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THE BATTLE TO DETERMINE THE RIGHT TO REGULATE HYDRAULIC FRACTURING ("FRACKING"): THE PREEMPTION DOCTRINE

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SUMMARY AND OBJECTIVES

It is the goal of this paper and the accompanying presentation to acquaint its audience with an overview of the general facts and law in two separate and ongoing litigations involving the City of Longmont, Colorado ("Longmont"): one lawsuit involving the attempt of the Longmont City Council in July 2012 to impose restrictions as to oil and gas development, particularly fracking, within the city limits and a second litigation involving the passage of Ballot Initiative 300 by the voters of Longmont in November 2012 completely banning fracking in the city limits. The legal analysis here focuses on the legal Doctrine of Preemption.

Above and beyond addressing legal concepts, there is next a focus on the extreme nature, indeed fanaticism, of certain groups acting in opposition to fracking with a discussion as to the tactics of misinformation and intimidation now being used by these groups. This is in part fostered by

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popular media. This paper concludes with a call to educate all as to the fracking process as well as suggesting that those involved in the oil and gas industry significantly and vigilantly intervene in the public domain to counterbalance these disturbing trends.

THE BATTLE OF LONGMONT

It is Longmont that is the latest arena of dispute involving the identity of which governmental entity has the ultimate responsibility to regulate fracking in Colorado.

Traditionally, it has been the Colorado Oil and Gas Conservation Commission ("COGCC") that has provided for the regulation of the exploration, development and production of oil and gas resources as a matter of statewide concern. The Colorado General Assembly in 1951 passed the Colorado Oil and Gas Conservation Act (the "Act") establishing the COGCC as the primary state agency responsible for regulating oil and gas in Colorado. See C.R.S. §34-60-101, *et seq.* The Act itself sets forth the legislative outline as established by the Colorado General Assembly to regulate and administer oil and gas operations in Colorado. Currently, the COGCC is comprised of a nine (9) member body responsible for implementing the Act[2]. Of these nine members, seven (7) are appointed by the Governor and approved by the Senate. These individuals, generally speaking, are appointed based upon their education, professional experience, and place of residency. In addition, the Executive Director of the Colorado Department of Natural Resources ("DNR") and the Colorado Department of Public Health and Environment ("CDPHE") are

[2] See C.R.S. §34-60-104 as to the specific criteria of the nine (9) commission members.

awarded permanent seats upon this commission. C.R.S. §34-60-104(2)(a)(I). While it is the commission that on approximately a monthly basis conducts hearings involving the subject matter of rules, regulations, and orders in a public forum, it is the Director[3] of the COGCC and the COGCC staff comprised of approximately 45 employees that are responsible for the day-to-day implementation of the Act. As set forth in C.R.S. §34-60-102, the Colorado General Assembly declared it to be in the public interest to foster, encourage, and promote the development, production and utilization of oil and gas resources in the State of Colorado consistent with the protection of public health, safety, and welfare, protection of the environment and wildlife resources as well as public and private interests against waste of natural resources while also being responsible to lifeguard the co-equal and relative rights of owners and producers of oil and gas. It is the policy of the State of Colorado to encourage by appropriate means the full development of these natural resources. C.R.S. §24-33-101. In the broadest sense, it has been the COGCC that has been entrusted to regulate the oil and gas industry in Colorado on a statewide basis.

Over the past 60 years, there have been periodic attempts by local government, typically municipalities and counties, to establish their own regulations of the oil and gas industry. However, these attempts have been relatively dormant over the past 20 years until more recently at which time fracking became more commonplace. More specifically, there became popular concern as to perceived negative environmental impacts resulting from fracking. An entire paper discussing the dynamics of public perception pertaining to fracking could be drafted and this

[3] See C.R.S. §34-60-104.5 as to the duties of the Director.

topic is touched upon in a limited fashion at the conclusion of this paper. Irrespective, misplaced or not, it is this current public perception as often fueled by environmental groups and popular media that have now created concern pertaining to the safety of the fracking process. The implication of this approach is that the COGCC is either unwilling or unable to protect the interests of local populations necessitating the intervention of the local government.

