Preliminary Insight

By Carl J. Pernicone, Michael J. Naughton and Samuel I. Reich

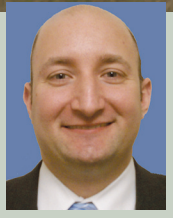
Legal Implications of Hydrofracking in the Marcellus Shale

In defending Marcellus Shale-related litigation, it is critically important that in-house counsel ask these questions: Who are the plaintiffs likely to be? What recovery theories will their attorneys likely advance? What damages will the plaintiffs likely seek? Which entities will the plaintiffs likely target as defendants? And what defenses can those entities raise?

The answers to these questions can enable in-house counsel to marshal the corporate resources needed to develop an effective "game plan" to defend against lawsuits in this emerging liability area. As with any human endeavor, progress brings with it a new set of potential liabilities. Hydrofracking in the Marcellus Shale is no exception. Some commentators have called it the "next asbestos." This article provides an overview of these issues and offers some preliminary guidance and insight to in-house counsel and other attorneys who may have to defend companies against Marcellus Shale-related suits.

Background on the Marcellus Shale

Briefly, the Marcellus Shale is a geological feature formed by an accumulation of marine sediment that, over time, was buried and compressed to produce organic-rich, black shale. The formation—which encompasses approximately 95,000 square miles—starts at the base of the Catskills near the town of Marcellus, New York, and stretches southwest to West Virginia, Kentucky, and Ohio.



■ Carl J. Pernicone is a partner in the New York City office of Wilson Elser and co-chair of the firm's Insurance-Reinsurance Coverage Practice. He focuses on issues arising in complex, high exposure matters. Mr. Pernicone is a member of DRI. Michael J. Naughton is a partner in Wilson Elser's New Jersey office and co-chair of the firm's Toxic Tort, Environmental & Energy Practice, focusing on environmental and energy regulatory, litigation and compliance work. Samuel I. Reich is an associate in Wilson Elser's Connecticut office.

How much natural gas extractors can recover from the Marcellus Shale is a matter of some dispute. Originally, the formation was estimated to have 410-trillion cubic feet of undiscovered, recoverable, natural gas; indeed, the *New York Times* referred to it as the "Saudi Arabia of natural gas." Experts estimated that reserves of that amount could provide energy for the entire United States for the next 20 years. In August 2011, however, that figure was lowered to 84-trillion cubic feet by the United States Geological Survey (USGS).

At least 60 companies are considering drilling in the Marcellus Shale, and an estimated $8 billion was spent in this area in 2010. Energy companies from around the world have been rushing to get into the business of producing natural gas from shale hydrofracking. Energy company Kinder Morgan, for example, recently purchased El Paso Gas, making Kinder Morgan the largest operator of natural-gas pipelines in the country. *Deal to Create Pipeline Giant*, Wall St. J., Oct. 17, 2011.

According to Avner Vengosh, professor of geochemistry and water quality at Duke University, some people believe that the natural gas generated from shale formations will change the landscape of energy—significantly reducing dependence on foreign oil—and given that we would have a relatively new energy source here and now in the United States considerable dollars are at stake. Duke Magazine 20–1 (July–Aug. 2001).

Horizontal Drilling and Hydraulic Fracturing

Since the Marcellus Shale has been around for thousands of years, why has it generated all the excitement just now? The answer is "horizontal drilling"—a comparatively new method, which when coupled with hydraulic fracturing, enables extractors to harvest natural gas reserves previously believed unreachable. Until recently, energy wells were drilled vertically through rock formations. This method was effective if a reservoir was made up of sandstone or limestone, porous material. Shale, however, is a dense rock, and vertical drilling had yet to yield a productive output that matched the cost of the drilling. Horizontal drilling creates a hole up to several thousand feet horizontally *across* the shale. Once a company completes drilling, hydraulic fracturing creates small cracks in the shale plates.

