloads/2017_Conference/prida_settling_in_mexico.pdf.

²²² *Id*.

²²³ Litigation & Dispute Resolution 2018: Mexico, GLOBAL LEGAL INSIGHTS, https://www.globallegalinsights.com/practice-areas/litigation-and-dispute-resolution-laws-and-regulations/mexico#chaptercontent10 (last visited Sept. 27, 2018).

²²⁴ CLARE RIBANDO SEEKLE ET AL., CONG. RESEARCH SERV., R43313, MEXICO'S OIL AND GAS SECTOR: BACKGROUND, REFORM EFFORTS, AND IMPLICATIONS FOR THE UNITED STATES 2 (2013).

with U.S. companies.²²⁵ In 1958, this practice was outlawed,²²⁶ making "Mexico's energy industry among the most tightly controlled in the world."227

The Hydrocarbons Act, which implements the Energy Reform, provides the framework for conflict resolution. Article 21 of the Hydrocarbons Act authorizes the use of ADR methods in exploration and extraction contracts.²²⁸ In addition, Article 21 also establishes two noteworthy, mandatory provisions.²²⁹ First, in regards to arbitration, Mexican federal law must be the choice of law, meaning Mexican law will govern the substance of the dispute.²³⁰ Second, arbitration must be conducted in Spanish.²³¹ Finally, the model contracts promulgated by CNH provide a procedure for optional conciliation.²³²

One notable exception to the availability of ADR mechanisms relates to "administrative rescission." This occurs when the government chooses to end the contracts in place. The Hydrocarbons Act explicitly allows the Mexican government to take this action.²³⁴ Several important considerations relate to this provision.

First, Mexico previously exercised its administrative rescission authority in connection with monopolization.²³⁵ As Mexico reopens its oil and gas sector, interested foreign entities will likely be concerned with history repeating itself.²³⁶ In a move that may

²²⁵ *Id*.

²²⁶ Id.

²²⁷ Becky L. Jacobs & Brad Finney, Mexico's Energy Regime Reforms: Rescission Risk, Mitigation, and Dispute Resolution, 6 La. St. U. J. Energy L. & Resources 149, 149 (2017).

²²⁸ Id. at 158.

²²⁹ Ley de Hidrocarburos [LH] art. 21, Diario Oficial de la Federación [DOF] 11-08-2014 (Mex.).

²³⁰ *Id*.

²³¹ *Id*.

²³² Contrato para la Exploración y Extracción de Hidrocarburos Bajo la Modalidad de Licencia (Aguas Profundas) [License Contract for the Extraction of Hydrocarbons (Deep Water)] art. 26.2, Comisión Nacional de Hidrocarburos (Dec. 17, 2015), http://rondasmexico.gob.mx/wpcontent/uploads/2015/11/Licencia-AP-Consorciopublicado.pdf, translated at http://ronda1.gob.mx/wpcontent/uploads/2016/01/R01L04-LicenceDeep-Water-ConsortiumClean-V2.pdf.

²³³ Fernando Cano-Lasa, Mexico Energy Reform: Dispute Resolution for Operators Facing Administrative Rescission of Their Exploration and Production Agreements, 39 HOUS. J. INT'L L. 5, 21 (2017).

²³⁴ Ley de Hidrocarburos [LH] art. 20.

²³⁵ Jacobs & Finney, *supra* note 228, at 152 (describing the circumstances surrounding the 1938) expropriation and creation of PEMEX).

²³⁶ *Id.* at 164.

serve to allay some of those fears, Article 20 limits unilateral rescission to specifically enumerated circumstances.²³⁷ In addition, the model contracts promulgated by CNH include "a procedural framework that may provide reassurance to investors that the Commission will not invoke the rescission clause imprudently."²³⁸

Second, the Hydrocarbons Act exempts disputes related to administrative rescission from the ADR process. "Article 23.3 mandates that all disputes regarding administrative rescission shall be resolved exclusively by the federal courts of Mexico." This exemption creates significant concerns for contractors and investors, a primarily the reality that parallel proceedings may result from Mexico invoking its rescission authority. For instance, a foreign investor may challenge rescission in the Mexican courts while simultaneously pursuing separate claims through arbitration.

B. U.S. Offshore Oil and Gas Sector

- 1. Actors and Agencies and their Interactions
 - a) Authority

Pursuant to International Law, specifically customary principles furthered by UNCLOS, the United States has the authority to govern, and retains sovereign rights to, the seabed and the soil extending roughly 200 miles from the furthest point from the continent.²⁴² Although the United States has not ratified UNCLOS, due to its global sweeping effects, many of the provisions have become de facto law in the sense that the customary principals now serve as a guiding force for the United States.²⁴³ The federal law that regulates the exploitation of oil and gas resources of the coast is the Outer Continental Shelf Lands Act ("OCSLA").²⁴⁴ The importance of the act is twofold. Firstly, it gives the primary regulation of these activities to the federal government and the duly appointed agencies.²⁴⁵ Secondly, it provides mechanisms, particularly in regard to the leasing

²³⁷ *Id.* at 159. *See also* Ley de Hidrocarburos [LH] art. 20.

²³⁸ Jacobs & Finney, *supra* note 228, at 162.

²³⁹ Id.

²⁴⁰ Cano-Lasa, *supra* note 234, at 23.

²⁴¹ Jacobs & Finney, *supra* note 228, at 164.

²⁴² UNCLOS, *supra* note 6.

²⁴³ Adam Vann, Cong. Research Serv., RL33404, Offshore Oil and Gas Development: Legal Framework 2 (2018).

²⁴⁴ 43 U.S.C. § 1331 et seq. (2000).

²⁴⁵ VANN, supra note 244, at 3.

program discussed in Section IV(B)(4) below, to ensure the minerals are being exploited in an efficacious manner.²⁴⁶

One area of particular note that is not regulated by the federal government, is the first nine nautical miles off the coast of Texas.²⁴⁷ This area is regulated by the State of Texas in accordance with the Submerged Federal Lands Act of 1953, and was upheld to be constitutional by the Supreme Court.²⁴⁸ This act, thus, affords Texas the ability to regulate and develop the natural minerals within those waters.²⁴⁹ This presents an immense obstacle in regards to transboundary disputes with the Mexican State. Since Texas is the entity with the rights to these waters, they should, in theory, be the ones conducting agreements with Mexico. A problem arises, however, because this act would be seen as a treaty and would infringe on the President's power to conduct treaties with foreign nations pursuant to the Constitution.²⁵⁰ If a transboundary reserve is found within this specific tract, it is uncertain how an agreement will be reached.²⁵¹

b) Agencies

Currently three agencies, pursuant to OCSLA and the ensuing amendments to the act, exist to regulate the activities in the Gulf of Mexico—the Bureau of Ocean Management ("BOEM"), the Bureau of Safety and Environmental Enforcement ("BSEE"), and the Office of Natural Resources Revenue ("ONRR").²⁵²

BOEM is the primary agency responsible for regulating U.S. offshore oil and gas activities. The purpose of BOEM is to ensure that natural resources are exploited in an environmentally safe and economically efficient manner.²⁵³ The agency is responsible for overseeing the leasing plots in the Gulf, as well as the implementation of those plans.²⁵⁴

²⁴⁶ *Id*.

²⁴⁷ 43 U.S.C. § 1301 et seq. (1986).

²⁴⁸ § 1331 et seq.; United States v. Texas, 339 U.S. 707 (1950).

²⁴⁹ VANN, supra note 244.

²⁵⁰ Guillermo J. García Sánchez & Richard J. McLaughlin, *The 2012 Agreement on The Exploitation of Transboundary Hydrocarbon Resources in The Gulf of Mexico: Confirmation of The Rule or Emergence of A New Practice?*, 37 HOUS. J. OF INT'L. L. 681, 767–68 (2015).

²⁵¹ *Id*.

²⁵² VANN, supra note 244, at 4.

²⁵³ The Reorganization of the Former MMS, BUREAU OF OCEAN ENERGY MGMT., https://www.boem.gov/Reorganization/ (last visited Nov. 12, 2018).

²⁵⁴ *Id*.

BOEM is also responsible for the evaluation of resources and compliance with the National Environmental Policy Act ("NEPA").²⁵⁵ While BOEM supervises some environmental issues, most of those issues are the responsibility of BSEE.²⁵⁶ The Primary role of BSEE is to initiate safety measures and enforce their utilization on the offshore platforms.²⁵⁷ Finally, ONRR manages the budget and payment for use of land exploited by private entities.²⁵⁸ The payments made to ONRR, once collected, are then distributed to the U.S. Treasury.²⁵⁹

c) Current Issues

Currently, two main issues could have profound effects on U.S. ability to exploit transboundary reserves in cooperation with Mexico, and in accordance with the 2012 Agreement and International Law. The first deals with the power OCSLA gives to the executive branch. Article 12(a) of the act allows the executive to issue moratoria for offshore drilling in specific areas.²⁶⁰ Numerous presidents have utilized the moratoria section. Most recently, President Donald Trump rescinded moratoria on areas President Barack Obama previously established.²⁶¹ The concern is that rescinded moratoria could produce numerous safety, economic, and environmental concerns in the Gulf of Mexico as offshore platforms must conform to new regulations in a specified time period.²⁶² More generally, however, it proves to be an issue that one person has the authority and autonomy to radically alter the offshore regulation regime in the Gulf of Mexico in one fell swoop.

The second concern relates to the dispute resolution provisions of the 2012 Agreement and whether the U.S. would recognize its authority, as discussed further in Section IV(C)(4).

²⁵⁵ *Id*.

²⁵⁶ *Id*.

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²⁵⁷ Id.

²⁵⁸ About ONRR, OFFICE OF NAT. RES. REVENUE, https://www.onrr.gov/About/index.htm (last updated May 2, 2018).

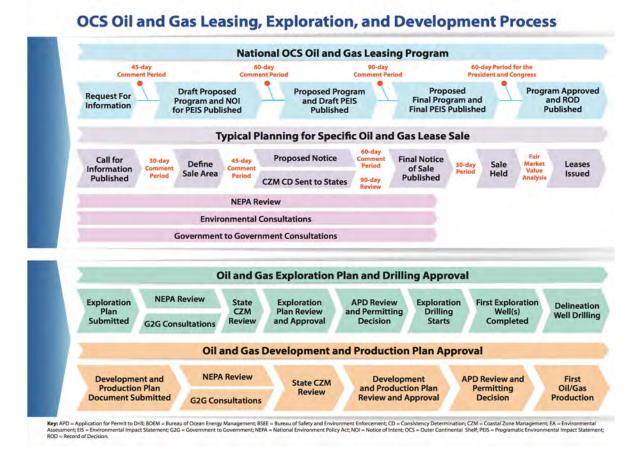
²⁵⁹ *Id*.