While these same environmental concerns can also be noted nationwide, it is Longmont that has arisen as perhaps the most visible in this dispute. Longmont is a "home-rule city" governed by the City of Longmont Home Rule Charter. Geographically, Longmont is situated in both Boulder and Weld Counties. It is also located in the Wattenberg Area, the most productive area for oil and gas in Colorado.

On December 20, 2011, Longmont imposed a 120-day moratorium on accepting applications for oil and gas well permits within city limits in large part as a response to concerns about fracking. This moratorium was initially scheduled to expire on April 17, 2012, but was ultimately extended until June 16, 2012. On February 10, 2012 and within the initial period of the oil and gas moratorium, Longmont released its draft of its then most recent generation of oil and gas regulations. In response, the Director of COGCC along with other members of the commission staff met with a representatives of the City of Longmont to express the significant concern of the COGCC that certain of these draft regulations were Preempted by the Act. The legal doctrine of Preemption will be discussed shortly.

In the months thereafter, Longmont issued several drafts of amended proposed regulations. In each instance, the COGCC continuously communicated its continuing concerns that certain rules as proposed were Preempted by the Act. Despite the opposition of the COGCC, in May, 2012, Longmont conditionally approved oil and gas regulations. Mike King, in his capacity as the Executive Director of the Department of Natural Resources and in response to this conditional approval, corresponded to Longmont noting that "these oil and gas regulations are contrary to the statewide public interest as long ago adopted by the Colorado General Assembly." Mr. King further communicated that instead of Longmont acting unilaterally, there ought to be a coordinated effort between Longmont and the COGCC to regulate. Longmont thereafter delayed final passage of its regulations, but extended its oil and gas moratorium for yet another 45 days. However, on July 17, 2012, the Longmont City Council approved its ordinance over the objection the COGCC adopting new local oil and gas regulations[4].

On July 30, 2012, the Attorney General of the State of Colorado on behalf of the COGCC filed its Complaint for Declaratory Relief[5] requesting that the District Court of Boulder County find that, among other things, these newly adopted rules and regulations as passed by Longmont be found to be Preempted by the Act. (See **Exhibit A** for a copy of that Complaint).

The dispute as to the relative power to regulate oil and gas between Longmont and the COGCC did not end at that point.

[4] These new regulations included a right to assess the appropriateness of oil and gas practices, impose additional conditions of approval as to vertical, horizontal and multiwall sites, ban surface operations in residential zoning districts, impose water sampling requirements, impose minimum setbacks, and require compliance with local habitat and species protection.
[5] Declaratory Relief allows a Judge to determine the status of an issue in controversy. Declaratory Relief does not involve a request for damages, but seeks to define the rights of the parties as to an underlying legal dispute.

On July 20, 2012, a Petition was presented to the Longmont City Council asking that a special election be held on November 6, 2012 seeking amendment of the Longmont Home-Rule Charter so as to now specifically prohibit hydraulic fracking and the storage in open pits or disposal of solid or liquid wastes created in connection with hydraulic fracturing in Longmont. By virtue of Resolution R-2012-67, the Longmont City Council put to vote the following question:

> "Shall the City of Longmont Home-Rule Charter be amended by adding a new Article XVI to prohibit within the City of Longmont the use of hydraulic fracturing to extract oil, gas, or other hydrocarbons, and prohibit within the City of Longmont the storage in open pits or the disposal of solid or liquid wastes created in connection with the hydraulic fracturing process, including, but not limited to, flowback or produced waste water and brine?"

This was ultimately referred to as Ballot Question 300. A bit less than a million dollars in campaign contribution was raised both for and against the passage of this fracking ban. Essentially, the dispute pitted an organization by the name of "Our Longmont" (for the resolution) against "Main Street Longmont" (against the resolution). In November 2012, approximately 60% of the voters of Longmont approved this fracking ban. On December 6, 2012, Governor Hickenlooper announced that as to Ballot Initiative 300, unlike the position taken by the State involving the passage of rules and regulations by Longmont's City Council, the State would not bring its own litigation against Longmont pertaining to the action of its voters. The State would instead support a lawsuit initiated by others contesting this vote.

