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NOTES

TRESPASSING UNDER THE SURFACE: DOES HYDRAULICALLY FRACTURING ACROSS BOUNDARIES CONSTITUTE ACTIONABLE TRESPASS?

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I. INTRODUCTION

The purpose of this Note is to analyze the current status of the law of subsurface trespass when wellbores are hydraulically fractured. The focus will be on three cases that have explicitly dealt with this issue in three separate jurisdictions. One of those cases is ongoing in Pennsylvania and is currently on the docket of the Pennsylvania Supreme Court. Through

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analysis of the law in each jurisdiction and evaluation of the cases, this Note aims to examine what effect allowing actionable trespass from hydraulic fractures would have on protecting correlative rights, the environment, jobs, the industry, and the economy. The author also hopes to provide guidance for other jurisdictions that face technological advances in the recovery of fossil fuels. First, this Note will explain some basic terms and industry operations. Next, it will explore regulatory schemes of the relevant jurisdictions. Finally, it will brief the cases at issue to set up an analysis of how the courts resolved the matter and how those courts could have reached a better result.

II. HORIZONTAL DRILLING

According to Oklahoma statutes, a horizontal well is a well that is "drilled, completed or recompleted" where the horizontal section exceeds the length of the vertical section and where the horizontal portion "extends a minimum of one hundred fifty (150) feet in the formation."[1] To fully understand in laymen terms what this entails, it requires consulting some resources outside of the legal realm. The Director of the North Dakota Department of Mineral Resources, Lynn Helms, described horizontal drilling in a governmental newsletter:

> Horizontal drilling is the process of drilling a well from the surface to a subsurface location just above the target oil or gas reservoir called the "kickoff point[,]" then deviating the wellbore from the vertical plane around a curve to intersect the reservoir at the "entry point" with a near-horizontal inclination, and remaining within the reservoir until the desired bottom hole location is reached.[2]

The vertical section of the well is drilled from standard normal drilling practices where the drill string is composed of a drill bit, drill collars, heavy weight drill pipe, and standard drill pipe.[3] The drill string is rotated at the surface for this vertical portion.[4] Drilling fluid—also known as

1. OKLA. STAT. tit. 52 § 87.1(f) (2011 and Supp. 2018).
2. Lynn Helms, *Horizontal Drilling*, N.D. DEP'T OF MIN. RESOURCES NEWSL. (Indus. Comm'n of N.D. Dep't of Mineral Res.), Jan. 2008, at 1, https://www.dmr.nd.gov/ndgs/documents/newsletter/2008Winter/pdfs/Horizontal.pdf [https://perma.cc/N5QW-H42J].
3. *Id.*
4. *Id.*

drilling mud—is pumped down through the drill string to lubricate the bit, control downhole pressures, and bring cuttings to the surface on the outside of the drill string.[5] Once the "kickoff point" is reached the process of horizontal drilling begins.[6]

The horizontal section of the well is bored by attaching a hydraulic motor—commonly known as a mud motor—to the drill string directly above the drill bit.[7] The motor has a slight bend to it that is steered through sensor readings, which are radio transmitted to the directional driller on the rig floor.[8] Once the bend is correctly positioned, the directional driller uses the flow of the drilling fluid to turn the drill bit without rotating the drill string, otherwise known as "slide drilling."[9] The process of slide drilling is repeated several times to make a slight bend. During this process, the rig alternates between slide drilling and rotating the string until the total depth is reached.[10]

III. HYDRAULIC FRACTURING

"Hydraulic fracturing . . . is an oil and gas well development process that typically involves injecting water, sand, and chemicals under high pressure into a bedrock formation via the well."[11] The reason for the process is to create fractures in the formation where gas or oil can flow to the wellbore more easily in tighter, less permeable formations of "sandstone, shale, and some coal beds."[12] "Behind the fluid comes a slurry containing small granules called proppants—sand, ceramic beads, or bauxite are used—that lodge themselves in the cracks, propping them open against the enormous subsurface pressure that would force them shut as soon as the fluid was gone."[13] Creating and propping these cracks open increases the "rate of extraction."[14]

5. *Drilling Fluid*, MERRIAM-WEBSTER.COM, https://www.merriam-webster.com/dictionary/drilling%20fluid [https://perma.cc/DP2P-6MKP] (last visited Jan. 10, 2019).
6. Helms, *supra* note 2, at 1.
7. *Id.* at 2.
8. *Id.* at 1.
9. *Id.*
10. *Id.*
11. *What Is Hydraulic Fracturing*, USGS.COM, https://www.usgs.gov/faqs/what-hydraulic-fracturing?qt-news_science_products=0#qt-news_science_products [https://perma.cc/2UE8-9GWV] (last visited Jan. 10, 2019).
12. *Id.*
13. Coastal Oil & Gas Corp. v. Garza Energy Trust, 268 S.W.3d 1, 6-7 (Tex. 2008).
14. Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 U.S. Dist. LEXIS

IV. TRESPASS

"A trespass is an entry [upon/under the surface of] the real estate of another without the permission of the person lawfully entitled to possession. Permission may be either express or implied."[15] If an operator initiates the drilling of a well on property where he is legally entitled to enter, but the bottom of the wellbore is on property he is not legally entitled to enter; he has committed a trespass.[16] Therefore, trespass becomes a strict liability offense, but the more important determination is whether it was intentional—which makes it bad faith.[17] When a trespasser operates in bad faith, he "is liable for the value of the oil at the surface, i.e., without a credit for drilling and operating costs."[18] Advancement in drilling technologies has made it difficult to claim good faith or negligent trespass because the wellbore direction is more commonly and easily monitored today.[19] It can be a daunting challenge for an adjacent land owner to determine that he has been the victim to trespass under the surface, but courts will often order surveys in the discovery process.[20] Actions based on the theory of trespass have been allowed to move forward when forced injection wells are combined with recovery wells that surround the property of another. This forces fluid into the formation that pushes the minerals from a property—where the trespasser had no legal right—to come out on another property where the trespasser *had a legal right to be*.[21]

V. RULE OF CAPTURE

In a Pennsylvania case early on in the oil and gas industry, the Supreme Court of Pennsylvania explained the state of ownership of oil and gas:

Water and oil, and still more strongly gas, may be classed by

71121, at 8 (N.D.W.Va. Apr. 10, 2013).

15. OKLA. UNIF. JURY INSTRUCT. § 17.1 (2017).

16. 1 HOWARD R. WILLIAMS & CHARLES J. MEYERS, WILLIAMS & MEYERS OIL AND GAS LAW § 227 (Patrick H. Martin & Bruck M. Kramer eds., 2018).

17. *Id*.

18. *Id.*

19. *Id.*

20. *Id.*

21. Young v. Ethyl Corp., 521 F.2d 771, 775 (8th Cir. 1975).

> themselves, if the analogy be not too fanciful, as minerals *ferae naturae*. In common with animals, and unlike other minerals, they have the power and the tendency to escape without the volition of the owner. . . . They belong to the owner of the land, and are part of it, so long as they are on or in it, and are subject to his control; but when they escape, and go into other land, or come under another's control, the title of the former owner is gone.[22]

The rule of capture explains that the fugacious nature of oil and gas allows the owner of property to drill on her own property to recover minerals, and it matters not if her creation of low pressure allows the high-pressure oil and gas to flow from under her neighbor's property to her own.[23] A corollary to the rule of capture is the offset well rule.[24] The offset well rule promotes over drilling because the remedy states that the neighbor of those recovering from a common source should drill her own well to recover her portion of the fugacious substance.[25]

VI. CORRELATIVE RIGHTS

Property rights have long been considered a "bundle of sticks," but the doctrine of correlative rights tries to balance the areas where "sticks" may cause interference between neighboring property owners.[26] On one hand, there is the right to produce oil and gas; however, on the other hand, there is the need to protect a common source and the neighbor's right to produce her fair share.[27] Oklahoma explains correlative rights as:

> [E]ach owner of land in a common source of supply of oil and gas has legal privileges as against other owners of land therein to take oil and gas therefrom by lawful operations conducted on [her] own land, limited, however, by duties to other owners not to injure the source of supply and by duties not to take an undue proportion of

