

**SHAREHOLDER REBUTTAL TO THE ULTRA PETROLEUM OPPOSITION STATEMENT
REGARDING HYDRAULIC FRACTURING RISKS**

**240.14a-103 Notice of Exempt Solicitation
U.S. Securities and Exchange Commission, Washington DC 20549**

NAME OF REGISTRANT: Ultra Petroleum

NAME OF PERSON RELYING ON EXEMPTION: As You Sow Foundation

ADDRESS OF PERSON RELYING ON EXEMPTION: 311 California Street. Ste. 510, San Francisco, CA 94104

PROPOSAL # 5—REPORT ON HYDRAULIC FRACTURING

A proposal filed by the Thomas Valens (represented by As You Sow) and Green Century Capital Management is centered on two concepts essential to investor confidence: disclosure and the mitigation of risks.

In its opposition statement, Ultra Petroleum (Ultra) claims fracturing is highly and effectively regulated at the state level, that it has sufficiently communicated information on this issue and that it already has the systems in place to minimize potential risks associated with the process. But the proponents contend hydraulic fracturing operations have been linked to significant environmental concerns that could have financial implications for the companies involved and are leading to increased regulatory scrutiny. At the same time, the company fails to provide investors the necessary information on their hydraulic fracturing operations to determine if they are successfully managing the associated risks.

Investors are concerned about the lifecycle impacts of hydraulic fracturing operations because the fracturing of each well requires moving literally millions of gallons of water, chemicals, and wastewater; therefore environmental hazards are present at every step in this process and these environmental impacts can result in very substantial business risks as well. The company provides nominal information in its opposition statement and leaves out key information as described below:

IN ITS OPPOSITION STATEMENT, THE COMPANY’S PRIMARY ARGUMENTS AGAINST THIS PROPOSAL ARE:

- Ultra states that fracturing is “highly regulated at the state level.”
- Ultra believes that hydraulic fracturing is safe with only minor environmental impacts.
- Ultra argues it has “effectively communicated information on these issues.”

PROPONENT REBUTTAL AND RATIONALE FOR A YES VOTE:

- State and federal regulation of fracturing is far from settled and Ultra’s shareholders face significant financial risks due to tightening regulations.
- Ultra’s reliance on hydraulic fracturing exposes the company to significant financial and environmental risks associated with the process, particularly in regards to issues related to water and toxic chemicals.

- Ultra has not effectively communicated on this issue nor does it provide investors the necessary information to determine whether the company is appropriately managing risk.
- Sector peers have responded to investor concerns and have begun to provide increased disclosure.

1. REGULATORY RISK

ULTRA'S OPPOSITION STATEMENT says that hydraulic fracturing is "subject to numerous and extensive regulations."

Proponent Response

As the use of hydraulic fracturing skyrockets, communities, regulators and investors are growing increasingly concerned about the potential environmental impacts of this process and Ultra fails to recognize this shifting regulatory environment. Regulation at the state or federal level could have dramatic implications for all companies engaged in hydraulic fracturing, including Ultra, by tightening wastewater disposal requirements potentially restricting areas in which hydraulic fracturing may be performed, limiting materials that may be used, or otherwise increasing costs. The below information demonstrates that the regulatory landscape at both the state and federal level is very much in flux and the company's preference for state-level regulation is unhelpful and fails to take into account the current level of uncertainty.

State-Level Regulatory Restrictions

In the 2010 proxy season when investors first filed resolutions with companies on this issue, shareholders flagged that increasing restrictions would be a risk for companies. In the past year we've seen this possibility come to fruition as Arkansas, Pennsylvania, and Wyoming have all tightened regulation and increased disclosure on this issue while other states, regional bodies, and localities are imposing drilling moratoriums.

ULTRA'S OPPOSITION STATEMENT declares that "state agencies charged with protecting public and private water supplies have, for decades, regulated oil and gas activities, including hydraulic fracturing."

