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Tara Righetti

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## THE PRIVATE PORE SPACE: CONDEMNATION FOR SUBSURFACE WAYS OF NECESSITY\*

*Tara Righetti*<sup>†</sup>

*“[P]ore space is the conceptual embodiment of nothing . . . .  
Outside of that generative structure [that creates it], it does not exist.”*<sup>1</sup>

Article I, section 32 of the Wyoming Constitution sets forth a private right of eminent domain for ways of necessity.<sup>2</sup> In the 125 years since its passage, section 32, the Wyoming Eminent Domain Act, and the private road statute have been used by private parties to obtain access to homesteads and oil wells, build ditches and flumes to divert irrigation water to arid parcels,<sup>3</sup> and construct railway sidings and tramways through which coal could be transported from a mine to an interstate railway.<sup>4</sup> To date however, the right of condemnation for ways of necessity has only been applied to establish access to and promote development of surface parcels by establishing means of surface use; it has not been used in the subsurface context.

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\* The title is a play on the title of the James Robert Zadick's note, *The Public Pore Space: Enabling Carbon Capture and Sequestration by Reconceptualizing Subsurface Property Rights*, 36 WM. & MARY ENVTL. L. & POL'Y REV. 257 (2011).

† School of Energy Resources Assistant Professor of Law, University of Wyoming. This research was supported by a summer research grant from the School of Energy Resources at the University of Wyoming. I also wish to acknowledge Professors Owen L. Anderson and Bruce M. Kramer, whose excellent scholarship on pore space has shaped my understanding of the topic and approach to this paper, and the editors of the Wyoming Law Review for their assistance.

<sup>1</sup> Kevin L. Doran & Angela M. Ciphor, *Does the Federal Government Own the Pore Space Under Private Lands in the West? Implications of the Stock-Raising Homestead Act of 1916 for Geologic Storage of Carbon Dioxide*, 42 ENVTL. L. 527, 542 (2012).

<sup>2</sup> WYO. CONST. art. I, § 32.

<sup>3</sup> *Gustin v. Harting*, 121 P. 522 (Wyo. 1912).

<sup>4</sup> *Meyer v. Colorado Cent. Coal Co.*, 271 P. 212 (Wyo. 1928).

This article examines whether energy developers can condemn subsurface ways of necessity under the Wyoming Eminent Domain Act. In so doing, it describes the nature of the property interest in the subsurface, and applies section 32 and the requirements of the Wyoming Eminent Domain Act to subsurface acquisitions. It then briefly examines challenges posed by calculations of due compensation for subsurface takings.

### OWNERSHIP OF THE PORE SPACE

Pore space refers to the tiny cavities in the subsurface between grains, fractures, and vesicles, or voids formed by dissolution.<sup>5</sup> The pore space is not occupied by solid material.<sup>6</sup> Instead, air, water, hydrocarbons or other fluids may occupy these spaces.<sup>7</sup> Taken together, these tiny voids can constitute large subsurface storage reservoirs with a distinct and separate commercial value from the minerals; they may be appropriate for injection of wastewater or for geologic sequestration of captured carbon dioxide from anthropogenic sources.<sup>8</sup> Perhaps the most easily understood definition of pore space comes from Professor Kramer, who refers to it simply as the “rock.”<sup>9</sup>

The question of pore space ownership has become a renewed topic of interest as technologies, such as hydraulic fracturing and horizontal drilling, have resulted in greater penetration of the pore space. These technologies increase the possibility of subsurface trespass and other torts resulting from migrating fluids, proppants, and errant wellbores that deviate from their planned paths.<sup>10</sup> Additionally, the pore space has been recognized as having its own value for reinjection of produced substances, storage of non-native gasses, and for geologic carbon sequestration.<sup>11</sup>

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<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> RICHARD C. SELLEY & STEPHEN A. SONNENBERG, *ELEMENTS OF PETROLEUM GEOLOGY* 225 (3d ed. 2015); WYO. STAT. ANN. § 34-1-152(d) (2015) (“[P]ore space’ is defined to mean subsurface space which can be used as storage space for carbon dioxide or other substances.”).

<sup>8</sup> See Sally M. Benson & David R. Cole, *CO<sub>2</sub> Sequestration in Deep Sedimentary Formations*, 4 *ELEMENTS* 325 (2008), [http://www.geo.arizona.edu/~reinners/geos195K/CO<sub>2</sub>Sequestration\\_Benson\\_ELEMENTS.pdf](http://www.geo.arizona.edu/~reinners/geos195K/CO2Sequestration_Benson_ELEMENTS.pdf) (discussing the various physical and geochemical processes whereby CO<sub>2</sub> is sequestered).

<sup>9</sup> Bruce M. Kramer, *Horizontal Drilling and Trespass: A Challenge to the Norms of Property and Tort Law*, 25 *COLO. NAT. RESOURCES, ENERGY & ENVTL. L. REV.* 291, 294 (2014).

<sup>10</sup> *Id.* at 337–38 (“The common law rules relating to trespass and other torts that are implicated in the use of longer and longer horizontal well laterals and hydraulic fracturing have come under siege.”).

<sup>11</sup> Troy A. Rule, *Property Rights and Modern Energy*, 20 *GEO. MASON L. REV.* 803, 810 (2013) (“Subsurface pore space can be highly valuable as a place to store carbon dioxide gases emitted from fossil-fuel combustion. Such space is also sometimes used for storing previously extracted natural gas.”).

Although some debate lingers among scholars,<sup>12</sup> the majority of courts have concluded that pore space is included as part of the surface estate.<sup>13</sup> Beginning in 1927, courts were faced with differentiating between the fugitive and moveable hydrocarbons and the stationary “sand-bearing oil” within which the hydrocarbons flowed.<sup>14</sup> The determining factors of differentiation are: (1) whether the mineral estate has been severed and separately conveyed or merely leased, (2) whether the stratum is mineral bearing, and (3) whether the hydrocarbons in the strata have been depleted.<sup>15</sup> While a variety of decisions vacillate between favoring the mineral owner or the surface owner as owners of the pore space,<sup>16</sup> viewed together, precedent supports the general premise that, while the mineral owner has the right to use the pore space to extract and exploit the minerals, the surface owner has the corporal interest in the non-mineral bearing subsurface and the remaining rock once any minerals have been extracted.<sup>17</sup>

Support for this position can be traced to Lord Coke’s *ad coleum* doctrine.<sup>18</sup> The doctrine stands for the proposition that the owner of property owns it from the sky to the center of the earth.<sup>19</sup> Thus, the owner of a fee simple interest in

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<sup>12</sup> At least one scholar has put forth the idea that the pore space may be reserved to the federal government pursuant to reservations under the Stock Raising Homestead Act. See generally Doran & Ciphor, *supra* note 1.

<sup>13</sup> See Jean Feriancek, *Resolving Ownership of Pore Space*, 26 NAT. RESOURCES & ENV’T, no. 3, 2012, at 49 (“[O]wnership of pore space by the surface owner is considered the majority view in the United States . . . .”); Owen L. Anderson, *Subsurface “Trespass”: A Man’s Subsurface is Not his Castle*, 49 WASHBURN L. J. 247, 248–49 (2010) [hereinafter *Subsurface Trespass*]; Owen L. Anderson, *Geologic CO<sub>2</sub> Sequestration: Who Owns the Pore Space?*, 9 WYO. L. REV. 97, 99 (2009) [hereinafter *Geologic CO<sub>2</sub>*]; Alexandra B. Klass & Elizabeth J. Wilson, *Climate Change, Carbon Sequestration, and Property Rights*, 2010 U. ILL. L. REV. 363, 365 (2010); Christopher J. Miller, *Carbon Capture and Sequestration in Texas: Navigating the Legal Challenges Related to Pore Space Ownership*, 6 TEX. J. OIL GAS & ENERGY L. 399, 401 (2010–2011); Blayne N. Grave, Comment, *Carbon Capture and Storage in South Dakota: The Need for a Clear Designation of Pore Space Ownership*, 55 S.D. L. REV. 72, 73 (2010).