On December 17, 2012, the Colorado Oil and Gas Association ("COGA") filed its Complaint with the District Court of Weld County initiating a legal action seeking Declaratory Judgment so

as to invalidate the results of the Special Election of November 6, 2012 (See **Exhibit B**). One of the significant legal grounds depended upon by COGA in this lawsuit is that of the Preemption.

PREEMPTION

What is "Preemption?"

A bit of history is first required. The Colorado General Assembly in 1951 when it created the COGCC vested the COGCC with exclusive regulatory authority over oil and gas development entrusting this new entity with regulating oil and gas operations. See C.R.S. §34-60-105(1). The Colorado General Assembly specifically relegated authority to the COGCC and "…unqualifiedly conferred upon the Commission" authority to administer state law related to oil and gas conservation. There existed many reasons to approach regulation on a statewide basis, but one of the significant grounds was to make sure there existed a single, statewide set of rules as to the development of oil and gas to promote efficiency.

Simply put, where exclusive jurisdiction has been granted to regulate, attempts by others to likewise regulate the subject matter in question are not permitted as they are said to be "Preempted."

The issue as to Preemption as it applies to the COGCC and its right to regulate the oil and gas industry is nothing new to litigation in the State of Colorado. There exists a long line of cases

that explore Preemption. There is no attempt here to review all of these cases. Instead, the battle lines pertaining to Preemption and the relative rights of the COGCC *vis-à-vis* other governmental entities were significantly established by two separate Opinions pronounced by the Colorado Supreme Court each issued on June 8, 1992: Voss v. Lundvall Brothers, Inc., 830 P.2d 1061 (Colo. 1992) and Board of County Commissioners, La Plata County v. Bowen/Edward Associates, Inc., 830 P.2d 1045 (Colo. 1992). A review of these cases assists in a better understanding of the Doctrine of Preemption as such applies to oil and gas as well as understanding how the actions of Longmont will likely be treated by the Colorado courts.

In Voss, *supra*, the Greeley City Council prohibited the drilling of any well for the purpose of exploration or production of any oil or gas or other hydrocarbons within the corporate limits of Greeley. The ordinance was to become effective subject to its adoption and approval by the electorate of Greeley at its regular municipal election scheduled for November 5, 1985. The Lundvall Brothers instead filed a lawsuit seeking Declaratory Judgment asking that the Court find the Greeley ordinance be null and void. The District Court of Weld County agreed with the Lundvall Brothers granting them Summary Judgment finding that the Greeley ordinance was facially void as "the entire area of oil and gas exploration regulation, including sites within municipalities had been preempted by the State of Colorado and such regulation delegated to the COGCC such that there existed no area of regulation of oil and gas exploration to be left to Greeley." Up until this time, the interpretation of the District Court of Weld County was consistent with what many understood to be the state of affairs as to the regulation of oil and gas in Colorado. More specifically, oil and gas regulation was the sole responsibility of the COGCC.

The case was appealed and ultimately found its way to the Colorado Supreme Court. Its conclusions lay the groundwork for the current legal dispute. The Colorado Supreme Court began by recognizing that pursuant to Article XX, Section 6 of the Colorado Constitution ("the Home-Rule Amendment"), home-rule cities such as Greeley reserved "the full right of self-government in both local and municipal matters." Juxtaposed against the right to home-rule, the Colorado Supreme Court noted that the State simultaneously possessed an interest in oil and gas development and regulation of its operations all as expressed in the Act. Citing the simultaneously published case of Bowen/Edward, the Colorado Supreme Court summarized the general authority conferred upon the COGCC by the Colorado Assembly:

> In addition to issuing permits for oil and gas drilling operations, the Commission is authorized to regulate the drilling, production, and plugging of wells, the shooting and chemical treatment of wells, the spacing of wells, and the disposal of salt water and oilfield wastes … [cite omitted] … as well as limit production from any pool of field for the prevention of waste and to allocate production from a pool or field among or between tracts of land having separate ownership on a fair and equitable basis so that each tract will produce no more than its fair and equitable share…(See Bowden/Edwards, *supra* at 1049, Voss *supra* at 1065)

However, the Colorado Supreme Court did not presume there to exist an absolute ban prohibiting non-COGCC regulation that might affect oil and gas development. The Colorado State Court relied upon other existing Colorado case law that here was presented a case of "mixed" interests:

> … in matters of mixed local and state concern, a home-rule municipal ordinance may co-exist with a State statute as long as there is no conflict between the ordinance and the statute, but in the event of a conflict, the State statute supersedes the conflicting provision of the ordinance. (Voss, *supra*, at 1066).