Proponent Response

The proponents contend the above statement by the company misrepresents the current level and effectiveness of state regulations.

The U.S. Department of Energy reports:ⁱ

- 21 of 31 drilling states surveyed have no regulations specific to hydraulic fracturing,
- Four of 31 drilling states surveyed have detailed regulations guiding hydraulic fracturing,
- 10 drilling states surveyed require that fracturing chemicals be disclosed, and
- No states surveyed require that the volume of fluid left underground after fracturing be recorded.

Furthermore, some believe there are inadequate state resources to handle the rapidly expanding industry. In 2008, 35 inspectors were responsible for greater than 74,000 wells in Pennsylvania, 19 inspectors for 13,000 wells in New York, and 24 inspectors overseeing greater

than 64,000 wells in Ohio.ⁱⁱ The Environmental Working Group warns that regulators in New York and Pennsylvania currently neglect checking if gas companies are using diesel or other petroleum distillates.ⁱⁱⁱ

The proponents also contend the above statement by the company is misguided because it fails to recognize the significant regulatory tightening that has happened at the state level recently in response to alleged and proved environmental impacts. Below the proponents document just how swiftly and significantly the regulatory landscape is shifting.

State Responses

Arkansas

- **State Legislative Action:** Beginning January 15, the Arkansas the state Oil and Gas Commission began requiring companies to disclose the names and concentrations of the chemicals used in the fracturing process on a well-by-well basis.^{iv}

Maryland

- **State Legislative Action:** State lawmakers passed a bill that would place a moratorium on drilling until the Maryland Department of the Environment completes a study to determine whether it endangers drinking water and public health.^v
- **Governor's Position:** In March 2011, Maryland Gov. Martin O'Malley urged a cautious approach to natural gas drilling in western Maryland.^{vi}

New York

- **Regulatory Action:** New York State is revising its guidelines related to hydraulic fracturing and vocal and politically well-connected support for increased protections has emerged.
- **Governor's Position:** Outgoing Governor David Patterson issued an executive order that banned some natural gas drilling in the state. In January 2011, incoming Governor Andrew Cuomo kept in place Patterson's executive order ensuring it will remain in effect until at least July 1.
- **Impact on Water:** At the same time, the New York State Department of Environmental Conservation (DEC) continues to work on guidelines for hydraulic fracturing in the Marcellus Shale. New York City's drinking watershed lies under a portion of the Marcellus Shale. A final version is expected this summer.
 - In December 2009, the EPA weighed in on the DEC's environmental impact statement addressing fracturing, expressing significant concerns about protecting New York City's watershed. The EPA signaled the need for further study of "issues involving water supply, water quality, wastewater treatment operations, local and regional air quality, management of naturally occurring radioactive materials disturbed during drilling, cumulative environmental impacts, and the New York City watershed."^{vii}
 - In December 2009, New York City announced its study found hydraulic fracturing posed "an unacceptable threat to the unfiltered, freshwater supply of nine million New Yorkers, and cannot safely be permitted within the New York City watershed."^{viii}
- **Impact on Companies:** In late October 2009, in the face of the massive public controversy about its plans to engage in drilling and hydraulic fracturing near the New York City watershed, Chesapeake Energy, reportedly the only company to hold leases

within that watershed, announced it would “voluntarily” refrain from drilling within the boundary.^{ix}

Pennsylvania:

- **Regulatory Action:** In April 2011, the Pennsylvania Department of Environmental Protection announced that after May 19th companies will no longer be able to dispose of the millions of gallons of waste water produced in fracturing operations at water treatment plants that discharge into rivers and streams.^x This raises serious questions as to how companies operating in the Pennsylvania portion of the Marcellus Shale will dispose of wastewater.
- **Municipal-Level Action:** Both Philadelphia and Pittsburgh have banned drilling within the boundaries of their drinking watersheds. Both are seen to be largely symbolic, but it does send a clear message of community concern.
- **Increased Fines:** State Senator Jim Ferlo introduced a bill that would increase fines in the Oil & Gas Act that regulates the Marcellus Shale industry. The maximum fine would quadruple from \$25,000 to \$100,000 and the fine for each day of continual violation from \$1,000 to \$10,500 per day.^{xi}