<sup>14</sup> *Grey-Mellon Oil Co. v. Fairchild*, 292 S.W. 743, 745 (Ky. 1927) (“While the oil is fugitive, the sand-bearing oil is as stationary as a bank of coal.”).

<sup>15</sup> *Id.*

<sup>16</sup> For an excellent and comprehensive overview of these cases, see Kramer, *supra* note 9, at 295–99.

<sup>17</sup> *Grey-Mellon Oil*, 292 S.W. at 745.

<sup>18</sup> Owen L. Anderson, *Lord Coke, The Restatement and Modern Subsurface Trespass Law*, 6 TEX. J. OIL, GAS & ENERGY L. 203 (2010–2011) [hereinafter *Lord Coke*]. Sir Edward Coke, a 17th century English jurist, is widely considered among the most influential early proponents of the common law. See ALLEN D. BOYER, *SIR EDWARD COKE AND THE ELIZABETHAN AGE* (William Twining eds., 2003); Andrea S. Miles, *Wyoming’s Robin Hood Statute*, EMERGING ISSUES L. BLOG (Jan. 5, 2009, 9:35 AM), [http://www.lexisnexis.com/legalnewsroom/top-emerging-trends/b/emerging-trends-law-blog/archive/2009/01/05/andrea-s.-miles\\_2c00\\_-esq.\\_3a00\\_-wyoming\\_1920\\_s-robin-hood-statute.aspx](http://www.lexisnexis.com/legalnewsroom/top-emerging-trends/b/emerging-trends-law-blog/archive/2009/01/05/andrea-s.-miles_2c00_-esq._3a00_-wyoming_1920_s-robin-hood-statute.aspx).

<sup>19</sup> *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 11 (Tex. 2008); *Del Monte Mining & Milling Co. v. Last Change Mining & Milling Co.*, 171 U.S. 55, 57–65 (1898).

property owns all that is above and below his property, including the airspace and all subsurface strata, pore space, and minerals contained therein.<sup>20</sup>

It is well settled that the owner of a fee simple interest can sever and separately convey the minerals, creating what is commonly known as a split estate.<sup>21</sup> However, unless the conveyance specifically provides otherwise, mineral severance alone will not divest the surface owner of the pore space under her property.<sup>22</sup> Instead, the surface owner retains everything not conveyed, including the pore space in which the minerals are located.<sup>23</sup> Once the minerals have been extracted, exclusive control of the pore space reverts to the dominion of the surface owner, at least until such time as additional minerals may be discovered therein.<sup>24</sup>

As a result, the differentiation between mineral and surface ownership is less hierarchical than traditional conceptions of property might suggest.<sup>25</sup> The surface owner does not have an absolute interest in the subsurface.<sup>26</sup> Rather than creating a diametric relationship between the parties, the mineral and surface owners each have reciprocal, protected interests in access and use of the pore space.<sup>27</sup> While the mineral owner does not own the reservoir rock itself or the pores within it, she has the exclusive right to explore for and produce valuable substances that might be stored therein.<sup>28</sup> A surface owner cannot block a mineral owner's reasonable

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<sup>20</sup> *Geologic CO<sub>2</sub>*, *supra* note 13, at 99.

<sup>21</sup> PATRICK H. MARTIN & BRUCE M. KRAMER, WILLIAMS & MEYERS, OIL AND GAS LAW § 301 (LexisNexis Mather Bender 2014) (“Authority everywhere permits the severance of land into two estates, a surface estate and a mineral estate.”).

<sup>22</sup> K.K. Duvivier, *Sins of the Father*, 1 TEX. A&M J. REAL PROP. L. 301 (2014); Samantha Hepburn, *Does Unconventional Gas Require Unconventional Ownership? An Analysis of the Functionality of Ownership Frameworks for Unconventional Gas Development*, 8 PITT. J. ENVTL. PUB. HEALTH L. 1, 10 (2013).

<sup>23</sup> *Geologic CO<sub>2</sub>*, *supra* note 13, at 103.

<sup>24</sup> *Geologic CO<sub>2</sub>*, *supra* note 13, at 99–100.

<sup>25</sup> Matthew J. Lepore & Derek L. Turner, *Legislating Carbon Sequestration: Pore Space Ownership and Other Policy Considerations*, COLO. LAW., Oct. 2011, at 61; Donald N. Zillman, *The Common Law of Access and Surface Use in Oil, Gas, and Mining*, 1 ROCKY MOUNTAIN MIN. L. INST. 14 (2005).

<sup>26</sup> *Geologic CO<sub>2</sub>*, *supra* note 13, at 101 (“Accordingly, even though the surface owner may own the pore spaces, the mineral owner has broad rights to penetrate or otherwise use them in connection with mineral exploration and exploitation.”).

<sup>27</sup> *Geologic CO<sub>2</sub>*, *supra* note 13, at 101.

<sup>28</sup> States take different perspectives on whether the mineral owner owns the hydrocarbons in place or whether the severed mineral interest creates an exclusive right to take; however, regardless of which theory a state has adopted, the mineral owner has exclusive rights to conduct operations and to possess, use, and appropriate gas and oil. See *Stephens v. Mid-Kansas Oil & Gas Co.*, 254 S.W.2d 290, 295 (Tex. 1923), but for limitations see *Lightning Oil Co. v. Anadarko E & P Onshore L.L.C.*, No. 04-14-00903-CV, 2015 WL 5964939, at \*8 (Tex. App. 2015) (declining to extend exclusive rights of mineral lessee to “the subterranean structures in which any hydrocarbon molecules might be found.”).

use in the subjacent pore space to extract the minerals, just as the surface owner cannot block access to the superjacent airspace for location of pumping units.<sup>29</sup> The mineral owner can use, damage, crush, stimulate, and fracture the pore space using technological processes as is reasonably necessary to extract the minerals and to increase hydrocarbon recovery.<sup>30</sup> Once a hydrocarbon reservoir has been drained or depleted, the vacant pore space remains the property of the surface owner. However, the mineral owner can use the vacant spaces as needed for secondary and tertiary recovery operations in order to remove any recoverable minerals that may remain.<sup>31</sup>

Wyoming has statutorily declared ownership of the pore space to be vested in the surface owner.<sup>32</sup> Wyoming Statute section 34-1-152(a) states: “The ownership of all pore space in all strata below the surface lands and waters of this state is declared to be vested in the several owners of the surface above the strata.”<sup>33</sup> As there is currently no precedent to the contrary, it is likely that courts will respect the legislature’s designation, at least in regards to private lands.<sup>34</sup>

Although the above declaration in section 152(a) provides some legal clarity as to the rights of surface and mineral owners in the pore space, concerns as to potential multiple use conflicts resulting from a declaration of pore space ownership remain.<sup>35</sup> In 2009, the legislature amended section 152 to affirm the dominant-servient relationship between the mineral and surface owners as it related to the pore space.<sup>36</sup> Wyoming Statute section 34-1-152(e) reads as follows: “Nothing in this section shall be construed to change or alter the common law as of July 1, 2008, as it relates to the rights belonging to, or the dominance of, the

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<sup>29</sup> See *Getty Oil Co. v. Jones*, 470 S.W.2d 618 (Tex. 1971).

<sup>30</sup> R. Lee Gresham & Owen L. Anderson, *Legal and Commercial Models for Pore-Space Access and Use for Geologic CO<sub>2</sub> Sequestration*, 72 U. PITT. L. REV. 701, 710–11 (2011) (“the owner of particular mineral interest generally will have the right to use the pore space as reasonably necessary to extract minerals, but the mineral owner is not likely to ‘own’ the pore space or to have the right to use the pore space for purposes unrelated to extracting minerals.”).

<sup>31</sup> See EUGENE KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 3.2 (LexisNexis Mathew Binder 2015).

<sup>32</sup> WYO. STAT. ANN. § 34-1-152(a) (2015).

<sup>33</sup> *Id.*

<sup>34</sup> See Gresham & Anderson, *supra* note 30, at 711; *Geologic CO<sub>2</sub>*, *supra* note 13, at 137; WYO. STAT. ANN. § 34-1-152(e).