²⁶⁰ VANN, supra note 244, at 4.

²⁶¹ Id at 5

²⁶² Offshore Oil and Gas Drilling Leasing, Rules and Guidance, ENVTL. LAW AT HARVARD, http://environment. law.harvard.edu/2017/09/offshore-oil-gas-drilling-rules-guidance-2/ (last visited Nov. 5, 2018).

2. Licensing



OCSLA grants the Secretary of the Interior authority to issue leases for hydrocarbon exploration and production.²⁶³ There are four basic lease stages, each requiring different forms and disclosures: (1) preparation of the leasing program; (2) lease sales; (3) exploration; and (4) development and production. A licensee must apply and be granted a lease at each stage. At least thirty days before a lease sale, the Secretary shall submit to Congress and publish a notice in the Federal Register identifying the bidding process to be utilized, and the lease tracts designated to be offered for sale.²⁶⁴ "The Secretary is authorized to grant to the highest responsible qualified bidder or bidders by competitive bidding, . . . any oil and gas lease on submerged lands of the outer Continental Shelf which are not covered by leases meeting the requirements of subsection (a) of section

²⁶³ 43 U.S.C.S. § 1334(a) (LEXIS through Pub. L. No. 115-277).

²⁶⁴ 43 U.S.C.S. § 1337(a)(8) (LEXIS through Pub. L. No. 115-277).

1335 of this title." Leasing activities shall be conducted to assure receipt of *fair market value* for the lands leased and the rights conveyed by the Federal Government." The following diagram, provided by BOEM, succinctly lays out the process by which blocks are licensed. ²⁶⁷

BOEM sets minimum bid levels, rental, and royalty rates on an individual block to be leased, based on its assessment of market and resource conditions as the sale approaches.²⁶⁸ BOEM uses a two-phase, post-sale bid evaluation process to meet the fair market value requirement under OCSLA. "Under its bid adequacy procedures, BOEM reviews the highest bid for each block using either tract-specific bidding factors or detailed tract-specific analytical factors to ensure that fair market value is received for each lease issued."²⁶⁹

The bidding process is done by sealed bid and the potential lessees can vary different factors to make their bid competitive: a fixed cash bonus; variable royalty based on the value of production saved, removed, or sold; a fixed work commitment based on dollar amount for exploration; a sliding royalty to encourage continued production; or any combination thereof.²⁷⁰ After a hydrocarbon lease is issued, the lessee shall deliver to the Secretary either a cash deposit for the full amount of the exploration work commitment, or a performance bond assuring that lessee shall faithfully discharge their work duties and commitments.²⁷¹ The Secretary must ensure that activities are carried out in a manner that provides for: safety, environmental protection, prevention of waste, conservation of natural resources, and coordination with federal agencies; protection of national security interests; protection of rights on the outer continental shelf; a fair return to the United States for any lease; prevention of interference of use in the EEZ; consideration of the location and other uses, such as fishery or a deep-water port; public notice and comment; and governmental oversight of the lease area and facilities.²⁷²

²⁶⁵ § 1337(a)(1).

²⁶⁶ § 1344(a)(4).

²⁶⁷ BUREAU OF OCEAN ENERGY MGMT., https://www.boem.gov/BOEM-OCS-Oil-Gas-Leasing-Process/.

²⁶⁸ Fair Market Value, BUREAU OF OCEAN ENERGY MGMT., https://www.boem.gov/Fair-Market-Value/ (last visited Nov. 10, 2018).

²⁶⁹ See Summary of Procedures for Determining Bid Adequacy at Offshore Oil and Gas Lease Sales, BUREAU OF OCEAN ENERGY MGMT. (Mar. 2016), https://www.boem.gov/Summary-of-Procedures-For-Determining-Bid-Adequacy/ (providing information on the bid evaluation process).

²⁷⁰ § 1337(a)(1)(A)-(I).

²⁷¹ § 1337(a)(7).

²⁷² § 1337(p)(4).

Each leased tract shall not exceed 5,760 acres, unless necessary to develop a single economic production unit, and shall be for an initial period of five years or not to exceed ten years.²⁷³ The lease entitled the lessee to explore, develop, and produce hydrocarbons pursuant to an approved development and production plan.²⁷⁴ The lease also has the requirements to pay royalties, rental, and a requirement to offer 20% of the crude oil, condensate, and natural gas liquids produced to small or independent refiners.²⁷⁵ Prior to production, every lessee must submit an exploration plan to the Secretary which includes schedules for exploration activities, a description of the equipment to be used, and a general location of each well to be drilled.²⁷⁶

3. Health, Safety, and Environmental Regulations

a) Overview of Regulations

Offshore oil and gas drilling is subject to a wide range of health, safety, and environmental regulations. Some regulations are broad and pertain to all relevant federal activity, while others specifically target offshore operators.

Pursuant to OCSLA, offshore oil and gas activities are subject to the federal leasing system described in Section IV(B)(2) above.²⁷⁷ Congress has control over outer continental shelf ("OCS") resources beyond three miles, while states retain ownership and control within the three-mile distance of their coast.²⁷⁸ OCSLA requires the Interior Secretary to prepare an oil and gas leasing program for the OCS. Offshore leasing occurs according to four statutorily prescribed steps: (1) preparation of the leasing program; (2) lease sales; (3) exploration; and (4) development and production. The actions in these steps are all subject to a separate statutory mandate—NEPA.²⁷⁹ NEPA was enacted in 1970 with the broad goal of "preserving the environment for future generations."²⁸⁰ NEPA is an information-generating law in that it "requires federal agencies to prepare environmental impact statements for all proposed 'major Federal actions significantly affecting the quality of the

²⁷³ § 1337(b)(1)-(2).

²⁷⁴ § 1337(b)(4).

²⁷⁵ §§ 1337(b)(3), (6), (7).

²⁷⁶ 43 U.S.C.S. § 1340(c)(3) (LEXIS through Pub. L. No. 115-277).

²⁷⁷ JAN G. LAITOS, ET AL., NATURAL RESOURCES LAW 822 (2nd ed. 2012); 43 U.S.C. § 1331 et seq. (1953).

²⁷⁸ LAITOS, ET AL., supra note 278, at 842.

²⁷⁹ *Id*.

²⁸⁰ 42 U.S.C. §4321 et seq. (1969).

human environment' in order to ensure that decisions are based on full consideration of their environmental consequences."²⁸¹ In addition to standards imposed by OCSLA triggering NEPA, the Coastal Zone Management Act requires that Interior Department activities "directly affecting the coastal zone" must be conducted "in a manner . . . consistent with approved state management programs," which could force the company to comply with relevant state health, safety, and environmental laws where applicable.²⁸²

Approximately twenty other environmental laws were enacted in the 1970s that either directly or peripherally impact the offshore drilling industry, notably including the following:

- The Magnuson-Stevens Fishery Conservation and Management Act "requires agencies to analyze the potentially adverse impacts of oil and gas activities on fish habitat and populations, and provide conservation measures to mitigate those impacts."²⁸³
- The Endangered Species Act "requires federal agencies to determine the potential adverse impact of oil and gas activities on endangered and threatened species, limits activities that harm individual members of such species, and bars altogether activities that place such species in jeopardy."²⁸⁴
- The Marine Mammal Protection Act "imposes limits on activities that injure or . . . harass marine mammals."²⁸⁵
- The National Marine Sanctuaries Act "requires consultations to guard against harm to marine sanctuary resources from oil and gas leasing activities." ²⁸⁶
- The Clean Water Act "imposes permitting requirements on any discharge of pollutants into navigable waters from such activities." ²⁸⁷
- The Oil Pollution Act of 1990, which a Presidential Executive Order later supplemented, imposes "oil-spill planning, preparedness, and response requirements on fixed and floating facilities engaged in oil and gas exploration,

²⁸¹ NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER & THE FUTURE OF OFFSHORE DRILLING 59 (2011) [hereinafter DEEPWATER HORIZON COMM'N REPORT].

²⁸² LAITOS, ET AL., supra note 278, at 843; 16 U.S.C. § 1456(c)(1) (1972).

²⁸³ DEEPWATER HORIZON COMM'N REPORT, *supra* note 282, at 80.

²⁸⁴ *Id*.

²⁸⁵ *Id*.

²⁸⁶ Id.

²⁸⁷ *Id*.

development, and production on the outer continental shelf."²⁸⁸ The Act also imposes financial liability on companies responsible for spills, requiring them to compensate "those who suffered as a result of the spill—through property damage, lost profits, and other economic injuries—and for restoring injured natural resources."²⁸⁹ However, liability is capped at \$75 million, "unless it can be shown that the responsible party was guilty of gross negligence or willful misconduct, violated a federal safety regulation, or failed to report the incident or cooperate with removal activities, in which case there is no limit on damages."²⁹⁰

In addition, OCSLA itself includes environmental provisions to deal with the unique environmental hazards of offshore oil and gas development, including oil spills, discharges of metal cuttings, and air emissions of conventional and toxic pollutants.²⁹¹ Further, Congress and the Interior Department have the ability to impose moratoria on leasing in environmentally sensitive areas.²⁹² If an offshore lease has been issued, the company must comply with and complete certain procedures under OCSLA. For instance, the company must obtain a Clean Water Act National Pollution Discharge Elimination System permit from the Environmental Protection Agency for any pollutant discharges into ocean waters.²⁹³ If exploration is successful, the company must also obtain the Interior Department's approval for a development and production plan, which describes the proposed drilling and related environmental safeguards.²⁹⁴ However, importantly, OCSLA "expressly singles out the Gulf of Mexico for less rigorous environmental oversight under NEPA."295 It exempted lessees from having to submit the required development and production plans, effectively removing "at least one NEPA environmental impact statement" for leases in the Gulf of Mexico. ²⁹⁶ As analyzed below, this exemption removed important environmental safeguards and had lasting detrimental effects.

