

**Past, Present, and Future: Hydraulic Fracturing as a Strict Liability
Tort in Pennsylvania**
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I. INTRODUCTION

All judicial decisions are a difficult balancing act that weigh public and private rights against the interest of justice. The issues presented by hydraulic fracturing embody this conundrum. Courts, when determining issues related to hydraulic fracturing, weigh a business's right to profit against an individual's right to be free from harm. In making this determination, Pennsylvania courts have altered the course of American jurisprudence, specifically concerning strict liability.

A. Breaking Ground - An Introduction to Fracking

Hydraulic fracturing, also known as fracking, is the process of freeing trapped oil and natural gas by pumping large quantities of fluids at high pressure into targeted rock formations.² The fluid commonly consists of water, sand, and chemical additives³ which are then collected, separated, and disposed.⁴ Using fracking fluid to expand the extraction of more oil and natural gas differentiates hydraulic fracturing from conventional oil and well drilling.⁵ While fracking

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² *The Process of Unconventional Natural Gas Production*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (Feb. 14, 2023), <https://www.epa.gov/uog/process-unconventional-natural-gas-production#:~:text=%22Unconventional%22%20reservoirs%20can%20cost%2D,in%20a%20concentrated%20underground%20location.>

³ *Id.*

⁴ *Id.*

⁵ *Oilfield Equipment: What's the Difference Between Drilling and Fracking?*, NORTHERN OILFIELD SERVICES (Aug. 7, 2019), <https://www.nos-llc.com/oilfield-equipment/oilfield->

utilizes technological advancements and effort to create fissures in shale formations, conventional drilling pulls oil and gas from an already available reservoir.⁶

Although hydraulic fracturing can be traced back to the 1940s, it was not until 2003 that massive scale operations were conducted.⁷ A 2004 study from the Environmental Protection Agency (“EPA”) found that hydraulic fracturing posed no threat to underground drinking water supplies.⁸ As a result, hydraulic fracturing has been on the rise.⁹ In fact, since 2016, hydraulic fracturing has become the predominant method for extracting oil and natural gas in the United States.¹⁰ During this time, Pennsylvania’s fracked natural gas production has considerably increased. The state is now the nation’s second leading natural gas producer.¹¹

equipment-whats-the-difference-between-drilling-and-fracking/#:~:text=The%20Main%20Differences,-The%20main%20differences&text=Fracking%20uses%20fracking%20fluid%20to,readily%20available%20in%20the%20reservoir.

⁶ *Id.*

⁷ *A Brief History of Hydraulic Fracturing*, EEC ENVIRONMENTAL (last visited Oct. 5, 2023), <https://eecenvironmental.com/a-brief-history-of-hydraulic-fracturing/>.

⁸ *Id.*

⁹ *Hydraulically fractured horizontal wells account for most new oil and natural gas wells*, UNITED STATES ENERGY INFORMATION ADMINISTRATION (Jan. 30, 2018), <https://www.eia.gov/todayinenergy/detail.php?id=34732#:~:text=Hydraulically%20fractured%20horizontal%20wells%20became,other%20drilling%20and%20completion%20techniques.>

¹⁰ *Id.*

¹¹ Michael Rubinkam, *Pennsylvania to Partner with Natural Gas Driller on in-depth Study of Air Emissions, Water Quality*, THE INDEPENDENT (Nov. 2, 2023), <https://www.independent.co.uk/news/pennsylvania-ap-washington-county-ceo-children-b2440502.html>.

However, with this rise in popularity came a rise in criticism and concern over such drilling practices.¹² At the heart of this criticism are complaints regarding fracking's effects on water quality, specifically in drinking water supplies.¹³ In addition, studies have concluded that hydraulic fracturing can result in an increased risk of mild, moderate, and severe asthma exacerbations, increased headaches, higher levels of fatigue, cardiovascular risks, and numerous cancers.¹⁴ In Pennsylvania alone, from 2010 to 2017, at least twenty people died due to pollution emitted by hydraulic fracturing.¹⁵ However, courts continue to deny that hydraulic fracturing is abnormally dangerous, thus rejecting strict liability causes of action.¹⁶

B. What is Strict Liability?

Strict liability is liability that does not depend on proof of negligence or intent to harm but that is instead based on a duty to compensate the harms proximately caused by the activity or behavior subject to the liability rule.¹⁷ Unfortunately, it is not possible to reduce abnormally dangerous activities to any

¹² Eric de Place, *Public Opinion is Moving Against Natural Gas and Fracking*, SIGHTLINE INSTITUTE (July 28, 2020), <https://www.sightline.org/2020/07/28/public-opinion-is-moving-against-natural-gas-and-fracking/#:~:text=Gallup%20public%20opinion%20polling%20has,points%20in%20opposition%20by%202017>.

¹³ *Hydraulic Fracturing & Health*, NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES (Nov. 15 2022), <https://www.niehs.nih.gov/health/topics/agents/fracking/index.cfm#:~:text=Water%20quality%20is%20a%20primary,and%20disposed%20of%20as%20wastewater>.

¹⁴ *Id.*

¹⁵ *Study: Air Pollution from Fracking Linked to Deaths in Pennsylvania*, BINGUNews (June 18, 2020), <https://www.binghamton.edu/news/story/2496/study-air-pollution-from-fracking-linked-to-deaths-in-pennsylvania>.

¹⁶ See *Murrysville Watch Comm. v. Municipality of Murrysville Zoning Hearing Bd.*, 272 A.3d 998 (Pa. Commw. Ct. 2022); *Frederick v. Allegheny Twp. Zoning Hearing Bd.*, 196 A.3d 677, 681 (Pa. Commw. Ct. 2018).

¹⁷ Strict Liability, Black's Law Dictionary (11th ed. 2019).

single definition.¹⁸ Courts decide, as a matter of law, whether an activity is “abnormally dangerous” and whether strict liability will be imposed.¹⁹

The inaugural case that established abnormally dangerous conduct was *Rylands v. Fletcher* in 1868.²⁰ In this case, Rylands, the landowner, built a reservoir on his property.²¹ Prior and unbeknownst to him, Fletcher, a coal miner, was operating coal mines on the neighboring property.²² After the reservoir was completed, the water traveled horizontally through old mine shafts that were under the reservoir to new shafts that Fletcher was in the process of developing.²³ Eventually, Ryland’s reservoir flooded Fletcher’s coal mines.²⁴ The dispositive issue in *Rylands* was whether the landowner could be held liable irrespective of negligence.²⁵ The trial court found Rylands not liable.²⁶ On appeal, the first appellate court affirmed the ruling of the trial court.²⁷ However, during the final appeal, the court reversed and found that Rylands may be liable for damages.²⁸ Ultimately, the court reasoned that when someone brings something onto his land that may do harm if it escapes, “he does so at his peril.”²⁹

¹⁸ Restatement (Second) of Torts §520 (Am. L. Inst. 1977).