<sup>35</sup> Delissa Hayano, *Guarding the Viability of Coal & Coal-Fired Power Plants: A Road Map for Wyoming’s Cradle to Grave Regulation of Geologic CO<sub>2</sub> Sequestration*, 9 WYO. L. REV. 139 (2009). “Wyoming’s legislature has attempted to head off conflicts between multiple interest owners in and around proposed GCS reservoirs by asserting that the GCS legislation does not alter the dominance of the mineral estate.” *Id.* at 156.

<sup>36</sup> Gresham & Anderson, *supra* note 30, at 711 (“In 2009, the Wyoming governor signed into law H.B. 57, which amends the pore-space provision in H.B. 89 and clarifies that the mineral estate is still dominant over the surface estate.”).

mineral estate.<sup>37</sup> This provision affirms the right of the mineral owner directly underlying a surface parcel to use, damage, and interfere with the surface owner's rights in the pore space as is reasonably incident to extraction and removal of the minerals.<sup>38</sup>

While the amendment makes clear that the pore space is subject to lawful entry by a severed mineral owner, it relates only to the dominance of the mineral estate under common law.<sup>39</sup> The statute does not resolve questions related to subsurface trespasses or uses that exceed the scope of the implied easement. The common law implied easement for surface use applies only to the surface directly overlaying the severed mineral parcel.<sup>40</sup> In the absence of an express agreement, pooling, or community lease, there is no implied right for a mineral developer to use the surface of its leased parcel for the benefit of development on adjoining lands or to use the surface of parcels in which it has no interest.<sup>41</sup> This limitation is grounded in the inherent relationship between the resulting estates in the surface and subsurface resource(s) that is created upon severance.<sup>42</sup> The initial severance of the minerals resulted in the stranding of a valuable resource underground, with no lawful means of access except through the overlying surface estate. Accordingly, a right of access is presumed due to the natural physical relation of the property interests.<sup>43</sup> However, this presumption does not extend to other lands.

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<sup>37</sup> WYO. STAT. ANN. § 34-1-152(e).

<sup>38</sup> *Id.*

<sup>39</sup> Compare WYO. STAT. ANN. § 34-1-152, with *Chartiers Block Coal Co. v. Mellon*, 25 A. 597, 598 (Pa. 1893).

<sup>40</sup> See MARTIN & KRAMER, *supra* note 21, § 218.4 (“[T]he use of the surface by a mineral owner of lessee in connection with operations on other premises constitutes an excessive user of his surface easements.”); see also *Robinson v. Robbins Petroleum Corp.*, 501 S.W.2d 865 (Tex. 1973); *Russell v. Texas Co.*, 238 F.2d 636 (9th Cir. 1956)

<sup>41</sup> MARTIN & KRAMER, *supra* note 21, § 218.4.

<sup>42</sup> See *Chartiers Block Coal*, 25 A. at 598 (“The difficulty is to so apply the law as to give each owner the right of enjoyment of his property or strata without impinging upon the right of other owners, where the owner of the surface has neglected to guard his own rights in the deed by which he granted the lower strata to other owners.”).

<sup>43</sup> MARTIN & KRAMER, *supra* note 21, § 218 (stating “[t]he instrument creating the mineral, royalty, or leasehold interest may . . . be completely silent concerning surface easements . . . by implication, the lessee or mineral owner may make such use of the surface of the land as is reasonably necessary for exploration, development and production of the minerals.”). For federal lands, this right was created by the public land disposal laws creating the severance. See *Kinney-Coastal Oil Co. v. Kieffer*, 277 U.S. 488, 504 (1928) (“So read [the Agricultural Entry Act and the Mineral Leasing Act] disclose an intention to divide oil and gas lands into two estates for the purposes of disposal—one including the underlying oil and gas deposits and the other the surface—and to make the latter servient to the former, which naturally would be suggested by their physical relation and relative values.”).

If a party wishes to use the surface of adjoining lands for mineral development, it must obtain a lawful right to do so by either an express easement and surface use agreement or, in limited circumstances, the exercise of eminent domain.<sup>44</sup>

However, in some situations use of the overlaying surface to access the mineral estate may be prohibited. Federal oil and gas leases often contain No Surface Occupancy provisions that prohibit any occupation or use of the surface of the lease lands.<sup>45</sup> Accordingly, the only way to access the subjuncting minerals is either with specific agency approval, usually requiring an EIS, or via a directionally drilled slant or horizontal well from an offsite drilling location.<sup>46</sup> In addition, production facilities must be located off the surface of the leased parcel.<sup>47</sup>

Outside of federal lands, there are rarely no-surface occupancy stipulations in oil and gas leases.<sup>48</sup> While express lease clauses, restrictive covenants, or other agreements may limit surface use, even modest restrictions on surface use in leases have been difficult to enforce.<sup>49</sup> Typically, the instrument creating the severance of the mineral interest either expressly or impliedly allows for use of the surface.<sup>50</sup> Thereafter, a severed mineral owner has little incentive to limit surface use; the lessor's interest is maximized by providing the lessee with the fewest hurdles to establishing production. Likewise, the royalty provision of an oil and gas lease provides the owner of unified surface and mineral interests with a strong incentive to facilitate development of the minerals and to refrain from imposing undue

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<sup>44</sup> Wyoming Res. Corp. v. T-Chair Land Co., 2002 WY 104, ¶¶ 3–9, 49 P.3d 999, 1002–03 (Wyo. 2002) (allowing exercise of eminent domain to acquire access to oil and gas wells on adjacent lands).

<sup>45</sup> New Mexico *ex rel.* Richardson v. Bureau of Land Mgmt., 565 F.3d 683, 690 (10th Cir. 2009); Conner v. Burford, 848 F.2d 1441, 1451 (9th Cir. 1988); Sierra Club v. Peterson, 717 F.2d 1409, 1415 (D.C. Cir. 1983).

<sup>46</sup> See Conner, 848 F.2d at 1447–48 (“Without approval of specific surface-disturbing activity, development of the oil and gas reserves underlying the surface of an NSO lease can only occur through directional (slant) drilling from a parcel not burdened by an NSO stipulation or by well spacing over a large reservoir such that no wells are located on the NSO leasehold.”); see also New Mexico *ex rel.* Richardson, 565 F.3d at 690.

<sup>47</sup> See Conner, 848 F.2d at 1447–48.

<sup>48</sup> The majority of leases containing NSO stipulations are on federal land in sensitive ecological or designated wilderness areas. NSO stipulations are more common on federal land because leases containing NSO stipulations may be entered into prior to an EIS without violating NEPA. See, e.g., Conner, 848 F.2d at 1448; Bob Marshall Alliance v. Hodel, 852 F.2d 1223 (9th Cir. 1988); Pit River Tribe v. United States Forest Serv., 469 F.3d 768 (9th Cir. 2006).

<sup>49</sup> For an example of a lease on private lands that attempts to limit surface use, see Lionheart Co. v. PGS Onshore, Inc., No. 10-06-00303-CV, 2007 WL 1704906 (Tex. App. 2007) (mem.).

<sup>50</sup> See Feland v. Placid Oil Co., 171 N.W.2d 829, 834 (N.D. 1969) (“Whether the express uses are set out or not, the mere granting of the lease creates and vests in the lessee the dominant estate in the surface of the land for the purposes of the lease; by implication it grants the lessee the use of the surface to the extent necessary to a full enjoyment of the grant. Without such use, the mineral estate obtained under the lease would be worthless.” (citations omitted)).



surface restrictions on the mineral lessee. Even if an owner wanted to restrict use of the surface, most parcels are not sufficiently large to permit the owner to make excessively restrictive demands and still secure development of the minerals.<sup>51</sup>

However, state, county, or municipal regulations may create a scenario where it is impossible to drill from a specific surface parcel.<sup>52</sup> For example, setback rules that prohibit drilling within a specified distance from a property line or occupied structure may make drilling on heavily developed or smaller parcels impossible.<sup>53</sup> Similarly, some cities only allow limited drilling activities within city limits.<sup>54</sup> If lease stipulations or regulations make it impossible to drill from the superjacent surface estate, the mineral developer must locate and secure access to an alternative surface location and drill directionally to access the leased minerals.<sup>55</sup> If a suitable location cannot be secured directly adjacent to the developer's mineral estate, it may be necessary to obtain access to the mineral interest through the subsurface of an intervening parcel.<sup>56</sup>

#### THE HYPOTHETICAL SCENARIO

There are a multitude of scenarios in which horizontal and directional wells may raise issues related to subsurface trespass.<sup>57</sup> One such scenario is the

<sup>51</sup> See Earnest E. Smith, *The Growing Demand for Oil and Gas and The Potential Impact Upon Rural Land*, 4 TEX. J. OIL GAS & ENERGY L. 1, 8 (2008-2009).

