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Hydraulic Fracturing and Tort Litigation: A Survey of Landowner Lawsuits

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It is well established that fracturing the subsurface to release oil and gas can cause property damage, personal injury, and even death. In 1889, Elbert Tyner of Greenfield, Indiana, objected to the use of nitroglycerine to "shoot" a well located 200 feet from his residence. The Indiana Supreme Court upheld his request for injunctive relief based on private nuisance. *Tyner v. People's Gas Co.*, 31 N.E. 61, 62 (Ind. 1892) ("To live in constant apprehension of death from the explosion of nitroglycerin is certainly an interference with the comfortable enjoyment of life").

Eight years later, when nitroglycerine was used to enhance production of a well in Cygnet, Ohio, the result was described in a San Francisco newspaper as follows: "SIX PERSONS BLOWN TO ATOMS: Ignited Gas Explodes a Quantity of Nitro-Glycerin and Awful Ruin Ensues." In addition to the loss of life, there was "not a whole pane of glass in any window in the town, and every house and store was shaken to its foundation." San Francisco Call, Sept. 8, 1897, at 3, available at http://chroniclingamerica.loc.gov/lccn/sn85066387/1897-09-08/ed-1/seq-3/. Not surprisingly, the tragedy prompted litigation. In *Ohio & Indiana Torpedo Co. v. Fishburn*, the state supreme court affirmed a judgment for "negligent discharge of a nitroglycerine torpedo" and consequently declined to address whether the defendant could be held strictly liable for using an inherently dangerous substance. 56 N.E. 457, 457, 461 (Ohio 1900).

Modern oil and gas companies frequently employ the hydraulic fracturing process to produce hydrocarbons. Terence Daintith, *Finders Keepers? How the Law of Capture Shaped the World Oil Industry* 302 (2010) (Fracking "is really nothing more than today's high-tech version of 'improving' wells by dropping a container of nitroglycerin down them and standing well back"). Large amounts of water, mixed with proppants and chemicals, are pumped into wells at high pressure to create fissures. Developments in hydrofracking, horizontal drilling, and three-dimensional seismic imaging have enabled

energy companies to locate and remove "unconventional" oil and gas from dense substrata. There are, however, inevitable surface disturbances and waste by-products, including "flowback" and "produced" waters that are typically disposed of by underground injection. Proponents of fracking point out that increased oil and gas production has lowered fuel costs and reduced our dependence on domestic coal and foreign energy sources. Opponents argue that fracking and related disposal activities have caused air and water contamination, noise and odor problems, and induced earthquakes.

While the debate continues, landowners harmed by oil and gas production have filed lawsuits seeking damages and injunctive relief. This article summarizes recent hydraulic fracturing tort litigation. It is based on a document—maintained on the University of Dayton School of Law web site—that lists topical law review articles and summarizes relevant cases. The document currently includes cases from Canada and 11 states (Arkansas, Colorado, Louisiana, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, West Virginia, and Wyoming). See *Hydraulic Fracturing Tort Litigation Summary* (Apr. 14, 2017), at https://udayton.edu/directory/law/documents/watson/blake_watson_hydraulic_fracturing_primer.pdf.

This summary of hydraulic fracturing tort litigation is undoubtedly incomplete, as it is difficult to find all relevant state and federal cases. Furthermore, whereas some of the cases deal specifically with adverse impacts associated with fracking, other cases address tangential issues—such as noise, dust, and odors—that are often by-products of traditional oil and gas development. Finally, the summary is limited to tort litigation. It does not include other types of fracking-related lawsuits, such as litigation challenging federal regulations, federal leasing decisions, or state preemption of local ordinances. With the foregoing caveats in mind, there are currently 127 cases on the list:

Arkansas 26

Colorado 2

Louisiana 3

New York 2

North Dakota 2

Ohio 6

Oklahoma 12

Pennsylvania 29

Texas 29

West Virginia 13

Wyoming 1

Canada 2

Most of the cases are from just five states: Texas, Pennsylvania, Arkansas, West Virginia, and Oklahoma. Many of the Pennsylvania lawsuits were filed during the initial phase of hydraulic fracturing in 2009–12. In contrast, the majority of the pending cases from Oklahoma arise from recent earthquake events allegedly caused by underground wastewater disposal. It is noteworthy that several states where fracking is commonplace have not experienced a surge in tort lawsuits. It also should be pointed out that New York has imposed a moratorium on hydraulic fracturing.