22. Westmoreland v. Dewitt, 18 A. 724, 725 (Pa. 1889).
23. *Id.*
24. 1 BRUCE M. KRAMER & PATRICK H. MARTIN, THE LAW OF POOLING AND UNITIZATION § 2.02 (3d ed. 2018).
25. *Id.*
26. 1 WILLIAMS & MEYERS, *supra* note 16, at C. Terms "Correlative Rights."
27. *Id.*

oil and gas.[28]

The state police power must balance the interests of competing mineral owners in an effort to protect the resource from waste and to protect the mineral owners from being unable to recover a fair portion of the common resource.[29] "For instance, one owner has no right to waste, spoil, damage or maliciously deplete the common source of supply or do anything that deprives another owner of a reasonable opportunity to extract [her] fair share of the deposit."[30] This need to protect mineral owners' correlative rights and to prevent mineral waste has led to protective measures such as voluntary pooling, compulsory pooling, well spacing, and setbacks.[31]

VII. SPACING, SETBACKS, UNITIZATION, AND POOLING

A. Spacing and Setbacks

The rule of capture created a race to extract minerals because a landowner needed to extract oil and gas before his neighbors to prevent drainage of his minerals through the surrounding wells.[32] As previously described, the drilling of a wellbore creates an area of lower pressure causing the minerals under high pressure to flow through the wellbore.[33] Because of this, problems can arise when too many wells are drilled in close proximity to each other or too close in time.[34] One of those problems is that a neighbor can drill a well, wasting resources and creating a larger surface environmental footprint, only to drill into an empty reservoir.[35] Another problem that can occur is that the "reservoir energy" can be depleted, "resulting in 'dead oil' left in the reservoir. Dead oil is frequently lost forever, or its retrieval requires expensive supplemental recovery activities."[36]

28. *Id.* (quoting Kingwood Oil Co. v. Corp. Comm'n, 396 P.2d 1008, 1010 (Okla. 1964)).
29. *Id.*
30. Haymaker v. Okla. Corp. Comm'n, 731 P.2d 1008, 1012 (Okla. Civ. App. 1986).
31. 1 WILLIAMS & MEYERS, *supra* note 16, at C. Terms "Correlative Rights."
32. James R. Neal, *Compulsory Pooling Promotes Conservation of Michigan's Oil and Gas Natural Resources*, 78 MICH. B.J. 158, 159 (1999).
33. *Id.*
34. *Id.*
35. *Id.*
36. *Id.*

In response to the problems above, states created rules that require wells to be spaced certain distances from each other.[37] This is commonly referred to as "spacing."[38] Another measure taken to prevent such problems was to create rules that required wells to be a specified distance from property boundaries, which is commonly referred to as the "setback."[39] Also, some states have created "drilling units" and allowed for "pooling" in order to combat the challenges the rule of capture creates, including excess environmental harm and resource waste.[40]

B. Unitization and Pooling

Unitization and pooling are often grouped together, however, there are different purposes.[41] "Pooling deals with the consolidation of mineral interests necessary to meet the minimum well-spacing or drilling unit restrictions or to otherwise provide for a sharing of the risks and benefits of oil and gas development. . . . [U]nitization deals with the unified development of all or a portion of a common source of supply."[42]

Unitization orders by a state regulatory agency refer to a common source of supply and generally involve a particular source found in a particular horizon or formation and do not extend to all horizons or formations located under a particular area of surface acres.[43] Unitization is accomplished through a state regulatory agency with the goal of preventing mineral waste.[44] Unitization can be compulsory and therefore force a mineral owner who is not interested in pursuing her minerals at the present time to unitize regardless of her desire.[45] This is done with the following goals in mind: preventing mineral waste, lessening environmental impact, and not hindering the right of recovery for a majority of interested mineral owners.[46]

Pooling can be voluntary or compulsory and is central to the theme of

37. *Id.*
38. *Id.*
39. *Id.*
40. *Id.* at 160-61.
41. 1 KRAMER & MARTIN, *supra* note 24, § 3.02(1).
42. *Id.*
43. *Id.* § 6.02.
44. *Id.*
45. *Id.*
46. *Id.*

preventing the waste of materials and the balancing of correlative rights.[47] Pooling combines small tracts of land together to form a large enough tract to meet the regulatory requirements of well spacing and the minimum acreage to obtain a well permit.[48] Voluntary pooling is accomplished when all of the small tract mineral owners agree to pool their tracts to meet the necessary requirements to obtain a well permit issued by the regulatory body.[49] When there are a significant number of interested mineral owners in an area wanting to acquire a well permit, but a minority of landowners in the area do not wish to pursue their minerals, a compulsory pooling order can be applied for by the interested mineral owners.[50] Each regulatory body determines the required percentage of owners that it takes to prevent the minority from hindering the ability of the majority.[51]

VIII. A SURVEY OF EXISTING OIL AND GAS LAW IN TEXAS, WEST VIRGINIA, AND PENNSYLVANIA

A. Texas

The Texas Railroad Commission regulates the oil and gas industry in Texas. Well spacing and setback rules are established in Rule 37 of the Texas Administrative Code, and well density rules are established in Rule 38.[52] The general rule for wells in the same formation or on the same lease is 1,200 feet between wells for spacing and a setback of 467 feet between the wellbore and a property boundary, but the Commission reserves the right to grant exceptions to the rules to prevent waste or to protect property rights.[53] For drilling permits, the statewide standard drilling unit rule is one well per 40 acres, though there can be variations based on circumstances.[54] Texas has no compulsory unitization, but it does have a compulsory pooling provision.[55] The Texas Mineral Interest Pooling Act (MIPA) requires that a party attempt, in a fair and reasonable manner, to pool

47. *Id.* § 6.01.
48. *Id.*
49. *Id.*
50. *Id.*
51. *Id.*
52. 16 TEX. ADMIN. CODE §§ 3.37 & 3.38 (2004).
53. § 3.37(a)(1).
54. § 3.38(b)(2)(A).
55. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 11.1(B) (2d ed. 2018).

voluntarily first.[56] The Texas Railroad Commission must determine that the attempt was fair and reasonable before permitting compulsory pooling, and for this reason, most pooling in Texas is done voluntarily.[57] Although this Note only highlights a few portions of Texas' oil and gas law, it should be noted that Texas has a large body of sophisticated law on oil and gas, including a very sophisticated regulatory scheme.

B. West Virginia

In West Virginia, the Department of Environmental Protection Office of Oil and Gas[58] combined with the West Virginia Oil & Gas Conservation Commission[59] serve as the regulatory bodies that oversee oil and gas operations. The State allows for compulsory pooling applications for deep wells, which are required to have a minimum spacing of 3,000 feet and a setback of 400 feet, though these restrictions can be modified by the Commission upon proper application and showing.[60] A "deep well" is defined by the West Virginia Code as "mean[ing] any well other than a shallow well or coalbed methane well, drilled to a formation below the top of the uppermost member of the 'Onondaga Group.'"[61] The only spacing and setback requirements for "shallow wells" are those involving the Shallow Well Gas Review Board. The shallow well rules concern coalbed methane wells and balancing the interests of gas producers/owners and coal producers/owners.[62] These coalbed methane wells are not relevant to the issue at hand and will not be discussed in detail.

C. Pennsylvania

In Pennsylvania, the Department of Environmental Protection Office

56. 3 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 12.3(B)(1)(a) (2d ed. 2018).

57. *Id.*

58. *See Office of Oil and Gas*, W.VA. DEP'T OF ENVTL. PROT. (2019), https://dep.wv.gov/oil-and-gas/Pages/default.aspx [https://perma.cc/AJN5-3LCV] (last visited Jan. 20, 2019).

59. *See Oil and Gas Conservation Commission*, ST. OF W.VA. (2019), https://ogcc.wv.gov/Pages/
default.aspx [https://perma.cc/L725-D5MM] (last visited Feb. 2, 2019).

60. W. Va. CODE R. § 39-1-4 (2018).

61. § 22C-8-2(8).