<sup>52</sup> See Bruce M. Kramer, *Local Land Use Regulation of Extractive Industries: Evolving Judicial and Regulatory Approaches*, 14 UCLA J. ENVTL. L. & POL'Y 41 (1995-1996), <http://repository.law.ttu.edu/bitstream/handle/10601/565/kramer2.pdf?sequence=1>.

<sup>53</sup> For an example of how setback rules can preclude drilling on certain parcels, see *Report to the Joint Minerals, Business and Economic Development Committee Well Setbacks Final Rule*, WYOMING OIL AND GAS CONSERVATION COMMISSION 13–17 (May 28, 2015), <http://legisweb.state.wy.us/InterimCommittee/2015/09Appendix12-0528.pdf>.

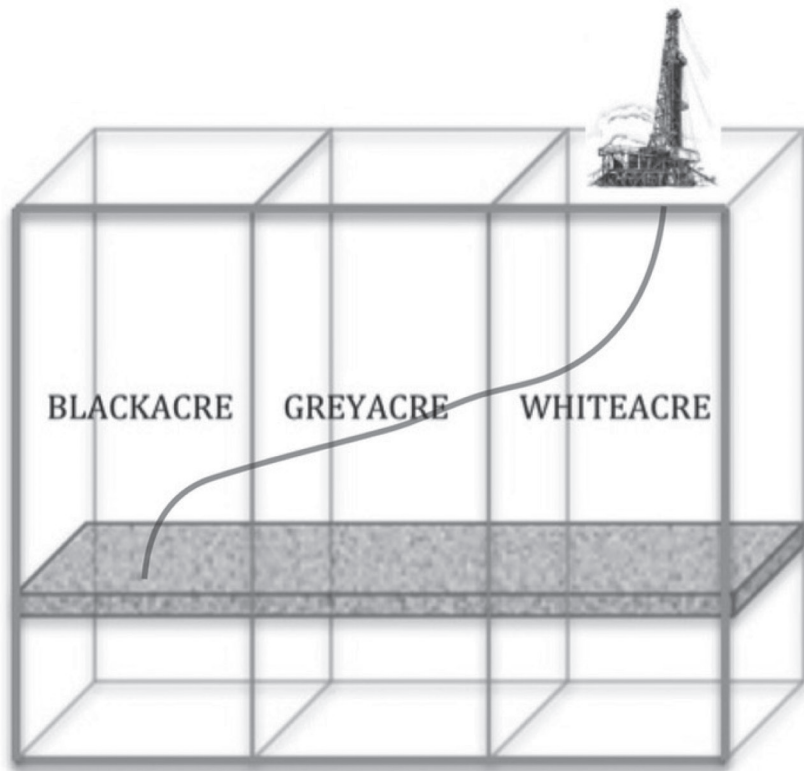
<sup>54</sup> See Kramer, *supra* note 52.

<sup>55</sup> In some cases, this can be accomplished by unitization or formation of a drill spacing unit.

<sup>56</sup> It is generally advised that the permission of both the mineral and surface owners are obtained for such an action, although consent of the mineral owner may not be required. Compare *Humble Oil & Refining Co. v. L. & G. Oil Co.*, 259 S.W.2d 933 (Tex. App. 1953), and *Lightning Oil Co. v. Anadarko E & P Onshore L.L.C.*, No. 04-14-00903-CV, 2015 WL 5964939 (Tex. App. 2015), with *Chevron Oil Co. v. Howell*, 407 S.W.2d 525 (Tex. App. 1966). See also Warren J. Ludlow, *Property Rights vs. Modern Technology: Finding the Right Balance in a World of Energy Shortages*, 1 ROCKY MOUNTAIN MIN. L. INST. 14 (2005) (stating “to be fully protected . . . an explorer would obtain easements from every owner, both surface and mineral, of each tract in which the proposed well will penetrate before it reaches the bottom hole location.”); W. Garrett Wilkerson, *Rigging Rights of Passage: Analyzing SubSurface Easements in Horizontal Drilling*, MISS. L. J. (2015), <http://ssrn.com/abstract=2553491> (citing John W. Broomes, *Spinning Straw Into Gold—Refining and Redefining Lease Provisions for the Realities of Resource Play Operations*, 57 ROCKY MOUNTAIN MIN. L. INST. 26–1, 26–15 (2011)). For an argument against requiring the consent of the mineral owner and analysis of some of the problems that could be encountered with such a requirement see *Subsurface Trespass*, *supra* note 13, at 263; see also *Lord Coke*, *supra* note 18, at 220.

<sup>57</sup> See Kramer, *supra* note 9.

transection of a directional wellbore through an unleased tract to access the leased premises.<sup>58</sup> For example, the wellbore—“the hole in the ground created by the process of drilling or boring a well”<sup>59</sup>—may pass through both hydrocarbon-bearing and non-hydrocarbon bearing rock formations under adjacent, unleased tracts in order to reach the leased minerals. The following example sets the scene for considering the relative property rights of the mineral and surface owners at issue, including condemnation of subsurface easements, subsurface trespass and damages, and prioritization for injection purposes.



Imagine three parcels adjacent to each other: Blackacre, Greyacre, and Whiteacre. Then imagine that a mineral developer leases the minerals subjacent to Blackacre, but for unspecified reasons cannot utilize the surface of Blackacre to access the minerals.<sup>60</sup> It is also not possible to use the surface of Greyacre to access the minerals because it is either unsuitable or because the owner of Greyacre will

<sup>58</sup> See *Chevron*, 407 S.W.2d at 525 (providing an example of one such scenario).

<sup>59</sup> See *Petro Pro, Ltd. v. Upland Res., Inc.*, 279 S.W.3d 743, 751 (Tex. App. 2007) (citations omitted).

<sup>60</sup> It is possible that Blackacre is a no surface occupancy lease, or that topographic constraints or setback rules make drilling vertically from Blackacre impossible. See *supra* notes 50–51 and accompanying text.

not agree to such use. Accordingly, the developer reaches an agreement with the owners of the surface and minerals of Whiteacre to use the property for the drilling location and equipping the well.<sup>61</sup> The developer then drills directionally to the hydrocarbon bearing formation under Blackacre. In so doing, the wellbore will physically transect the non-hydrocarbon bearing strata of Greyacre. The wellbore solely transects the unproductive strata and does not result in any completion in Greyacre. Next assume that access through an alternative surface parcel is not possible or practicable, that the well will not be perforated, that the well is not expected to produce any hydrocarbons from underneath either Whiteacre or Greyacre, that the bottom hole location and completion in Blackacre conforms to all state spacing requirements, and that neither voluntary nor forced pooling are available. Based on this hypothetical, to reach her mineral interest the developer will have to obtain lawful access or intentionally trespass through the subsurface of Greyacre.

#### THE CONSTITUTIONAL RIGHT OF CONDEMNATION FOR WAYS OF NECESSITY

The most preferable solution to the developer's problem in the above hypothetical is for the developer to obtain a lawful right of access by negotiating a subsurface easement with the surface and mineral owners of Greyacre and Whiteacre.<sup>62</sup> If that fails, an alternative may be for the mineral developer to pursue condemnation of a subsurface easement from either the mineral or surface owners under the Wyoming Eminent Domain Act ("Act").