For purposes of discussion, the lawsuits can be grouped into three categories: (1) water contamination and subsurface trespass; (2) air contamination and dust, odor, and noise complaints; and (3) property damage linked to earthquakes induced by waste injection. Before examining cases from each category, it should be pointed out that landowners who have not authorized production have a higher chance of success in tort litigation. The diminished rights of lessors were recently discussed in West Virginia, where lawsuits alleging nuisance and negligence have been consolidated before a Mass Litigation Panel. See *In re Marcellus Shale Litigation*, No. 14-C-3000 (Cir. Ct. of Ohio Cnty., W. Va.). On October 11, 2016, the court denied relief in several cases from Harrison County, holding that the activities complained of "were reasonably necessary to the production of the mineral estate and did not exceed the fairly necessary use thereof or invade the rights of the surface owner . . . ." See Order Declining to Amend, Alter, or Reargue the Prior Grant of Summary Judgment (dated Jan. 11, 2017), at 6, http://www.courtswv.gov/lower-courts/mlp/mlp-orders/marcellus-shale/alter-amend-final-order.pdf.

Water Contamination and Subsurface Trespass Claims

Not surprisingly, landowners seeking redress for water contamination have focused on four common law causes of action: negligence, private nuisance, trespass, and strict liability for abnormal (or ultra-hazardous) activity. In cases involving underground storage or disposal of wastewaters, landowners have also raised claims of unjust enrichment.

Ely v. Cabot Oil and Gas Corp., No. 3:09-cv-02284 (M.D. Pa.), is the leading case for both strict liability and nuisance claims relating to water contamination. This case concerns drilling operations near Dimock, Pennsylvania, and some of the plaintiffs were

featured in the 2010 *Gasland* documentary. To date, the Middle District of Pennsylvania is the only court to address whether hydraulic fracturing is an ultra-hazardous activity that gives rise to strict tort liability for groundwater contamination. The court in 2014 applied the six-factor test of the Restatement (Second) of Torts § 520 and adopted a magistrate judge's recommended ruling that "natural gas drilling operations and hydraulic fracturing are not abnormally hazardous activities on the basis of the record developed in this case . . . ." *Ely v. Cabot Oil and Gas Corp.*, 38 F. Supp. 3d 518, 520 (M.D. Pa. 2014). Noting that the plaintiffs' own expert focused on problems arising from improper well completion and faulty casing, the court held that the water contamination claims "should be considered under traditional and longstanding negligence principles . . . ." Id. at 534.

On the separate nuisance claim, a jury in March 2016 awarded $4.24 million to the remaining litigants for "inconvenience and discomfort." In response, the defendant filed a motion for a judgment as a matter of law, a motion for a new trial, a motion to set aside the verdict, and a motion for damages remittitur. Emily Thomas, *Cabot Oil & Gas Continues to Fight $4.24 Million Federal Court Jury Verdict on Landowners' Nuisance and Negligence Claims*, Baker Energy Blog (Aug. 8, 2016), www.bakerenergyblog.com/2016/08/08/cabot-oil-gas-continues-to-fight-4-24-million-federal-court-jury-verdict-on-landowners-nuisance-and-negligence-claims. On March 31, 2017, the district court denied Cabot's motion for judgment as a matter of law, finding that plaintiffs had submitted sufficient evidence as to whether Cabot's activities were negligent and contributed to the interference with the plaintiffs' use of their water and enjoyment of their property. On the other hand, the court granted Cabot's motion for a new trial, holding that "the weaknesses in the plaintiffs' case and proof, coupled with serious and troubling irregularities in the testimony and presentation of the plaintiffs' case—including repeated and regrettable missteps by counsel in the jury's presence—combined so thoroughly to undermine faith in the jury's verdict that it must be vacated." The plaintiffs' case was hurt by admissions that water problems existed *before* Cabot began operations and the fact that one plaintiff was able to light his water on fire prior to drilling. The court also found that the plaintiffs' expert witnesses offered testimony that "at best were inferences that had weak factual support," and that the jury's award "bore no discernible relationship to the evidence."