Briefly, hydraulic fracturing—or "hydrofracking"—involves injecting a pressurized solution of water, sand, and chemicals into a well to loosen the shale and release the gas. This is achieved by lowering a so-called "perforation gun" to the bottom of the well. When fired, the gun produces microfractures in the shale, releasing the trapped gas, which flows under natural pressure up the well pipe to the surface.

In-house counsel need know about emerging lawsuits that seek either to halt gas drilling or force an examination of the methods used to recover gas from shale.

Emerging Litigation

In-house counsel need know about emerging lawsuits that seek either to halt gas drilling or force an examination of the methods used to recover gas from shale. These lawsuits typically advance variations on familiar recovery theories in a new context—hydrofracking—that, for the most part, the judiciary or legislatures have not yet addressed. Thus, in defending these cases, in-house counsel will need to develop good understanding of the parties involved and the legal theories and potential defenses that have and will arise in this growing legal area.

Potential Plaintiffs

Categories of potential plaintiffs in Marcellus Shale litigation include environmental citizen groups, municipalities, and individual citizens. A good example of an environmental citizen group as a plaintiff is the Croton Watershed Clean Water Coalition, Inc. This group has filed a lawsuit against the New York State Department of Environmental Conservation seeking to declare hydrofracking in state forests contrary to the state constitution and related environmental laws. The group analogizes the drilling towers to utility towers, wind turbines, and commercial mining—all banned in New York state forests.

Two cases filed in September 2011 involve an environmental group called the Delaware Riverkeeper Network (DRN). In the first case, *Delaware Riverkeeper Network v. Collier*, Civil No. 11-0423 (AET), filed in the U.S. District Court for the District of New Jersey, the DRN has appealed a decision of the Delaware River Basin Commission (DRBC) to exempt it from regulating certain wells owned and operated by the Hess Corporation and used for natural gas exploration. In the second case, *Delaware Riverkeeper Network v. Collier*, Civil No. 10-5639 (AET), the DRN has appealed a decision of the DRBC authorizing Stone Energy Corporation to withdraw up to 0.7-million gallons of water per day from the west branch of the Lackawaxen River.

Another example is *Citizens for Pennsylvania's Future v. Ultra Resources, Inc.*, No. 4:2011-cv-01360, in which a citizens' group brought a federal action alleging that Marcellus Shale gas-well drilling operations, compressor stations, and pipelines in northern Pennsylvania emitted dangerous air pollutants in violation of the U.S. Clean Air Act and the Pennsylvania state air emissions plan.

These are just a few examples of the pending litigation by environmental groups.

Municipalities, another class of potential plaintiffs, have initiated legal actions to protect their resources on behalf of their citizens. In *Brockway Borough Municipal Authority v. Flatirons Development, LLC*, Brockway Borough in Jefferson County, Pennsylvania, leased acres of watershed land to a developer that intended to mine the Marcellus Shale in that location. To accomplish this, the developer would have to clear several acres of timber, which the borough argued directly threatens its water supply. The lawsuit seeks a site-specific plan to protect the water supply.

Individual citizens are yet another class of potential plaintiffs. For example,

in *Armstrong v. Chesapeake Appalachia*, No. 3:2010-cv-02453, a citizen of Bradford County, Pennsylvania, claimed that natural gas drilling has contaminated her ground water, causing her to become sick. Although the *Armstrong* lawsuit does not allege property-related damage, it is foreseeable that homeowners could sue for loss of property value, noise pollution from the drilling, and a myriad of other economic damages to their property.

Potential Defendants

Among the many potential defendants in Marcellus Shale litigation are energy and drilling companies; landowners; designers and manufacturers of drilling- and well-related equipment, including well pads; waste transporters and waste-storage companies; states, counties, and municipalities; insurance companies, subject to direct action under the New York Navigation Law; and various federal, state, and county agencies.