The authority for the Act is grounded in Article I, section 32 of the Wyoming Constitution, which provides a private right of condemnation for ways of necessity.<sup>63</sup> Section 32 states that "[p]rivate property shall not be taken for private use unless by the consent of the owner, except for private ways of necessity, and for reservoirs, drains, flumes or ditches on or across the lands of others for agricultural, mining, milling, domestic, or sanitary purposes . . . ."<sup>64</sup> This right is also set forth in Wyoming's private road statute as well as the Act.<sup>65</sup>

The constitutional right of eminent domain for private ways of necessity is intended to provide "the owner of an interest in lands, enclosed on all sides by lands of others and unable to get to the land from a public road or highway,

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<sup>61</sup> It is possible that the consent of the mineral owner of Whiteacre would not be required. *See* *Lightning Oil Co. v. Anadarko E & P Onshore L.L.C.*, No. 04-14-00903-CV, 2015 WL 5964939, at \*1 (Tex. App. 2015) (holding that the lease did not grant the lessee "the exclusive right to determine who can drill through the earth and the oil and gas within the boundaries circumscribing the [ ] Lease.").

<sup>62</sup> *See supra* note 56 and accompanying text.

<sup>63</sup> *See* WYO. CONST. art. I, § 32.

<sup>64</sup> *Id.*

<sup>65</sup> *See id.*; WYO. STAT. ANN. §§ 1-26-501, -817 (2015).

[to] [] get relief by condemning a right of way to it across intervening land.”<sup>66</sup> Historically, homesteaders could only establish access to land and diversion of water to property by crossing the private lands of others; thus, assuring that this right was vital to the settlement of the state.<sup>67</sup> This same reasoning persists in modern judicial interpretations of section 32 of the Wyoming Constitution. For example, in *Coronado Oil Co. v. Grieves*, the Wyoming Supreme Court held that the purpose of the constitutional provision was to further the development of resources and economic growth:

We think it plain beyond any doubt that the intended purpose of [section 32 of the Wyoming Constitution and the Wyoming Eminent Domain Act] was to facilitate the development of our state’s resources . . . . It is only reasonable that the owner of valuable resources should not be shut in and deprived of the opportunity to exploit them for what is in a significant part a compelling public purpose.<sup>68</sup>

Importantly, the constitutional right of condemnation differs from the common law doctrine of ways of necessity. As Justice Thomas noted in his dissent in *Ferguson Ranch, Inc. v. Murray*,

[T]he common-law way of necessity is not a taking, while the constitutional provision is intended to authorize a taking; instead, it is a doctrine of an implied grant. Stated another way, the common-law way of necessity is a doctrine of conveyancing; it is not an aspect of the doctrine of eminent domain.<sup>69</sup>

The common law doctrine of ways of necessity provides that, where a conveyance or severance results in the land-locking of an interest in land, it is implied that the party receiving the landlocked interest has a right of access to it across the parcel from which it was severed.<sup>70</sup> Similar to the dominant-servient paradigm applied to the surface and mineral estates, a common law implied easement of necessity requires a severance of unity of title.<sup>71</sup> The Wyoming Constitution requires no such relationship; section 32 does not require that the parcel over which the right

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<sup>66</sup> *Wyoming Res. Corp. v. T-Chair Land Co.*, 2002 WY 104, ¶ 9, 49 P.3d 999, 1002 (Wyo. 2002) (citing *Coronado Oil Co. v. Grieves*, 603 P.2d 406, 410 (Wyo. 1979)).

<sup>67</sup> *Coronado Oil*, 603 P.2d at 411 (stating “at the time of adoption of the constitution the concern was one of developing the economy and settlement of the state . . .”).

<sup>68</sup> *Id.*

<sup>69</sup> *Ferguson Ranch Inc. v. Murray*, 811 P.2d 287, 291–92 (Wyo. 1991) (Thomas, J., dissenting).

<sup>70</sup> *Id.*

<sup>71</sup> *Id.* Although a common law way of necessity and an implied easement by necessity both require severance of unity of title, the two can be distinguished. See 2 Thompson on Real Property § 362 (1980); Steward E. Sterk, *Neighbors in American Land Law*, 87 COLUM. L. REV. 55 (1987).

of way is sought and the parcel to which access is established have ever been under common ownership.<sup>72</sup>

The right of condemnation for ways of necessity for mining purposes is grounded in the Wyoming Constitution.<sup>73</sup> Section 32 specifically authorizes the use of eminent domain for private ways of necessity for mining purposes.<sup>74</sup> In *Coronado Oil*, the Wyoming Supreme Court considered whether an oil and gas company could condemn a way of necessity to access federal oil and gas leases in Weston County.<sup>75</sup> Relying on the historical categorization of oil and gas as minerals, and early exploration techniques that referred to oil and gas wells as *mines*,<sup>76</sup> the court held that the term *mining* in Article I, section 32 included “the exploration for oil and gas.”<sup>77</sup>

The question remains whether the term *way of necessity*, as used in the Wyoming Constitution, can be applied to subsurface easements. The constitution uses “the words [w]ay of necessity . . . without any conditional or restrictive language.”<sup>78</sup> At the time of adoption in 1890 and the subsequent enactment of section 1-26-401 in 1907, the idea of horizontal drilling to reach subsurface mineral interests on parcels as far as two miles away would have been as fantastical to the drafters of the constitution as to the idea of air travel would have been to Lord Coke in the 1600s.<sup>79</sup> As the language of section 32 makes clear, at the time the pressing rights of access were for roads, flumes, and ditches, rather than directional wellbores several miles below the surface.<sup>80</sup> However, the purposes are remarkably similar: to encourage settlement and economic development in a state where access to resources is imperative. The interpretation of section 32 has evolved to effectuate this purpose and to adapt in response to shifting technology and the economic and development needs of the state. The *Coronado Oil* court was willing to construe *mining* as including exploration for oil and gas in order to advance the “evident purpose” of the constitution in promoting settlement

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<sup>72</sup> *Ferguson Ranch*, 811 P.2d at 289.

<sup>73</sup> WYO. CONST. art. I, § 32.

<sup>74</sup> *Id.*

<sup>75</sup> *Coronado Oil Co. v. Grieves*, 603 P.2d 406, 411 (Wyo. 1979).

<sup>76</sup> *Id.*

<sup>77</sup> *Id.* (“We will hereafter construe the word ‘mining’ to include the exploration for oil and gas, and that now is hardly unique or expansive of that term and is nothing more than a reasonable and sound construction which carries out the intent of the constitution and related statutes, as well as permitting development of the resources of this state for the common good.”).

<sup>78</sup> *Id.*

<sup>79</sup> *Lord Coke*, *supra* note 18, at 211 (citing *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 11 (Tex. 2008) (“Lord Coke, who pronounced the [ad coleum] maxim, did not consider the possibility of airplanes. But neither did he imagine oil wells. The law of trespass need no more be the same two miles below the surface as two miles above.”)).

<sup>80</sup> *See* WYO. CONST. art. I, § 32.

and development of the state.<sup>81</sup> The time may be ripe for another update. The advent of horizontal drilling and the realities of shale gas development in an increasingly urbanized landscape argue for considering ways of necessity in a three dimensional context.

Construction of the term *way of necessity* to include subsurface easements will advance the objectives of the provision by encouraging economic and resource development, preventing waste of natural resources, and precluding valuable assets from being stranded and devalued. Although the right of condemnation under the Wyoming Constitution and the Act has only been considered in the context of surface use and access,<sup>82</sup> the general “expression of public policy against landlocking property and rendering it useless” holds true for both surface and subsurface rights of access.<sup>83</sup> The Wyoming Supreme Court has already acknowledged that the public policy objective of preventing landlocked property applies equally to stranded mineral interests.<sup>84</sup> Expanding the right of condemnation to subsurface easements will further the purposes of the Wyoming Constitution and applicable statutes and may resolve lingering issues of subsurface trespass and horizontal well interference.

#### THE WYOMING EMINENT DOMAIN ACT

The right of condemnation for ways of necessity created by the constitution is set forth in the Act.<sup>85</sup> Section 814 of the Act grants petroleum companies the right of eminent domain to condemn easements on “any land, real estate or claim required for the construction, maintenance and operation of their facilities and appurtenance or which may be affected by any operation connected with the construction or maintenance of the same.”<sup>86</sup> This provision is limited however by section 1-26-815, which describes the purposes and extent of the right granted.<sup>87</sup> Section 1-26-815(a) provides that those businesses named in the Act

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<sup>81</sup> See *Coronado Oil*, 603 P.2d at 411.