²⁸⁸ *Id*.

²⁸⁹ *Id.* at 283.

²⁹⁰ The cap may be waived by the responsible operator however. BP waived the liability cap in Deepwater Horizon and "has placed \$20 billion in escrow to compensate private individuals and businesses through the independent Gulf Coast Claims Facility." *Id.*

²⁹¹ LAITOS, ET AL., supra note 278, at 843.

 $^{^{292}}$ Id

²⁹³ *Id.*; 33 U.S.C.S. §§ 1311(a), 1342(a) (LEXIS through Pub. L. No. 115-277).

²⁹⁴ LAITOS, ET AL., supra note 278, at 843.

²⁹⁵ DEEPWATER HORIZON COMM'N REPORT, *supra* note 282, at 80.

²⁹⁶ Id.

b) Deepwater Horizon Spill

On April 20, 2010, BP's Deepwater Horizon oil platform exploded, resulting in eleven deaths and causing nearly five million barrels of oil to be released over 86 days, making it the largest offshore oil spill in world history.²⁹⁷

The underlying causes leading to the disaster have been extensively researched and analyzed, and can be broadly summarized as the result of a fundamentally inadequate safety culture of the U.S. offshore oil and gas industry where it was "acceptable to increase the risk of a spill in order to reduce costs." Despite all of the above-mentioned statutory mandates in place to ensure environmental and safety protections were implemented, none of them proved effective in preventing the disaster. Most importantly, the Minerals Management Service ("MMS") (the agency previously tasked with regulation and compliance with NEPA) "engaged in no NEPA review of the well's permitting" and "neither MMS nor other federal agencies gave significant attention to the environmental mandates of other federal laws." The shocking result is that there was no "site-specific review of the drilling operations of the Macondo well," despite layers of "required environmental scrutiny—by NEPA, the Magnuson-Stevens Act, the Outer Continental Shelf Lands Act, and the Oil Pollution Act—and the potential application of some of the nation's toughest environmental restrictions—the Endangered Species Act and Clean Water Act."

The Deepwater Horizon disaster spurred numerous changes in the U.S. health, safety, and environmental regime, the most structural of which was the dissolution of the MMS into three separate agencies. Prior to Deepwater Horizon, MMS was the sole federal

²⁹⁷ LAITOS, ET AL., supra note 284, at 851.

²⁹⁸ See generally DEEPWATER HORIZON COMM'N REPORT, supra note 288.

MMS performed no meaningful NEPA review of the potentially significant adverse environmental consequences associated with its permitting for drilling of BP's exploratory Macondo well. MMS categorically excluded from environmental impact review BP's initial and revised exploration plans—even though the exploration plan could have qualified for National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling Chapter Three an "extraordinary circumstances" exception to such exclusion, in light of the abundant deep-sea life in that geographic area and the biological and geological complexity of that same area. MMS similarly categorically excluded from any NEPA review the multiple applications for drilling permits and modification of drilling permits associated with the Macondo well. . . . As a result, none of those prior programmatic reviews carefully considered site-specific factors relevant to the risks presented by the drilling of the Macondo well.

Id. at 82-83.

³⁰⁰ *Id.* at 84.

agency responsible for overseeing the offshore oil and gas industry.³⁰¹ The disaster made it apparent that MMS "fell short in its ability to oversee the offshore oil industry."³⁰² Less than one month after Deepwater Horizon, Secretary of Interior Ken Salazar dissolved MMS and created BOEM and BSEE, with the goal of removing seemingly conflicting interests by stripping "MMS's safety and environmental enforcement responsibilities away from its leasing, revenue collection, and permitting functions, and to place the former within a 'separate and independent' entity."³⁰³

These pervasive inadequacies apparent across the sector could not be solved by a reorganization of regulating entities alone, although the creation of two agencies tasked with health, safety, and environmental oversight was certainly a step in the right direction. Several other steps were taken by both regulating entities and by the industry itself to remedy the systematic inadequacies. President Obama signed an Executive Order establishing a National Policy for the Stewardship of the Ocean, Coasts, and Great Lakes.³⁰⁴ The Executive Order included a set of guiding principles for management decisions and actions toward ocean and coastal stewardship and created a National Ocean Council with the power to direct executive agencies to implement its recommendations.³⁰⁵ The Council released its final Implementation Plan in April 2013, presenting "specific actions Federal agencies will take to bolster [] ocean economy, improve ocean health, support local communities, strengthen our security, and provide better science and information to improve decision-making."306 Another Executive Order issued by President Obama established the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, which was tasked with "providing recommendations on how the United States can prevent and mitigate the impact of any future spills that result from offshore drilling."307 It released its final Report to the President in January 2011 which included recommendations for new regulations. ³⁰⁸ In addition, major drilling firms announced plans to invest an initial \$1 billion to create the Marine Well Containment Company, a consortium to design, build, and operate a system capable of containing future deep-water

³⁰¹ LAITOS, ET AL., supra note 284, at 824.

³⁰² DEEPWATER HORIZON COMM'N REPORT, *supra* note 288, at 84.

³⁰³ *Id.* at 71.

³⁰⁴ LAITOS, ET AL., supra note 284, at 844.

³⁰⁵ Stewardship of the Ocean, Our Coasts, and the Great Lakes, THE WHITE HOUSE OFFICE OF THE PRESS SEC'Y (July 19, 2010), https://obamawhitehouse.archives.gov/files/documents/2010stewardship-eo.pdf.

³⁰⁶ *Id*.

³⁰⁷ DEEPWATER HORIZON COMM'N REPORT, *supra* note 288.

³⁰⁸ *Id*.

spills in the Gulf of Mexico. Regulators also updated permit requirements to include a demonstration of ability to contain spills. Both of these moves, while commendable efforts, were heavily criticized as being reactionary and having a retrospective focus.

In response to Deepwater Horizon, BSEE issued the original "Workplace Safety Rule" "as a way to improve safety of offshore operations." This rule implemented SEMS, which were subsequently revised in 2013. BSEE also released a "Safety Culture Policy Statement," which included BSEE's definition of safety culture as "the core values and behaviors of all members of an organization that reflect a commitment to conduct business in a manner that protects people and the environment," and it identified nine elements of a strong safety culture. The Policy Statement also conceded that "[p]rescriptive regulations can reduce risks to worker safety and the environment, but they alone are not enough. Lastly, the offshore oil and gas industry created the "Center for Offshore Safety (COS), an industry-sponsored organization funded through API," to focus exclusively on offshore safety. The purpose of COS is to "to serve the U.S. offshore oil and gas industry with the purpose of adopting standards of excellence to ensure continuous improvement in safety and offshore operational integrity."

The Trump administration has actively engaged in deregulation measures that have rolled back some of the measures put in place in the wake of Deepwater Horizon "on the grounds that they are overly burdensome on industry." Notably, the Administration revised two BSEE regulations—one concerning the "production-safety-systems rule, which addresses devices used during offshore oil production," and another concerning the "well-control rule, which aims to prevent the kind of blowout" that caused the Deepwater Horizon disaster. The deregulation has been controversial, with conservationists arguing

³⁰⁹ Nat'l Acad. of Sci., Engineering, & Med., Strengthening the Safety Culture of the Offshore Oil & Gas Industry 58 (May 2016).

³¹⁰ *Id*.

³¹¹ *Id.* at 59.

³¹² *Id*.

³¹³ Id

³¹⁴ "As of November 2015, COS members included 14 operators, 6 drilling contractors, and 10 service/equipment providers." *Id.*

³¹⁵ Juliet Eilperin & Dino Grandoni, *Trump Administration to Overhaul Safety-Monitoring Rules for Offshore Drilling*, WASH. POST (Dec. 28, 2017), https://www.washingtonpost.com/national/health-science/trump-administration-to-overhaul-safety-monitoring-rules-for-offshore-drilling/2017/12/28/37cb40bc-ec20-11e7-9f92-10a2203f6c8d_story.html?utm_term=.2dea16b1274c. ³¹⁶ *Id.*

that the rollbacks will only save the industry money at the costs of human lives and environmental degradation. For example, "several of the independent companies seeking the rollback . . . had been cited for workplace safety violations in recent years at a rate much higher than the industry average. Their offshore platforms suffer in some cases from years of poor maintenance, as well as equipment failures or metal fatigue on aging devices, records show." On the other side other spectrum are those who blame the Obama administration for having "an overbearing regulatory reaction to the Deepwater Horizon accident," contributing to the oil and gas downturn. According to some, the Obama-era regulations "were not necessarily increasing safety, but they were just increasing the cost of the activities in the oil and gas industry and thus hindering their ability to keep operating in the Gulf." BSEE Director Scott Angelle is in support of the Trump administration's measures, and acknowledged the need for safety regulations but said, "we don't need to overregulate in a way that disincentivizes investment." According to Angelle, "it is not an either/or proposition . . . We can actually increase domestic energy production and increase safety and environmental protection."

4. Unitization and Joint Operations in U.S. Waters

The United States has a long and robust legal history of unitization. Because the offshore development process is so expensive, lessees will enter into a unitization agreement early on to maximize their ability to profit off the unit and approach the development in a rational and efficient manner.³²² The prospect of building two drilling rigs, two sets of pipelines, and duplicative infrastructure can be irrational or not feasible depending on the field.³²³ The unit operator becomes free to drill in the location that makes the most sense based on the geology of the formation and in terms of engineering.³²⁴ The agreements protect each lessee's royalty interest by entitling each to a percentage of the

³¹⁷ Eric Lipton, *Trump Rollbacks Target Offshore Rules 'Written with Human Blood*,' N.Y. TIMES (Mar. 10, 2018), https://www.nytimes.com/2018/03/10/business/offshore-drilling-trump-administration.html.

³¹⁸ *Id*.

³¹⁹ *Id*.

³²⁰ *Id*.

³²¹ Eilperin & Grandoni, *supra* note 322.

³²² See Jacqueline Lang Weaver & David F. Asmus, *Unitizing Oil and Gas Fields Around The World: A Comparative Analysis of National Laws and Private Contracts*, 28 HOUS. J. INT'L L. 3, 20-21 (2006).

³²³ *Id*.