¹⁹ See *Diffenderfer v. Staner*, 722 A.2d 1103, 1107 (Pa. Super. Ct. 1998).

²⁰ See *Albig v. Mun. Auth. of Westmoreland Cnty.*, 502 A.2d 658, 661 (Pa. Super. Ct. 1985).

²¹ See *Rylands v. Fletcher*, L.R. 3 H.L. 330 (1868).

²² *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Rylands v. Fletcher*, L.R. 3 H.L. 330 (1868).

²⁸ *Rylands v. Fletcher*, L.R. 3 H.L. 330 (1868).

²⁹ *Id.*

Since *Rylands*, courts have expanded strict liability principles into other areas of law³⁰ and further developed the "ultrahazardous" and "abnormally dangerous" language.³¹ Additionally and more importantly, strict liability was written into the Restatement (Second) of Torts in 1977.³² As a result, the Superior Court of Pennsylvania has, on numerous occasions, adopted Sections 519 and 520 of the Restatement to determine whether an activity is abnormally dangerous.³³ Although Sections 519 and 520 have been adopted, Pennsylvania courts have consistently denied the application of strict liability to oil and gas related activities.³⁴ In general, the characterization of an activity as abnormally dangerous in Pennsylvania is extremely rare.³⁵ Although Pennsylvania courts have applied and rejected strict liability to other areas of law, the commonwealth's jurisprudence lacks a definitive answer on whether strict liability should apply specifically to fracking.

One federal district court, which has been subject to recent strict liability claims, reasoned that hydraulic fracturing did not meet the factors of Sections 519 and 520.³⁶ According to that court, (1) there was a lack of evidence as to whether

³⁰ See *Dyer v. Maine Drilling & Blasting, Inc.*, 984 A.2d 210, 216 (Ma. 2009) (stating that policy shifts have led almost every other state to adopt the strict liability principle of *Rylands*.)

³¹ Joshua Getzler, *Richard Epstein, Strict Liability, and the History of Torts*, 3, J. Tort L., 1, (2010).

³² *Restatement of the Law (Second) Torts §504 to §587*, AMERICAN LAW INSTITUTE, (1977).

³³ See *Banks v. Ashland Oil Co.*, 127 F.Supp.2d 679, 680 (E.D. Pa 2001); see also *infra* n. 63-64.

³⁴ See *Smith v. Weaver*, 665 A.2d 1215, 1216 (Pa. Super. Ct. 1995) (denying strict liability for a claim against the operation of an underground gasoline storage tank); *Meslo v. Sun Pipe Line Co.*, 576 A.2d 999, 1000 (Pa. Super. Ct. 1990) (stating that the operation of a petroleum pipeline under a housing development was not an abnormally dangerous activity, thus denying strict liability).

³⁵ *Rhoads Indus., Inc. v. Shoreline Found., Inc.*, 2022 WL 742486, (E.D. Pa. 2022).

³⁶ See *Ely v. Cabot Oil & Gas Corp.*, 38 F.Supp 3d 518, 519 (M.D. Pa 2014).

hydraulic fracturing is abnormally dangerous, (2) there was minimal evidence that the likelihood of harm resulting from hydraulic fracturing will be great, and (3) any “risks may be substantially reduced through exercise of due care in the field.”³⁷ As recent as 2022, courts of this commonwealth have debated, but not officially determined, whether hydraulic fracturing is abnormally dangerous.³⁸

However, for plaintiffs seeking this judicial remedy, there is hope. A government funded study from the University of Pittsburgh released new evidence that exhibited the harmful effects of hydraulic fracturing.³⁹ Although this evidence alone may not be sufficient to make hydraulic fracturing a strict liability tort, it has laid the foundation for another potential change in American jurisprudence. This study, in combination with future research, could persuade courts to find defendants strictly liable.

This Article proceeds in four Parts: First, this article gives a brief overview of the *Ely v. Cabot Oil and Gas Corp.* case.⁴⁰ Second, it provides more information regarding the University of Pittsburgh Hydraulic Fracturing Epidemiology Research Studies.⁴¹ Third, it applies the University of Pittsburgh studies to the

³⁷ *Ely*, 38 F.Supp 3d 518 at 531.

³⁸ See *Murrysville Watch Comm. v. Municipality of Murrysville Zoning Hearing Bd.*, 272 A.3d 998 (Pa. Commw. Ct. 2022) (stating that prior Commonwealth Court decisions have noted, in passing, that “a gas well operator engaged in hydraulic fracturing and drilling operations does not constitute an abnormally dangerous activity.”).

³⁹ Marc Levy, *A Pennsylvania study suggests links between fracking and asthma, lymphoma in children*, ASSOCIATED PRESS (August 16, 2023), <https://apnews.com/article/fracking-pennsylvania-health-environment-research-79dd7cfb9b3799e628b0c3667f30dcc4>

⁴⁰ See *infra* Section II. A.

⁴¹ See *infra* Section II. B.

Restatement (Second) of Torts Sections 519 and 520.⁴² Fourth, this article explains what is necessary for hydraulic fracturing to become a strict liability tort.⁴³

II. BACKGROUND

A. **Ely v. Cabot Oil and Gas Corp. - Procedural History**

On November 19, 2009, forty-four plaintiffs collectively filed suit against Cabot Oil and Gas Corp. (“Defendants”) for personal injuries and property damages as a result of Defendants’ drilling operations in Dimock Township, Susquehanna County, Pennsylvania.⁴⁴ However, after five years of pending litigation, most of the plaintiffs settled and only twelve remained during the court’s decision.⁴⁵ Defendants moved for summary judgment as to Plaintiffs’ claims that hydraulic fracturing constitutes an abnormally dangerous activity under state law and should be subject to strict liability.⁴⁶

The case was originally pending before Chief United States Magistrate Judge for the Middle District of Pennsylvania, Martin C. Carlson.⁴⁷ Magistrate Judge Carlson recommended that Defendants’ Motion for Summary Judgment be granted after finding that hydraulic fracturing does not legally qualify as an ultra-hazardous activity giving rise to strict liability.⁴⁸ Plaintiffs objected to the magistrate judge’s report and recommendation, and the matter came before United States District Judge John E. Jones.⁴⁹ Judge Jones was tasked with reviewing the magistrate judge’s decision and ultimately ruling on whether

⁴² See *infra* Section III. A.