<sup>82</sup> See *Hulse v. First American Title Co.*, 2001 WY 95, ¶ 30, 33 P.3d 122, 130–32 (Wyo. 2001) (“[t]here is a public interest in giving access by individuals to the road and highway network of the state as a part and an extension thereof for economic reasons and the development of land as a resource for the common good, whether residential or otherwise.” (citation omitted) (alteration in original)).

<sup>83</sup> *Id.* ¶ 33, 33 P.3d at 133.

<sup>84</sup> *Wyoming Res. Corp. v. T-Chair Land Co.*, 2002 WY 104, ¶ 14, 49 P.3d 999, 1003–04 (Wyo. 2002) (“The legislature has enacted the eminent domain and private road establishment acts so that access will be available to permit mineral estate owners to realize the full benefit of their property ownership and landlocked property will not be rendered useless.”).

<sup>85</sup> See WYO. STAT. ANN. § 1-26-814 (2015).

<sup>86</sup> *Id.*

<sup>87</sup> See WYO. STAT. ANN. § 1-26-815.

may appropriate by condemnation a way of necessity over, across or on so much of the lands or real property of others as necessary for . . . exploration drilling and production of oil and gas . . . or for the transportation of oil and gas from any well.<sup>88</sup>

A subsurface easement is invariably not *over*, *on*, or *across* the land, but is by its very nature *under* and *through* the land. At first glance, this seems to suggest that the authority granted to petroleum companies by the Act is limited to surface condemnations. However, section 815 also expressly permits uses that involve at least some use of the subsurface, including underground water pipelines, excavation, oil and gas drilling, and oil or natural gas pipelines.<sup>89</sup> While these uses each require some surface disturbance and can certainly be distinguished from wholly subsurface uses, much, if not all, of the eventual use will be located belowground. It is unknown how courts will interpret this language. However, a strict interpretation could preclude condemnation for subsurface easements in a way that seems contrary to the intent of the Act and authority granted by the constitution.

The only direct reference to subsurface uses or the pore space in the Act relates to use of the pore space for carbon sequestration; however, this provides little insight into whether condemnation for other subsurface uses would be permitted.<sup>90</sup> The Wyoming legislature has expressly precluded utilization of the Act to condemn the pore space for use in geologic carbon sequestration.<sup>91</sup> However, the prohibition on use of eminent domain for sequestration does not preclude all condemnation of the pore space. Condemnation of an entire subsurface reservoir for sequestration purposes is fundamentally different than condemnation of a subsurface easement for an expressly permitted statutory purpose. Likewise, carbon sequestration may fall outside the purposes authorized by Article I, section 32 of the Wyoming Constitution. Carbon sequestration is not mining: by its very nature substances are being put into the ground rather than removed from it. Carbon sequestration also falls outside the definition of conventional ways of necessity and the historic purposes of section 32, as sequestration does not permit access to a stranded property interest.

The Act sets forth three statutory requirements for projects that merit the exercise of eminent domain.<sup>92</sup> First, the Wyoming Constitution must either

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<sup>88</sup> *Id.*

<sup>89</sup> *Id.*

<sup>90</sup> See WYO. STAT. ANN. § 35-11-316(j) (2015) (“No provision of W.S. 35-11-314 through 35-11-317 shall be construed to confer on any person the right of eminent domain and no order for unitization issued under this section shall act so as to grant to any person the right of eminent domain.”).

<sup>91</sup> *Id.*

<sup>92</sup> See WYO. STAT. ANN. § 1-26-504(a) (2015).

authorize the use of eminent domain for the specific use proposed, or the project must be essential to the public interest.<sup>93</sup> Second, the project must be “planned or located in the manner that will be most compatible with the greatest public good and the least private injury.”<sup>94</sup> Finally, the condemnor must demonstrate that the specific property it seeks to acquire is necessary to the project or the authorized use.<sup>95</sup> If a condemnor can demonstrate that the project satisfies these statutory requirements, once it has made “reasonable and diligent efforts to acquire [the] property by good faith negotiation,” it can proceed with condemnation efforts.<sup>96</sup>

Petroleum companies are expressly granted the right of condemnation by the Act.<sup>97</sup> Because the right of condemnation is statutorily granted, oil and gas companies “may discharge their burden by merely introducing their findings on the requirements of subsection (a), as the statute provides that such findings are ‘prima facie valid.’”<sup>98</sup> Therefore, once the condemnor presents evidence that it has met each of the factors, the burden shifts to the landowner to prove that the condemnor acted in bad faith or abused its discretion.<sup>99</sup> Each of these three requirements can be established in the context of a subsurface easement; thus supporting the position that oil and gas companies should be able to condemn rights of way through pore space to access stranded subsurface mineral interests.

The right of oil and gas companies to exercise eminent domain is grounded in the Wyoming Constitution.<sup>100</sup> As a result, such companies seeking rights of condemnation do not need to establish public interest or necessity.<sup>101</sup> As the court in *Wyoming Resources Corp. v. T-Chair Land Co.* affirmed, “[t]he Wyoming Constitution recognizes the proposition that the uses there outlined while serving a private purpose indirectly benefit the general public. ‘A private use is by constitutional edict given the force and effect of a public use.’”<sup>102</sup> The *Coronado*

<sup>93</sup> *Id.* § 1-26-504(a)(i).

<sup>94</sup> *Id.* § 1-26-504(a)(ii).

<sup>95</sup> *Id.* § 1-26-504(a)(iii).

<sup>96</sup> WYO. STAT. ANN. § 1-26-509(a) (2015); see also Matt Micheli & Mike Smith, *The More Things Change, The More Things Stay The Same: A Practitioner’s Guide to Recent Changes to Wyoming’s Eminent Domain Act*, 8 WYO. L. REV. 1, 9–11 (2008).

<sup>97</sup> See WYO. STAT. ANN. § 1-26-814 (2015); see also *Wyoming Res. Corp. v. T-Chair Land Co.*, 2002 WY 104, ¶ 1, 49 P.3d 999, 1000 (Wyo. 2002) (“Wyoming statute permits a gas production company to obtain an access easement through a condemnation action when necessary.”).

<sup>98</sup> *Bd. of Cty. Comm’r v. Atter*, 734 P.2d 549, 553 (Wyo. 1987).

<sup>99</sup> *Id.*

<sup>100</sup> See generally *Coronado Oil Co. v. Grieves*, 603 P.2d 406 (Wyo. 1979); see also Robert A. Bassett, *Surface Access by the Remedy of Last Resort: Condemnation*, 1 ROCKY MOUNTAIN MIN. L. INST. 16 (2005).

<sup>101</sup> Micheli & Smith, *supra* note 96; see also WYO. STAT. ANN. § 1-26-504(a)(i) (2015).

<sup>102</sup> *Wyoming Res.*, ¶ 9, 49 P.3d at 1002 (citing *Coronado Oil*, 603 P.2d at 410).



*Oil* court likewise held that “[t]he right to proceed in eminent domain [for access to an oil and gas lease] . . . has its roots in the constitutional provision and is recognized by statute.”<sup>103</sup> Accordingly, an oil and gas company seeking to condemn a way of necessity is not required to separately demonstrate public interest.<sup>104</sup>

An energy company could separately demonstrate public interest and necessity if it was required to do so. Subsurface condemnations fit well within the scope of the energy uses that courts have found serve the public benefit and therefore merit the use of eminent domain.<sup>105</sup> As the *Wyoming Resources* court noted, the use of eminent domain to obtain an easement for gas production furthers the objectives of the statute in facilitating “the development of land as a resource for the common good.”<sup>106</sup> The *Coronado Oil* court affirmed that condemnation for development purposes of oil and gas is “not merely in the public interest” but is also an urgent concern “of survival.”<sup>107</sup>

Similarly, the necessity of subsurface easements can also be established. The condemnor in an eminent domain proceeding “need only show a reasonable necessity for the project,” meaning “reasonably convenient or useful to the public.”<sup>108</sup> This does not require that the entire public benefit from the project; rather, it requires that there be some public benefit resulting from the taking.<sup>109</sup> Subsurface easements, like surface roads and pooling, advance economic and energy development and promote efficient production of resources and thus should be able to meet the requirement of public interest and necessity.<sup>110</sup>

The second requirement of section 1-26-504(a)(ii) is that the location and development of the project must be “most compatible with the greatest public good and least private injury.”<sup>111</sup> This requires that the condemnor demonstrate that it has considered and balanced multiple factors in planning or locating the

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<sup>103</sup> *Coronado Oil*, 603 P.2d at 411.