Energy companies naturally are primary litigation targets. For example, Cabot Oil and Gas was sued to prevent future drilling in the town of Dimock, Pennsylvania. This lawsuit also sought medical monitoring damages. The lawsuit claims that Cabot allowed methane and metals to seep into drinking water wells after fraudulently representing that the drilling process would not pose danger to the town or the drinking wells. Similarly, in *Lancaster v. Chesapeake Appalachia, LLC*, Kanawha Circuit Court, No. 11-C-694, WVA, Chesapeake Appalachia was sued by two workers who sustained severe injuries during a fire at a natural gas well in Washington, Pennsylvania. They claimed that Chesapeake and other defendants were negligent in failing to take steps to identify flammable vapors at the Marcellus Shale natural gas-well site and in failing to establish plans for storing and controlling the vapors.

Municipalities are yet another class of defendants in Marcellus Shale litigation. In *Chesapeake Appalachia v. Montross*, Chesapeake Appalachia filed a lawsuit against Wyoming County, New York, claiming that the county recorder refused to comply with state law by requiring a separate assignment for each of the 40 drilling leases that it wanted to assign to another company. Likewise, in *Clean Water Action v. The Municipal Authority of the City of McKeesport*, No. 2:2011-cv-00940, the McKeesport Municipal Authority allegedly violated the U.S. Clean Water Act by accepting waste water from Marcellus Shale drilling operations. States potentially face the same kinds of lawsuits.

The most common theory that Marcellus Shale plaintiffs advance is negligence, and only the creativity of savvy plantiffs' attorneys will limit the claimed duties owed.

As the owners of property on which drilling operations are occurring, landowners—including individual homeowners—are another class of potential defendants. They face vicarious liability for damage that drillers may cause.

To date, no one has sued designers and manufacturers of drilling- and well-related equipment. Nevertheless, if experience in other litigation areas is any guide, plaintiffs may pursue product liability lawsuits against these entities, premised on theories of design defects, manufacturing defects, or both, as well as failure to warn. Waste haulers and waste storage companies are also potentially in the crosshairs of this litigation as the entities responsible for transporting and disposing of the waste water that was injected into the shale to cause the fractures. This waste water contains contaminants, including the chemicals injected into the shale, as well as heavy metals, brines, and other by-products generated from close contact with the shale.

Engineering consultants are another potential category of defendants. They may have provided advice regarding the placement of the well pads and cement casings around a well boring. Consultants who provide advice during the planning stages of the construction of a drilling site may become potential litigation targets—depending on how far down the chain a litigant wants to pursue.

The takeaway here for in-house counsel is simple: Plaintiffs have no shortage of potential defendants when it comes to Marcellus Shale litigation.

Potential Legal Theories Available to Plaintiffs

In the Marcellus Shale-related lawsuits that plaintiffs have filed to date, the plaintiffs have advanced a number of recovery theories. These include negligence, negligence per se, private nuisance, trespass, climate change, strict liability for abnormally dangerous activity, breach of contract or breach of lease, fraudulent misrepresentation or concealment and failure to warn, negligent infliction of emotional distress, statutory violations, and deceptive business practices. These are discussed briefly below.

Negligence

The most common theory that Marcellus Shale plaintiffs advance is negligence, and only the creativity of savvy plantiffs' attorneys will limit the claimed duties owed. Negligence per se may also form the grounds for a claim. If plaintiffs claim violation of a state or federal statute or regulation, such as the Clean Air Act, a single violation can constitute negligence per se.

Nuisance

Plaintiffs could also pursue private nuisance claims when hydrofracking allegedly interfered with a person's interest in the "use and enjoyment" of his land. Restatement (Second) of Torts §822. Applying this principle, plaintiffs may argue that drilling produces loud noise, emits excessive levels of greenhouse gas, and may spoil residents' views.