⁴³ See *infra* Section III. B.

⁴⁴ *Ely*, 38 F.Supp 3d 518 at 519.

⁴⁵ *Id.*

⁴⁶ *Id.* at 520.

⁴⁷ *Ely*, 38 F.Supp 3d 518 at 519.

⁴⁸ *Id.*

⁴⁹ *Id.*

hydraulic fracturing is an abnormally dangerous activity and thus subject to strict liability.⁵⁰

B. Factual Background

The twelve plaintiffs in this case were Nolen Scott Ely, as Executor of the Estate for Kenneth R. Ely, his father; Nolen Scott Ely and Monica Marty-Ely, both individually and as parents of their three minor children (“the Elys”); and Ray and Victoria Hubert, individually and as parents of their two children (“the Huberts”).⁵¹ All Plaintiffs entered into gas leases with Defendants from September 2006 to June 2007.⁵² Defendants began drilling the Gesford 3 well on Plaintiffs’ property in September 2008, however, it was never hydraulically fractured.⁵³ In October 2008, Defendants drilled a second gas well, called the Gesford 3S and finished drilling two months later.⁵⁴ The Gesford 3S well was hydraulically fractured in March of 2009.⁵⁵ In August 2009, the Gesford 3 well was re-permitted as the Gesford 9 well.⁵⁶ Again, it was never hydraulically fractured and both the Gesford 3S and 9 wells were abandoned in May 2010.⁵⁷

The Elys claimed that their water supply was affected by the Defendants’ drilling operations and stated causes of action for personal injuries, future medical monitoring, and property damage.⁵⁸ The Huberts, who lived in a trailer on the Ely’s property, also alleged that their water supply was affected by the Defendants’

⁵⁰ *Id.* at 520.

⁵¹ *Id.* at 521.

⁵² *Ely*, 38 F.Supp 3d 518 at 520-521.

⁵³ *Id.* at 522.

⁵⁴ *Id.*

⁵⁵ *Ely*, 38 F.Supp 3d 518 at 519.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.* at 520.

drilling.⁵⁹ However, the Huberts did not state claims for personal injuries or medical monitoring.⁶⁰ Specifically, all Plaintiffs alleged that the hazardous chemicals and combustible gasses used by the Defendants were “ultra-hazardous and abnormally dangerous” and that the use of hydraulic fracturing on Plaintiffs’ property was an “ultra-hazardous and abnormally dangerous activity.”⁶¹

C. Ely Court’s Opinion

The court notes that in Pennsylvania, strict liability causes of action are recognized for abnormally dangerous and ultra-hazardous activities.⁶² In doing so, courts should apply the Restatement (Second) of Torts Sections 519,⁶³ and 520.⁶⁴ ⁶⁵ In this case, however, when applying the Restatement’s multifaceted test, the evidence presented did not support the notion that hydraulic fracturing is an abnormally dangerous activity subject to strict liability.⁶⁶ Consequently, Defendants’ Motion for Summary Judgment on Plaintiffs’ strict liability claim was granted.⁶⁷

D. Ely Court’s Reasoning - An Application of the Restatement

⁵⁹ *Id.* at 522.

⁶⁰ *Ely*, 38 F.Supp 3d 518. at 522.

⁶¹ *Id.*

⁶² *Id.* at 527.

⁶³ Restatement (Second) of Torts §519 states that “one who carries on an abnormally dangerous activity is subject to liability from harm of another resulting from the activity, although he exercised the utmost care to prevent the harm.” Restatement (Second) of Torts §519 (1) (Am. L. Inst.1977).

⁶⁴ Restatement (Second) of Torts §520 lists five factors: (a) existence of a high degree of risk of some harm to the person, land or chattels of others; (b) likelihood that the harm that results from it will be great; (c) inability to eliminate the risk by the exercise of reasonable care; (d) extent to which the activity is not a matter of common usage; (e) inappropriateness of the activity to the place where it is carried on; and (f) extent to which its value to the community is outweighed by its dangerous attributes.

Restatement (Second) of Torts § 520 (Am. L. Inst.1977).

⁶⁵ *Ely*, 38 F.Supp 3d 518 at 528.

⁶⁶ *Id.* at 529.

⁶⁷ *Id.* at 534.

The court attributed its decision on a failure by Plaintiffs to provide evidence that satisfy the factors stated in the Second Restatement of Torts §520.⁶⁸ For the first factor, the existence of a high degree of risk of some harm, Plaintiffs did not carry their burden of proof.⁶⁹ Although Plaintiffs provided some persuasive evidence, it was outweighed by Defendants' numerous reports, data analysis, and expert commentary that the risks from hydraulic fracturing are minimal.⁷⁰ One of the reports provided by the Pennsylvania General Assembly indicated no significant influences from fracking in over 200 examined water samples.⁷¹ Additionally, instead of arguing that hydraulic fracturing as a whole is abnormally dangerous, Plaintiffs argued that the activities in this specific case were abnormally dangerous.⁷² This was a misplaced focus.⁷³ Plaintiff should have instead argued that properly conducted hydraulic fracturing and other natural gas drilling activities as a whole are subject to strict liability.⁷⁴ Essentially, Plaintiffs' invalid application of the law in combination with non-supporting evidence or case law persuaded the court to find that the first factor was not met.⁷⁵

For the second factor, the likelihood that the harm will be great, the court again balanced the evidence of the two parties.⁷⁶ For the second time, Plaintiffs failed to meet their burden.⁷⁷ Specifically, the court stated, "[n]one of the Plaintiffs' experts offer an opinion that speaks to whether the likelihood from Defendants'

⁶⁸ *Ely*, 38 F.Supp 3d 518 at 529-535.

⁶⁹ *Id.* at 529.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Ely*, 38 F.Supp 3d at 530.

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

properly conducted gas drilling operations will be significant.”⁷⁸ The Plaintiffs only evidence was a 1949 Pennsylvania Supreme Court case about surface blasting, which the State Supreme Court held to be an ultra-hazardous activity.⁷⁹ Although Plaintiffs cited case law to support their position, the case law was neither persuasive nor analogous.⁸⁰ In fact, the court found that the case law dealt with a “quite different industrial context” and as a result, was insufficient to support the second factor of §520.⁸¹

Once again, Plaintiffs’ lack of evidence proved to be their demise as the third factor, the ability to eliminate the risk through due care, was not met.⁸² Plaintiffs offered one main piece of evidence, a report from an engineering expert.⁸³ The expert report detailed that through Defendants’ negligence and faulty construction, fluid migration interfered with Plaintiffs’ water supply.⁸⁴ The court noted, however, that the expert’s focus on negligence undermines the Plaintiffs’ assertion that the risks cannot be eliminated by due care.⁸⁵ On the other hand, Defendants submitted reports indicating that proper drilling techniques have substantially mitigated risks and that as innovation continues, such risks become less frequent.⁸⁶

Plaintiffs were unable to provide evidence to substantiate their claim to factor four, whether gas drilling operations are common in that area.⁸⁷ Instead,

⁷⁸ *Ely*, 38 F.Supp 3d 518 at 530.