<sup>104</sup> See Micheli & Smith, *supra* note 96, at 4.

<sup>105</sup> See *Coronado Oil*, 603 P.2d at 411 (“We are not unaware of the great public interest in an imminent need for energy.”); *Bridle Bit Ranch Co. v. Basin Elec. Power Coop.*, 2005 WY 108, ¶ 12, 118 P.3d 996, 1004 (Wyo. 2005) (“Mineral development and industrial growth is in the public interest.” (citation omitted)).

<sup>106</sup> *Wyoming Res.*, ¶ 13, 49 P.3d at 1003.

<sup>107</sup> *Coronado Oil*, 603 P.2d at 411.

<sup>108</sup> See Micheli & Smith, *supra* note 96, at 4–5 (citation omitted).

<sup>109</sup> See *Associated Enter., Inc. v. Toltec Watershed Improvement Dist.*, 656 P.2d 1144, 1148 (Wyo. 1983) (explaining that “it is not essential that the entire community, nor even any considerable portion, should directly enjoy or participate in any improvement to constitute a public use.”).

<sup>110</sup> See David E. Pierce, *Oil & Gas Easements and Horizontal Drilling*, 33 E. MIN. L. FOUND. § 9.06 (2012).

<sup>111</sup> WYO. STAT. ANN. § 1-26-504(a)(ii) (2015).

project, keeping in mind the requirement that the project promote the greatest public good and least private harm.<sup>112</sup> This does not require that the condemnor select the option that has the least private injury to any individual landowner where doing so would shift a potential private injury to others or diminish the public good.<sup>113</sup> Rather, demonstration that the condemnor has balanced and considered a number of relevant factors may be sufficient to demonstrate that a condemnor has designed the project with the requirement in mind.<sup>114</sup> Having presented evidence that the condemnor considered the mandate of the statute in choosing the location of the easement, the court is not permitted to balance the interests.<sup>115</sup> The condemnor is given wide discretion unless there is evidence of bad faith or abuse.<sup>116</sup>

Finally, section 1-26-504 requires that the property the condemnor seeks to acquire be necessary for the project.<sup>117</sup> Necessity in this case is defined as being “reasonably convenient” to the project.<sup>118</sup> Unlike common law ways of necessity, this does not mandate that the condemnor demonstrate there is no other route of ingress or egress or that the proposed route is the only one available.<sup>119</sup> As the *Wyoming Resources* court noted, the existence of a contractual right of access did not preclude condemnation or support a finding that the condemnation was not necessary to the project.<sup>120</sup> Once it has been established that the condemnation is necessary to the project, the route itself is left largely to the condemnor’s discretion.<sup>121</sup>

Condemnors of subsurface easements should also be able to meet the statutory requirements of section 1-26-504. Subsurface access advances purposes of mineral exploration, prevents waste, protects correlative rights, and may help limit surface uses in ecologically sensitive or residential areas. As such, condemnation of subsurface easements will serve the public interest and necessity. Likewise, condemnors seeking to acquire subsurface easements by eminent domain

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<sup>112</sup> See *Bridle Bit Ranch Co. v. Basin Elec. Power Coop.*, 2005 WY 108, ¶ 17, 118 P.3d 996, 1004 (Wyo. 2005).

<sup>113</sup> *Id.*

<sup>114</sup> *Id.*

<sup>115</sup> See *Town of Wheatland v. Bellis Farms, Inc.*, 806 P.2d 281, 284 (Wyo. 1991).

<sup>116</sup> See *Bridle Bit Ranch*, ¶ 45, 118 P.3d at 1015 (“[I]t has been held that by virtue of the delegation of the power of eminent domain by the state to the condemnor there is necessarily left largely to the latter’s discretion the location and area of the land to be taken. And one seeking to show that the taking has been arbitrary or excessive shoulders a heavy burden of proof in the attempt to persuade the court to overrule the condemnor’s judgment.” (citation omitted)).

<sup>117</sup> See WYO. STAT. ANN. § 1-26-504(a)(iii) (2015).

<sup>118</sup> See *Conner v. Bd. of Cty. Comm’r*, 2002 WY 148, ¶ 19, 54 P.3d 1274, 1282 (Wyo. 2002).

<sup>119</sup> See *Wyoming Res. Corp. v. T-Chair Land Co.*, 2002 WY 104, 49 P.3d 999 (Wyo. 2002).

<sup>120</sup> *Id.*

<sup>121</sup> See *Bridle Bit Ranch*, ¶ 45, 118 P.3d at 1015; see also Micheli & Smith, *supra* note 96, at 6.

should be able to demonstrate that the project is compatible with the public good and the least private injury. To do so, condemners should consider factors such as alternative well paths, other surface locations, and methods to minimize and mitigate risks of subsequent wellbore interference and the “reservoir community.”<sup>122</sup> Further, where the minerals cannot be exploited via vertical exploration or drilling from the superjacent surface, subsurface easements are not only *reasonably convenient* but also essential to exploration. Accordingly, assuming that the statute can be interpreted to authorize condemnation of subsurface easements,<sup>123</sup> energy companies should be able to meet each of the statutory requirements in order to establish subsurface ways of necessity to access stranded mineral assets.

### COMPENSATION FOR SUBSURFACE CONDEMNATIONS

Both section 32 of the Wyoming Constitution and the Act require that “due” compensation be paid to the landowner.<sup>124</sup> The determination of compensation in the context of subsurface condemnations is particularly difficult. The United States Supreme Court has noted that compensation in an eminent domain case should put the owner in “as good position pecuniarily as . . . if his property had not been taken.”<sup>125</sup> Similarly, Wyoming Statute section 1-26-702 requires that “compensation for a taking of property is its fair market value,”<sup>126</sup> or, for partial takings, “the greater of the value of the property rights taken or the amount by which the fair market value of the entire property immediately before the taking exceeds the fair market value of the remainder immediately after the taking.”<sup>127</sup>

The taking of a subsurface easement constitutes a partial taking.<sup>128</sup> Interpreting section 1-26-702 for purposes of determining compensation for a roadway, the Wyoming Supreme Court in *Mayland v. Flitner* adopted what has been termed the “before and after test”:

In Wyoming, the law is that the proper measure of damages in [instances when only a portion of the owner’s property is taken] is the difference between the fair market value of the owner’s land before the taking and the value of the remainder after the taking.

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<sup>122</sup> For a discussion of reciprocal accommodation as a justification for support of oil and gas easements on extralateral parcels, see Pierce, *supra* note 110.

<sup>123</sup> See *Hulse v. First American Title Co.*, 2001 WY 95, ¶ 30, 33 P.3d 122, 130–32 (Wyo. 2001); see also *supra* text accompanying note 82.

<sup>124</sup> WYO. CONST. art. I, § 32; WYO. STAT. ANN. § 1-26-701, -704 (2015).

<sup>125</sup> *United States v. Miller*, 317 U.S. 369, 373 (1943).

<sup>126</sup> WYO. STAT. ANN. § 1-26-702(a).

<sup>127</sup> *Id.* § 1-26-702(b).

<sup>128</sup> See *State Highway Comm’n v. Scrivner*, 641 P.2d 735 (Wyo. 1982).