Plaintiffs might also consider nuisance claims masquerading as climate-change liability claims. Favorably, however, in the June 2011 opinion *Connecticut, et al. v. American Electric Power Co.*, 131 S. Ct. 2527 (2011), the United States Supreme Court dismissed a *federal* common law-based nuisance claim brought against emitters of greenhouse gas, finding that Congress had preempted the field in regulating green-

house gas emissions when it enacted the Clean Air Act. Whether and to what extent a climate change lawsuit premised on *state* common law-based nuisance may still be viable was expressly left open in *American Electric Power.*

Strict Liability

Strict liability is another potentially viable cause of action. However, it is unclear whether it applies to gas-well drilling. In *Fiorentino v. Cabot Oil & Gas Corp.*, 2010 WL 4595524 (M.D. Pa. Nov. 15, 2010), the court denied a motion to dismiss a strict liability claim. The plaintiffs alleged that hydrofracking and other gas production activities released toxins onto their property. The defendants moved to dismiss the lawsuit based on the argument that drilling is not an abnormally dangerous activity—a requirement for a successful assertion of a strict liability claim. Because Pennsylvania courts have not yet addressed this issue, the judge declined to grant the motion to dismiss at the early stage of the case, stating that he could not say whether hydrofracking would constitute a dangerous act.

Fraud

Defendants may also face an array of fraud-based causes of action. Plaintiffs, for example, may charge defendants with fraudulent concealment and misrepresentation of potential liability-causing risks that were not disclosed by a driller when a drilling lease agreement was executed. For example, as was alleged in *Cabot*, a homeowner sued a drilling company that had drilling rights on his property alleging that the company fraudulently concealed the toxic nature of substances used in "fracking fluid." The homeowner claimed that he would never have agreed to the lease if he had known of the harmful nature of these substances.

These types of actions are often coupled with claims that a drilling company defendant "failed to warn" the homeowner of the toxic nature of certain ingredients in the fracking fluid used in the hydrofracking process.

Statutory Violations

The causes of action that, to date, appear to have gained some traction are those that allege statutory violations. Most states have enacted statutes authorizing private citizens to pursue lawsuits against alleged violators of statutory obligations. In effect, these statutes authorize the plaintiffs to act as de facto "private attorney generals, in the absence of adequate enforcement activity by a relevant regulatory agency." Hazardous Sites Cleanup Act, 35 Pa. Cons. Stat. §6020.1115. Such claims do not support recovery of damages, but under certain circumstances courts may allow recovery of attorneys' fees and the assessment of civil penalties against the alleged violators.

Citizen lawsuits under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) allow private citizens to sue to enforce the U.S. Environmental Protection Agency (EPA) mandates and to force defendants to clean up contaminated sites. The EPA has also used CERCLA to obtain information concerning disposal of waste water by Marcellus Shale drillers. CERCLA allows contribution claims, 42 U.S.C.A. 9613(f)(1), as does the Pennsylvania Hazardous Sites Cleanup Act.

Other Potential Claims

While Marcellus Shale plaintiffs have not yet asserted product liability claims in any of the pending lawsuits, in-house counsel need to understand that they may be on the horizon. The list of hydrofracking-related products that could give rise to product liability claims include "fracking fluid" and the perforation guns used in the hydrofracking process. Manufacturers of these guns as well as the chemical companies that make the constituent chemicals used in the fracking fluid are potential defendants.

In-house counsel should also know that the New York Navigation Law highlights yet another potential source of statutory liability for Marcellus Shale-related activity. The Navigation Law—which is unique to New York—applies to any discharge or release from any *petroleum-based product.* NY CLS §172–3. Recent information suggests that hydrofracking fluids contain diesel fluid constituent. Importantly, insurers of responsible parties face potential direct action exposure for the same liability as the responsible parties, without any ability to challenge the reasonableness of the New York cost-recovery demands.

Drilling operators could also face environmental class action lawsuits initiated by large groups of allegedly "similarly situated" Marcellus Shale plaintiffs. Plaintiffs who allegedly suffered similar injuries could try to pursue one major lawsuit, seeking certification as an identifiable Marcellus Shale "class."

Potential Damages Available to Plaintiffs

Plaintiffs in Marcellus Shale-related lawsuits typically seek to recover several categories of damages. These include personal injury; property damage; restoration of natural resources; cost of replacement of water; cost of remediation or response; medical monitoring; and other compensatory damages, punitive damages, and treble damages.