Finding the Greeley ordinance to address an area of mixed local and state concern, the Colorado Supreme Court relied upon a four factor test (see City and County of Denver v. State of Colorado, 788 P.2d 764 (Colo. 1990)) so as to resolve the dispute as to whether the State's interest in prohibiting a municipality from adopting a regulation Preempted action by the City of Greeley or whether these instead were circumstances where there existed sufficient justification to permit home-rule regulation. The Colorado Supreme Court relied upon a test based upon: (1) whether there is a need for statewide uniformity of regulation; (2) whether the municipal regulation has an extra territorial impact; (3) whether the subject matter is one traditionally governed by state or local government; and (4) whether the Colorado Constitution specifically committed the particular matter to State or local regulation. (Voss, *supra*, at 1007).

The Colorado Supreme Court in deciding this case seized upon the first factor listed above finding:

> … because oil and gas production is closely tied to a well location, Greeley's total ban on drilling within the city limits could result in uneven and potential wasteful production of oil and gas from pools which underly the city but extend beyond the city to land where production is not prohibited by a total drilling ban. Greeley's total ban, in that situation, would conflict with the Colorado Oil and Gas Conservation Commission's express authority to divide a pool of oil or gas into drilling units and to limit the production of the pool so as to prevent waste and to protect the correlative rights of owners and producers in the common source or pool to a fair and equitable share of production profits. (Voss, *supra*, at 1067).

The Court ultimately concluded:

> … the State's interest in efficient oil and gas development and production throughout the state, as manifested in the Oil and Gas Conservation Act, is sufficiently dominant to override a home-rule city's imposition of a total ban on the drilling of any oil, gas, or hydrocarbon wells within the city. (Voss, *supra*, at 1068).

We can thus see where in Voss that the legal foundation of the Doctrine of Preemption is beginning to erode. The Colorado Supreme Court significantly "opened the door" allowing non-COGCC oil and gas regulation stating in both Bowden/Edwards and simultaneously referencing in Voss:

> … the State's interest in uniform regulation of these and similar matters, however, does not militate in favor of an implied legislative intent to preempt all aspects of a county's statutory authority to regulate land use within its jurisdiction merely because the land is an actual or potential source of oil and gas development and operations. The State's interest in oil and gas activities is not so patently dominant over a counties interest in land use control, nor are the respective interests of both the state and county so irreconcilably in conflict, is to eliminate by necessary implication any prospect for a harmonious application of both regulatory schemes … (Bowen/Edward, *supra,* at 1058 and Voss, *supra,* at 1068).

Ultimately, the Colorado Supreme Court decided Voss against Greeley, but makes a curious finding:

> If a home-rule city, instead of imposing a total ban on all drilling within the city, enacts land use regulations applicable to various aspects of oil and gas development and operations within the city, and if such regulations do not frustrate and can be harmonized with the development and production of oil and gas in a manner consistent with the stated goals of the Oil and Gas Conservation Act, the city's regulation should be given affect … (Voss, *supra,* at 1068-1069).

We see from Voss that the Doctrine of Preemption is ultimately utilized. However, the legal analysis is significantly broadened allowing consideration of a broader breadth of potential regulation.

In light of Voss, *supra*, a short discussion of Bowen/Edward is next appropriate. Whereas the City of Greeley enacted a complete ban on oil and gas development, La Plata County enacted regulations so as to categorize oil and gas facilities into minor facilities, minor facilities requiring special mitigation processing, and major facilities with each category subject to distinct application requirements concerning land use impact. La Plata County adopted a set of regulations that the Colorado Supreme Court divided into three (3) separate categories: (1) those containing "land use coordination standards," the purpose of which was "to minimize conflicts between differing land uses; (2) those involving performance standards containing "environmental quality standards" intended to "balance economic development with protection of the environment and natural resources; and (3) those involving performance standards in "surface disturbance" intended "to encourage minimal damage to surface activities and surface conditions." Bowden/Edwards, *supra*, at 1051. The La Plata County position is clearly much more innovative and sophisticated than an outright ban.