Regardless of its ultimate resolution, the *Ely* case is unusual insofar as it has produced both a jury verdict and has reported decisions. Most cases of this nature are either dismissed or settled with nondisclosure agreements. One exception is *Phillips v. Chesapeake Appalachia, LLC*, No. 3:11-mc-00126 (M.D. Pa.), which involved allegations that negligent drilling caused spills and discharges that contaminated land and

water supplies. Under a settlement reached in 2012, the plaintiffs agreed to convey their contaminated properties to the defendants in exchange for $1.6 million. Sean McLernon, *Chesapeake Pays $1.6M to Settle Water Contamination Suit*, Law 360 (June 25, 2012), https://www.law360.com/articles/353406/chesapeake-pays-1-6m-to-settle-water-contamination-suit.

Water contamination lawsuits often include trespass claims, but not all subsurface trespass cases involve water contamination. For oil and gas drilling, production, and disposal activities, there are three types of subsurface trespass claims. The most straightforward is the traditional "slant drilling" lawsuit, which now encompasses unauthorized horizontal drilling. Trespass has also been asserted in recent years in connection with the movement of fluids and other substances during the hydraulic fracturing process. See, e.g., *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1 (Tex. 2008) (because the "rule of capture" authorized drainage of adjacent oil and gas, there was no harm and thus no actionable trespass).

A third and distinct trespass claim alleges invasion of the subsurface for storage or waste disposal. As in the case of airborne particulate trespass claims, some courts have required proof of physical damage or actual interference with property rights. See *Chance v. BP Chemicals, Inc.*, 670 N.E.2d 985, 993 (Ohio 1996). It is unclear, however, whether harm must be shown when the issue is unjust enrichment. In *Stroud v. Southwestern Energy Co.*, No. 4:12-cv-500-DPM, 2015 WL 5679742 (E.D. Ark. Sept. 25, 2015), the plaintiffs seek compensation for unauthorized use of their subsurface, arguing that it is "virtually impossible" that none of the 7.6 million barrels of waste injected into their neighbor's property did not laterally migrate. The district court, in granting judgment for the defendants, did not discuss the necessity of establishing physical damage or interference with property rights. Instead, after noting that the plaintiffs had not drilled to sample its subsurface strata, the court concluded that, "without more expert testimony on the complicated geology and on waste flow, a juror would have to speculate to conclude that a trespass by migration actually occurred." 2015 WL 5679742 at *1. The Eighth Circuit Court of Appeals reversed and remanded. 858 F.3d 481 (8th Cir. 2017). The appellate court held that the report of the plaintiffs' expert should be admitted, but also held that the plaintiffs otherwise submitted evidence that could enable a jury to draw a reasonable inference that the 7.6 million barrels of waste migrated across the property line.

Air Contamination and Dust, Odor, and Noise Complaints

Air, dust, odor, and noise problems were commonplace before hydraulic horizontal fracturing, but recent advances in technology have increased the likelihood of landowner complaints. Horizontal drilling can access hydrocarbons closer to existing residences, and

hydraulic fracturing requires numerous trucks to deliver and remove the large quantities of water needed to stimulate production. In many instances landowner lawsuits have been settled under nondisclosure agreements. There are, however, three reported decisions from Texas that exemplify the difficulties plaintiffs face in proving their common law claims.

In *Cerny v. Marathon Oil Corp.*, 480 S.W.3d 612 (Tex. App. 2015), review denied (Dec. 2, 2016), Michael and Myra Cerny sought damages for private nuisance and negligence, asserting that their rural lifestyle was radically altered when their home was surrounded by an influx of oil and gas operations in the Eagle Ford Shale formation. In particular, the couple alleged that the defendants' drilling and production activities created sinkholes, damaged their home's foundation, created constant traffic, dust, and noise, and subjected them to toxic chemicals and noxious odors that caused health problems. Id. at 615. The trial court granted summary judgment for the defendants, and the court of appeals affirmed, noting that "[c]ausation cannot be established by mere speculation." Id. at 622. The plaintiffs were exposed to chemicals found at the defendants' facilities, but the evidence also showed that the defendants were not the only companies conducting oil and gas operations in the vicinity.