Texas:

- **Regulatory Action:** In March 2011, State Representative Jim Keffer, head of the House Committee on Energy Resources, submitted a bill for increased public disclosure of chemicals used in fracking through the creation of a website containing well-specific information.^{xii}

Wyoming:

- **State Legislative Action:** In June, the Wyoming Oil and Gas Conservation Commission passed new rules requiring companies to disclose the chemicals used in the fracturing process. In September, Wyoming’s governor clarified that the ingredients will be made public, making it the first state to require this level of public disclosure of the chemicals used in the fracturing process.^{xiii}

Regional Response

Delaware:

- **Regulatory action:** The Delaware River Basin Commission—a hybrid state/federal hybrid regulatory agency that includes the U.S. Army Corps of Engineers and the governors of New York, Pennsylvania, Delaware, and New Jersey — imposed a moratorium on drilling in the Marcellus Shale while it revises its regulations limiting development in Pennsylvania. In December, draft rules were released and final rules are expected this summer.
- **Impact on Companies:**
 - According to media reports, two companies operating in the region affected by the moratorium had “put their lease contracts on hold, citing a ‘force majeure’ clause that allows such suspensions because of regulation outside the ‘normal and ordinary course of business.’”^{xiv} According to other media reports the companies had invested more than \$100 million into the leases before putting them on hold.^{xv}
 - In response to the commission’s draft regulations, Chris Tucker, a spokesperson for Energy In Depth, a pro-drilling association said, “unfortunately, while a lot of the words in here sound good, a lot of the numbers sounds like a swift kick to the

stomach. I've never seen bonding and fee requirements this high. They very well might prove prohibitive."^{xvi}

Given the above state-level efforts to review and tighten restrictions related to hydraulic fracturing, we believe the company's statement disregards the shifting regulatory climate on this issue.

ULTRA'S OPPOSITION STATEMENT says that "federal agencies control any adverse impacts of hydraulic fracturing through the Clean Water Act (protects groundwater from environmentally-harmful activities), the Safe Drinking Water Act (prohibits pollution of drinking water, though it does not authorize regulation of injection of fracturing fluids), and CERCLA."

Proponent Response

Similar to its comments on state regulations, the company misrepresents the current level and effectiveness of federal regulations. In fact, newly proposed federal regulations highlight the government's perception that current regulations are insufficient and need to be significantly strengthened. Ironically, the company's opposition statement's inclusion of the Safe Drinking Water Act as an example of federal regulation, and Ultra's own recognition that it does not regulate fracking processes, shows the inadequacy of applicable federal regulation.

Federal Response

Regulatory Risk: Congressional action could result in increased costs and disclosures

- **FRAC Act:** In June 2009, the Fracturing Responsibility and Awareness of Chemicals Act, or FRAC Act, was introduced in Congress to reinstate the EPA's authority to regulate hydraulic fracturing under the Safe Drinking Water Act.^{xvii} In March 2011, it was reintroduced in the House and Senate.
- **Congressional Committee Review:** In February and May 2010 the U.S. House Subcommittee on Energy and the Environment sent letters to a 14 companies involved in hydraulic fracturing asking for increased disclosure on the chemicals used in the fracturing process and its potential impacts on human health or the environment. In July 2010, the committee sent letters to 10 oil and gas producers to obtain additional information. According to the committee, "this investigation will help us better understand the potential risks this technology poses to drinking water supplies and the environment, and whether Congress needs to act to minimize those risks."^{xviii}

Regulatory Risk: Interior Department considering strict disclosure rules

- In December 2010, the Secretary of the Interior announced officials were considering adopting regulations that would be similar to Wyoming's recently passed rules and would require increased disclosure of the chemicals used in the fracturing process.