³²⁴ *Id*.

operation. This encourages cooperation and agreement to maximize the efficiency of the field.³²⁵

BSEE approves, and can even require, unitization for the purposes of natural resource conservation in the Outer Continental Shelf, protection of licensee rights, and/or prevention of waste.³²⁶ An additional benefit of unitization is that it also promotes faster exploration and development of the resources.³²⁷ Through unitization BSEE combines or consolidates leases or potions of leases as outlined by a Unit Agreement.³²⁸

BSEE's model agreement outlines that a single entity will be designated as the unit operator with all the rights and obligations. The unit operator shall enter into a unit operating agreement which shall describe how all costs and liabilities incurred in maintaining or conducting operations pursuant to this Agreement shall be apportioned and assumed. The unit operating agreement shall also describe how the benefits which may accrue from operations conducted on the unit area shall be apportioned.³²⁹

Joint operating agreements are also common practice in the United States to allow a group of oil companies to come together in a single license for one block and share the cost, risk, and reward.³³⁰ These agreements also allow the companies to elect one operator that will be in charge of the day to day operations of the block. In the Gulf of Mexico JOAs are often form contracts.³³¹ On the American side of the Gulf, the American Association of Petroleum Landmen form contract is the most commonly used.³³² On occasion, if one of the companies that is a party to the agreement is a foreign company, the parties will use a form contract produced by the Association for International Petroleum Negotiators.³³³

5. Conflict Resolution

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325 Id.
326 30 C.F.R. § 250.1301 (2017).
327 Id.
328 Id.
329 Id.
330 See Eduardo G. Pereira & Keith Hall, Joint Operating Agreement: Operatorship Role, Options and Concerns, MarIus nr. 486, at 9 (2017).
331 See id.
332 Id.
333 Id.
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Regardless of the dispute resolution mechanism employed in a conflict, the "[v]alue of complete, precisely drafted agreements can't be overstated."³³⁴ In the United States, parties to oil and gas contracts rely heavily on forms.³³⁵ One outcome is that the agreement may be less than clear because the parties have not tailored the contract to their specific circumstances.³³⁶ Not surprisingly, the interpretation of agreements and the meaning of contract language is a significant driver of disputes.³³⁷ Another outcome is that there are many contracts containing essentially the same language. This creates a situation where precedent may have an unusually strong role in litigation.³³⁸

Most domestic disputes in oil and gas involve surface activities rather than offshore activities.³³⁹ In the surface context, lawsuits on royalty disputes represent roughly half of all litigation.³⁴⁰ Royalty disputes typically involve a disagreement about how and where production is valued, and typically involve claims of under- or over-payment of royalties.³⁴¹

Arbitration is also widely in use for both domestic and international disputes.³⁴² The Supreme Court has recognized "the emphatic federal policy in favor of arbitral dispute resolution."³⁴³ The Court also stated that this "federal policy applies with special force in the field of international commerce."³⁴⁴ Arbitration is frequently preferred by the parties in an international agreement because of uncertainty surrounding litigation in a foreign jurisdiction.³⁴⁵

³³⁴ Hal Fiske, Int'l Counsel, ConocoPhillips, Oil and Gas Agreements: Building Blocks for Energy Litigators, Presentation at the IEL Energy Litigation 101 Conference (Nov. 7, 2018).

³³⁵ David F. Asmus, Oil and Gas Agreements: Building Blocks for Energy Litigators, Presentation at the IEL Energy Litigation 101 Conference (Nov. 7, 2018).

³³⁶ *Id*.

³³⁷ Telephone Interview with Hugh E. Hackney, Neutral, JAMS (Nov. 14, 2018).

³³⁸ Asmus, *supra* note 342.

³³⁹ Ken Moursund, Michael V. Powell, & Raj Duvvuri, Traditional Oil & Gas Litigation Dockets: What's Going On?, Presentation at the IEL Energy Litigation 101 Conference (Nov. 7, 2018).

³⁴⁰ *Id*.

³⁴¹ Chris Halgren, *Royalty Litigation—An Overview of Current Trends*, OIL & GAS L. DIG. (Aug. 31, 2016), https://oilandgaslawdigest.com/primers-insights/royalty-litigation-overview-current-trends/.

³⁴² Telephone Interview with Hugh E. Hackney, *supra* note 344.

³⁴³ Mitsubishi Motors Corp. v. Soler Chrysler-Plymouth, 473 U.S. 614, 631 (1985).

³⁴⁴ *Id*.

³⁴⁵ Telephone Interview with Hugh E. Hackney, *supra* note 344.

Common international disputes involve production sharing contracts, stabilization clauses, and pre-emptive rights.³⁴⁶ With production sharing contracts, disputes commonly arise from the tension between the government entity and the contractor over how and in what volume the exploration and production costs are recouped.³⁴⁷ Stabilization clauses are intended to protect investors from large fluctuations in fiscal terms.³⁴⁸ Conflicts arise from the fact that the clause may create, or appear to create, a situation where the contractor enjoys the upside while avoiding the downside of price fluctuations.³⁴⁹ Pre-emptive rights offer protection for investors when other parties experience a change of control.³⁵⁰

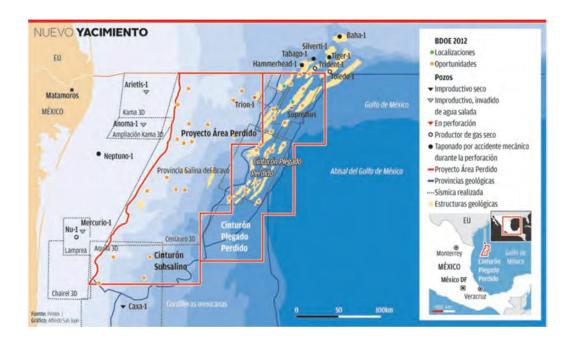
The frequency of oil and gas disputes is, not surprisingly, strongly correlated with the price of oil.³⁵¹ When oil prices fall, increased pressure is applied to the contractors in the industry, contracts may be cancelled, and there may be an increase in acquisitions and bankruptcies.³⁵² This in turn leads to conflicts related to interpretation of contract terms, attempts at re-negotiation, non-payment, and contract termination rights.³⁵³ In terms of conflicts between government entities and contractors, disputes frequently involve license denial or revocation, regulatory changes, and expropriation.³⁵⁴

C. Transboundary Resources: U.S./ Mexico Treaty

In February 2012, prior to the Energy Reform discussed above, Mexico and the United States signed the 2012 Agreement, a treaty concerning the joint management of transboundary hydrocarbon structures and reservoirs in the Gulf of Mexico (i.e., reservoirs that straddle the maritime boundary between the two nations).³⁵⁵ The 2012 Agreement is limited to the transboundary resources that are entirely located past nine nautical miles from the shoreline to avoid complications with resources owned and regulated by Texas.³⁵⁶

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<sup>346</sup> Fiske, supra note 341.
<sup>347</sup> Id.
<sup>348</sup> Id.
<sup>350</sup> Id.
<sup>351</sup> Disputes in the Oil and Gas Sector, CORP. DISPUTES (Oct.-Dec. 2016), https://www.corporatedisputesmagazine.com/disputes-in-the-oil-gas-sector.
<sup>352</sup> Id.
<sup>353</sup> Id.
<sup>354</sup> Id.
<sup>355</sup> García Sánchez & McLaughlin, supra note 257, at 746.
<sup>356</sup> Id.
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The two countries' overall purpose in promulgating the Agreement was to establish a "legal framework to achieve safe, efficient, equitable, and environmentally responsible exploitation of transboundary hydrocarbon reservoirs that may exist along the maritime boundaries," to "promote equitable and reasonable utilization of transboundary resources, and . . . maximize the long term benefits from their exploitation." 357



Transboundary Field in the Gulf of Mexico.³⁵⁸

To these ends, the Agreement establishes a variety of regulations for licensing, health, safety, and environmental concerns, sets out frameworks for transboundary contractual agreements between the two countries and entities within them, and lays out means for resolving disputes surrounding transboundary hydrocarbon reserves. The 2012 Agreement "opened more than 1.5 million acres in the Gulf of Mexico that were previously

³⁵⁷ Agreement Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico, U.S.-Mex., pmbl., Feb. 20, 2012, T.I.A.S. No. 14-718, *available at*

https://www.state.gov/documents/organization/231802.pdf [hereinafter 2012 Agreement]. The delimitation line was determined by the 1970 Treaty, the 1978 Treaty on Maritime Boundaries, and the 2000 Treaty on the Continental Shelf.

³⁵⁸ PEMEX Announces Six New Discoveries in the Gulf of Mexico, OFFSHORE (Sept. 14, 2016), https://www.offshore-mag.com/articles/2016/09/pemex-announces-six-new-discoveries-in-the-gulf-of-mexico.html.

off limits because of border issues."³⁵⁹ Additionally, "BOEM has estimated that the transboundary area could hold up to 172 MMbbl of oil and 8.6 Bcm (304 Bcf) of natural gas,"³⁶⁰ evidencing the potential to develop underexploited oil fields and generate revenue for both nations.

1. Actors and Agencies and their Interactions

The Agreement repeatedly delegates the rights and responsibilities of the parties to their respective "executive agencies." The Agreement defines "executive agencies" as "the Agency of the Party designated to carry out the functions specified in this Agreement, as each Party may designate from time to time." These have so far been the executive agencies explained in the foregoing sections: namely, on the Mexican side, SENER, CNH, CRE, SHCP, SEMARNAT, and ASEA, and on the U.S. side, BOEM, BSEE, and ONRR.

Essentially, the executive agencies act as representatives of the countries themselves, and are responsible for carrying out each country's responsibilities to the other pursuant to the Agreement. For example, pursuant to Article Five of the Agreement, each country's "Executive Agency shall . . . deliver quarterly reports to the other Executive Agency on Exploration and Exploitation activities or operations carried out by Licensees within [the reporting agency's] jurisdiction in relation to the potential Transboundary Reservoir." Additionally, the Agreement imposes a minimum of 20% participation from PEMEX in any transboundary field, even if the licensee was granted to another company without any PEMEX involvement. Involvement.

³⁵⁹ Cross-Border Reserves Development Benefits from Collaboration on Rules, Fiscal Regimes, OIL & GAS J. (Sept. 5, 2016), https://www.ogj.com/articles/print/volume-114/issue-9/exploration-and-development/cross-border-reserves-development-benefits-from-collaboration-on-rules-fiscal-regimes.html.