62. Timothy M. Miller & Marsha Williams Kaufman, *Is It a Deep Well or a Shallow Well and Who Cares?*, 31 ENERGY & MIN. L. INST. 12, § 12.02, at 405 (2010).

of Oil and Gas Management[63] operates as the regulatory body for the oil and gas industry. In 1961, Pennsylvania passed the Oil and Gas Conservation Act 1961-359, which controls the spacing and pooling of wells drilled at or below the Onondaga horizon or deeper than 3,800 vertical feet.[64] This Act authorizes voluntary or compulsory pooling and unitization for the deeper formations because the policy rational is to "foster, encourage, and promote the development, production, and utilization of the natural oil and gas resources in this Commonwealth."[65] The Act also gives the regulatory body the ability to establish setback and spacing requirements for well permits.[66] In deep formations, Pennsylvania statutes articulate that the setback from the lease line requirement is 330 feet.[67] The Marcellus Shale formation is shallower than the Onondaga horizon by 3,800 feet, and therefore, is not controlled by this regulatory or statutory scheme.[68]

IX. THE CASES AT THE FOREFRONT OF HYDRAULIC FRACTURING AND SUBSURFACE TRESPASS

A. Coastal Oil & Gas Corp. v. Garza Energy Trust

1. Facts

The Salinas family owned a 748-acre tract of land in South Texas. Coastal Oil & Gas Corporation (Coastal)[69] leased the Salinas' tract, labeled as Share 13, and a neighboring tract, labeled Share 15.[70] Coastal also leased and later owned another neighboring tract, labeled Share 12.[71] Coastal drilled three wells on Share 13 between the years of 1978 and

63. *See Office of Oil and Gas Management*, PA. DEP'T OF ENVTL. PROT. (2019), https://www.dep.pa.gov/Business/Energy/OilandGasPrograms/OilandGasMgmt/Pages/default.aspx [https://perma.cc/P9NC-EU62] (last visited Feb. 2, 2019).

64. 58 PA. STAT. AND CONS. STAT. ANN. § 401 (West 2015).

65. § 401.

66. § 407.

67. 25 PA. CODE § 79.11(b) (1989).

68. Brief of Appellant at 59-60, Briggs v. Southwestern, No. 63 MAP 2018 (Pa. Jan. 30, 2019).

69. Coastal Oil & Gas Corp. v. Garza Energy Trust, 268 S.W.3d 1, 5 (Tex. 2008).

70. *Id.*

71. *Id.*

1983.[72] Two of the wells were productive, while the third was not.[73] In 1994, Coastal drilled another well that was 1,700 feet from Share 12, which was "an exceptional producer."[74] Coastal had a well on Share 12 that was relatively close to Share 13; however, this well prevented Coastal from getting any closer because of the Texas Railroad Commission setback regulations.[75] In 1996, Coastal shut in the well that was preventing it from getting any closer to Share 13, obtained a permit, and then drilled a well 467 feet—the regulatory minimum—from the boundaries of Share 13.[76] Coastal drilled another well on Share 12 close to the Share 13 boundary in February 1997, prompting Salinas to file suit against Coastal "for breach of its implied covenants to develop Share 13 and prevent drainage."[77] The theory of Salinas' suit was that Coastal drilled these new wells to drain Share 13's gas to Share 12 because Coastal owned the minerals on Share 12 and was not obligated to pay royalties.[78] Coastal drilled eight wells in fourteen months in response to the suit.[79] Coastal hydraulically fractured all the wells on Shares 12 and 13, but Salinas claimed that Coastal designed the fractures on Share 12 to be longer and cross the boundary of Share 13.[80] For this reason, Salinas amended the pleading in the suit to include a claim for subsurface trespass.[81]

2. Procedural Posture

After a jury trial in 2005, the Salinas were awarded fourteen million dollars—including ten million in punitive damages and attorney's fees—for the following claims: breach of the duty of good faith pooling; breach of implied covenants to market; breach of the duty to develop the leasehold; and breach of the duty to protect against drainage and subsurface trespass by the way of hydraulic fracturing.[82] The Court of Appeals of Texas, Thirteenth District, Corpus Christi, affirmed the jury

72. *Id.* at 6.
73. *Id.*
74. *Id.*
75. *Id.*
76. *Id.*
77. *Id.*
78. *Id.*
79. *Id.*
80. *Id.* at 7.
81. *Id.*
82. Mission Res., Inc. v. Garza Energy Trust, 166 S.W.3d 301, 309 (Tex. App. 2005).

awards as to everything except the attorney's fees.[83] The Texas Supreme Court reversed the appellate court and ordered that Salinas could not prevail on the claims of trespass and breach of implied covenant to protect against drainage. The case was remanded to the trial court for a new trial.[84]

3. Reasoning

The Texas Supreme Court majority explained that the old maxim *cujus est solum ejus est usque ad coleum et ad inferos*—"[h]e who owns the soil owns everything above (and below) from heaven (to hell)"[85]—put forth by Lord Coke "has no place in the modern world."[86] The Court further ruled that the rule of capture barred Salinas' claim, explaining that the rule "is a cornerstone of the oil and gas industry and is fundamental both to property rights and to state regulation."[87] The Court addressed Salinas' argument that hydraulic fracturing was "unnatural" stating that this activity is the very reason for the rule in the first place and that "[n]othing is more unnatural in that sense than the drilling of wells."[88]

The Court further provided four reasons as to why the rule should not be modified. First, the one who claims she has been drained already has recourse in the law through drilling her own well, suing the lessee for failure to protect against drainage, offering to pool, or seeking compulsory pooling from the regulatory body.[89] Second, if the Court usurps its power to change the rule of capture, it handicaps the regulatory body's ability to perform its regulatory function, making it more difficult to prevent waste and balance correlative rights.[90] Third, the court system is not equipped to handle the determination of value drained by hydraulic fracturing.[91] Fourth, "[t]he [C]ourt has received numerous amicus curiae briefs . . . from every corner of the industry" requesting the rule does not change.[92]

83. *Id.*
84. Coastal Oil & Gas Corp. v. Garza Energy Trust, 268 S.W.3d 1, 26 (Tex. 2008).
85. Yehuda Abramovitch, *The Maxim "Cujus Est Solum Ejus Usque Ad Coleum" as Applied in Aviation*, 8 MCGILL L.J. 247, 247 (1962).
86. *Coastal*, 268 S.W.3d at 11 (quoting United States v. Causby, 328 U.S. 256, 261 (1946)).
87. *Id.* at 13.
88. *Id.*
89. *Id.* at 14.
90. *Id.* at 14-15.
91. *Id.* at 16.
92. *Id.*

4. Dissent in Part

The dissent argued that the rule of capture should not apply to hydraulic fracturing because "a party effectively enter[ed] another's lease without consent, drain[ed] minerals by means of an artificially created channel or device, and then 'capture[d]' the minerals on the trespasser's lease."[93] In his dissent, Justice Johnson drew a similarity between slant drilling and hydraulic fracturing because he saw both as intentional acts to acquire minerals from the neighbor's land.[94] Further, Justice Johnson found the majority's distinction between slant drilling and hydraulic fracturing unpersuasive.[95] Justice Johnson considered it illogical for the Court to claim that in slant well drilling "the neighbor cannot protect from such drainage by drilling a well, and there is no uncertainty that the deviated well is producing another owner's gas," yet not hold the same for hydraulic fracturing.[96] The dissenting Justice worried about smaller, unsophisticated landowners who lack the knowledge or resources necessary to take advantage of the remedies the majority leaves available.[97] Justice Johnson believed that in balancing interests it would be best to preclude exemplary damages in cases of subsurface trespass by hydraulic fracturing.[98]

B. Stone v. Chesapeake Appalachia

1. Facts

The land and minerals owned by the Plaintiff ("lessor"), were leased to the Phillips Production Company ("lessee"), who in turn assigned them to Chesapeake.[99] The lease granted to the lessee the ability to pool and unitize the Onondaga, Oriskany, or deeper formations, but not the Marcellus Shale formation.[100] The lessor and the lessee could not agree on terms that would create similar pooling and unitization clauses for the

93. *Id.* at 43 (Johnson, J. concurring in part, dissenting in part).
94. *Id.* at 44.
95. *Id.*
96. *Id.*
97. *Id.* at 45.
98. *Id.* at 47.
99. Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 U.S. Dist. LEXIS 71121, at 2 (N.D.W.Va. Apr. 10, 2013).
100. *Id.*

shallower formations.[101] "Chesapeake drilled a horizontal well on the neighboring Hupp property, near the property line with the plaintiffs. The vertical wellbore on the Hupp property is approximately 200 feet from the Stone property, with the horizontal aspect of the bore within tens of feet of the property line."[102]