As for the nuisance claim based on excessive dust, noise, traffic, and foul odors, the court held that the lay witness evidence did not sufficiently identify the defendants "as the proximate cause of the conditions that substantially interfered with the Cernys' use and enjoyment of their property." Id. The plaintiffs' inability to exclude alternative causes to "a reasonable certainty" was due in part to the fact that their home had foundation problems before the defendants commenced their oilfield operations and also by the fact that they suffered from preexisting chronic health conditions. Id. at 620–22.

The plaintiffs in *Sciscoe v. Enbridge Gathering (North Texas), L.P.*, No. 96-254364-11 (96th Dist. Ct., Tarrant Cnty., Tex.), initially fared better in their litigation. Eighteen homeowners and the town of Dish, Texas, alleged that noise, light, odors, and chemical particulates emanating from defendants' facilities caused a nuisance and constituted a trespass. The trial court dismissed the complaints, but on June 1, 2015, the court of appeals reversed in part. *Sciscoe v. Enbridge Gathering (North Texas), L.P.*, 519 S.W.3d 171 (Tex. App. 2015). The court noted that the migration of airborne particulates can constitute an actionable trespass but held that the plaintiffs must link the particulates to the defendants and prove that they sustained a consequential compensable injury. Id. at 185.

The court of appeals rejected the defendants' arguments that the trespass and nuisance claims are preempted by regulatory statutes and nonjusticiable under the political

question doctrine. According to the court, these arguments fail because "[r]egulatory compliance or licensure is not a license to damage the property interests of others." Id. at 186. The court stressed that the plaintiffs were not asking to change the emission standards under which the defendants operate but were rather seeking compensation "for actual damages they have sustained as a result of the lawful operations . . . ." Id. Aimee Hess, *Showdown Between Dish, Texas and Atmos Energy over Gas Compressor,* Texas Attorney Blog (Mar. 24, 2017). On May 19, 2017, however, the Texas Supreme Court held that, because the plaintiffs complained about the noise and odors as early as 2006, but did not sue until 2011, the two-year statute of limitations barred their claims. *Town of Dish v. Atmos Energy Corp.*, 519 S.W.3d 605 (Tex. 2017).

In contrast to the litigation in Tarrant County, Robert and Lisa Parr of Wise County were initially successful in their tort lawsuit. The couple sued Aruba Petroleum and eight other companies, claiming that drilling, fracking, and other operations exposed their family and property to hazardous gases, chemicals, and industrial wastes. *Parr v. Aruba Petroleum,* No. CC-11-01650 (Dallas Cnty. Tex., Cnty. Ct.). The Parrs asserted several common-law claims, seeking damages for, among other things, deprivation of enjoyment of property, diminution of property value, injury to animals and livestock, impairment of physical health, emotional harm and distress, and loss of quality of life. After the other defendants were dismissed or reached undisclosed settlements, a jury in 2014 found that Aruba Petroleum "intentionally created a private nuisance" and awarded $2.925 million in damages.

On February 1, 2017, however, a Texas Court of Appeals reversed and issued a "take-nothing" judgment in favor of Aruba. The court stated that "the issue before us is not whether there is evidence in the record that Aruba created a nuisance or was negligent in creating a nuisance but whether Aruba intentionally did so as to the Parrs." *Aruba Petroleum, Inc. v. Parr*, No. 05-01285-CV, 2017 WL 462340 (Tex. App. Feb. 1, 2017), at *7. The court then applied the standard set forth in *Crosstex North Texas Pipeline, L.P. v. Gardiner*, 505 S.W.3d 580 (Tex. 2016) (holding that a defendant intentionally creates a nuisance if it "actually desired or intended to create the interference" or actually knew or believed "that the interference would result"). According to the court, "[n]one of the evidence cited by the Parrs of the noise, light, odors, and other claimed effects of Aruba's operations established that Aruba actually intended or desired to create an interference on the Parrs' land that they claim was a nuisance or actually knew or believed that an interference would result." 2017 WL 462340, at *7.

Property Damage Linked to Earthquakes Induced by Waste Injection

Proponents often state that hydraulic fracturing does not cause earthquakes. This statement is incorrect, given that fracking operations have triggered earthquakes in western Canada, Oklahoma, Ohio, and elsewhere. Most seismic activity connected to oil and gas operations, however, is linked to underground disposal operations. Of course, much of the "flowback" and "produced" water injected into subsurface formations is a by-product of fracking operations.