³⁶⁰ Velda Addison, *US, Mexico Transboundary Hydrocarbons Agreement for GoM Takes Shape*, E&P (Feb. 24, 2015), https://www.epmag.com/us-mexico-transboundary-hydrocarbons-agreement-gom-takes-shape-784241#p=full.

³⁶¹ 2012 Agreement, *supra* note 365.

³⁶² *Id*.

³⁶³ *Id.* at art. 5(3).

³⁶⁴ *Id.* at art. 30.

2. Licensee Regulations and Unitization

a) Licenses Granted Before the 2012 Agreement

One unique component of the 2012 Agreement is that it exempts from its requirements any license that existed at the time the 2012 Agreement came into effect. The 2012 Agreement suggests that these licensees recognize and follow its terms, but does not require it. The 2012 Agreement requires each government, through their respective agencies, to consult on any activities within three statute miles of the boundary and provide notice if the agency is aware of the existence of a transboundary reservoir, the agency issues a license within 3 statute miles of the boundary, if a current licensee submits plans to drill within 3 statute miles of the boundary, or a licensee submits development plans within 3 statute miles of the boundary line. Within thirty days of the notice described above, the agencies must initiate consultations to determine if a transboundary reservoir exists. Within thirty days of the notice described above, the agencies must initiate consultations to determine if a transboundary reservoir exists.

b) Unitization "Requirement"

The 2012 Agreement is designed to promote cooperation through unitization agreements for reserves that extend beyond the countries' maritime boundary. For the first time, lessees on the U.S side of the boundary are able to cooperate with those on the Mexican side. The 2012 Agreement hopes to take advantage of the cooperation of the two sides. Chapter 2 addresses joint exploration and exploitation of transboundary reserves. A careful reading makes it clear that the required method of cooperation among operators is unitization, but it is also clear that licensees can also exploit reserves without entering into a unitization agreement. If a unitization agreement is entered, the 2012 Agreement requires the unitization to be approved by both states.

The unitization agreement is required to contain the following check-listed items: the identification of the unit area; the identity of the licensees and their respective participating interests; the methodology used to calculate allocation for production; a development plan with the estimated number and timeline for development; the effective

³⁷⁰ *Id.* at art. 6.

³⁶⁵ *Id.* at art. 1.
366 *Id.* at art. 4(1)-(2).
367 *Id.* at art. 5(1).
368 *Id.* at pmbl.
369 *Id.* at art. 6(1).

date and term of the unitization agreement; the identity and appointment of the unit operator³⁷¹ including the processes for resignation, removal, and appointment of a successor; provisions for transferring interest; royalty provisions; safety and environmental measures to be taken under the laws of each state; provisions for information sharing between the unit operator and the states; and procedures for redetermination, including timelines and triggering events.³⁷² The licensees must also enter into a separate Unit Operating Agreement which will fail if ever in conflict with the unitization agreement.³⁷³

If the licensees cannot work together and determine the allocation of production to be included in the unitization agreement within six months of the field being determined transboundary, each party shall submit a proposed unitization agreement to each executive agency to jointly estimate the amount of recoverable hydrocarbons in the field within thirty days.³⁷⁴ If the agencies are unable to agree, the issue will then be sent to be resolved through expert determination.³⁷⁵ If these problems continue, it will eventually be sent to a joint commission.³⁷⁶ During this time, licensees may continue to unilaterally operate in the field, but have to share with their cross-border licensee counterpart production numbers on a monthly basis.³⁷⁷

c) Miscellaneous Provisions

The 2012 Agreement requires each licensee to pay the appropriate taxes and royalties to their respective state. The differences in taxes, government participation, royalty payments, contract labor price, and the availability of facilities in infrastructure means that the profit margins for each licensee could differ drastically causing difficulties during negotiations for the unitization agreement. One way that the 2012 Agreement tries to alleviate issues is by requiring the licensees to use their best efforts within fifteen statute miles on either side of the boundary to facilitate cooperation with facility use.³⁷⁸

³⁷¹ *Id.* at art. 10.

 $^{^{372}}$ *Id.* at art. 6(2)(a)-(1).

³⁷³ *Id.* at art. 11.

³⁷⁴ *Id.* at art. 7(2)(b).

³⁷⁵ *Id.* at art. 7(3).

³⁷⁶ *Id.* at art. 7(4).

³⁷⁷ *Id.* at art. 7(5).

³⁷⁸ *Id.* at art. 12(1)-(2).

Article 23 provides for the termination of the 2012 Agreement and, importantly, notes that "any unitization agreement, Unit Operating Agreement, or other agreement entered into under this Agreement" shall continue.³⁷⁹ This sort of stabilization clause gives the licensees some sense of legislative security against the possibility that the policies and legislation of either state will change and leave their contracts useless.

3. Health, Safety, and Environmental Provisions

The preamble to the 2012 Agreement includes the overarching purpose of establishing "a legal framework to achieve safe, efficient, equitable and environmentally responsible exploitation of transboundary hydrocarbon reservoirs."³⁸⁰ It further allows for the countries to enter into "additional cooperative arrangements" which should also "promote efficient, equitable, and environmentally responsible exploitation of transboundary reservoirs."³⁸¹

Chapter Six contains the specific provisions related to the regulation of health, safety, and environment within the U.S.-Mexico maritime boundary in the Gulf of Mexico. Article 18 gives each Party "the right to inspect Facilities in a Unit Area," subject to applicable national law.³⁸² The 2012 Agreement defines an "Inspector" to include authorized people who carry out inspections related to construction and operation of facilities, metering systems, and health, safety, and environmental protections of a transboundary unit.³⁸³ The 2012 Agreement requires the Executive Agency of each Party to develop procedures—again, subject to national law—regarding how the inspectors are to consult with one another, share information, and gain physical access to Unit Areas.³⁸⁴ This joint inspection regime depends on the cooperation of inspectors on both sides in order to successfully comply with "applicable safety and environmental standards," although guidance regarding which standards apply are not provided.³⁸⁵ The 2012 Agreement also stipulates for emergency situations and allows one inspector to unilaterally "order the immediate cessation of any or all operations upon the request of the other Inspector."³⁸⁶

³⁷⁹ *Id.* at art. 23(2)(a)-(e).

³⁸⁰ *Id.* at pmbl.

³⁸¹ *Id*.

³⁸² *Id.* at art. 18(1).

³⁸³ *Id.* at art. 2.

 $^{^{384}}$ *Id.* at art. 18(2)(a)-(c).

³⁸⁵ *Id.* at art. 18(3).

³⁸⁶ *Id.* at art. 18(5).

This can be done when it is "necessary for the purpose of averting risk to life or serious personal injury or significant damage to the environment" and only when "circumstances do not permit the Inspectors to consult with the Executive Agencies." The emergency plan is problematic, however, because it uses terms such as "the Inspector with jurisdiction over the activities giving rise to such risk" and "as authorized under national law," without defining what those terms mean or providing guidance that would allow the parties to determine those terms in each case based on certain factors. The 2012 Agreement also includes a plan to notify the Executive Agencies of the emergency cessations and gives the Executive Agencies broad discretion to determine the "actions necessary to address the risk."

Article 19 of the 2012 Agreement provides for safety and environmental protections.³⁸⁹ It instructs the parties to adopt "common safety and environmental standards and requirements" that are "compatible where necessary for the safe, effective, and environmentally responsible implementation of this Agreement."³⁹⁰ This broad mandate fails to provide any specification in terms of the standards or the methods or requirements of complying with the laws of either country. The 2012 Agreement carves out even more certainty by stating that these standards should be developed "where appropriate" and directs the Executive Agencies to "develop procedures" for their implementation.³⁹¹ Finally, the 2012 Agreement acknowledges that both Parties have important international obligations "with respect to oil pollution preparedness, response, and cooperation," and should therefore implement their safety and environmental standards such that it allows them to fulfill these international obligations.³⁹²

The only other reference to health, safety, and environmental standards that will govern transboundary reservoirs is located in Chapter 2 regarding unitization agreements.³⁹³ Article 6 provides that each unitization agreement shall include "[s]afety and environmental measures to be taken under the national laws of each Party."³⁹⁴ This

³⁸⁷ *Id*.

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³⁸⁸ *Id*.

³⁸⁹ *Id.* at art. 19.

³⁹⁰ *Id.* at art. 19(1).

³⁹¹ *Id.* at art. 19(1)-(2).

³⁹² *Id.* at art. 19(3).

³⁹³ *Id.* at art. 6.

 $^{^{394}}$ *Id.* at art. 6(2)(i).

provision, similar to Article 18 and Article 19 in Chapter 6, is overly broad and ambiguous, leaving all of the interpretation and discretion to the Parties.

These provisions, when read together, lack specificity regarding how to ensure compliance with applicable laws and regulations in each country and leave glaring gaps that foreseeable circumstances will certainly expose. The 2012 Agreement drafted provisions intending to improve environmental and safety protections, yet "the plain language makes no such guarantee." The "common safety and environmental standards" to be created in Article 19 could effectively mean the U.S. standards are lowered so that companies can comply with the less strict—and thus less protective—of the two standards. Similarly, under both Article 18 and Article 19, the parties are directed to develop common standards addressing environmental protection, health, and safety, and allow an inspector of either party to unilaterally order shutdowns in both jurisdictions. Does that mean that health, safety, and environmental standards and enforcement under Mexican law will "have to rise to U.S. levels," or will U.S. standards be supplanted in transboundary areas in favor of Mexican standards?

Despite the uncertainty surrounding logistics with the implementation of these health, safety, and environmental standards, the 2012 Agreement, taken as a whole, promotes environmental goals by directing the parties to develop standards they will each comply with, and by allowing unitization of transboundary reservoirs. Exploration and exploitation through a single operator "promotes the rational, efficient production of a resource, reduces waste and the drilling of unnecessary wells (and therefore reduces the corresponding environmental risk)."³⁹⁸

4. Conflict Resolution

Chapter 5 of the 2012 Agreement lays out how the parties "should" settle disputes. There are three main approaches to conflict resolution: the Joint Commission, arbitration, and expert determination.³⁹⁹ Chapter 4, Article 14 establishes the Joint Commission as a

³⁹⁵ S. REP. No. 112-43, at 8–12 (2012).

³⁹⁶ 2012 Agreement, *supra* note 365, at arts. 18–19.

³⁹⁷ S. REP. No. 112-43, at 8–12.