⁷⁹ *Id.* at 531.

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *Ely*, 38 F.Supp 3d 518 at 532.

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.*

Plaintiffs made generic statements that hydraulic fracturing is “novel” in Dimock township.⁸⁸ The court refused to credit this argument and noted that Pennsylvania has a longstanding and historic relationship with oil and gas drilling.⁸⁹ The court cited numerous figures which evince that hydraulic fracturing was and is extremely common in Pennsylvania.⁹⁰ For instance, from 2009 to 2014, Pennsylvania permitted more than 9,800 wells in the commonwealth.⁹¹ Furthermore, there have been over 350,000 wells drilled in this commonwealth and over 1,100 wells in Susquehanna County alone.⁹² Consequently, that evidence indicates that hydraulic fracturing is common, thus weighing against Plaintiffs’ strict liability claim.⁹³

For the fifth factor, the inappropriateness of the activity to the place where it is carried on, Plaintiffs contend that Defendants operated the wells too close to Plaintiffs’ water supplies.⁹⁴ However, a combination of Plaintiffs voluntarily entered lease agreements with General Assembly reports indicating proper well placement, persuaded the court to side with Defendants.⁹⁵ Thus, the evidence indicated that the fifth factor was not met and strict liability would not apply.⁹⁶

Finally, and the most damaging to Plaintiffs’ claim, was the factor considering the economic value of gas drilling operations.⁹⁷ In its decision, the Middle District cited a Pennsylvania Superior Court case which indicated that this

⁸⁸ *Ely*, 38 F.Supp 3d 518 at 532.

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Ely*, 38 F.Supp 3d 518 at 532.

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ *Id.*

factor “is particularly important in an assessment of whether an activity is subject to strict liability.”⁹⁸ The Restatement explicitly notes that if the activity is central to a community’s economic well-being, then the activity’s value is imperative.⁹⁹ For this factor, the evidence is “decidedly in the Defendants’ favor.”¹⁰⁰ The court noted that although the societal detriments of fracking and its uncertain economic future can be suggested, the court prioritizes the actual evidentiary record, which in this case weighed heavily in favor of the Defendants.¹⁰¹

Ely v. Cabot Oil and Gas Corp. is the paradigm case to explain how courts have historically analyzed strict liability causes of action in oil and gas cases. In deciding this case, the court was asked to take a step which no court had previously taken, by considering whether hydraulic fracturing is a strict liability tort.¹⁰² The court’s opinion was primarily based on a lack of supportive evidence submitted by the Plaintiffs.¹⁰³ Therefore, new evidence, such as the one recently released by the University of Pittsburgh, provides future plaintiffs with some hope that fracking may still be an abnormally dangerous activity.

E. Pennsylvania Department of Health - Hydraulic Fracturing Epidemiology Research Studies

In November 2019, Pennsylvania Governor Tom Wolf agreed to spend \$2.5 million of taxpayer money to fund a study of the potential health effects of the

⁹⁸ *Ely*, 38 F.Supp 3d 518 at 532 (citing *Albig v. Municipal Authority of Westmoreland County*, 502 A.2d 658, 663 (Pa. Super. Ct. 1985)).

⁹⁹ *Ely*, 38 F.Supp 3d 518 at 533.

¹⁰⁰ *Id.*

¹⁰¹ *Ely*, 38 F.Supp 3d 518 at 533.

¹⁰² *Id.* at 519.

¹⁰³ *Id.* at 523.

natural gas industry.¹⁰⁴ The study was prompted by an increased diagnosis of Ewing's sarcoma in children and adults in heavily drilled areas of the state.¹⁰⁵ The reports of the study were dissected into three categories; (1) Asthma Outcomes; (2) Childhood Cancer; and (3) Birth Outcomes.¹⁰⁶ The studies, which intended to replicate and enhance similar findings in Eastern Pennsylvania,¹⁰⁷ began in November of 2019 and were expected to last three years¹⁰⁸.

1) Asthma Outcomes

To be included in the Asthma Outcome study, participants needed to have (1) an electronic health record with the University of Pittsburgh Health System between 2011-2020; (2) be aged 5 to 90; (3) have residency within the eight county study area of Allegheny (excluding the city of Pittsburgh), Armstrong, Beaver, Butler, Fayette, Greene, Washington and Westmoreland; (4) have a primary diagnosis of asthma; and (5) have at least one order for medications prescribed for asthma.¹⁰⁹ Participants with specific medical conditions were excluded from the study.¹¹⁰ After all factors were implemented, the Asthma Outcomes study was conducted on 46,676 patients.¹¹¹

¹⁰⁴ *Pennsylvania to Fund Research into Fracking Health Dangers*, ASSOCIATED PRESS (Nov. 22 2019), <https://apnews.com/article/e7859cfd44f145f18463568a5891e6b6>.

¹⁰⁵ *Id.*

¹⁰⁶ Anya Litvak, *Is it safe to live here?: Questions loom at presentation of reports on fracking and health in southwestern PA*, PITTSBURGH POST-GAZETTE (Aug. 16, 2023), <https://www.post-gazette.com/news/health/2023/08/15/shale-gas-fracking-health-studies/stories/202308150112>

¹⁰⁷ University of Pittsburgh School of Public Health, *Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes*, 7, (2023), https://paenv.pitt.edu/assets/Report_Asthma_outcomes_revised_2023_July.pdf.

¹⁰⁸ *Pennsylvania to Fund Research into Fracking Health Dangers*, *supra* note 105.

¹⁰⁹ *Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes*, *supra* note 107 at 8.

¹¹⁰ *Id.*

¹¹¹ *Id.* at 15.