2. Procedural Posture

The action was filed in the Circuit Court of Brooke County, West Virginia on May 30, 2012, asserting three claims: "(1) breach of contract inasmuch as the defendants are pooling and unitizing the Marcellus Shale formation underlying the plaintiffs' property in violation of their lease; and (2) trespass by engaging in hydraulic fracturing on plaintiffs' property; and (3) that the defendants failed to protect [the] plaintiffs' property from drainage."[103] On July 6, 2012, the action was removed to federal court based on diversity jurisdiction.[104] Summary judgment was denied to Chesapeake on April 10, 2013.[105] On July 30, 2013, a joint motion was granted to vacate the Court's previous order denying summary judgment.[106]

3. Reasoning for Denying Summary Judgment

In denying the motion for summary judgment, United States District Court Judge Bailey based his reasoning on how he believed West Virginia courts would interpret West Virginia law.[107] Judge Bailey found the dissent in *Coastal v. Garza* compelling—especially the dissent's criticisms of the majority opinion in that case.[108] Judge Bailey stated that "the *Garza* opinion gives oil and gas operators a blank check to steal from

101. *Id.* at 2-3.
102. *Id.* at 2.
103. *Id.* at 1.
104. Defendants Joint Notice of Removal, ¶ 1, Stone v. Chesapeake Appalachia, LLC, (No. 5:12-cv-102) (N.D.W.Va July 6, 2012), 2012 WL 4864773.
105. Order Denying Defendant's Motion for Summary Judgement, Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 U.S. Dist. LEXIS 71121, at 25-26 (N.D.W.Va., Apr. 10, 2013)
106. Order Granting Joint Motion, Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 U.S. Dist. LEXIS 185857, at *1 (N.D.W.Va., July 30, 2013).
107. Order Denying Defendant's Motion for Summary Judgement, *supra* note 104, at 16.
108. *Id.* at 11-12.

the small landowner."[109] Equating secondary recovery—specifically in injection wells—to subsurface trespass, Judge Bailey cited an Eighth Circuit opinion that stated "the common law rule of capture is not a license to plunder."[110] Judge Bailey articulated the differences in the power between the regulatory bodies of Texas and West Virginia, concluding that the Texas Railroad Commission held more authority.[111] Judge Bailey also cited the portion of the dissent that argued courts and lawyers are accustomed to dealing with proving damages in difficult actions.[112] Coming back full circle, Judge Bailey then pointed out in response to the fourth justification by the majority in *Coastal v. Garza*, "[t]his Court sees no reason why the desires of the industry should overcome the property rights of small landowners."[113] He followed by citing to a West Virginia Supreme Court of Appeals' decision that reaffirmed the maxim that was refuted by the Texas Supreme Court, namely, *cujus est solum est usque ad coelum et ad inferos.*[114] And lastly, Judge Bailey found a comment to the Restatement (Second) of Torts persuasive: "The actor, without himself entering the land, may invade another's interest in its exclusive possession by throwing, propelling, or placing a thing either on or beneath the surface of the land or in the air space above it."[115]

C. Briggs v. Southwestern Energy

1. Facts

The dispute involved a tract consisting of 11.07 acres (the Tract) owned by Plaintiffs, Adam and Paula Briggs (Briggs), which was essentially a peninsula that sticks out between the SWN Folger Oil and Gas Unit (Folger) and the SWN Innes South Gas Unit (Innes) that were both under development by Southwestern Energy (SWN).[116] The entire Briggs property was 74.03 acres, which they inherited from Constance

109. *Id.* at 12.
110. *Id.* at 14 (quoting Young v. Ethyl Corp., 521 F.2d 771, 774 (8th Cir. 1975)).
111. *Id*. at 20.
112. *Id.* at 14-15.
113. *Id.* at 15.
114. *Id.*
115. *Id*. at 16. (quoting RESTATEMENT (SECOND) OF TORTS § 158 CMT. i (AM. LAW INST. 1974)).
116. Complaint, ¶¶ 1, 6, 8-11, Briggs v. Sw. Energy Prod. Co., No. 2015-1253, 2017 WL 10605836 (Ct. Com. Pl. Susquehanna Cty. 2017).

Horn (Horn) "[o]n or about December 4, 2013."[117] Horn entered into a lease—for the entire 74.03-acre tract—with Elexco Land Services Inc., on or around July 8, 2008.[118] On December 15, 2010, "SWN, as successor in interest to Elexco [Land Services Inc.], assigned the entire lease to Cabot Oil and Gas Corporation (Cabot) . . . ."[119] Cabot assigned a portion of the lease—that included the Tract—back to SWN on November 15, 2012.[120] Horn and Cabot extended the primary term for the 62.96 acres that was not assigned back to SWN for one year, which was set to expire on July 18, 2014.[121] SWN and Horn did not enter into any such agreement, and the lease for the Tract expired on July 18, 2013.

Since 2011, SWN has produced or sought to produce oil and gas from both Folger and Innes.[122] The wellbore of Folger 5H passes within 63 feet of the Tract, while the wellbore of Folger 4H is within approximately 847 feet, and the wellbore of Innes 5H is within 625 feet of the Tract.[123] Briggs's opinion, as stated in the deposition, was that the Tract should have been included in the drilling units, and therefore, leased by SWN.[124] Briggs attempted to get SWN to lease the Tract on several occasions; however, SWN refused all efforts.[125]

2. Procedural Posture

Briggs filed the complaint in the Court of Common Pleas in Susquehanna County, Pennsylvania on November 5, 20l5, seeking compensatory and punitive damages for alleged trespass and conversion.[126] SWN filed a motion for summary judgment on April 24,

117. Motion for Summary Judgment, ¶ 23, Briggs v. Sw. Energy Prod. Co., No. 2015-1253, 2017 WL 10605836 (Ct. Com. Pl. Susquehanna Cty. 2017).
118. *Id.* ¶ 11.
119. *Id.* ¶ 14.
120. *Id.* ¶ 15.
121. *Id.* ¶¶ 17-20.
122. *Id.* ¶ 24.
123. Answer to Petitioner Southwestern Energy Production Company's Petition for Permission to Appeal at app. 1, Briggs v. Sw. Energy Prod. Co., No. 1351 MDA 2017, 184 A.3d 153 (Pa. Super. Ct. 2018).
124. Email from Larry Kelly, Attorney at Law for Briggs Family, Kelly Law Office (Feb. 7, 2019, 10:00AM) (on file with the author). *See* Motion for Summary Judgment, *supra* note 115, ¶¶ 49-50.
125. Telephone interview with Laurence M. Kelly, Attorney at Law for Briggs Family, Kelly Law Office (Feb. 06, 2019).
126. Complaint, *supra* note 115, ¶¶ 15, 18 & 20.

2017.[127] The Court of Common Pleas issued an order granting summary judgment in the favor of SWN on August 2, 2017.[128] Briggs filed a brief in support of appeal on November 15, 2017.[129] The Superior Court of Pennsylvania decided in favor of Briggs on June 8, 2018.[130] The Supreme Court of Pennsylvania granted *allocatur* on November 20, 2018, and rephrased the issue as:

> Does the rule of capture apply to oil and gas produced from wells that were completed using hydraulic fracturing and preclude trespass liability for allegedly draining oil or gas from under nearby property, where the well is drilled solely on and beneath the driller's own property and the hydraulic fracturing fluids are injected solely on or beneath the driller's own property?[131]

Briefs from Appellants were submitted with all *amicus curiae* briefs on January 30, 2019.[132] The Supreme Court of Pennsylvania granted Appellees' application, extending the due date for their brief in response to April 3, 2019.[133] Oral arguments were set for September 12, 2019.[134]

3. Reasoning

In granting summary judgment, the Court of Common Pleas

127. Motion for Summary Judgment, *supra* note 116.

128. Briggs v. Sw. Energy Prod. Co., No. 2015-1253, 2017 WL 10605836 (Ct. Com. Pl. Susquehanna Cty. 2017).

129. Brief of Appellants, Briggs v. Sw. Energy Prod. Co., No. 1351 MDA 2017, 184 A.3d 153 (Pa. Super. Ct. 2018).

130. Briggs v. Sw. Energy Prod. Co., No. 1351 MDA 2017, 184 A.3d 153, 164 (Pa. Super. Ct. 2018).

131. Briggs V. Sw. Energy Prod. Co., No. 443 MAL 2018, 197 A.3d 1168, 1169 (Pa. 2018).

132. Appeal Docket Sheet for Supreme Court of Pennsylvania, The Unified Judicial System of Pennsylvania Web Portal, https://ujsportal.pacourts.us/docketsheets/AppellateCourtReport.ashx?docketNumber=63+MAP+2018&dnh=6JWTv23HjMPAOyOhmI%2bhJQ%3d%3d [https://perma.cc/4CMT-77FH] (last visited Oct. 9, 2019), for Briggs v. Sw. Energy Prod. Co., No. 63 MAP 2018 (Pa. argued Sep. 12, 2019, filed on Apr. 3, 2019).