Personal Injury

Regarding personal injury claims, many citizens have claimed that they have suffered medical problems as a result of the drilling. For example, in *Hagy v. Equitable Production*, No. 2:10-cv-01372, the Hagys filed a five-count lawsuit against Equitable Production Company; Warren Drilling Company, Inc.; BJ Services Company, USA; and Halliburton Energy Services, Inc. in Jackson Circuit Court, West Virginia. Then the case was removed to a federal court on the basis of diversity. The Hagys alleged that methods used to drill for natural gas near their property two years previously led to contamination of their drinking water and further claimed that they manifested neurological symptoms consistent with exposure to heavy metals, including manganese.

Property Damage

In property damage claims, plaintiffs allege that Marcellus Shale drilling causes property values to drop due to the high-risk nature of the activity. They also allege that the drilling can cause "seismic" activity that could damage structures on their properties. The noise from the constant traffic of trucks entering and leaving drill sites and the bright lights from the sites are also factors that allegedly devalue property.

Also, most property damage claims allege methane in drinking water caused by the fracking activities.

Remediation, Restoration, and Response

According to Jim Williams of the U.S. Geological Survey, the more costly damages stem from remediating the environment and restoring natural resources. Water required for shale hydrofracking in other regions of the United States can range from 3 to 9 million gallons per well. In the Marcellus Shale region, extractors have used 3 to 6 million gallons of water per well in hydrofracking operations. The concern is that withdrawing water from the wells could disrupt other users or environmental systems. Fish kills and drinking water contamination from the mix of chemicals that are being used in the fracking process have been reported. Other damages that plaintiffs have sought are the cost of replacing water and the remediation or response costs to correct spills.

Medical Monitoring

Public interest groups and academics also have called for medical monitoring to study the impact of hydrofracking on the public. Plaintiffs have filed new lawsuits to force drillers and other Marcellus Shale-related defendants to pay for the costs of establishing funds to monitor the health of people allegedly exposed to noxious substances arising from the drilling. For instance, in *Tucker v. Southwestern Energy Company, XTO Energy, Chesapeake Energy Corporation and BHP Billiton Petroleum (Fayetteville), LLC*, No. 1:20-cv-00044, the plaintiffs claim that their soil, groundwater, well water, and air are contaminated. They seek to establish funds for environmental monitoring and medical monitoring. Fifteen Pennsylvania families also seek to set up a trust fund to cover medical treatment for residents who say that pollutants have sickened them, listing in the complaint neurological and gastrointestinal illnesses.

In-house counsel need to understand that medical monitoring can become a costly enterprise. The costs incurred monitoring individuals for an unknown disease can add up very quickly, especially when entire communities are involved.

Other Damages

The majority of lawsuits have also sought compensatory, punitive, and treble damages, as well as other special damages due to the alleged reckless nature of the drilling process.

Defenses Available to Defendants

It is important for in-house counsel to understand the defenses available in Marcellus Shale-related suits.

Contributory or Comparative Negligence and Causation

Most, if not all, states recognize some type of contributory or comparative negligence defense. These defenses allow juries to consider the plaintiffs' own negligence and involvement in bringing about their claimed damages. Another common law defense is lack of causation—an essential element of negligence. Plaintiffs have had trouble proving causation; that is, linking shale drilling to their claimed damages. To prevail in a claim for personal injury based on exposure to a contaminant, plaintiffs must produce significantly more proof than just the fact that test results show that constituents in their water wells exceed regulatory standards. *Wright v. Willamette Industries*, 91 F.3d 1105 (8th Cir. 1996) (requiring more than just speculative evidence regarding levels of exposure that is harmful to humans). Plaintiffs must demonstrate that the contaminant to which they have been exposed has been identified as a potential cause of alleged illness or disease.