In studying the exacerbation of asthma symptoms, patients' exacerbation was defined as either "severe exacerbation," "emergency department severe exacerbation," or "hospital exacerbation."¹¹² Further, there were four phases of potential exposure: (1) well pad preparation, (2) drilling, (3) hydraulic fracturing, and (4) production.¹¹³ Finally, the study was conducted at distances of one mile, two miles, five miles, and ten miles.¹¹⁴

The University of Pittsburgh found that during the production phase of hydraulic fracturing, people with asthma were four to five times more likely to suffer from an asthma attack than those who do not live within close proximity to a fracked well.¹¹⁵ Specifically, asthma hospitalizations were most prevalent amongst females, severe exacerbations occurred most frequently among 5-13 year olds, and emergency department and hospital exacerbations were most common in 19-45 year olds.¹¹⁶ Most importantly, this study "provides evidence of associations between unconventional natural gas development ("UNGD") and asthma exacerbations."¹¹⁷

2) Childhood Cancer Outcomes

To be included in the childhood cancer study, patients needed (1) to have residency within the same eight county study area; (2) be aged 0-29 during the time of the study; (3) and be diagnosed with either leukemia, lymphoma, CNS

¹¹² *Id.* at 8-9.

¹¹³ Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107 at 11.

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 30-34.

¹¹⁶ *Id.* at 19.

¹¹⁷ *Id.* at 33.

tumors, or malignant bone tumors.¹¹⁸ After all factors were implemented, the childhood cancer study was conducted on 498 childhood cancer patients, all of whom were diagnosed with cancer from 2010 to 2019.¹¹⁹ Again, there were four phases of potential exposure.¹²⁰ However, for this study, the radius was patients living within 5 miles of a hydraulically fracked well.¹²¹

The University of Pittsburgh found that children who lived within one mile of a well had “approximately 5 to 7 times the chance of developing lymphoma, a relatively rare type of cancer, compared to children who lived in a place with no wells within 5 miles.”¹²² Yet, there was no evidence to support an association between hydraulic fracturing and the other three forms of cancer that were examined: leukemia, CNS tumors, and malignant bone tumors.¹²³

3) Birth Outcome Study

To be included in the Birth Outcomes Study, patients needed to be (1) born between January 1, 2010, and December 31, 2020; (2) in the eight-county study area; and (3) lack specific birth defects identified at birth.¹²⁴ After all factors were implemented, the study was conducted on 185,849 participants.¹²⁵

¹¹⁸ University of Pittsburgh School of Public Health, *Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study*, 16, (2023), https://paenv.pitt.edu/assets/Report_Cancer_outcomes_2023_August.pdf.

¹¹⁹ Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 15.

¹²⁰ *Id.* at 25.

¹²¹ *Id.*

¹²² *Id.* at 59.

¹²³ *Id.*

¹²⁴ University of Pittsburgh School of Public Health, *Hydraulic Fracturing Epidemiology Research Studies: Birth Outcomes*, 12, (2023),

https://paenv.pitt.edu/assets/Report_Birth_outcomes_Revised_2023_July.pdf.

¹²⁵ *Id.* at 21.

The study focused on three primary outcomes: (1) small gestational age (2) preterm birth and (3) term birth weight.¹²⁶ The study focused on children born in the 10th percentile for their gestational age, premature births between 22 and 36 weeks, and birth weight in grams for births between 37 and 41 weeks.¹²⁷ Once again, the study examined four phases of potential exposure.¹²⁸

The research found “moderate to strong data to suggest an increased risk with the production phase.”¹²⁹ The study also found “limited data to suggest an increased risk in the drilling phase.”¹³⁰ Further, there was “strong data to suggest an increase with the production phase, with statistically significant reductions in birthweight with increasing intensity of exposure.”¹³¹ Ultimately, hydraulic fracturing had a limited effect on fetal growth, and the chance of being born prematurely was not explicitly associated with hydraulic fracturing.¹³² However, air pollution, which occurs during hydraulic fracturing, can be associated with an increased chance of premature birth.¹³³

4) General Outcomes

The reports indicated two significant points. First, hydraulic fracturing is prevalent in Pennsylvania.¹³⁴ The reports indicate that, as of 2020, there were

¹²⁶ Hydraulic Fracturing Epidemiology Research Studies: Birth Outcomes, *supra* note 124, at 12.

¹²⁷ *Id.*

¹²⁸ *Id.* at 14.

¹²⁹ *Id.* at 58.

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² Hydraulic Fracturing Epidemiology Research Studies: Birth Outcomes, *supra* note 124, at 58.

¹³³ *Id.* at 61.

¹³⁴ Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 16.

almost 5,800 fracked wells in the eight-county specific region of the study.¹³⁵ Second, researchers found significant associations between hydraulic fracturing and an increased risk of asthma exacerbations and lymphoma in children.¹³⁶

III. Analysis

A. Applying the University of Pittsburgh Studies to the Restatement

The question now is whether this information is enough to establish hydraulic fracturing as a strict liability tort. As noted above, in *Ely v. Cabot Oil & Gas*, Plaintiffs suffered a defeat due to a lack of evidence in support of their position.¹³⁷ However, the evidence provided by the University of Pittsburgh challenges the contention that fracking should not be a strict liability tort. As a result, the information obtained from the study should be applied to the Restatement (Second) of Torts Sections 519 and 520 to determine whether fracking is abnormally dangerous.

It is important to note that when the *Ely* court released its findings, none of the information regarding the dangers of fracking was apparent or submitted into the evidentiary record. Therefore, this analysis does not argue that the *Ely* court was wrong in its decision. In fact, the Middle District Court published the correct decision based on the evidence submitted before the court. Instead, this analysis indicates that, as new evidence emerges, the *Ely* opinion may no longer be the dominant source of authority. Rather, until appellate courts create binding

¹³⁵ *Id.*

¹³⁶ Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 30-31; Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 59.

¹³⁷ *Ely*, 38 F. Supp 3d 518 at 521.

authority, courts should conduct their own inquiry into whether fracking is a strict liability tort.

The first factor of Restatement (Second) §520 is the existence of a high degree of risk of some harm to the person, land, or chattels of others.¹³⁸ The University of Pittsburgh study indicates that there is an existence of a high degree of harm in two areas, asthma¹³⁹ and lymphoma.¹⁴⁰ Specifically, people with asthma were four to five times more likely to suffer from an asthma attack than those who do not live within a close proximity to a hydraulic fracturing well.¹⁴¹ In addition, those who lived within one mile of a hydraulic fracturing well had five to seven times the chance of developing lymphoma compared to those who had no wells within five miles of their residence.¹⁴² These findings refute the decision of the *Ely* court, which accepted Defendants' position that risks from a properly drilled, cased, and hydraulically fractured well are minimal.¹⁴³

The second factor of Restatement (Second) §520 is whether the likelihood that the harm resulting from it will be great.¹⁴⁴ In *Ely*, the court stated, “[o]n this relevant factor...the evidence does not support the Plaintiffs’ position.”¹⁴⁵ However, the evidence from the University of Pittsburgh study contradicts this finding. In the asthma study, of the 46,676 participants, roughly 40%, experienced

¹³⁸ Restatement (Second) of Torts §520 (Am. L. Inst. 1977).