Bowen, Edwards and others, filed a Complaint for Declaratory and Injunctive Relief taking the position that the Act conferred exclusive authority upon the COGCC to regulate oil and gas development and operations throughout the state. This was a classic argument for Preemption. In response, La Plata County took the legal position that the Act did not preempt all local land use regulations and that these land use regulations as adopted were within the scope of La Plata County's legislative authority. Ultimately, the Colorado Supreme Court rejected the Preemption argument finding:

> … while the governmental interests involved in oil and gas development and in land use control at times may overlap, the core interests in the legitimate governmental functions are quite distinct. The State's interest in oil and gas development is centered primarily on the efficient production and utilization of the natural resources in this State. A county's interest in land use control, in contrast, is one of orderly development and use of land in a manner consistent with local demographic and environmental concerns. Given the rather distinct nature of these interests, we reasonably may expect that any legislative intent to prohibit a county from exercising its land use authority over those areas of the county in which oil development or operations are taking place or are contemplated would be clearly and unequivocally stated. We, however, find no such clear and unequivocal statement of legislative intent in the Oil and Gas Conservation Act. Bowden/Edwards, *supra*, at 1057.

The case was ultimately remanded (returned) for further proceedings in the District Court noting:

> On the basis and limited record before us, we are unable to determine whether an operational conflict exists between La Plata County's oil and gas regulations and the Oil and Gas Conservation Act. The purpose of the County's regulations is to "facilitate the development of oil and gas resources within the unincorporated area of La Plata County while mitigating potential land use conflicts between such development and existing, as well as planned, land uses" … This statement of purpose evinces an obvious intent to regulate in a manner that does not hinder the achievement of the state's interest in fostering the efficient development, production, utilization of oil and gas resources in this State. … the county regulations thus appear to be designed to harmonize oil and gas development and operational activities with the State's overall plan for land use and with the State's interest in those developmental and operational activities. (Bowden/Edwards, *supra*, 1059-1060).

While there have since been other published opinions by the Colorado Appellate Courts as to the application of Preemption, these two cases continue some twenty (20) years later to substantively define the legal framework to resolve legal issues related to Preemption.

THE POLITICS OF FRACKING

As we can see from the recent and pending Longmont litigations, issues pertaining to the regulation of fracking have moved from the COGCC to city council chambers and the voters booth and now into our Courts. It is impossible to not comment that this phenomenon is a result of the fashion in which the debate over fracking has deteriorated from any type of sober review of science and technology into the realm of politics.

An example of the manner in which fracking has become so polarized and politicized includes the events that occurred at the meeting of the Commissioners of Boulder County conducted this last December 4th at its hearing on land use and hydraulic fracking. As reported by, among others, the Denver Post and the Boulder Daily Camera and as can be viewed on youtube.com (see Paul Falkenberg of 23rd Studios who posted a video of the chaos), anti-fracking activists utilized young children to take control of these proceedings ultimately forcing three of the Boulder County Commissioners into leaving the hearing room. A group referring to themselves as "Earth Guardians" using child activists had these youths perform an anti-fracking rap. At the conclusion of this musical performance the "Earth Guardians" took the chairs of the County Commissioners and symbolically voted to ban hydraulic fracking in Boulder County.

Order was restored and testimony continued. Some thirty minutes later, Wendy Wiedenbeck in her capacity as the Community Relations Advisor for Encana Oil and Gas had just completed her testimony. During her testimony (and as can be viewed on youtube.com) at least one member of

those in attendance is suggesting that the crowd should "tar and feather your ass".

Unfortunately, for Ms. Wiedenbeck this conduct only further deteriorated after she and another female left the hearing. As they walked to their car, they were harassed and threatened and called "killers". Ms. Wiedenbeck was accused of "poisoning our children."