133. E-mail from Kevin Moody, General Counsel & Vice President of Government Affairs, Pennsylvania Independent Oil & Gas Association, to William S. Blocker, Distinguished Law Review Member & 2020 J.D. Candidate (Feb. 6, 2019, 14:08 CST) (on file with recipient).

134. Appeal Docket Sheet, *supra* note 130.

concluded that the rule of capture barred the Plaintiffs' recovery.[135] The Court highlighted that data about the length of fractures is "at best imprecise," and further stated, "[c]lues about the direction in which fractures are likely to run horizontally from the well may be derived from seismic and other data, but virtually nothing can be done to control direction; the fracture will follow Mother Nature's fault line in the formation."[136] For these reasons the Court explained, "Under these circumstances and based [on] the principles outlined above, Plaintiffs were not perpetually guaranteed title to the gas laying under their land. Rather once the gas came under Defendant's control through legal means, title to the gas vested in Defendant."[137]

The Superior Court of Pennsylvania reversed the lower court's decision and remanded for further proceedings.[138] The Appellate Court acknowledged that the rule of capture is long-standing law in Pennsylvania, however, the Court also acknowledged that a case involving hydraulic fracturing and subsurface trespass had not been addressed by Pennsylvania courts before. Therefore, the Court would look to the two other jurisdictions that had evaluated the issue for guidance.[139] The Superior Court found the dissent in *Coastal* and the opinion in *Stone* persuasive because "[u]nlike oil and gas originating in a common reservoir, natural gas, when trapped in a shale formation, is non-migratory in nature."[140] Continuing to rely on language from the dissent in *Coastal*, the Superior Court reasoned that "shale must be fractured through the process of hydraulic fracturing; only then may the natural gas contained in the shale move freely through the 'artificially created channel[s].'"[141] For support of the artificial means theory, the Court looked to cases involving secondary recovery, such as *Young v. Ethyl Corp.*[142] Lastly, the Court articulated concerns that unsophisticated property owners will not be able to drill their own wells, as suggested by the rule of capture, and that companies will use the rule to extend their leases by drilling on the

135. Briggs v. Sw. Energy Prod. Co., No. 2015-1253, 2017 WL 10605836, at 4-5 (Ct. Com. Pl. Susquehanna Cty. 2017).
136. *Id.* at 7.
137. *Id.* at 8.
138. Briggs v. Sw. Energy Prod. Co., No. 1351 MDA 2017, 184 A.3d 153, 164 (Pa. Super. Ct. 2018).
139. *Id.* at 158.
140. *Id.* at 162.
141. *Id.*
142. *Id.* at 163.

boundaries.[143]

X. JUDICIAL REMEDY VERSUS LEGISLATIVE REMEDY

Courts in these cases have two choices. The first is to follow through hearing cases, in search of fairness, until there is a profound enough body of law for society to be able to predict the outcome and operate within due bounds. The second choice is to apply the rule of capture, and if need be, allow the legislature to determine if there is a legislative or regulatory scheme that could afford a better result for citizens.

A. Judicial Remedy

Straight application of the rule of capture might leave all the plaintiffs in these suits without a remedy, or at least without a remedy that is practical for an unsophisticated mineral owner.[144] A person who resides outside of the legal world may see the loss of a remedy as entirely unfair, and for that matter, some in the legal world may argue the same. Take for example the facts in *Stone*: the oil company, unsuccessful in reaching an agreement with the landowner, drilled a well approximately two hundred feet from the lease boundary.[145] If that was not suspicious enough, the company terminated its well within tens of feet of that same boundary.[146] Those facts should make even the most zealous oil company defender pause and question the motivations. If the court seeks to achieve a fair result and give the aggrieved person a valid remedy, it must decide for the plaintiff, right?

In so doing, the court would create rules for society to operate under in the future, but what are they? Is the standard that oil companies must reach an agreement with the landowner, even if landowners seek to obtain an unfair advantage over the oil companies? What is unfair on the part of the landowners? What is unfair on the part of the oil companies? It is more likely that the court meant to adopt a standard where oil companies do not drill too close to a lease boundary in order to take from landowners with whom they were unable to come to a "meeting of the minds."[147] In that

143. *Id.* at 163-64.
144. Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 U.S. Dist. LEXIS 71121, at 17 (N.D.W.Va. 2013).
145. *Id.* at 3.
146. *Id.*
147. *Meeting of the Minds*, THE LAW DICTIONARY.ORG,

case, what is the standard? Is the standard that wells cannot be drilled within two hundred feet of the boundary line? Is three hundred feet far enough? Four hundred? Maybe the rule was that oil companies cannot terminate a well within tens of feet of the property boundary. In that case, what exactly is more than tens of feet? Is a wellbore that is one hundred feet away from the boundary far enough to be safe and fair? Does the rule change if the well is hydraulically fractured? What if the well is drilled without fracturing and then is subsequently fractured twenty-five years later when production slows in the original well?

It is likely that litigation would not have ended with *Stone* in West Virginia. The Court in *Stone* was a federal court sitting in diversity, holding only persuasive authority.[148] Even if the opinion was issued by the West Virginia Supreme Court, the litigation would have continued until the Court reached a point where the distance was far enough back to be determined equitable to both parties. Once the Court reached that balancing point, the law would then be clear for parties to operate under the rules established. It is possible that, with enough time and testimony, the Court may have found that conclusion in one subsequent case, though that seems unrealistic. The more realistic idea is that it would have taken the Court dozens, if not hundreds, of cases to reach that balance, as the courthouse is a limited resource available in society.[149] The backlogs of cases and the sheer time it takes to be heard demonstrates the need for courts to consider judicial economy.[150]

B. Legislative Remedy

Applying the rule of capture certainly can reach some results that seem unfair, especially when dealing with unsophisticated landowners. The remedy to the rule of capture as it applies to oil and gas from the common law is "to go and do likewise."[151] For many, the ability "to go and do likewise" is non-existent.[152] It is difficult to argue that a farmer, struggling

https://thelawdictionary.org/meeting-of-minds/ [https://perma.cc/R2VF-HA9X] (last visited Feb. 11, 2019).

148. Larry Kramer, *Diversity Jurisdiction*, 1990 BYU L. REV. 97, 104 (1990).

149. Harry D. Nims, *Backlogs: Justice Denied*, 42 A.B.A. J. 613, 613 (1956).

150. Steven Weller, John C. Ruhnka & John A. Martin, *Compulsory Civil Arbitration: The Rochester Answer to Court Backlogs*, JUDGES' J. Fall 1981, at 36.

151. William O. Huie, *Some Recent Developments in the Law of Oil and Gas*, A.B.A. SEC. OF MIN. AND NAT. RESOURCES L. 1960, at 148, 153.

152. Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 U.S. Dist. LEXIS

to make ends meet on her hundred acres, has the resources to invest in a seven million dollar horizontally fractured well. It is also difficult to argue that she has the resources to determine whether the well will end up being a "dry hole," or that she could absorb the cost of such a well and try again. A landowner who owns a smaller tract of land, say 11.07 acres in Pennsylvania, does not own enough to make the idea of a well enticing for an oil company either.[153] Those minerals and the owner's rights probably will never be produced, which is a waste to society and the owner of those rights. On the flip side, if it was enticing for oil companies to drill every five acres, the environmental footprint on the surface of Earth would be significantly larger and might result in "dead oil."[154]

Even if a result is unfair for a particular plaintiff, adhering to legal principles and exercising judicial restraint will foster a system that is better adapted through intellectual debate on the issue, which is a product of the legislative process.[155] "The Anglo-American version of *stare decisis* promotes important values of the rule of law: fairness, stability, predictability, and efficiency. Adherence to precedent ensures that like cases will be treated alike, and that similarly situated individuals are subject to the same legal consequences."[156] As Justice Douglas stated, "there will be no equal justice under law if a negligence rule is applied in the morning but not in the afternoon."[157]

A plaintiff whose action is barred by the rule of capture and suffers an unfair result could pave the way for the legislature to adopt policy that would prevent the same harm in the future. That plaintiff could lobby her legislator, or the legislature could witness the result of the common law and create a plan that would operate more fairly. In a progressive society, the law is continually evolving to adapt to changing technology and societal norms.[158] The legislature has the ability to hold committee hearings and hear testimony from experts in the industry, academia, and other affected parties.[159] This thoughtful approach is most likely to lead to

71121, at 17 (N.D.W.Va. 2013).