¹³⁹ Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 30.

¹⁴⁰ Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Study, *supra* note 118, at 59.

¹⁴¹ Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 30.

¹⁴² Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 59.

¹⁴³ *Ely*, 38 F. Supp 3d 518 at 529.

¹⁴⁴ Restatement (Second) of Torts §520 (Am. L. Inst. 1977).

¹⁴⁵ *Ely*, 38 F. Supp 3d 518 at 530.

some type of asthma exacerbation.¹⁴⁶ Of that 40%, 87% of those experiencing exacerbations were documented to have “severe exacerbations.”¹⁴⁷ Of the remaining participants who experienced exacerbations, 12% required emergency care or urgent care encounters, while 1% were hospitalized due to their medical condition.¹⁴⁸ Therefore, when considering that over 18,000 people in the span of three years were prescribed increased medication or suffered symptoms requiring medical treatment, the resulting harm from hydraulic fracturing is great.

Furthermore, the risk of developing lymphatic cancer was higher for those living within a closer proximity to a fracking well.¹⁴⁹ Lymphoma is a very uncommon and relatively rare disease.¹⁵⁰ Although lymphoma has about an 80% survival rate, lymphoma patients may be required to endure extensive medical treatment such as chemotherapy or stem cell transplants.¹⁵¹

Unrelated to the University of Pittsburgh findings, Cabot Oil and Gas Corporation was criminally indicted in February 2020 for its “long-term indifference to the damage it caused to the environment and citizens of Susquehanna County.”¹⁵² Within the grand jury’s report, numerous residents,

¹⁴⁶ Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 19.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.* at 59.

¹⁵⁰ *What is lymphoma? An expert explains*, THE MAYO CLINIC (last visited October 31, 2023), <https://www.mayoclinic.org/diseases-conditions/lymphoma/multimedia/vid-20522470>.

¹⁵¹ *Survival rates for non-Hodgkin and Hodgkin lymphoma*, MEDICAL NEWS TODAY (last visited October 31, 2023), <https://www.medicalnewstoday.com/articles/prognosis-for-lymphoma#factors-affecting-outlook>.

¹⁵² *Comm. of Pennsylvania v. Cabot Oil and Gas Corp.*, 43rd Statewide Grand Jury Indictment, 17-18, (June 15, 2020).

some of whom were members of the Ely family, were mentioned by name.¹⁵³ Residents reported symptoms of bodily blotches, rashes, nausea, vision problems, difficulty breathing, and dizziness.¹⁵⁴ Thus, the combination of the University of Pittsburgh studies, as well as other mounting evidence, indicates that there is a likelihood of harm, and that the harm will be great.

The third factor of §520 is the inability to eliminate the risk by the exercise of reasonable care.¹⁵⁵ In *Ely*, the court notes that although there have been instances where drilling operations have caused harm, such risks may be substantially reduced through the exercise of due care.¹⁵⁶ In reaching this conclusion, the court agreed with Defendants' evidence which indicated that as innovation continues, risks from drilling operations are diminished.¹⁵⁷ Although the University of Pittsburgh studies made no mention of mitigating risks, or statements regarding whether results would have changed through the exercise of due care, the evidence implies a conclusion opposite of the *Ely* court.

For instance, in the Childhood Cancer Study, the number of cancer cases by year appears to be evenly distributed from 2010 to 2019.¹⁵⁸ Furthermore, in the Asthma Outcomes Study, there were more severe exacerbations in 2019 than in 2011, the first year in which data was obtained.¹⁵⁹ Additionally, there were more

¹⁵³ *Id.* at 10-11.

¹⁵⁴ *Id.* at 13-14.

¹⁵⁵ Restatement (Second) of Torts §520 (Am. L. Inst. 1977).

¹⁵⁶ *Ely*, 38 F. Supp 3d 518 at 531.

¹⁵⁷ *Ely*, 38 F. Supp 3d 518 at 531.

¹⁵⁸ Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 39.

¹⁵⁹ Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 19.

emergency department exacerbations in 2020 than in 2011 and more hospitalizations in 2020 than in 2011.¹⁶⁰

Logically, if fracking related cancer cases are evenly distributed over ten years, and asthma exacerbations are worse in 2020 than they were ten years prior, innovation is not diminishing the risks resulting from hydraulic fracturing. If anything, the risks from hydraulic fracturing are the same, if not worse, than they were a decade ago. Although not definitively proved, it is conceivable that hydraulic fracturing risks have not been mitigated, and cannot be mitigated, through an exercise of due care.

The fourth factor of §520 is the extent to which the activity is not a matter of common usage.¹⁶¹ An activity is a matter of common usage if it is customarily carried on by the great mass of mankind or by many people in the community.¹⁶² In *Ely*, Plaintiffs asserted, and the court instantly rejected, the notion that hydraulic fracturing was novel during the time at issue.¹⁶³ The University of Pittsburgh studies do not dispute the court's finding on this factor. The studies note, as of December 2020, there were 12,903 unconventional wells active throughout PA and 5,464 in the 8 county region.¹⁶⁴ As a result, the prevalent nature of fracking wells weighs against hydraulic fracturing being a strict liability tort.¹⁶⁵ However, the Restatement notes that although all factors should be

¹⁶⁰ *Id.*

¹⁶¹ Restatement (Second) of Torts §520 (Am. L. Inst. 1977).

¹⁶² Restatement (Second) of Torts §520 cmt. i. (Am. L. Inst. 1977).

¹⁶³ *Ely*, 38 F. Supp 3d 518 at 532.

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*

considered, it is not necessary that each of them be present to find strict liability, especially if others weigh heavily.¹⁶⁶

The fifth factor of §520 is the inappropriateness of the activity to the place where it is carried on.¹⁶⁷ For this factor, two things will be important in determining whether the drilling is appropriate: the drilling lease and the proximity to water sources.¹⁶⁸ In *Ely*, the court noted that it would not embrace the Plaintiffs' inappropriateness assertion, considering the well was drilled in accordance with a valid and voluntary lease and was permitted by the commonwealth's environmental regulatory body.¹⁶⁹ Here, the University of Pittsburgh study provides no insight into whether drilling within a specific area is "appropriate."

However, the studies indicate that when the proximity to a well increases, the risk of asthma exacerbations and lymphoma increases.¹⁷⁰ Specifically, the Childhood Cancer study found that "the closer the proximity of a residence to an unconventional natural gas development ("UNGD") site, the higher the risk of lymphoma, which further supports a possible link between UNGD activity and risk of childhood lymphoma."¹⁷¹ Therefore, based on the study's buffer zones, the research infers that no distance within 10 miles of a residence would be appropriate.