Failing to prove causation may turn out to be the primary impediment to plaintiffs' recovering on their claims. For example, the argument that Marcellus Shale operations occurring near plaintiffs' property are responsible for elevated concentrations of certain contaminants in wells on plaintiffs' property is—by itself—insufficient to prove causation. Additional evidence is necessary, including proof of a potential "pathway" between the Marcellus Shale well and the water well. Additionally, in-house counsel should know that Pennsylvania law operates under a rebuttable presumption that a polluted water supply located within 1,000 feet of a well is caused by the well. Many of the contaminants allegedly caused by Marcellus Shale production occur naturally or as the result of other activities, such as farming and handling and disposing of gasoline, household trash, sewage, or other operations near property, including coal mining. For example, the elevated nitrate levels in water wells on some plaintiffs' property could be due to the application of fertilizer or sewage and waste from livestock farming operations in the area.

In defending a claim in which a plaintiff alleges that his or her well is contaminated, in-house counsel will want to ensure that detected contaminants are compared with known constituents in fluid or gas from the Marcellus Shale to determine whether Marcellus Shale operations could be considered a source of the alleged contaminants. Chemical concentration in wells subject to litigation should be compared with corresponding concentration in wells that are believed to be unaffected by hydraulic fracturing. For example, in groundwater-quality testing in Pennsylvania, substances such as iron, total dissolved solids, magnesium, and low pH that exceed drinking water standards have been determined to occur naturally.

Statutory Defenses

Statutory defenses are also available to defendants. Proponents of natural gas drilling insist that their techniques are safe, environmentally sound, and satisfy all applicable regulatory standards. When appropriate, in-house counsel should take steps to ensure that their companies comply with all applicable regulations and permit requirements. Doing so will make cases based on statutory claims or common law theories—particularly negligence per se, typical negligence, and nuisance cases—difficult to prove.

In addition, in-house counsel for drilling companies should ensure that their companies routinely collect "baseline" groundwater and surface water quality data for all areas where companies plan future water production operations. Offering pre-drilling testing evidence demonstrating that pollution existed before a company drilled a well drilling is among the five enumerated defenses to the rebuttable presumption that a hydrofracking well pol-

luted the water supply located within 1,000 feet of the well.

Procedural Defenses

Defendants also have a number of procedural defenses. For example, to sustain citizen lawsuit claims under most federal and state statutory provisions potential plaintiffs must satisfy various notice and other procedural requirements and demonstrate that the particular responsible environmental agency has not diligently pursued enforcement. The extent of enforcement activity required by regulatory agencies to meet the "diligent prosecution standard" differs from state to state. In *Arkansas Wildlife Federation v. ICI America's Inc.*, 29 F.3d 376 (8th Cir. 1994), the court imposed a limited requirement for statute enforcement to constitute diligent prosecution. In contrast, in *McAbee v. City of Fort Payne*, 318 F.3d 1248 (11th Cir. 2003), the court held that state enforcement must proceed under authority comparable to federal authority to preclude a citizen's lawsuit. Defendants confronting potential citizen lawsuit litigation could possibly stop these actions by negotiating administrative consent agreements with the appropriate regulatory agencies to establish corrective action programs.

Medical Monitoring Defenses

As discussed earlier, many claims seek medical monitoring. To effectively defend against medical monitoring claims, a defendant needs to attack one or more of the recognized elements of proof required to establish tort liability for them: a person was exposed to a proven hazardous substance, which exceeded a normal background level, caused by the defendant's negligence, and as a proximate result of exposure, the plaintiff has a significantly increased risk of contracting a serious latent disease; further, a monitoring procedure exists that makes detecting the disease possible, the prescribed monitoring regime differs from that normally recommended in the absence of the exposure, and the prescribed monitoring regime is reasonably necessary according to contemporary scientific principles. *Redland Soccer Club, Inc. v. Dep't of Army & Dep't of Def. of U.S.*, 696 A.2d 137, (Pa. 1997). If a defendant can refute *any one* of those elements, a medical monitoring claim will not succeed.