153. Neal, *supra* note 32, at 159.

154. *Id.*

155. Lewis F. Powell Jr., *Stare Decisis and Judicial Restraint*, 47 WASH. & LEE L. REV. 281, 287-89 (1990).

156. James C. Rehnquist, *The Power that Shall Be Vested in a Precedent: Stare Decisis, The Constitution and the Supreme* Court, 66 B.U. L. REV. 345, 347 (1986).

157. William O. Douglas, *Stare Decisis*, 49 COLUM. L. REV. 735, 736 (1949).

158. STEVEN VAGO, LAW AND SOCIETY, 39-40 (10th ed. 2012).

159. Robin Charlow, *Judicial Review, Equal Protection and the Problem with*

a more balanced and reasoned result compared to a judge or panel of judges reading *amicus curiae* briefs, attorneys' written briefs, and hearing timed oral arguments. Leaders and experts in the industry may be employed by the government in a regulatory body having the requisite expertise to make educated decisions by reasoned rationale.[160] The legislature may require such a regulatory body to act. While this may be unjust to the person wronged in the initial action, the corrective action by the appropriate body is certain to lead to the fairest result possible for all future parties and protect the societal interests.

XI. EXAMPLES OF REGULATORY SCHEMES AIDED BY COMMON LAW PROTECTION

These issues are not new in oil and gas law or litigation. As a result of previous litigation and disputes, legislatures have created regulatory schemes to balance the interests of mineral owners and operators. Some states have adapted to changes in technology and created more sophisticated regulatory bodies than others, and courts have sought to apply common law principles to the regulations adopted by those bodies. The mineral owner is party to a contract and should not be merely excused because he is unexperienced in matters of law. The mineral owner should have a duty to protect his own interests, including the obligation to seek legal representation in an effort to better understand his rights and obligations under contract. If existing law is not adequate to protect his interests, the mineral owner can seek change through legislative means. Courts should be a place of last resort.

A. Texas

The Texas Railroad Commission has a sophisticated system with regulations that promotes pooling and requires well spacing, unit spacing, and setbacks. The Commission's mission statement provides, "[o]ur mission is to serve Texas by our stewardship of natural resources and the environment, our concern for personal and community safety, and our support of enhanced development and economic vitality for the benefit of Texans."[161] The purpose of these rules is to achieve the mission statement,

Plebiscites, 79 CORNELL L. REV. 527, 578-79 (1993-1994).

160. *Id.* at 578.

161. RAILROAD COMMISSION OF TEXAS, *RRC Mission Statement*,

and each regulation works toward accomplishing that objective. For example, a setback rule prevents neighbors from encroaching upon correlative rights and is adapted to modern drilling technology involving hydraulic fracturing. Hydraulic fractures can extend long distances based on the subsurface formation and natural faults; however, the typical distance achieved is between 200 and 500 feet.[162] The Texas setback rule requires a wellbore to be no closer than 467 feet to the lease boundary,[163] which allows minerals to be produced with as little waste as possible while protecting fractures from crossing lease boundaries. Similarly, Texas well and unit spacing rules allow for maximum resource recovery and prevent the existence of a larger environmental footprint than is necessary.

The common law developed by Texas courts has remained relevant as oil and gas technology has advanced. An example of this is apparent in slant drilling cases, where the court sought to determine the intent of the actor as the technology improved.[164] When a well is started on property where the operator had a legal right to be but terminated on the property of another where there was no legal right to be, a subsurface trespass has occurred.[165] The courts will look to the intent of the actor and may find an accidental deviation to be considered a good faith trespass.[166] As technology improved, operators could turn horizontal and intentionally hit a target termination point.[167] If an operator intended to be on the land of another, then the subsurface trespass was in bad faith.[168] The most relevant distinction between good and bad faith subsurface trespass lies in the remedy provided by the court. Good faith trespassers are allowed to deduct drilling and operating costs from the value of the extracted minerals.[169] This theory is not applied in hydraulic fracturing subsurface trespass cases; however, it could be adapted to them.

https://www.rrc.state.tx.us/about-us/organization-activities/mission-statement/ [https://perma.cc/V2PJ-9VWK] (Last updated Dec. 15, 2017, 11:47:52 AM).

162. Telephone Interview with James Terry Engelder, Professor Emeritus of Geosciences, Dept. of Geosciences Pennsylvania State University (Jan. 10, 2019).

163. 16 TEX. ADMIN. CODE §§ 3.37 & 3.38 (2004).

164. Edwards v. Lachman, 1974 OK 58, ¶ 39, 534 P.2d 670, 677.

165. 1 WILLIAMS & MEYERS, *supra* note 16, § 227.

166. *Edwards*, ¶ 39, 534 P.2d at 677.

167. 1 WILLIAMS & MEYERS, *supra* note 16, § 227.

168. *Id.*

169. *Id.*

B. Oklahoma

The Oklahoma Corporation Commission regulates the oil and gas industry in Oklahoma and has a similar mission statement as its neighbor to the south, stating:

> [o]ur mission is to provide information, permitting, investigation, and compliance services to the oil and gas industry, mineral interests, landowners, and the general public so together we can develop the oil and gas resources of the state in a fair and orderly manner while protecting the environment and ensuring public safety.[170]

The Commission provides a complicated system of spacing and setbacks that is rooted in variances of unit sizes.[171] The unit sizes are set based on applications to the Corporation Commission and usually create either 640-acre or 1,280-acre drilling units.[172] The setbacks vary based on the size of the unit, and the standard setback can be modified upon request of the operator and approval by the Commission.[173]

Oklahoma leads the industry on compulsory pooling, which some equate to a taking or eminent domain.[174] However, the sophisticated compulsory pooling system in Oklahoma protects the resources and the mineral owners alike.[175] A mineral owner that holds an 11.07-acre peninsula in a 640-acre or 1,280-acre drilling unit would not be allowed to prevent her neighbor from recovering, nor would she be left out in the cold by an oil company that attempts to take her minerals without compensation.[176] The method utilized considers the value of the eight sections surrounding the unit and applies the highest fair market value surrounding the drilling unit to those that are compulsory pooled.[177] The person pooled does not actually have anything taken from her but is

170. OKLAHOMA CORPORATION COMMISSION, *Oil and Gas Division*, https://www.occeweb.com/
og/oghome.html [https://perma.cc/5SU8-VXGZ] (last visited Feb. 11, 2019).
171. Telephone Interview with Jared Harrison, Shareholder, Harrison & Mecklenburg Inc., (Feb. 2, 2019).
172. *Id.*
173. *Id.*
174. *Id.*
175. *Id.*
176. *Id.*
177. *Id.*

required to make a decision.[178] She will receive an offer with multiple choices on the amount of bonus and royalty income she can receive.[179] She may even elect to participate as a working interest owner in the well.[180]

If the mineral owner elects to be a royalty interest owner, she may choose between a higher up-front bonus combined with a lower royalty percentage or a lower up-front bonus combined with a higher royalty percentage.[181] For example, if the Commission determines the fair market value around the section to be $5,000 per acre plus a 1/8 royalty interest, then she will be able to choose this option or possibly $4,800 per acre and a 3/16 royalty interest, or even $4,500 per acre and a 1/5 royalty interest. The mineral owner may even choose to participate as a working interest owner in part or all of the acres she owns in the drilling unit.[182] As a working interest owner, she will incur her proportionate share of the costs to drill and produce up-front but will receive an 8/8 interest in everything produced for the number of acres she chooses to participate with.[183] Using this method allows a person—with less resources than otherwise would be required to drill a well—the ability to invest in a market she would normally be left out of for lack of capital.[184]

Compulsory pooling protects from too many wells being drilled, which impacts the environment in Oklahoma.[185] It also keeps the minority interest owner from preventing her neighbor from using a stick in his bundle of property rights.[186] More importantly, compulsory pooling prevents an operator from ignoring the rights of the minority mineral owner by drilling right next to her property in an effort to drain it without compensating her for it.[187]