¹⁶⁶ Restatement (Second) of Torts §520 cmt. f. (Am. L. Inst. 1977).

¹⁶⁷ Restatement (Second) of Torts §520 (Am. L. Inst. 1977).

¹⁶⁸ *Ely*, 38 F.Supp 3d 518 at 532.

¹⁶⁹ *Id.*

¹⁷⁰ Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 30-31; Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 59.

¹⁷¹ Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 59.

Lastly, courts consider the sixth factor, whether the activity's value to the community outweighs any potential harm.¹⁷² The Restatement explains this factor through an application of the Restatement to various legal settings, including oil and gas. For instance, an oil well may not be considered abnormally dangerous in Texas or Oklahoma because of its economic importance, but the same oil well in Indiana or Kansas might be subject to strict liability.¹⁷³ This factor is a "critical consideration" in determining whether a defendant should be held strictly liable.¹⁷⁴

Consequently, this factor delivers a serious blow to Plaintiffs seeking to file a strict liability cause of action for hydraulic fracturing. Although the evidence above indicates that hydraulic fracturing presents a high degree of harm, the likelihood of harm will be great, and the harm cannot be eliminated through due care, the economic benefits are imperative to this commonwealth. For instance, the natural gas industry in Pennsylvania supports more than 190,000 jobs and contributes over \$44 billion to the commonwealth's economy each year.¹⁷⁵

Further, locally fracked communities experienced significant economic gains.¹⁷⁶ After three years of drilling, fracked communities produced an additional

¹⁷² Restatement (Second) of Torts §520 (Am. L. Inst. 1977).

¹⁷³ Restatement (Second) of Torts §520 cmt. k. (Am. L. Inst. 1977).

¹⁷⁴ See *Albig v. Municipal Authority of Westmoreland County*, *supra* note 20 (emphasizing that the value of the activity outweighed its harm).

¹⁷⁵ *Balancing Benefits and Concerns: The Natural Gas Industry in Pennsylvania*, PENN WATCH (Jan. 30, 2023), <https://pennwatch.org/balancing-benefits-and-concerns-the-natural-gas-industry-in-pennsylvania/#:~:text=The%20natural%20gas%20industry%20has%20created%20tens%20of%20thousands%20of,economic%20activity%20in%20the%20region.>

¹⁷⁶ Chris Fleisher, *Weighing the impacts of fracking: How should local communities think about the economic and welfare consequences of natural gas development?*, AMERICAN ECONOMIC ASSOCIATION (Oct. 25, 2019), <https://www.aeaweb.org/research/fracking-shale-local-impact->

\$400 million of oil and natural gas on average, had an increased total income of 3.3-6.1%, an increased employment of 3.7-5.5%, and a 5.7% increase on housing prices.¹⁷⁷ In 2022, Washington County, one of the counties in the study and the county with the most fracking wells in the region,¹⁷⁸ received \$7.6 million in impact fee money, the most of any county government in Pennsylvania.¹⁷⁹ Impact payments are paid to counties and municipalities that have drilling operations in their area with the goal of offsetting the adverse impacts of natural gas development.¹⁸⁰ Although the natural gas industry frequently faces boom and bust periods, the economic impact of drilling operations weighs in favor of defendant gas companies.

Of course, proponents of strict liability will argue that it is still undecided on who actually benefits economically from fracking. However, courts can only rule on the evidentiary record that is established before the court.¹⁸¹ Therefore, for Plaintiffs to overcome this final hurdle, they will need two things: a stronger evidentiary record and a change in the energy market.

A. Can Fracking Ever Become a Strict Liability Tort?

net#:~:text=Fracked%20communities%20had%20significant%20economic,housing%20prices%20(5.7%20percent).

¹⁷⁷ *Id.*

¹⁷⁸ Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes Study, *supra* note 107, at 16.

¹⁷⁹ Mike Jones, *Washington County leads state in natural gas drilling impact fee revenue*, OBSERVER REPORTER (June 22, 2022), https://observer-reporter.com/news/localnews/washington-county-leads-state-in-natural-gas-drilling-impact-fee-revenue/article_9e3a957a-f196-11ec-a377-3b7ee4326b9c.html.

¹⁸⁰ Zack Hoopes, *Pa. fracking fees come in at \$279 million for 2022, PUC says*, PENN LIVE (June 20, 2023), <https://www.pennlive.com/news/2023/06/pa-fracking-fees-come-in-at-279-million-for-2022-puc-says.html>.

¹⁸¹ *Ely*, 38 F. Supp 3d 518 at 533.

As noted above, the *Ely* opinion is the illustrative case for determining whether fracking is a strict liability tort. In its decision, the Middle District Court, applying Pennsylvania law, emphasized that Pennsylvania courts have consistently denied strict liability applications to other factually related oil and gas production activities.¹⁸² The court then made the logical jump in concluding that strict liability would not apply to instances of hydraulic fracturing.¹⁸³ In doing so, the court created the first instance of persuasive authority for Pennsylvania courts on a highly litigious issue. Following this opinion, Pennsylvania appellate courts have stated, in dicta, that strict liability does not apply to fracking.¹⁸⁴ However, no federal or Pennsylvania appellate court has decided this issue on the merits. Thus, at this procedural moment, the *Ely* opinion is the only case within the Commonwealth of Pennsylvania where a court has explicitly rejected a hydraulic fracturing strict liability claim.

This provides a small amount of hope for plaintiffs wishing to attach strict liability causes of action to their complaint. Although comprehensive, as a district court opinion, the ruling provides relatively little precedential insight. Procedurally, a single district court decision has little precedential effect and is not binding on other district judges in the same district, or in other federal

¹⁸² *Id.* at 529.

¹⁸³ *Id.* at 534.

¹⁸⁴ See *Murrysville Watch Comm. v. Municipality of Murrysville Zoning Hearing Bd.*, 272 A.3d 998 (Pa. Commw. Ct. 2022), 283 A.3d 790 (Pa. 2022); *Frederick v. Allegheny Twp. Zoning Hearing Bd.*, 196 A.3d 677, 689 (Pa. Commw. Ct. 2018); *United Ref. Co. v. Dep't of Env't Prot.*, 163 A.3d 1125, 1135 (Pa. Commw. Ct. 2017).

districts.¹⁸⁵ Furthermore, Pennsylvania courts are not bound by federal district court opinions interpreting Pennsylvania law but may use their decisions for guidance.¹⁸⁶ As a singular decision, decided on a motion for summary judgment, the opinion only forbade the Ely's from pursuing strict liability claims, but did not prevent other plaintiffs from doing so.¹⁸⁷ Therefore, plaintiffs can still bring forth these claims with the hope that a separate trial court may rule differently than the *Ely* court. Though, given the thorough analysis and record provided by the *Ely* court, especially the emphasis that other Pennsylvania courts have consistently denied strict liability causes of action, it is hard to believe that such claims would survive. If such claims do survive, however, these trial court opinions could provide other plaintiffs with grounds for asserting their own strict liability causes of action, ultimately creating a domino effect.