It consists of two elements: The value of the land actually taken and the amount in money by which the remainder is reduced in value as a result of the partial taking (severance damage).<sup>129</sup>

Notably, the court disallowed the addition of severance damages to the calculation, finding that it would likely result in duplicative recovery, and that severance damages were already included in the proper application of the before and after test.<sup>130</sup> Accordingly, damages were determined solely on the basis of the difference between the two values.<sup>131</sup>

Applied to the subsurface, computing the amount of compensation under these metrics is problematic. Where an easement is solely located in the deep subsurface there will be no perceivable disturbance or change in the land as a result of the subsurface easement. The value of the land before and after the partial taking may be unchanged. The challenge of determining the value lost as a result of subsurface uses is demonstrated by the decisions that have considered damages claims resulting from subsurface trespass due to injection of produced substances into non-mineral formations.<sup>132</sup> Even where a physical intrusion resulting from migration of fluids into the surface owner's pore space has been factually established, in order to recover monetary damages the majority of courts require a showing of actual damages to the surface owner's property, such as damage to groundwater, or interference with the surface owner's existing use of the pore space.<sup>133</sup> This requirement is akin to that required in condemnations of airspace,<sup>134</sup> where use of the airspace for aviation is not deemed a taking unless the flights are "so low and so frequent as to be a direct and substantial interference with the use and enjoyment of land."<sup>135</sup>

The subsurface easement is unlikely to disturb the surface owner at all. In fact, if the developer were to trespass, the surface owner may not become aware

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<sup>129</sup> *Mayland v. Flitner*, 2001 WY 69, ¶ 39, 28 P.3d 838, 852 (Wyo. 2001).

<sup>130</sup> *Id.*

<sup>131</sup> *Id.*

<sup>132</sup> The majority of courts examining claims of drainage resulting from the cross-boundary migration of hydraulic fracturing fluids and proppant have held that the resulting drainage is protected by the rule of capture under the decision in *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1 (Tex. 2008). For a discussion of these cases, see *Kramer*, *supra* note 9.

<sup>133</sup> See *FPL Farming Ltd. v. Env'tl. Processing Sys., L.C.*, 383 S.W.3d 274 (Tex. App. 2012); *Chance v. BP Chem., Inc.*, 670 N.E.2d 985 (Ohio 1996); *Raymond v. Union Tex. Petroleum*, 697 F. Supp. 270 (D. La. 1988).

<sup>134</sup> See *Lord Coke*, *supra* note 18.

<sup>135</sup> *Cheyenne Airport Bd. v. Rogers*, 707 P.2d 717, 729 (Wyo. 1985) (citation omitted).

of the intrusion<sup>136</sup> or the trespass could be found not actionable.<sup>137</sup> However, the existence of a wellbore beneath one's surface is certainly a more permanent occupation than overhead air traffic. While the pore space itself may be a void, indefinite outside of its generating structure,<sup>138</sup> the wellbore and the pipe and cement associated with it are continuous. As such, a wellbore transecting one's subsurface is much more akin to a cable television receiver than to an overhead flight. Accordingly, the appropriate measure of damages under *Cheyenne Airport Board v. Rogers* is "the fair market value of the interest acquired—without regard to the value of the property remaining in private hands."<sup>139</sup>

To determine a fair market value for the subsurface easement, it is useful to look to the metrics in section 1-26-704 of the Act, which provide guidance for such a determination.<sup>140</sup> Among the methods prescribed are "[t]he value determined by an appraisal of the property performed by a certified appraiser," "[t]he price paid for other comparable easements or leases of comparable size, type, and location on the same or similar property," and values paid in comparable arm's length transactions.<sup>141</sup> However, due to the relatively recent proliferation of horizontal drilling and the fact that the majority of considerations of subsurface easements are handled under either a surface damage agreement or an oil and gas lease, this method is problematic. It is unlikely that an appraiser will find a meaningful sample of arm's length transactions from which to deduce a fair market value or comparable easements on which to base the appraisal.<sup>142</sup> Like-

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<sup>136</sup> Under Wyoming's pore space designation, the operator would not be required to provide the pore space owner with notice. See WYO. STAT. ANN. § 34-1-152(c) (2015) ("No provision of law, including a lawfully adopted rule or regulation, requiring notice to be given to a surface owner, to an owner of the mineral interest, or to both, shall be construed to require notice to persons holding ownership interest in any pore space in the underlying strata unless the law specifies notice to such persons is required.").

<sup>137</sup> While some courts have permitted injunctive relief, the majority of courts have denied monetary relief for subsurface trespass claimants. See e.g., *Gregg v. Delhi-Taylor Oil Corp.*, 344 S.W.2d 411 (Tex. 1961); *Young v. Ethyl Corp.*, 521 F.2d 771 (8th Cir. 1975). For a different approach, see *Stone v. Cheasapeake Appalachia, L.L.C.*, No. 5:12-CV-102, 2013 WL 2097397 (N.D. W. Va. Apr. 10, 2013).

<sup>138</sup> See *Doran & Ciphor*, *supra* note 1. However, just because something does not exist outside its generative structure does not imply that it cannot be taken.

<sup>139</sup> *Cheyenne Airport Bd.*, 707 P.2d at 729 (citation omitted).

<sup>140</sup> See WYO. STAT. ANN. § 1-26-704(a) (2015).

<sup>141</sup> *Id.* § 1-26-704(a)(iii)(A–C).

<sup>142</sup> For an excellent and insightful overview of some of the issues associated with this metric, see Bailey K. Schriber, Note, *PROPERTY LAW—Strong Armed at Arm's Length: The Role of Comparable Easements in Condemnation Proceedings under Wyoming's Amended Eminent Domain Laws; Barlow Ranch, LP v. Greencore Pipeline Co.*, 2013 WY 34, 301 P.3d 75 (Wyo. 2013), 14 WYO. L. REV 135 (2014); see also Sarah Anne Lishman, Comment, *Deep in the Heart of Texas: How Carbon Sequestration will Affect Valuation of the Subsurface*, 45 ST. MARY'S L.J. 283, 328 (2014).

wise, aboveground easements for pipelines or lease roads are an unsuitable analog, as each requires both surface disturbances and repeated reentry of trucks and personnel for maintenance. As one commentator noted, determining the value of the subsurface for either trespass or condemnation will require a reevaluation of commonly applied valuation techniques.<sup>143</sup>

The inability to value the subsurface easement does not mean that the easement is valueless. A subsurface easement certainly has some value to the condemnor. Additionally, while compensation for the owner's personal loss is not allowable,<sup>144</sup> paying nothing to the surface owner for the subsurface easement would likely violate constitutional provisions prohibiting uncompensated takings.<sup>145</sup> Accordingly, it is likely that the value will be determined based on the guidance provided by section 1-26-704(a)(ii) which simply provides that value will be determined "by any method of valuation that is just and equitable."<sup>146</sup> How the various interests of the surface owners and mineral developers will be reckoned in this context remains to be seen.<sup>147</sup>

## CONCLUSION

Subsurface easements avoid subsurface trespass, permit critical access through the pore space of extra-lateral parcels to reach stranded mineral interests, and may limit surface disturbance in sensitive resource areas. The Wyoming Constitution and the Act permit condemnation by oil and gas companies for ways of necessity. Energy companies have customarily used the condemnation authority to establish above ground access to surface drilling locations. However, evolutions in technology and energy development suggest that it may be appropriate to apply the right of condemnation to subsurface easements. These purposes are consistent with the objectives of the constitutional and statutory provisions and the furtherance of the public good.

Although the private right of eminent domain for ways of necessity has yet to be applied in the subsurface context, that alone does not argue for a static conceptualization of property. Permitting condemnation of subsurface easements

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<sup>143</sup> See Lishman, *supra* note 142.

<sup>144</sup> See *Mayland v. Flitner*, 2001 WY 69, 28 P.3d 838 (Wyo. 2001).

<sup>145</sup> See WYO. CONST. art. I, § 32 ("Private property shall not be taken for public use . . . without [payment of] due compensation."). For a discussion of "whether a landowner has a sufficient interest in the subsurface pore space to implicate the takings clause in the first place," see *Klass & Wilson*, *supra* note 13, at 384–86.

<sup>146</sup> WYO. STAT. ANN. § 1-26-704(a)(ii) (2015).

<sup>147</sup> Although beyond the scope of this article, another option may be for the owner of the subsurface to recover under state split estate acts that provide a statutory right to compensation for damage resulting from mineral use of the surface.

is a reasonable evolution of property law in response to the current pressures to reduce impacts to surface owners and the environment and to the technological realities of exploration. While issues of just compensation certainly remain and will have to be resolved, allowing condemnation for subsurface easements may present solutions to some of the access challenges associated with modern energy development and allow for more efficient use of property.