Regulatory Risk: Environmental Protection Agency (EPA)

New EPA review

- In most cases, the EPA regulates chemicals used in underground injection under the Safe Drinking Water Act. However, the 2005 Energy Policy Act stripped the EPA of its authority to monitor hydraulic fracturing. It is the only industry to benefit from such an exemption.^{xix} *The New York Times* dubbed this the "Halliburton loophole," alleging that

former Vice President Dick Cheney, also formerly CEO of Halliburton, shepherded this provision through Congress.^{xx}

- In 2009, Congress requested that the EPA carry out a study on the “relationship between hydraulic fracturing and drinking water” and the Agency’s Science Advisory Board encouraged the use of a “life cycle approach.”
- According to a draft plan released in February 2011, **the EPA plans to take a comprehensive look at the fracturing lifecycle and will look at potential impacts to drinking water at every stage in the process**, from water sourcing to the mix of chemicals put into the water to the water disposal and management stage. While the full report is not expected until 2014, a preliminary report is expected next year.^{xxi}
- As part of this study, the agency sent formal inquiry letters to nine of the leading service providers seeking detailed information on the chemicals and water used and produced in fracturing operations. While the letter from the EPA does allow companies to protect portions of their submissions as confidential business information, if the company does not claim such protections, the information will be made available to the public.
 - A confidential 2010 EPA draft document expressed concern over hydraulic fracturing impacts on local air quality: “from an air perspective, energy extraction operations impact and elevate volatile gases, nitrous oxides, PM 2.5, and ozone formulation. In recent years, areas of significant natural gas production in Colorado, Wyoming, and Utah have seen ozone levels that exceed nation ambient air quality standards with levels increasing at several sites.”^{xxii}
- Senior EPA Health Physicist Nidal Azzam expresses concern over radioactivity in hydraulic fracturing wastewater in his 2009 memo regarding a letter of guidance to New York State. “The reported radiological data from well operations [...] limited data from PA and WV [...] and from the Marcellus shale production brine [...] represent elevated levels that need to be controlled and disposed of appropriately. Such operations need to take into consideration the Safe Drinking Water Act and the Uranium Mill Tailing Standard as applicable or relevant and appropriate requirements (ARARs) to ensure the safety of the public health and the environment.”^{xxiii}

ULTRA’S OPPOSITION STATEMENT fails to acknowledge any regulatory risk.

Company Recognition of Regulatory Risk

A striking indication that future regulations have the potential to dramatically influence natural gas development using hydraulic fracturing was contained in the merger agreement between ExxonMobil and XTO Energy. **ExxonMobil protected its right to back out of the deal if state or federal regulations significantly restrict hydraulic fracturing, rendering it illegal or commercially impracticable. This is a clear indication that the industry leader recognizes there is substantial risk associated with potentially increased regulation.** As a result, investors believe the company should provide a more detailed discussion of such risks to help ensure that the company is sufficiently prepared to respond to these regulatory changes.

The proponents are concerned that regulations are being discussed at the federal level and in various key states, but Ultra is not providing more than broad, vague information on the business implications of the impending regulations nor on how they are preparing for the likely reality of more regulations. We are concerned that our investments may be undermined by

company decision-making and policies that could fall behind public and regulatory expectations for environmental protection.

While companies often prefer to wait until there is regulatory clarity to institute new policies or procedures, we believe it is in the best interest of our company to adopt best practices now to minimize and avoid risk. Sound risk management now protects against current risks and enhances our company's ability to readily comply with future regulatory changes.

2. ENVIRONMENTAL IMPACTS

ULTRA'S OPPOSITION STATEMENT says "the Company is committed to safeguarding the environment and conducts its business in a manner designed to comply with all applicable environmental laws and regulations."