³⁹⁸ Agreement between the United States and Mexico Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico, Bureau of Ocean Energy Mgmt., https://www.boem.gov/Agreement-between-the-United-States-and-Mexico-Concerning-Transboundary-Hydrocarbon-Reservoirs-in-the-Gulf-of-Mexico/.

³⁹⁹ 2012 Agreement, *supra* note 365, at art. 14(3).

permanent body, with the purpose of assisting the "Executive Agencies in administering this agreement." The Joint Commission is comprised of one representative from each party and one alternate representative. This structure creates an even number (two) of representatives on the Joint Commission. The Joint Commission is the first stop for both parties when a conflict arises. If the Joint Commission cannot come up with a solution within sixty days, each party has the option to bring the dispute to others forms of dispute resolution outlined in Chapter 5.

It would be easy to imagine a situation where the Joint Commission is unable to come to an agreement under the current framework. Each representative is paid by the party they represent and is also commonly employed by a state executive agency. As there are only the two parties, there is a good possibility that the representatives will come to an impasse when interpreting the agreement. Even though the representatives have access to experts and assistance they deem necessary, 402 without a third party neutral an impasse is more likely to occur, especially since both representatives are highly motivated to advocate for the party they represent. Additionally, there is no motivation to drive the representatives to come to a decision, instead if the representatives do not come to an agreement the parties have the option to bring the dispute to other forms of resolution described in Chapter 5, such as arbitration. However, the arbitration laid out in the 2012 Agreement is not necessarily binding. 403 Non-binding arbitration, a highly unusual provision, may be the result of the parties' discomfort with relinquishing political control over the area and its resources. 404 The tumultuous history between the United States and Mexico likely affects both country's ability to effectively compromise. 405 If the states cannot come to an agreement and the arbitration is not binding, there is nothing to deter them from continuing the practice that caused the disagreement. Long-term, this is not sustainable and does not support healthy relations and communication between states. While this may or may not be the case, one thing is clear, the Joint Commission cannot function adequately under the current framework.

Chapter 5 of the 2012 Agreement deals specifically with the settlement of disputes. However, it does not start off with a strong call to conflict resolution that is binding.

⁴⁰⁰ *Id*.
401 *Id*. at art. 14(2).
402 *Id*.
403 *Id*. at art. 14(7).
404 Telephone Interview with Hugh E. Hackney, *supra* note 344.
405 *Id*.

Instead, it instructs the parties to make "every effort to resolve any disagreement" through "consultations as rapidly as possible". This process encourages the parties to communicate and have civil discourse in order to solve disputes however, it does not create any binding finalization and decision process. If the parties do not come to an agreement, section 2 suggests that either party has the ability to refer the disagreement to arbitration. However, the specifics of arbitration are not contained in the agreement itself and are, instead, left up to the Joint Commission. Additionally, the parties are not forced to go to arbitration, as the arbitration clause in Article 17 merely says "either Party *may* submit the dispute to arbitration." This non-obligatory "may" language, as opposed to a compelling "shall," make arbitration merely just an option for the parties.

Another important misstep regarding arbitration is the silence on a specific arbitration process, including the selection of the arbitrators themselves and binding rules and applicable laws. Section 7 of Article 14 explains that after the arbitration issues a final recommendation, the Joint Commission has "30 days to consider the final recommendation . . . [i]f the Joint Commission is unable to resolve any remaining differences within that time, the dispute will be returned to the Parties." ⁴¹⁰ This allows the Joint Commission to have oversight to determine if they accept the arbitration recommendation. ⁴¹¹ Importantly, the agreement classifies the final outcome of the arbitration as a recommendation, indicating that it is has no binding power, whereas most arbitration agreements explicitly state that an arbitration award is "final and binding" on the parties. Only if the Joint Commission decides to accept this recommendation will it become binding. This is the only binding mechanism for all types of disputes (expert determination only applies in specific cases) that may arise under the 2012 Agreement, and yet it leaves much room for instability and uncertainty in the dispute resolution process.

The Third main approach to dispute resolution is expert determination, which is established by Article 16. The 2012 Agreement defines "Expert Determination" as "the resolution of a dispute by an expert in accordance with Article 16," which, in turn, provides that in the event that an expert opinion is needed, each party shall appoint an "appointing

⁴⁰⁶ 2012 Agreement, *supra* note 365, at art. 15(1).

⁴⁰⁷ *Id.* at art. 15(2).

⁴⁰⁸ *Id.* at art. 17.

⁴⁰⁹ Id. (emphasis added).

⁴¹⁰ *Id.* at art. 14(7).

⁴¹¹ *Id*.

expert," who will then cooperatively appoint a single expert.⁴¹² The single expert then reports to the Joint Commission after making his or her determination. Expert determination is reserved for resolving issues pertaining to allocation of production and redetermination.⁴¹³ This section of the 2012 Agreement is the most specific regarding dispute resolution, potentially due to the limited application of expert determination, but particularly because allocation and redetermination of production affects the taxes, royalties, and percentage of production taken by each of the respective parties. The higher the percentage of production allocated to a party, the higher their costs, liabilities, and importantly—profit potential.

The expert is to be appointed according to rules to be promulgated within 180 days of the adoption of the 2012 Agreement; however, the process should have been laid out in the 2012 Agreement itself, as these "guidance procedures" have still not been written. The default rules state that each party picks an appointing expert, who then decide among themselves who will be the expert. The expert's decision must be communicated to the Joint Commission, but according to section 9 of Article 16, "[d]eterminations of the expert shall be final and binding on the Parties."

The specific issue in question is in regards to the sections concerning the Joint Commission and their ability to implement arbitration proceedings that currently do not exist. If the commission does in fact agree upon proceedings, they may not be recognizable in the United States. The U.S. Supreme Court, in a seminal case, decided that decisions from international bodies not ratified by Congress had no authoritative effect domestically. In other words, legislative action may be required before arbitral awards approved by the Joint Commission would be binding in the United States. This issue could have sweeping effects in relation to a transboundary dispute because a U.S. licensee could argue that they are not bound by an award from arbitration under the 2012 Agreement

⁴¹² *Id.* at art. 16.

⁴¹³ *Id.* at art. 14(6).

⁴¹⁴ *Id.* at art. 16(1).

⁴¹⁵ *Id.* at art. 16(2).

⁴¹⁶ *Id.* at art. 16(9).

⁴¹⁷ García Sánchez & McLaughlin, *supra* note 257, at 765–66.

⁴¹⁸ *Id.* at 767–68.

⁴¹⁹ *Id.* at 765–66 (citing Medellin v. Texas, 552 U.S. 491, 504 (2008)).

⁴²⁰ *Id*.

because the award has no effect domestically.⁴²¹ It is clear that the conflict resolution portion of the 2012 Agreement lacks certainty. The procedures for resolving conflicts are ambiguous, the mechanisms are non-binding, and follow through from the parties has not occurred.

V. COMPARATIVE ANALYSIS BETWEEN UNITED STATES/MEXICO AND U.K./NORWAY

A. Cultural Context

The concept of culture plays an integral role in any international issue. A country or an organization's culture is woven into every aspect of the business and relationships. In the oil and gas industry, culture is especially important in how each of the parties interact with one another, structure agreements, and resolve conflict.

The oil and gas sector has many players acting simultaneously, each with their own agenda. This factor only multiplies in the case of transboundary resources. Often, there are two "licensees" which are both a consortium of two or three companies—likely including a National Oil Company—bound under a JOA. These Licensees are then bound together under a unitization agreement. Then, because it is transboundary, the two states along with their plethora of executive agencies are thrown into the mix; each with their own rules, regulations, forms, guidelines, and bureaucratic red tape. This alphabet soup of agencies, states, operators, licensees, sub-contractors, and employees must all work together to safely and efficiently produce the transboundary field. The distinct cultures of each group involved makes this process extremely challenging.

Norway and the U.K. have a long history of cooperation with respect to hydrocarbon projects in the North Sea, having signed six joint oil and gas agreements. Accordingly, the Framework Agreement and its implementation are regularly looked to as a model for other countries. Countries with a less established history of bilateral cooperation in this field must keep this longstanding history of cooperation in mind when comparing methods and provisions for their own projects. One way to accommodate this factor is to provide more clarity in how the provisions of a treaty will be enforced, and enforce those provisions consistently.

⁴²¹ *Id*.

⁴²² TREVERTON, *supra* note 97.

⁴²³ *Id.* at 92.

B. Key Distinctions

1. Transboundary Licensees and Unitization

Before discussing the transboundary agreements and their distinctions, it is important to note some distinct differences in the basic licensing structure of the various states. The most notable difference is Mexico's pure competitive bidding process. The U.K. uses a structure where potential licensees are first approved to participate in the bidding based on their abilities to perform the job. The companies are reviewed, and if they do not pass this step, they are not allowed to participate in the bidding process. However, in Mexico, the highest bidder wins, regardless of whether they are the best fit for the field or if they have the technological expertise to efficiently produce the resource. However, to give credit where credit is due, Mexico's actual bidding process is as transparent as possible, giving bidders confidence that the system is fair.

Another difference is the amount of royalties and government inclusion. In the U.K., though the state receives royalties and has some government inclusion, they do not operate through a national oil company. Norway, on the other hand, operates through its national oil company, Equino (formerly Statoil). Because these two states have different national structures within their hydrocarbons sector, the Framework Agreement provides a good comparison to the United States and Mexico. The United States, like the U.K., has no national oil company; and Mexico, like Norway, operates through their national oil company, PEMEX.

The specific provisions in both the Framework Agreement and the 2012 Agreement were previously discussed. However, although both agreements attempt to provide guidance on the efficient exploitation of transboundary resources that straddle the maritime boundary, one is more effective than the other. The Framework Agreement clearly details what is expected of each licensee and each state and has been utilized by other states in drafting their own transboundary agreements, including the 2012 Agreement and an agreement that is currently being negotiated between Mauritania and Senegal. 424

At first glance an important distinction is that in the 2012 Agreement, any license given prior to the enactment of the 2012 Agreement is not bound by it and does not require compensation for any damages to the other state. Though it is understandable that prevention of retroactive application would be desirable, what makes it notable in the

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⁴²⁴ *Mauritania-Oil and Gas Exploration*, KOSMOS, http://www.kosmosenergy.com/operations-mauritania.php (last visited Nov. 15, 2018).

context of the Gulf of Mexico is that any possible transboundary fields are not already under individual bilateral treaties managing their joint operation. This fact is relevant when compared to the North Sea which had six such agreements in place prior to the Framework Agreement. This means any current field which may be transboundary could still be unilaterally exploited without regard to this new agreement or the international principle of mutual restraint.