C. Pennsylvania and West Virginia

Like other states, Pennsylvania and West Virginia have regulatory bodies overseeing the development of their oil and gas resources, which

178. *Id.*
179. *Id.*
180. *Id.*
181. *Id.*
182. *Id.*
183. *Id.*
184. *Id.*
185. *Id.*
186. *Id.*
187. *Id.*

promote development. Mineral extraction for these states is nothing new and is a large part of their economies.[188] In past years, regulations similar to Texas' and Oklahoma's were implemented and are still in place. However, they are for formations much deeper than the ones currently in production.[189] The Marcellus Shale is much shallower than the formations covered by the current regulations, which led to the controversy in both *Stone* and *Briggs*.[190] In search of a solution, several things have been considered and some misunderstandings have resulted.[191]

In *Briggs*, the Superior Court of Pennsylvania asserted that natural gas trapped in the Marcellus Shale does not migrate and is therefore not fugacious.[192] The Superior Court further asserted that because the gas is not fugacious, hydraulic fracturing is required to produce the gas.[193] This assertion is in error.[194] While hydraulic fracturing is the reason Marcellus Shale production is so prevalent today, it is not because the gas fails to be fugacious.[195] Hydraulic fracturing makes the production easier, more cost effective, and drastically decreases the time it takes to receive a return on investment.[196] "All rocks are permeable. Some rocks are more permeable than others. To argue that a gas is not fugacious is disingenuous."[197]

This is not a new issue in Pennsylvania, and a previous governor even formed a commission to come up with the best way to move forward with production of the Marcellus Shale.[198] "A leading geologist—who some have labeled the 'Father of the Marcellus'"[199]—participated as the only academic appointment on the Marcellus Shale Advisory Commission

188. James Castro, *Oil and Gas Industry Energizing W. Va. Economy*, THE STATE JOURNAL, https://wvnews.com/statejournal/energy/oil-and-gas-industry-energizing-w-va-economy.article_3f6f4375-1a4c-5be2-b9cb-0a8a039228ab.html [https://perma.cc/E6Q5-DH3U] (last visited Feb. 11, 2019).

189. Engelder, *supra* note 162.

190. *Id.*

191. *Id.*

192. Briggs v. Sw. Energy Prod. Co., No. 1351 MDA 2017, 184 A.3d 153, 153 (Pa. Super. Ct. 2018).

193. *Id.*

194. Engelder, *supra* note 162.

195. *Id.*

196. *Id.*

197. *Id.*

198. Brief of *Amicus Curiae* Pa. Indep. Oil & Gas Assoc. in Support of Allowance of Appeal at app. A, Sw. v. Briggs, No. 443 MAL 2018, 197 A.3d 1168 (Pa. 2018).

199. Telephone Interview with Kevin Moody, General Counsel & Vice President of Government Affairs, Pennsylvania Independent Oil & Gas Association (Jan. 30, 2018).

(MSAC) established in 2010.[200] MSAC, by a vote of 30 to 3, determined and advised Governor Tom Corbett that compulsory pooling would solve many disputes and would minimize mineral waste in Pennsylvania.[201] But the Governor compared the idea of compulsory pooling to eminent domain and refused to create such a system.[202] This decision prevented the Briggs family from recovering the value of their minerals.

West Virginia has faced the same problem in getting their "Fair Pooling" plan passed, which would protect its citizens.[203] Further, both of these states have policies in place to recover minerals, prevent waste, promote sound environmental protections, and avoid the inability of mineral owners to utilize their full bundle of sticks for deeper formations. There is nothing fundamentally different in the recovery process between formations that would justify such a disparity in policy.

XII. WHAT THE RIGHT PATH FORWARD IS

None of the court decisions that are at the forefront of this issue have handled it the way that would balance the rights of citizens, protect the environment, and prevent waste. Texas gets the closest to solving the entire issue yet fails to exercise forward-thinking. West Virginia focused on protecting the unsophisticated owner—though this decision never was precedential and has been vacated—while the most recent Pennsylvania opinion will create a floodgate of litigation.

A. Texas

The Supreme Court of Texas in *Coastal* applied the rule of capture to instances where hydraulic fracturing may have crossed a lease boundary.[204] This rule applies equally in Texas when the physical crossing was accomplished by the fractures themselves, the drilling fluid, or the proppants.[205] The Court laid out four rationales for coming to this conclusion, all influenced by the original rule of capture.[206] The underlying

200. Brief of *Amicus Curiae* Pa. Indep. Oil & Gas Assoc., *supra* note 197, at app. A.
201. *Id.*
202. *Id.*
203. Aaron Payne, *Forced Pooling Bill Defeated in House With Tie Vote*, METRONEWS (March 14, 2015, 11:50 PM).
204. Coastal Oil & Gas Corp. v. Garza Energy Tr., 268 S.W.3d 1, 4 (Tex. 2008).
205. *Id*. at 12.
206. *Id.* at 14-16.

rationale stems from the assumption that everything about drilling a man-made hole in the ground is unnatural, and it is difficult to determine exactly what is happening thousands of feet below the surface.[207] The fugacious nature of oil and gas allows it to move from place to place like wild animals; therefore, it is unreasonable to conclude that anyone actually has possession of the minerals until those minerals are physically captured.[208] If an operator has a legal right to be where she is drilling, then she has acted with due diligence. The complexities and uncertainties involved make it too difficult for a court to establish a fair result for every case that is before it.

The Supreme Court of Texas failed because it was reluctant to exercise the forward-thinking it had done with cases and new technologies in the past. As the oil and gas industry developed with deviated or slant well drilling, courts recognized the need to analyze the intent of the operator.[209] But, sometimes, the operator can do everything right and the technology fails. When this happens, the operator may be in a place she has no right to be, but the action was still in good faith. When the operator fails to follow the regulations set forth by the regulatory body, or when the operator intentionally goes into her neighbor's land to take what rightfully belongs to the neighbor, she has operated in bad faith.[210] Damages for operating in bad faith are much more severe. As directional drilling improves technologically, it is unlikely that an operator will be able to show that she acted in good faith.[211] Today's hydraulic fracturing is comparable to directional drilling in its beginning. No one in the mid- to late-1900s could have predicted what precision operators would obtain with today's technology. For this reason, the Court should have left the door open to the idea that operators may act in good or bad faith. If technology improves or the neighbor can demonstrate bad faith, the operator might be able to be held liable for subsurface trespass created by hydraulic fracturing. It may have been possible to draw the vote of the dissent by creating this distinction, as this was one of the dissent's points of contention. The lack of a dissent here would have created a more difficult decision for the judge in *Stone*.

207. *Id.* at 13, 16.
208. Westmooreland v. Dewitt, 18 A. 724, 725 (Pa. 1889).
209. 1 WILLIAMS & MEYERS, *supra* note 16, § 227.
210. *Id.*
211. *Id.*

B. West Virginia

The United States District Court of West Virginia, sitting in diversity, focused on protecting the unsuspecting mineral owner from the big oil companies.[212] The Court found that it was not possible for the mineral owner to take advantage of the oil company. This is less common, but nonetheless cannot be discarded as an impossibility. Decisions reached by mineral owners can create situations where it becomes unprofitable for companies to drill. Situations like this waste minerals, create environmental problems, and prevent neighboring landowners from using the sticks in their bundle. A decision as broad and vague as the one originally issued in the district court case creates a situation where the court ignores the correlative rights of competing owners. How exactly can a court determine whose interest is more valuable or more important?

The Court claimed to apply West Virginia state common law.[213] The Court additionally pointed out that the Texas Supreme Court did not believe the traditional common law principle of *cujus est solum est usque ad coelum et ad inferos'* has any place in the modern world.[214] The Court also pointed to a somewhat recent West Virginia case that reaffirmed that same common law principle.[215] In the world of airplanes, spaceships, and hydraulic fracturing, it makes no sense for the Court to believe West Virginia courts would affirm a common law principle talking about property rights from heaven to hell in its entirety. West Virginia may differ from Texas and believe there is some use for the traditional rule in the modern world; however, it is unlikely that West Virginia courts would hold the rule applies in its traditional form.