Expert Opinion Admissibility

Another area of concern for in-house counsel is, of course, discrediting plaintiffs' experts' opinions and ensuring the admissibility of your own. The United States Supreme Court articulated the standard for determining the admissibility of expert opinions in federal cases in the landmark opinion *Daubert v. Merrell Dow Pharmaceuticals*, 509 US 579 (1993). The *Daubert* standard requires a court to examine whether scientific evidence will assist the trier of fact and whether the evidence emanates from reliable and scientifically valid methodology.

> Most states have enacted statutes authorizing private citizens to pursue lawsuits against alleged violators of statutory obligations.

Some states have adopted standards based on *Daubert*. Others, such as Pennsylvania and New York, adhere to the admissibility standard that was articulated in *Frye v. United States*, 293 F. 1013 (1923); namely, that scientific evidence is admissible if the methodology underlying it has general acceptance in the relevant scientific community and that judges should permit scientists to guide them when they assess the reliability of scientific methods. When appropriate, in-house counsel should consider moving to exclude a plaintiff's expert testimony that is unsound or based on unreliable methodology.

Further, in-house counsel for defendants should consider *retaining* expert witnesses to attack the merits of plaintiffs' lawsuits. Engineers and hydrologists can assist by examining gas records and permits to evaluate operational issues, such as well performance, the effect of drilling and production on the underground pressure in a rock formation, and mobility. Geologists also sometimes can assist by locating old, improperly closed or abandoned wells or coal mines that could serve as alternative pathways for methane gas and other substances that have contaminated potential plaintiffs' drinking water wells.

In-house counsel should also take steps to ensure that their companies use reliable laboratories that have been approved by the state's department of environmental protection or other relevant agencies to help ensure the data is reliable and admissible.

The methodology used to obtain and analyze water samples is also important, such as tests to determine the age of the contaminant and chemical "fingerprinting" for determining the source of elevated compounds in water wells. Scientific evidence and expert testimony will also play a significant role when courts review claims that exposure to elevated levels of constituents associated with natural gas drilling and production have caused residents to experience various illnesses or adverse health effects. Experience teaches that in defending against personal injury cases and medical monitoring cases, it helps to establish health histories for each claimant, including occupational, lifestyle, and environmental exposure to agents. In-house counsel need to implement a plan for gathering this information.

Other Defenses

Other potential defenses that in-house counsel should consider are contractual in nature, including indemnity and defense, statute of limitations, impossibility, and unconscionable terms.

Pending Lawsuits and Decisions

Several pending Marcellus Shale cases that could shape the legal landscape in this area bear close watching by in-house counsel.

In the first tort ruling in a Marcellus Shale case, *Fiorentino v. Cabot Oil & Gas Corp.*, 2010 WL 4595524 (M.D. Pa. Nov. 15, 2010), the United States District Court for the Middle District of Pennsylvania addressed a variety of issues arising from a tort claim for personal injuries and prop-

erty damages from Marcellus Shale gas drilling. The plaintiffs' complaint alleged claims under (1) the Pennsylvania Hazardous Sites Cleanup Act (HSCA), (2) negligence, (3) private nuisance, (4) strict liability, (5) breach of contract, (6) fraudulent misrepresentation, (7) medical monitoring trust funds, and (8) gross negligence. The defendant moved to dismiss the claims permissible under the HSCA, strict liability, medical monitoring, and gross negligence. The defendant also moved to strike a number of allegations largely related to the claims that it sought to dismiss, as well as negligence per se and the request for attorneys' fees. The court noted that in Pennsylvania strict liability did not apply in actions involving underground storage of petroleum products and operation of petroleum pipelines. However, the Pennsylvania courts have yet to address whether the gas well-drilling conduct at issue is abnormally dangerous. So the court ordered further discovery.

In Pennsylvania, the Superior Court in *Butler v. Charles Powers Estate*, 1795 MDA 2010, allowed a dispute over land rights to move forward with expert witness analysis to determine whether shale in the Marcellus Shale range is considered a mineral. If it is, the owner of the shale would also own the natural gas contained in it. In-house counsel should monitor this dispute. Zack Needles, *Justices Asked to End Debate on 'Mineral' Definition*, The Legal Intelligencer, Oct. 14, 2011.