One of the most effective aspects of the Framework Agreement that is lacking in the 2012 Agreement is the combination of the unitization agreement and the unit operating agreement into one contract. The 2012 Agreement requires two separate contracts, which could conflict with each other in relevant terms and procedures. By combining the two into a UUOA, the Framework Agreement streamlines the process and leaves less room for future contract disputes leading to less arbitration or litigation about the meaning of conflicting contracts. Additionally, the Framework Agreement creates accountability in the unitization process by clearly laying out the required steps that need to be taken and which states laws apply to the agreement based on the location of the facilities. This sort of clarity is missing from the 2012 Agreement.

The 2012 Agreement states that if the licensees cannot agree to the allocation of the resources, they can continue to develop and drill as long as they "inform" the other about their activities. This will lead to less effective and wasteful drilling practices and will cause unnecessary additional costs regarding the exploitation of the field. Additionally, if the licensees on either side of the border both rush to produce, they could cause damage to the formation due to rapidly changing pressures. Finally, once the unit is eventually apportioned, it is unclear what happens to the petroleum, or cash equivalents, already produced. Is the side who produced too much according to their portion of the field required to repay the other licensee? This unilateral exploitation goes against international customs of mutual restraint and against engaging in activities that may cause damage to another state's sovereign rights or resources. Allowing either the United States or Mexico to unilaterally exploit the transboundary resource if they cannot successfully negotiate a unitization agreement also goes against the duty to negotiate in good faith. These difficult issues develop when licensees are allowed to continue unilateral development without a unitization agreement. It is a recipe for mutual destruction.

The current structure of the 2012 Agreement leaves little to incentivize the United States to negotiate the unitization agreement fairly. From a purely economic position, U.S.

⁴²⁵ RODIN, supra note 95.

producers are paying low royalties, roughly 7.5%, whereas many operators on the Mexico side of the border are paying close to a 20% royalty and are forced to give PEMEX a 20% stake in the venture as it is transboundary. The lack of current guidance documents for the 2012 Agreement and the "youth" of the rules and regulations in the newly reformed Mexican hydrocarbons sector, including within the understaffed and overworked new executive agencies, leave little to be desired for producers on the U.S. side of the boundary. Because there is no forced unitization and a licensee can unilaterally exploit the transboundary resources with little transboundary regulations on their activities, there is little incentive for operators on the U.S. side to unitize and become involved in the Mexico petroleum industry.

2. Health, Safety, and Environmental Regulations

Though it is similar to the Framework Agreement, the 2012 Agreement does not actually create any safety or environmental protections. The 2012 Agreement only makes broad mandates giving Executive Agencies the power and responsibility to create rules, regulations, procedures, and processes that each country will abide by and fulfill in cooperation. However, with the history of safety and environmental disasters—such as Deepwater Horizon and the Ixtoc spill—the 2012 Agreement would likely be more effective had it drafted binding rules and regulations, or more specific goals, instead of simply aspiring for healthy and environmentally friendly exploitation of the resources. The 2012 Agreement is also deficient in that it does not clarify which set of laws is to govern in certain transboundary areas. In developing transboundary reservoirs in the North Sea, the understood practice is to comply with whichever country's standards are stricter and provide more protections over the health and safety of workers and over the environment they operate in. There is no such written clause in the 2012 Agreement, nor history of industry custom or norms that would indicate similar operation in the Gulf of Mexico. If the countries were to agree to a similar compliance standard, it would still be problematic, as the regulatory agencies in Mexico are newer with fewer resources and would likely have difficulty complying with the U.S.'s burdensome regulations. The 2012 Agreement's provisions mandating the parties to create standards, alone, are insufficient: "Unless implemented and enforced, they have no effect."⁴²⁶ The successful implementation of the 2012 Agreement with regard to health, safety, and environmental goals will depend on the collaboration of both countries to set regulations and procedures in place, and to agree upon common standards of compliance.

⁴²⁶ Jacqueline L. Weaver, *Offshore Safety in the Wake of the Macondo Disaster: Business as Usual or Sea Change?*, 36 Hous. J. Int'l L. 147, 153 (2014).

The history of the two regions are similar in that a devastating disaster led to exhaustive analyses and reports, which demonstrated the need for system-wide changes in the regulatory approach of each country. This change is not just important in considering reforms the country implemented immediately following a disaster, but how it provided for long-term success by shifting approaches and creating new cultures. Prior to both Piper Alpha in the North Sea and Deepwater Horizon in the Gulf of Mexico, companies in both regions adhered to prescriptive regulatory regimes, which specified technologies, practices, and procedures to be used. The nature, magnitude, and duration of each spill resulting from the disasters demonstrated the blatant inadequacies in the current safety cultures, where complacency was negligent. Upon studying the causes of both disasters, it became evident that a prescriptive regulatory regime in the context of offshore drilling in the deepest waters may not be the best approach. The prescriptive approach proved inadequate because the regulations lagged behind the newest and safest equipment and practices, the regulations could not cover all behaviors that influence safety culture, and the regulators bore the largest burden for inspecting facilities to affirm safety standards were being met. The North Sea's shift from a prescriptive approach to a goal-setting approach is seen as best-in-class across the world. In both the U.K. and Norway, "the previous prescriptive regulatory approach evolved into one where regulations were supplemented with a requirement for companies to demonstrate to the regulator that they had undertaken a thorough assessment of risks associated with an activity and they had adequate safety and risk management systems to address those risks."427 The prescriptive approach was seen as "fundamentally reactive and therefore incapable of driving continuous improvement in policies and practices."428 The players in the Gulf of Mexico have taken some positive steps in shifting to a goal-setting approach, including their implementation of SEMS and the collaboration between BSEE and ASEA in creating and enforcing the SEMS. However, the Gulf of Mexico is far from a pure goal-setting approach and still employs prescriptive regulations.

Both regions have also taken positive steps in ensuring there are no conflicts of interest in the regulatory agencies charged with overseeing health, safety, and environmental measures of the offshore oil and gas sector. In the U.K., following Piper Alpha, the government created a new agency to separate the revenue-generating function—interested in increasing profits and efficiency—from the health, safety, and environmental function—which should place safety measures and environmentally-friendly operations above other goals, even financial ones. Similarly, in the United States, the government

⁴²⁷ DEEPWATER HORIZON COMM'N REPORT, *supra* note 288, at 69.

⁴²⁸ *Id*.

dissolved the MMS—which was responsible for both generating revenue by collecting royalties and ensuring operators comply with safety and environmental standards—and created three separate agencies, each with clear and different mandates to avoid conflicting interests. Mexico has also made progress in this area by creating agencies to oversee healthy and safety compliance, where previously that responsibility rested in the state-owned monopoly, PEMEX—a clear conflict of interest.

One notable difference between health, safety, and environmental regulations in the two regions concerns incentives for compliance and liability for harm caused. In the North Sea, the main driver for operators to ensure compliance with regulations and their own safety case is the potential for unlimited civil and criminal liability. 429 It is essentially a strict liability industry. The operator is liable for everything that happens on location, which includes health and safety issues, environmental disasters, workers compensation claims, and disputes with contractors. 430 In addition, operators can face criminal liability for some of their actions, especially in the case of environmental damage. 431 This liability potential is enough to keep operators accountable for their actions and enforcement protocols. In the United States, on the other hand, the Oil Pollution Act sets a cap on liability damages at \$75 million, and although private parties may bring suit for harm caused to their property or under environmental statutes' citizen provisions, financial liability is hardly an incentive for compliance for U.S. offshore oil and gas operators. The lack of financial liability is also due in part to the prescriptive regulatory regime on which the United States still primarily depends: the prescriptive approach "put[s] the risk—legal and moral—onto the regulator to accommodate changing technology, geology, and location, rather than onto the operator, where the responsibility rightly belonged."432 Where the prescriptive approach creates no risk-based incentives, the safety-management model shifted the burden on the industry "to assess the risks associated with offshore activities and demonstrate that each facility had the policies, plans, and systems in place to manage those risks."433 Shifting to a risk framework would avoid these challenges and mirror what other countries have adopted to regulate their oil drilling.

⁴²⁹ Presentation by Rona Jamieson & Lynne Gray, *supra* note 37.

⁴³⁰ *Id*.

⁴³¹ *Id*.

⁴³² DEEPWATER HORIZON COMM'N REPORT, *supra* note 288, at 69 (comments by Magne Ognedal, Director General of the Norwegian Petroleum Safety Authority).

⁴³³ *Id*.

3. Conflict Resolution

As discussed previously, the Framework Agreement and the 2012 Agreement have similarities and differences. With respect to conflict resolution, the United States and Mexico could glean some effective methods from the Framework Agreement, although the cultures are very different. What works in the North Sea may not necessarily work in the Gulf of Mexico, due to cultural differences regarding litigation, the use of ADR techniques such as arbitration agreements, and the overall corporate environment in the respective countries.

Professional relationships between oil and gas companies in the North Sea are markedly different than those in the Gulf of Mexico. The companies in the North Sea have a long history of working together for decades, and an understanding that there are a limited number of oil and gas companies. Companies recognize there will be future agreements between the entities going forward, which motivates companies to resolve conflict in a much more congenial and less litigious matter from the start. The relationships in the United States and Mexico are somewhat more adversarial in nature, mostly due to the corporate environment the United States has established. U.S. culture is more capitalist minded, which inherently breeds a culture of self-interest and "every man for himself." The relationships that are established between companies can be congenial and professional, however there is not as much collaboration in the United States and Mexico system as there is in the North Sea. If the United States and Mexico could work toward a more collaborative culture, the environment in the oil and gas industry would likely improve dramatically and become much more efficient.