Several lawsuits were filed in Arkansas a few years ago after a series of earthquakes occurred in the state, but the cases were settled without a jury verdict or a reported decision. The epicenter of litigation is now Oklahoma, where earthquakes of magnitude 3 or higher increased from 1.5 per year before 2008 to 2.5 *per day* in 2015. In light of this astonishing fact and other data, the Oklahoma Geological Survey has concluded that it is "very likely that the majority of recent earthquakes, particularly those in central and north-central Oklahoma, are triggered by the injection of produced water in disposal wells." Okla. Geological Survey, *Summary Statement on Oklahoma Seismicity* (Apr. 21, 2015), https://earthquakes.ok.gov/wp-content/uploads/2015/04/OGS_Summary_Statement_2015_04_20.pdf.

Landowners have responded by filing eight lawsuits in state and federal court:

- Sandra Ladra, who was injured in 2011 when her chimney toppled during an earthquake, is suing energy companies that injected oil and gas wastewaters in nearby wells. *Ladra v. New Dominion LLC*, No. CJ-2014-00115 (Dist. Ct., Lincoln Cnty., Okla., Aug. 4, 2014).
- Jennifer Cooper has filed a class-action lawsuit for people whose homes were damaged by the same earthquake. *Cooper v. New Dominion LLC*, No. CJ-2015-0024 (Dist. Ct., Lincoln Cnty., Okla., Feb. 10, 2015).
- Terry and Deborah Felts and 12 other residents of Oklahoma County have filed a lawsuit with respect to seismic activity in December 2015 and January 2016 near the cities of Edmond and Oklahoma City. *Felts v. Devon Energy Production Co. LP*, No. CJ-2016-137 (Dist. Ct., Oklahoma Cnty., Okla., Jan. 11, 2016).
- Lisa Griggs filed a class action lawsuit on behalf of landowners who have suffered damages from earthquakes near Logan County and Oklahoma County. *Griggs v. Chesapeake Operating LLC*, No. CJ-2016-6 (Dist. Ct., Logan Cnty., Okla., Jan. 12, 2016), removed, No. 5:16-cv-138 (W.D. Okla., Feb. 16, 2016). The suit was voluntarily dismissed in July 2016, but the plaintiffs apparently intend to re-file their case in state court.
- Brenda and Jon Lene of Logan County, who filed a similar lawsuit, also voluntarily dismissed their claims in July 2016 without prejudice to refiling. *Lene v. Chesapeake Operating, LLC*, No. CJ-2016-27 (Dist. Ct., Logan Cnty., Okla., Feb. 12, 2016).

- Lisa West has filed a class action lawsuit requesting "back insurance premiums" and payment of future earthquake premiums. *West v. ABC Oil Co., Inc.*, No. CJ-2016-00049 (Dist. Ct., Pottawatomie Cnty., Okla., Feb. 18, 2016), removed, No. 5:16-cv-00264-F (W.D. Okla., Mar. 18, 2016). On May 12, 2017, the court granted the defendants' motions to dismiss "based upon lack of sufficient allegations of causation" but permitted the plaintiffs to amend their complaint.
- James Adams is lead plaintiff in a class action seeking property damages and emotional harm for individuals affected by a 5.8 magnitude earthquake on September 3, 2016, near Pawnee. *Adams v. Eagle Road Oil, LLC*, No. CJ-2016-00078 (Dist. Ct., Pawnee Cnty., Okla., Nov. 17, 2016), removed, No. 4:16-cv-00757 (N.D. Okla., Dec. 21, 2016).
- David Reid is the lead plaintiff in a class action seeking property damages and emotional harm for individuals affected by a 5.0 magnitude earthquake that occurred on November 7, 2016, near Cushing, the largest commercial crude oil storage center in North America. *Reid v. White Star Petroleum*, LLC, No. CJ-2016-00543 (Dist. Ct., Payne Cnty., Okla., Dec. 5, 2016). On May 31, 2017, the court denied the defendants' motions to dismiss and ordered that the case proceed with discovery.
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In the only reported decision so far, the Oklahoma Supreme Court rejected the contention that the Oklahoma Corporation Commission has exclusive jurisdiction over cases concerning oil and gas operations. To the contrary, the court held that "district courts have exclusive jurisdiction over private tort actions when regulated oil and gas operations are at issue." *Ladra v. New Dominion, LLC*, 353 P.3d 529, 532 (Okla. 2015).