If plaintiffs are expected to overcome this persuasive hurdle, developments are necessary in order for courts to disregard the only independently evaluated decision in this jurisdiction.¹⁸⁸ First, as emphasized in *Ely*, a larger and more developed evidentiary record is required on behalf of plaintiffs.¹⁸⁹ The University

¹⁸⁵ *Threadgill v. Armstrong World Industry., Inc.*, 928 F.2d 1366, 1371 (3d Cir. 1991) (citing *United States v. Article of Drugs Consisting of 203 Paper Bags*, 818 F.2d 569, 572 (7th Cir. 1987)).

¹⁸⁶ *See Duquesne Light Co. v Pennsylvania American Water Co.*, 850 A.2d 701, 705 (Pa. Super. Ct. 2004); *see also United Ref. Co. v. Dep't of Env't Prot.*, 163 A.3d 1125, 1135 (Pa. Commw. Ct. 2017) (stating, “**while not binding on this Court**, the United States District Court for the Middle District of Pennsylvania has held that hydraulic fracturing is not an abnormally dangerous activity under Pennsylvania law. Thus, we reject Petitioner's argument.”) (emphasis added).

¹⁸⁷ *Ely*, 38 F. Supp 3d 518 at 534.

¹⁸⁸ *See Max's Seafood Cafe ex rel. Lou-Ann, Inc. v. Quinteros*, 176 F.3d 669, 677 (3d Cir. 1999) (stating that a judgment may be altered or amended if the party seeking reconsideration shows the availability of new evidence that was not available when the court granted the motion for summary judgment.)

¹⁸⁹ *Ely*, 38 F. Supp 3d 518 at 523.

of Pittsburgh study provides novel evidence to dispute whether the factors of Restatement (Second) of Torts §520 should deem hydraulic fracturing as a strict liability tort. However, this information alone is not enough for courts to determine that it is an abnormally dangerous activity. As a matter of law, the court, upon the consideration of all the factors and the weight given to them by the evidence submitted, must determine whether the activity is abnormally dangerous.¹⁹⁰ Currently, this evidence weighs slightly in favor of defendants.

Fortunately for plaintiffs, the Pennsylvania government has shown an interest in conducting extensive investigations into the state's drilling activities.¹⁹¹ As recent as November 2023, the Pennsylvania Department of Environmental Protection has agreed to work with a major natural gas producer to collect in-depth data on air emissions and water quality at well sites.¹⁹² Also, as noted above, the Pennsylvania Office of Attorney General has taken steps to investigate oil and gas companies for their environmental crimes within the Commonwealth.¹⁹³

However, assuming more evidence is obtained which indicates that hydraulic fracturing poses a danger to others, plaintiffs still face a tough hurdle when attempting to overcome the fourth and sixth factors of the Restatement. The Restatement provides vast commentary on the importance of common usage and its economic value to the community. For instance, the text states, “[t]he usual dangers resulting from an activity that is one of common usage are not regarded

¹⁹⁰ Restatement (Second) of Torts §520 cmt. 1 (Am. L. Inst. 1977).

¹⁹¹ Audrey Carleton, *Gov. Shapiro's deal with fracking company splits environmentalists*, PENN CAPITAL-STAR (NOV. 20, 2023), <https://www.penncapital-star.com/energy-environment/gov-shapiros-deal-with-fracking-company-splits-environmentalists/>.

¹⁹² Rubinkam *supra* note 11.

¹⁹³ *See Comm. of Pennsylvania v. Cabot Oil and Gas Corp. supra* note 153.

as abnormal, even though a serious risk of harm cannot be eliminated by all reasonable care.”¹⁹⁴ The importance of the activity’s monetary value can be found in Comment k of Restatement (Second) §520 which states:

Even though the activity involves a serious risk of harm that cannot be eliminated with reasonable care, and it is not a matter of common usage, its value to the community may be such that the danger will not be regarded as an abnormal one. This is true particularly when the community is largely devoted to the dangerous enterprise and its prosperity largely depends upon it.¹⁹⁵

The Restatement implies, and courts have inferred, that even though all factors are of importance and to be considered, if the activity is common and economically beneficial, factors (d) and (f) can be dispositive.¹⁹⁶ Therefore, because Pennsylvania communities, and the state as a whole, are largely dependent on this historically common activity, it seems virtually impossible for courts to view hydraulic fracturing as a strict liability tort in Pennsylvania. Unless the state finds an alternative energy source to replace the regularity and prosperity of fracking, its consistency and prominence will persuade courts to rule that hydraulic fracturing is too beneficial and common to be a strict liability tort.

The last option for plaintiffs is to appeal to their state legislators. Specifically, constituents could demand that the state legislature pass statutes that make fracking operators subject to strict liability. These laws would be similar to other statutes raised and passed in other parts of the country.¹⁹⁷ Although, constituents would most likely struggle to persuade the legislature that

¹⁹⁴ Restatement (Second) of Torts §520 cmt. i. (Am. L. Inst. 1977).

¹⁹⁵ Restatement (Second) of Torts §520 cmt. k. (Am. L. Inst. 1977).

¹⁹⁶ See *Albig v. Municipal Authority of Westmoreland County*, *supra* note 20.

¹⁹⁷ See 225 Ill. Comp. Stat. 732/1-85 (2013) (establishing a rebuttable presumption of liability against operators for contaminated waters within a specified distance from the fracked location); N.C. Gen. Stat. §§ 113-421 (2012) (same).

an activity that is so commonplace and profitable in the commonwealth should be an ultra-hazardous activity.

IV. Conclusion

Environmental advocates argue that the negative impact of hydraulic fracturing on the environment is evident and requires immediate change.

Proponents of non-renewable energy sources argue that fracking's economic benefits substantially outweigh any negative societal impacts.

Although courts of this Commonwealth have been reluctant to provide a concrete answer on whether hydraulic fracturing is a strict liability tort, this paper confirms that it is not. In Pennsylvania, hydraulic fracturing is too profitable and too common to be considered a strict liability tort under the Restatement. As such, plaintiffs should not be able to recover under this theory of liability. Instead, plaintiffs should continue to assert their claims under traditional and longstanding negligence principles.