The facts of *Stone* seem to make it readily apparent that the operator was taking advantage of the unsophisticated landowner.[216] Whether that is the case is impossible to determine from the facts. It is impossible to be certain because the price offered and rejected is not presented, nor do we know the fair price paid for surrounding leases. When a meeting of the minds does not take place, either party can reject a reasonably fair deal. No conclusions should be reached without facts presented. When that

212. Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 U.S. Dist. LEXIS 71121, at 21 (N.D.W.Va. Apr. 10, 2013).
213. *Id.* at 18.
214. *Id.* at 21.
215. *Id.*
216. *Id.* at 3.

agreement could not be made, did the actor who started to drill within two hundred feet of the boundary to end within tens of feet of the same boundary act inappropriately?[217] A gut reaction is "yes," and that reaction might create the emotion required to establish a remedy in the interest of fairness.

The court is not in the best position to create arbitrary limits on what distances are fair and unfair. Judicial restraint and acknowledging the court's limitations are likely to create better standards for the industry to operate within. When a court acknowledges that a result is unfair but points to the failure of the other branches to solve the problem, it is likely the court will force the legislature or executive to act, creating more justice in the end by those better enabled to provide it. The *Stone* Court attempted to draw similarities with *Coastal*; however, it directly attacked the majority opinion and adopted the dissenting opinion. There was absolutely no need to do this because the laws in the states are dissimilar. Texas operates under a sophisticated system of regulation, and the West Virginia Legislature has failed to act or force its regulatory agency to act by creating a more sophisticated system. Even if one believes West Virginia regulations are adequate, the facts in these cases are not comparable. The Texas operator was within limits and 467 feet from the boundary, which is a far cry from "tens of feet."

C. Pennsylvania

The Court of Common Pleas in Susquehanna County originally acknowledged that Pennsylvania has a long tradition in the oil and gas industry and that the rule of capture has roots in that common law framework.[218] The Superior Court of Pennsylvania relied heavily on the opinion of a federal district judge, sitting in diversity, who insisted he applied the laws of West Virginia.[219] Further, the opinion cited was actually vacated.[220] The opinion that the Superior Court of Pennsylvania found persuasive did not have precedential value in the state where it was issued originally and carried even less value since it was subsequently vacated. It is likely that the decision was vacated because the parties

217. *Id.*

218. Briggs v. Southwestern Energy Production Co., No. 2015-1253, 4-5, 2017 WL 10605836 (Ct. Com. Pl. Susquehanna Cty. Aug. 2, 2017).

219. Briggs v. Sw. Energy Prod. Co., No. 1351 MDA 2017, 184 A.3d 153, 161-63 (Pa. Super. Ct. 2018).

220. *Id.* at 161, n. 8.

reached a settlement, but that carries no weight in the analysis.

Much like the judge in West Virginia, the Superior Court of Pennsylvania drew upon the dissent in *Coastal*, while explicitly disagreeing with the rationale of the majority.[221] The cases are dissimilar. In *Coastal*, the operator acted within the parameters of a sophisticated regulatory body.[222] The wellbore was 467 feet away from the lease boundary,[223] while in Pennsylvania the wellbore crossed within 63 feet of the lease boundary.[224] Pennsylvania law is very similar to Texas law when an operator is drilling in the deeper formations. The Pennsylvania courts should acknowledge that the regulatory body is better suited to handle this situation.[225] If the result was unjust, the court could explain its disdain for the status of the law and regulatory scheme. This judicial restraint would likely cause the legislature to be forced to make determinations and establish law or promote regulations, which they are in the best position to do. It is not in the best interest of the court to criticize other courts that operate under a different system of laws and under completely different facts.

The facts of *Briggs* demonstrate the benefit of a compulsory pooling scheme like that of Oklahoma. Under the facts as they appear, the mineral owner was sophisticated enough to realize the benefit of having his land pooled with his neighbor. The mineral owner approached the operator to seek such a pooling agreement, but was denied.[226] The operator in that case, SWN, decided that it would forgo the opportunity to lease the land,[227] most likely because the drilling plan had the wellbore going within 63 feet of the boundary, and SWN knew that, after fracturing, it was quite possible it could drain the 11.07 acres without paying for them. It is not possible for an operator to know with certainty the directions or distance fractures will travel but reasonable to believe the fractures will travel 200 to 500 feet.[228] If a few fractures traveled under the Briggs' property it would likely drain some of, if not all, the gas. Natural gas and oil in the Marcellus Shale does migrate to lower pressures, even if it may be at a slower rate

221. *Id.* at 159-63.
222. Coastal Oil & Gas Corp. v. Garza Energy Tr., 268 S.W.3d 1, 6 (Tex. 2008).
223. *Id.*
224. Answer to Petitioner, *Briggs*, *supra* note 122, at 153.
225. *Compare* 25 PA. CODE § 79.11(b) (1989) *with* 16 Tex. Admin Code § 3.37 (2004).
226. Brief for Appellees, *supra* note 222, ¶ 39.
227. *Id.* ¶ 20.
228. Engelder, *supra* note 162.

than preferred.[229] Hydraulically fracturing so close to the Briggs property most likely increased the rate at which those minerals migrated from the property.[230] If the property was part of a drilling unit that established an independent regulatory body, the operator would be required to compensate the Briggs family for its minerals. Assuming *arguendo* that the Briggs family wanted to holdout and attempt to charge the operator more than a reasonable rate for its minerals, a compulsory pooling system would ensure the operator was able to lease the land at a fair rate, and the Briggs family would not be able to prevent the neighbor from accessing her entire bundle of sticks. She would be able to produce her minerals, and thus, no waste and less environmental impact would result. Correlative rights must be protected.

The Supreme Court of Pennsylvania heard oral arguments from the parties on September 12, 2019.[231] The highest court in Pennsylvania should not be focused on fundamental fairness and equity in this case, but rather on promoting a system in which operators and mineral owners may have predictability. If the result in this particular case comes out unfairly, it is not for the Court to start attempting to decide at what distance hydraulic fractures are safe from trespass. The Court is not in the best position to conduct the lengthy hearings required to develop fair policy. The Court should express disdain for the failure of the other branches to protect the people of the Commonwealth. Anything else is likely to draw lots of previous wells into the courtroom and open floodgates of litigation where the courts will be required to produce arbitrary rules attempting fairness under each set of individual facts. It is also likely to create a large system of unpredictability in the marketplace and greatly impact the economy in Pennsylvania. Legislators in Pennsylvania should look to the systems of more experienced states' regulatory agencies and apply the rules they already have in place for depths below 3,800 feet.

XIII. ANOTHER FRACTURING PROBLEM

Currently in Oklahoma, hydraulic fracturing has created a whole new line of litigation. These cases involve the interactions between existing vertical well operators and the new horizontal wells being produced in the

229. *Id.*
230. *Id.*
231. Moody, *supra* note 133.

same proximity.[232] Many times, when the horizontal wells are hydraulically fractured, they "water-out" nearby existing vertical wells that have produced steadily.[233] The results are mixed because in some instances the wells start producing better, but in others the wells cease production.[234] The remedies possibly include determining the value of what was being produced before the "water-out"; however, there is often much disagreement about how long the well would have continued to produce.[235] Another possible remedy may be for the operator that is going to hydraulically fracture to notify the vertical operator so the well can be "shut-in" for a specified time period to possibly prevent the loss of the entire well.[236] And of course, compensation for the production lost during the shut-in period must be part of the equation.[237] That being said, this is a problem distinguished from the one discussed in this Note; yet, it is certainly worthy of more attention and a place for further research to be conducted.

XIV. CONCLUSION

The best possible outcome would be if the Supreme Court of Pennsylvania applied the rule of capture, even though it may have an unsatisfying remedy for the Briggs family. Pennsylvania and West Virginia legislatures should either pass legislation or direct the regulatory bodies to create rules that establish a fair result for their citizens and promote sound economic and environmental balances. At a minimum, those two states should apply the same laws that regulate deep formations to the Marcellus Shale and other shallow formations. The better choice would be to do the above and adopt a compulsory pooling system that balances interests and protects their citizens. More research and attention should be given to the hydraulic fractures in Oklahoma that are creating situations where existing vertical wells could be watered out.

232. Interview with Paul Trimble, Professor of Law, Oklahoma City University School of Law, Partner, Spencer Fane L.L.P. in Oklahoma City (Jan. 13, 2019).
233. *Id.*
234. *Id.*
235. *Id.*
236. *Id.*
237. *Id.*