The Boulder County Commissioners felt compelled to issue a statement the next day including:

> The Boulder County Board Commissioners deeply disapproves of the conduct of certain individuals who came to disrupt the public hearing on proposed land use code regulations for oil and gas development in unincorporated Boulder County last night …
>
> The troubling activities last night included the disruption at the beginning of the hearing by a group of individuals intent on overpowering anyone in the room with an opinion different than their own; the jeering of a spokesman from the oil and gas industry during her testimony – and mob harassment, cursing at and intimidation of the same representative and her colleague as they left the building and walked several blocks to their cars; a bullying atmosphere in and around the hearing; and outbursts of cheering for threatening rhetoric aimed at quashing opposing opinions … Last night's efforts by a small segment of attendees to threaten and intimidate the speaker walking to her car was nothing short of shameful. Public hearings should create a space for everyone to feel comfortable to participate. Furthermore, any speaker should be able to attend and leave a public hearing free of threatening harassment.

Regrettably, these tactics are not only being used in Boulder, Colorado, but similar incidents have been reported in New York, Pennsylvania and other states. How is it that a public hearing could deteriorate in such a fashion with such relatively little public comment condemning the same?

THE GENESIS OF PUBLIC FEAR

There certainly exist many individuals that believe fracking ought to continue. Fracking is admittedly an imperfect practice, although its environmental record is not only quite good, but will also improve over time as techniques improve. Based upon any well considered cost/benefit analysis fracking provides far greater benefits than costs.

Unfortunately, like many issues confronting American society today, decisions and positions for many are not the result of any independent or considered study of facts and science. Instead, there is often the adoption of the beliefs of others without any critical thinking or scrutiny. This is more than unfortunate, it is dangerous. It is this unfamiliarity with the facts and science that helps create the environment where the judicial system is now becoming the branch of government of last resort as to fracking regulation. We examine as to how this has become the case and what can be done in the future.

An iconic example of bias being created against fracking can be seen in the somewhat recent *60 Minutes* segment "exposing" fracking or, even more condemning, the documentary *Gas Land*. Most everyone is now well familiar with the segment of *Gas Land* where tap water is set on fire. Even those who have never seen this clip are aware of its contents. In fact, this image alone of tap water being set on fire may be the single most condemning piece of information (or, more specifically, misinformation) defining the fracking debate. What receives far less attention, if any attention at all, is that this same tap water could have been set afire before any drilling had

even begun in these areas. This is merely a single example of how the debate on fracking is being manipulated. It is important to understand a bit about science to appreciate the concern as to this type of information being used as nothing less than propaganda[6].

Methane generating bacteria is naturally present in many domestic aquifers. Essentially, this lighting of drinking water on fire is no more than an example of the flammable nature of biogenic natural gas. Biogenic natural gas is created independent of any drilling or fracking. It occurs as a consequence of fermentation whereby yeast and bacteria consume organic matter excreting ethanol. Ethanol is flammable. This bacteria lives in a host of different environments. These bacteria can be found in wetlands, landfills, aquifers, and elsewhere. In fact, these bacteria can be commonly found in the stomach of virtually any mammal, including those of human beings. Simply put, biogenic natural gas is not and has never been the product of by the oil and gas industry.

In contradistinction to biogenic natural gas, thermogenic natural gas occurs where organic matter is decomposed as a consequence of exposure to temperature and pressure over the course of time. This is the product that is the focus of the natural gas industry. Unfortunately, biogenic deposits often exist in areas in close proximity to that of thermogenic natural gas. They also exist in areas without any thermogenic natural gas. Because in many instances there is not significant sampling of water prior to drilling, there can be created impressions to establish "guilt by association" and a dynamic whereby drilling activity can be inaccurately blamed for the

[6] Propaganda is a form of communication aimed at influencing the attitude of a given community toward or against a given position by presenting information biased toward a pre-determined conclusion.

presence of naturally occurring biogenic natural gas. Neither *Gas Land* nor *60 Minutes* make any attempt to educate as to this point. An observer is left with the impression that fracking is causing drinking water to be contaminated by natural gas to the point where it is flammable.