Because of the culture of collaboration and collegiality between U.K. companies, many of the disputes never rise to the level of a formal claim or complaint. When these situations arise, however, the vast majority of claims are solved in litigation as opposed to some form of ADR. The system of justice in the United States would not be able to handle the stress of the number of claims resulting in litigation via the U.K. process. This would clog an already stressed system beyond what the system could handle. Access to the justice system would decrease dramatically and the time to resolution would get exponentially longer. The United States has been faster to adopt more ADR methods, in an effort to help increase access to the courts and decrease time to resolution, and the popularity of ADR methods has been consistently increasing. This is one area in which the Framework Agreement may be able to learn from the United States, in terms of moving away from litigation (in the unlikely event disputes rise to that level) and requiring more methods of dispute resolution, including mediation and arbitration.

The Framework Agreement and 2012 Agreement both have an oversight body, but the two function differently. The 2012 Agreement has a Joint Commission, which is the first line of defense in conflict resolution. However, the makeup of the Commission (per the agreement) is one representative from each party, and one alternate from each party, making it possible for an impasse to occur. Currently, the representatives are from BOEM and the Hydrocarbons Commission, neither of whom are neutral parties to a potential dispute. Additionally, arbitration is not binding, and the parties may continue the activities being disputed. In fact, the agreement states the parties "may" go to arbitration, whereby giving the parties a way to avoid arbitration altogether. The Framework Agreement prescribes a Conciliation Board, which consists of five members (two from each side and one chosen by both sides). The Conciliation Board, unlike the Joint Commission, is only engaged if the government cannot reach an appropriate resolution to the issues at hand. This is a better approach than the Joint Commission, which can become deadlocked very easily with only two members.

Additionally, the U.K. does have binding arbitration in some of its agreements, but arbitration is rarely used. Because of the culture of collaboration and partnership within the oil and gas sector in the North Sea, use of arbitration and other forms of dispute resolution (other than litigation) are not widely used. In the United States and Mexico, however, arbitration is becoming a much more popular form of dispute resolution, and should be binding on the parties if there is going to be an arbitration clause in the treaty.

The use of ADR is becoming more popular around the world. Many countries are including contract language to require arbitration prior to any litigation to increase efficiency and decrease the amount of time to final resolution. Some commercial contracts in the U.K. and Scotland do have some form of an arbitration clause in the contracts, which is fully binding on both parties; however, it is not widely used. The 2012 Agreement has arbitration language in the agreement, but it is not mandatory, nor is it binding. Since the 2012 Agreement does not require arbitration or bind the parties to the ruling, there is little incentive to exercise the arbitration process. Including an arbitration clause into the 2012 Agreement would be a step towards a culture shift away from litigation and towards an alternative dispute resolution process. When added to the treaty, the clause will bind both parties to the ruling and require parties to attempt to resolve the conflict outside the courtroom.

One item noticeably absent from the 2012 Agreement, but is a part of the overall Mexican law, is the concept of "administrative rescission." This concept, as explained

previously, allows the Mexican government to rescind contracts currently in place, and has exercised this authority in the past. This process certainly provides a barrier to entry into the oil and gas market in Mexico, as many non-Mexican companies will be concerned with the ability of the government to step in and cancel existing contracts. By not including this in the 2012 Agreement, it serves as a positive step in the relationship between the United States and Mexico. In contrast, neither Scotland nor the U.K. have anything similar to an "administrative rescission" process, which would not fit with the culture of collaboration and partnership currently in existence.

The 2012 Agreement can improve its language with respect to conflict resolution. Clearly identifying a path to resolution by requiring binding arbitration will remove much of the confusion and continued conflict between the parties. Setting clear expectations for both sides in the way to arbitration panels, which parties get to select the panel members, and other rules and processes around the arbitration clause would help give the parties a much more concrete picture of how future disputes will be handled and resolved.

4. Implementing Guidelines

Aside from the differences in the words and procedures of actual agreements, the executive agencies in the United States and Mexico have yet to produce guidance documents to provide further clarification. The U.K. and Norway have written guidance documents that provide significant insight into the intended procedures. These guidance documents give operators, international oil companies, the executive agencies, and the licensees themselves a clear practical guide to navigating the process of producing a transboundary field. Mexico and the United States, on the other hand, have yet to provide these documents.

Though the United States and Mexico created a working group to draft guidelines, the group has yet to address the various gaps in the 2012 Agreement and to create supplementary guidelines. All relevant parties need to be involved in the creation of these documents so that there are no missing issues or unfilled gaps. The interested groups include: representatives from the Department of Interior, representatives from relevant Mexican governmental bodies, and delegates from associations that represent oil and gas companies, such as the American Petroleum Institute.

Having clear guidelines for businesses to follow when investing in transboundary fields help ensure the treaty is implemented successfully. The guidelines at a minimum should specify which agency is responsible for enforcing regulations at each step in the exploration and production process and where to find those specific current rules. Ideally, the guidelines should also clarify the ambiguities from the 2012 Agreement. All relevant agencies should publish such guidelines on their websites to provide easier access to the material.

VI. CONCLUSION

Transboundary resources do not respect manmade state boundaries. As such, in order to efficiently develop these resources for the benefit of each state, the states who share a maritime boundary have had to come together to develop a treaty governing this area of development. Some states have been more successful in this venture than others. The Framework Agreement between the U.K. and Norway is considered one of the most successful agreements of its kind, and thus provides an excellent comparison to the 2012 Agreement between the United States and Mexico. Unlike the Framework Agreement, the 2012 Agreement is full of precatory, non-binding language and lackluster provisions that provide little to no clear, concrete procedures while applying little to no binding force to the parties. Though the 2012 Agreement was heavily debated in the U.S. Legislature, taking two full years to pass, and was initially widely praised by the Mexican Government, upon careful review and consideration, it fails to live up to expectations. It is unclear how the 2012 Agreement will play out in practice, but it might soon be tested, as multiple deepwater blocks along the maritime boundary have recently been licensed. Here's to hoping the 2012 Agreement works better than it reads.

VII. KEY POLICY RECOMMENDATIONS

CLARIFYING THE 2012 AGREEMENT – The state executive agencies should jointly create and issue guidance documents to help clarify the 2012 Agreement and consolidate online resources related to the various phases of offshore oil and gas projects. Guidance document should include clear and concise information on:

- Guidance for the initial steps in entering into an agreement and selecting unit operators;
- Guidance for the process of determining the initial volume and allocation of the reserve between the states;
- Guidance on exploration drilling based on if drilling is initiated on the US or Mexico side of the border and the relevant permitting and health, safety, and environmental guidelines for explorative drilling;
- Guidance for the use of joint facilities, or the use of state installations—including pipeline—to effectuate efficient transboundary production;

- Guidance on flaring, discharge, marine pollution responses, and other environmental concerns;
- Guidance on dispute resolution methods;
- Guidance on decommissioning;
- A clear listing of the executive agencies, both U.S. and Mexican, and their jurisdiction/ duties in transboundary fields

COMPETENT AGENCIES -

- Mexico should continue to improve their new executive agencies and strive to adequately staff and train their employees.
- To prevent a return of the troubles caused by union power and corruption within PEMEX, neutral parties should be included on the board to ensure clear lines of communication and that PEMEX is making transparent and ethical business decisions.
- Because of the multiple agencies involved in Mexico's offshore industry, compared to the U.S.'s BOEM, Mexico should clarify the job of each agency and limit their responsibilities to make them more efficient.

LICENSING STRUCTURE – Mexico should consider changing their licensing structure to include minimum participation requirements based on the financial and technological capability of the potential licensee.

UNITIZATION – Unitization of the field for efficient resource development is crucial to the success of any transboundary agreement.

- The states should highly encourage, and incentivize, any currently operative or "up and coming" fields not bound to the 2012 Agreement to voluntarily enter into a unitization agreement as to honor the sovereignty of both states in their resources.
- To reduce the likelihood of conflicts, a "Unitization and Unit Operating Agreement" should be required under the 2012 Agreement as opposed to the current "Unitization Agreement" and separate "Unit Operating Agreement."
- The 2012 Agreement should require that a unitization agreement is reached before formal drilling activities can began.
- The 2012 Agreement should emphasize the international doctrine of good faith and fair dealing regarding negotiations for a unitization agreement.
- The 2012 Agreement should emphasize the international doctrine of mutual restraint if the parties cannot come to an agreement.

• If PEMEX is required to have any involvement in transboundary fields, or Mexico any national component, this needs to be clearly stated in the agreement, not hidden in the fine print of the Energy Reform.

HEALTH, SAFETY, AND ENVIRONMENTAL – A shift in the health, safety, and environmental approach to regulating transboundary reservoirs in the Gulf of Mexico is necessary to meet world-class standards and to prevent future harm to human safety and the environment.

- The United States should implement new legislation mirroring the safety-case approach used in Norway and the U.K., as opposed to enacting reactionary regulations that are subject to the pendulum swings of new administrations.
- The 2012 Agreement should be amended to provide which country's health, safety, and environmental regulations control in transboundary reservoirs. In the alternative, the Executive Agencies under the 2012 Agreement should create new guidelines agreeing upon one standard that both countries will comply with. The controlling standard should be whichever of the two is more protective.
- BSEE and ASEA should continue to collaborate in creating and enforcing SEMS
 that can cohesively operate in both countries and in transboundary regions. The
 agencies should also continue to cooperate in their bilateral efforts to enhance
 safety and environmental regulations by creating new guidelines with clear
 standards.
- The MEXUS Plan should be implemented in a way that allows for cross-border support of oil pollution clean ups, instead of requiring each country to clean up its side of the border.
- The United States and Mexico should eliminate the liability cap on operators and mirror the strict liability scheme prevalent in the North Sea in order to place the burden on operators, as opposed to regulators, and creative incentives for operators to avoid external costs.

CONFLICT RESOLUTION – The approach to conflict resolution needs to be significantly clarified and strengthened to ensure predictability, efficiency, and alignment with international standards.

- The 2012 Agreement should provide clear guidelines on the acceptable forms and sequence of dispute resolution mechanisms.
- The Joint Commission should be restructured to closely align with the Conciliation Board in the Framework Agreement. Specifically, the Joint Commission should be comprised of five members, including a neutral party.
- The 2012 Agreement should provide for the use of multiple forms of ADR, including conciliation, mediation, expert determination, and arbitration.

- Arbitration under the 2012 Agreement should align with international standards by specifically stating that arbitral awards are final and binding on all parties.
- The 2012 Agreement should adopt institutional rules to govern arbitration. Additionally, the arbitration provision should specify the following: the size, composition, and selection of the arbitral panel; the choice of law governing the dispute; and the seat and language of the arbitration.