The Oklahoma landowners affected by earthquakes seek damages and injunctive relief, and assert several claims, including negligence, nuisance, trespass, and strict liability. The defendants, in turn, deny that their disposal operations either caused the earthquakes in question or were the proximate cause of the alleged injuries. Even if seismic activity in Oklahoma is linked to injected wastes, the defendants contend that (1) the claims are barred by applicable statutes of limitation; (2) the earthquakes were not foreseeable results of disposal actions; (3) joint and several liability, market share liability, and other forms of collective liability are either unavailable or inappropriate; (4) the lawsuits are improper collateral attacks on authorized operations; and (5) injunctive relief would interfere with the exclusive jurisdiction of the Oklahoma Corporation Commission. On negligence, defendants argue that they did not breach any duty of care. On trespass, the defendants claim that seismic vibrations cannot be an actionable trespass, and that the plaintiffs failed to allege any physical invasion of their property. Finally, the defendants

assert that the underground injection of fluids in connection with oil and gas production is not an ultra-hazardous activity.

Even if hydraulic fracturing is not an abnormally dangerous or ultra-hazardous activity for groundwater contamination, it does not necessarily follow that strict liability for earthquake claims should be rejected. In contrast to the groundwater contamination claims, it can be argued that the risk of seismic activity is not substantially mitigated by the exercise of due care when wastes are injected into the ground. See Blake A. Watson, *Fracking and Cracking: Strict Liability for Earthquake Damage Due to Wastewater Injection and Hydraulic Fracturing*, 11 Tex. J. Oil, Gas & Energy L. 1 (2016). But, even if landowners are not required to establish fault (no pun intended), they will still be required to prove causation. This may be an insurmountable problem for two reasons: first, not all earthquakes are "induced"; and second, induced seismic activity is not easily linked to particular injection wells or to particular defendants.

The common law torts—negligence, nuisance, trespass, and strict liability—are attractive to landowners because they permit recovery of damages and also can be the basis for injunctive relief. As evidenced by the foregoing summary of hydraulic fracturing tort litigation, however, they are often difficult to prove. The adverse effects of fracking and related activities also may be challenged by using causes of action found in environmental statutes. The Sierra Club took this approach by filing an "imminent and substantial endangerment" lawsuit under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6972(a)(1)(B), in federal district court. *Sierra Club. v. Chesapeake Operating LLC*, No. 5:16-cv-00134-F (W.D. Okla. Feb. 16, 2016). As described in the original complaint, the suit was brought against energy companies "to enforce significant and ongoing violations of RCRA . . . that are placing people and the environment in Oklahoma and Kansas at significant and immediate risk from major man-made earthquakes induced by Defendants' waste disposal practices." *Sierra Club v. Chesapeake Operating LLC*, No. CIV-16-134-F, 2016 WL 618869 (W.D. Okla. Feb. 16, 2016), at *1. On April 4, 2017, the district court granted the defendants' motions to dismiss. The court first concluded that, under the abstention doctrine set forth in *Burford v. Sun Oil Co.*, 319 U.S. 315 (1943), it should refrain from exercising federal jurisdiction. The court concluded that abstention was appropriate because (1) the suit requests declaratory and injunctive relief; (2) federal review would disrupt state efforts to establish a coherent policy for a matter of substantial public concern; and (3) the primary relief that the Sierra Club seeks is available from a state administrative agency, the Oklahoma Corporation Commission. Alternatively, the court held that the action should be dismissed because primary jurisdiction rests with the OCC, which regulates the oil and gas industry and "is better equipped than the court to resolve the seismicity issues relating

to disposal well activities." 2017 WL 1287546 at *8. The court did not address whether the Sierra Club's claims fall outside RCRA's zone of interests or are barred by RCRA's anti-duplication provision.

Conclusion

Horizontal hydraulic fracturing has fundamentally altered oil and gas production. It has also affected the nature and scope of the industry's waste disposal practices. Not surprisingly, these developments have led to an increase of landowner tort litigation. Every case must be judged on its own facts and the results, to date, have been mixed.