Because of scientific analysis, it is very easy to determine whether or not drilling activity has contaminated domestic water. One can intuitively understand that the "chemical fingerprint" of each are different. Where flammable domestic water exists, it is very easy to distinguish biogenic natural gas from that of thermogenic natural gas.

In Colorado, the COGCC investigates all claims of contamination. *Gas Land* conveniently fails to mention that two of the three Colorado cases focused upon in the movie involved claims of biogenic contamination. The third claim was a mixture of both biogenic and thermogenic natural gas. That claim was settled amicably. Ultimately, the representations set forth in *Gas Land* were so misleading that the COGCC thought it appropriate to correct the misimpressions created by *Gas Land*. It issued a "*Gas Land* Correction Document" (see http://cogcc.state.co.us/library/GASLAND%20DOC.pdf)[7].

The point to be made here is that just as movies such as "The China Syndrome" established perception as to the "danger" of the nuclear industry, common culture and the media is currently creating the perception that fracking is dangerous. As a result, many otherwise intelligent and

[7] This past weekend, Matt Damon starred in a movie focusing upon oil and gas development: *Promised Land*. It will be very interesting to view the movie through the eyes of science and not that based upon other sentiment to see its objectivity.

well-meaning individuals do not take significant issue that those that oppose fracking possess little scientific data to support these positions. Hence, there is surprisingly little outrage with what happened in Boulder. There is little outrage because many have concluded that, at a minimum, fracking might be dangerous. This false impression is a significant industry problem.

THE SCIENCE OF FRACKING

Obviously, scientific analysis investigating potential environmental threats of fracking have not yet concluded. In all likelihood, such testing will continue to occur indefinitely. To date, there have been a host of studies that have been completed. A survey of all the various competing analyses can be conducted by anyone with a computer using a Google or Yahoo! Be forewarned, the quality of the various studies are uneven in nature. Some of these research papers are extremely scholarly. Others (even published by those authored by those with outstanding credentials) are highly partisan. This author will leave it to others to make their own decisions as to the quality of any specific piece of research.

Irrespective, one that has considered the available information to date can safely conclude there exists no dispositive evidence that fracking is responsible for any significant environmental contamination as a consequence of the fracking process itself.

It is important at the onset to distinguish between environmental contaminations that have resulted from fracking as opposed to good, old fashioned poor drilling practices. As to fracking

as a process, the best available evidence at this time is that the process is not environmentally dangerous. The most common cause of groundwater contamination is actually the result of poor drilling practices.

This is not unlike the difference between a manufacturer's product defect in the design of an automobile and that of bad driving itself. There is a significant difference between an unsafe car and an unsafe driver. While it is not within the purview of this paper to spend significant time discussing complications caused by bad casing, it is fair to say that despite significant regulation a very small percentage of wells evidence bad casing. Much of the criticism of fracking is more properly directed to that of bad casing. While bad casing itself is a topic better addressed by others with more technical knowledge, the most significant issue involving bad casing involves that known as channeling. Channeling has been described as occurring:

> …when a shallow, uneconomic nature gas formation (not the deeper targeted formation) leaks bubbles into the annulus. The bubbles can "cut" a channel in the cement before it hardens. These channels do not connect the inside of the well to the aquifer – the steel pipe is still in place. But they do connect formations on the outside that would normally be separated by the rock layers in between.
>
> For instance, a shallow natural gas formation at a depth of 1500 feet could create a channel that connects it to an aquifer above it. Natural gas could then leak into the channel and up into the aquifer. Meanwhile, the fracking fluids and/or fluids coming from the fractured formation 5000 feet deeper would still be sealed inside the casing. This fact explains why contamination from oil and gas activity is almost always in the form of natural gas (rather than fracking chemicals). It also explains why laboratory test results usually reveal that the contaminating gas comes from shallower formations and not from deeper fractured formations. Donavon D. Schaeffer, *Frack Attack: Cracking the Case Against Hydraulic Fracking*, Independence Institute (July 2012) at page 13.