In May 2011, New York state filed a lawsuit in Brooklyn federal court: *State of New York v. U.S. Army Corps of Engineers*. Defendants included the U.S. Army Corps of Engineers, the Delaware River Basin Consortium (DRBC), an interstate government agency comprising the governors of New York, New Jersey, and Pennsylvania that is responsible for managing the water resources within the 13,539 square-mile Delaware River Basin, the National Park Service, the U.S. Fish and Wildlife Service, and the EPA. The lawsuit alleges that the federal government has failed "to commit to a full environmental review of the proposed regulations that would allow natural gas drilling, including the potentially harmful fracking technique in the Delaware River Basin."

New York Attorney General Eric Schneiderman has accused federal agencies of failing to comply with the National Environmental Policy Act (NEPA), which requires federal agencies to conduct full reviews of the actions that may cause significant environmental impacts. More than one-third of the Delaware River Basin sits atop the Marcellus Shale region.

> To prevail in a claim for personal injury based on exposure to a contaminant, plaintiffs must produce significantly more proof than just the fact that test results show that constituents in their water wells exceed regulatory standards.

The DRBC has responded, alleging that the NEPA mandate to conduct studies does not apply to it because it is not a federal agency, and it is not subject to the EPA.

Another potential lawsuit that in-house counsel should monitor is the May 2, 2011, "intent to sue" letter filed by Maryland Attorney General Douglas Gansler, which alleges that an April 19, 2011, blowout at a well in Leroy Township, Pennsylvania, caused "thousands of gallons of fracking fluids to be released from a well owned and operated by Chesapeake Energy into Towanda Creek, a tributary of the Susquehanna River, which supplies 45 percent of the fresh water in the Chesapeake Bay."

Few actual decisions stemming from hydrofracking-related litigation have been reported to date arising from either the Marcellus Shale or another shale formation. In *Berish v. Southwestern Energy Production Co.*, 763 F. Supp. 2d 702 (M.D. Pa. 2011), the United States District Court for the Middle District of Pennsylvania denied the defendants' motion to dismiss the "strict liability" prong of the plaintiffs' complaint. Specifically, the defendants had argued that "the claim was insufficiently pleaded and that underground gas drilling is not an abnormally dangerous activity." The court disagreed, holding that the plaintiffs had met their burden of putting the defendants on notice of the basis of a strict liability claim. The court acknowledged that courts have not found strict liability in analogous Pennsylvania cases involving gasoline in underground storage tanks or the storing of insecticide in a barn, but courts did make such decisions after discovery had been completed and the record was more developed.

Other notable decisions are

- *Hite v. Falcon Partners*, 13 A.3d 942 (Pa. 2011). The Pennsylvania Supreme Court ruled that an oil and gas exploration release and definite delay rental provision was void.
- *Lauchle v. Keeton Group, LLC*, 2010 WL 78924, 769 F. Supp. 2d 757 (M.D. Pa. 2011). The United States District Court for the Middle District of Pennsylvania held that a gas production company was not entitled to an equitable ruling extending the terms of leases for the same period of time that production under the leases was delayed pending resolution of challenges to the leases.
- *Arbor Resources v. Nockamixon Twp.*, 2009 WL 1288232, 973 A.2d 1036 (Pa. Cmwlth. 2009). The Pennsylvania Commonwealth Court held that plaintiffs could not challenge certain municipal gas drilling regulations directly in the state courts but rather fell under the exclusive jurisdiction of the municipal board.

Conclusion

The litigation surrounding Marcellus Shale drilling is just beginning. New cases and hydrofracking issues arise almost daily. Thus, the courts and the regulators will shape the hydrofracking landscape. The primer that we have provided will hopefully prepare in-house counsel and other defense counsel for the issues that they will confront if and when they need to tackle hydrofracking lawsuits.