The point being made here is that complications as to casing is simply another example of how the media distorts easily understood concepts to then create a false impression that fracking is dangerous. It is the type of "information" that voters take into the voting booth, that constituents rely upon in not objecting to the decisions of their elected officials, and why certain individuals disrupt public hearings without wide-ranging condemnation.

Ultimately, opponents of fracking focus their criticism upon issues such as the potential for pit leaks, surface spills, air pollution, water depletion, water disposal and – even – earthquakes. In each instance, there are either existing industry practices or regulations that already minimize these risks. As an alternative, these are risks that are so vastly overstated that only those without a scientific understanding of the issues play heed to the same. Unfortunately, there exists a reservoir of tolerance as to the publishing of such information that has created in the minds of many a perception as to the dangers of fracking built upon nothing more than a foundation of a failure of being properly educated.

CONCLUSIONS AND SUGGESTIONS

None of these issues is in any way academic. Oil and gas in Colorado is calculated to be a $24 billion industry. It accounts for approximately 137,000 jobs which is equal to 6% of the state workforce and is believed to comprise of 7.3% of the state's economy. See COGA Fast Facts: Natural Gas Facts: http://www.coga.org/pdfs_facts/Natural%20Gas%20Facts.pdf. Tricia Schooler of COGA put it very simply: "In Colorado, we don't have resources we could tap

without using hydraulic fracturing… its hydraulic fracturing that makes these resources available to us."

Make no mistake, issues pertaining to fracking are extremely volatile. They will continue to be volatile for the indefinite future. Unfortunately, there are many individuals that are not well educated upon either the facts or science of fracking. Too many rely upon popular media for their impression of the safety of fracking. Not all who are against fracking are extremists. Many against fracking are well meaning, but simply not well educated on the topic.

To come full circle in a paper, issues pertaining to the proper regulation of fracking have moved outside that of honest debate. Regulation of fracking is now being debated in the chambers of our public representatives that are popularly elected. Regulation is also being resolved by voters directly. That regulation is being attempted to be made outside of the COGCC alone is certainly not contrary to any democratic principle whatsoever. In fact, the participation of government representatives and voters in such matters on certain levels appeal to the very core of democracy. However, this shift now places a special onus upon all of those involved in the energy industry. Public representatives and voters will make good decisions only if they are armed with fact and science. Otherwise, the "last line of defense" will be increasing that of the Judicial System. Ultimately, the best antidote to misinformation is information. The antithesis of ignorance is education.

It is ultimately the belief of this author that Longmont, whether by the actions of its City Councilmen or voters, will not be allowed to Preempt the authority of the COGCC. However, such prediction ignores the reality that if the process of fracking is going to be successfully protected, it is important that each member of industry become conversant in the process of fracking so as not only to understand and, at a conversational level, explain its technical applications, but to also be able to convincingly refute the many misconceptions pertaining to suggested environmental dangers.

The best friend of the oil and gas industry is education and information. Information is communicated in many a diverse number of means from that at the dinner table, to the water cooler, to the dinner party. It is incumbent that the participants in the oil and gas industry do not allow fracking to be defeated by the efforts of an organized minority. This is even more so the case where the scientific foundation relied upon by those against fracking at this point in time is significantly non-existent. It is important to not only educate everyone from neighbors to colleagues, but to begin to pay close attention to the activities of local government officials. It is essential to be vigilant in attending meetings and hearings involving not only county commissioners or the city council members, but even those of planning departments and other more minor governmental bodies. The battle will never be won by the complacent, but by the proactive.

This paper is about Preemption. However, it is important to leave not merely with an understanding of Preemption as such is used in Colorado law. There is a different and more

generic concept of preemption involving a frank discussion borne of technical knowledge to disabuse many of their concerns as to fracking that under different circumstances simply ought not to exist. Merely because individuals possess misgivings about fracking does not mean they are the opposition. They need to be reassured through education and equipped with information. There also exists the need for preemption pertaining to a constant vigilance involving the rights of individuals in a democracy to make certain that whether popularly elected or otherwise employed government officials act upon fact and science and not misinformation to achieve the objectives of others with their own agendas. Otherwise, what has occurred in Longmont is going to be played out with increasingly greater frequency in courtrooms throughout not only Colorado, but most oil and gas producing states.

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