Proponent Response

Ultra Resources, a subsidiary of Ultra Petroleum, has received high profile media attention for poor environmental practices. Several of Ultra Petroleum's board members, including its CEO, serve as officers of Ultra Resources raising concerns about proper oversight.

- Ultra Resources was exposed in a front page article in *The New York Times* about environmental impacts of fracking.
 - In 2009 Ultra Resources sent 155,000 gallons of wastewater with high levels of radioactivity to nine different towns across Pennsylvania to be spread on roads to suppress dust.^{xxiv}
 - The water came from two gas wells in Tioga County and contained radium at almost 700 times the levels allowed in drinking water.
 - With rain or the melting of snow or ice, drilling waste spread on roads could potentially wash into rivers and streams.^{xxv}
- In 2010, Ultra Resources had 47 environmental violations in the Marcellus Shale.^{xxvi}

ULTRA'S OPPOSITION STATEMENT says that "the Company believes its hydraulic fracturing operations are safe, non-threatening and pose little or no risk to underground sources of drinking water. Other studies by respected authorities, including the U.S. Environmental Protection Agency, the Ground Water Protection Council, and the Interstate Oil and Gas Compact Commission, are in accord."

Proponent Response

As stated previously, investors are concerned not only with the fracturing that occurs underground, but the lifecycle impacts of the process. The proposal makes clear that the proponents are seeking information on the potential impacts "from activities above and below the earth's surface—including actions that are necessarily part of the life cycle of fracturing and extraction." Recently we've seen high profile incidents of alleged water contamination, significant enforcement actions and fines, the introduction of new litigation, public protests, and new regulations and restrictions some of which put certain areas off limits for development, all of which have the potential to pose business risks to our company and potentially threaten shareholder value. Shareholders need assurance that the company is candidly disclosing these risks and is adopting best management practices to minimize them.

As currently utilized the fracturing process requires pumping millions of gallons of chemicals laced with tons of toxic chemicals into the ground. Recently, while investors have seen some broad operational risks, two issues are emerging that have the potential to limit development and expansion, and pose significant environmental and business risks: the toxic chemicals used in the fracturing process and disposing of waste water.

Operational Risks

- In April 2011, a Chesapeake Energy well in rural northern Pennsylvania spilled thousands of gallons of chemical-laced water contaminating a stream and leading officials to ask seven families who live nearby to evacuate as crews struggled to stop the gusher.^{xxvii}
- In February 2011, three workers were injured in an explosion at a Chesapeake Energy facility. Employees were dealing with water produced in the hydraulic fracturing process at the time of the explosion.^{xxviii}
- In September 2010, a Chesapeake Energy well caught fire and the company was issued a violation for “failing to prevent the release of natural gas and the potential pollution of waters of the state.” The company’s operations at the site were shut down temporarily.^{xxix}
- In June 2010, a blowout at an EOG well reportedly spewed gas and wastewater for 16 hours and was described by the Pennsylvania DEP as an event that posed “a serious threat to life and property.”^{xxx} In response, the company was forced to shut down its operations in Pennsylvania for 40 days and pay \$353,400 in fines.^{xxxi}
- A June 2010 explosion at a well in West Virginia owned by Chief Oil and Gas injured seven workers. The West Virginia Department of Environmental Protection issued two notices of violation for improper well casing, as well as an order to cease operations until the company reviewed casing depths, instituted personnel trained in blowout prevention to oversee drilling at all times, and demonstrated an understanding of the causes of the blowout.^{xxxii}

Risks Related to Water

Water Contamination Litigation Risks

Lawsuits facing other companies have begun to demonstrate that litigation alleging impacts to groundwater sources is moving forward.

- XTO Energy (now ExxonMobil) has faced \$166,630 in fines from the Pennsylvania Department of Environmental Protection (PA DEP). That body further reports that:
 - Between 2005 and February 1, 2011, DEP regulators have imposed 89 fines against Marcellus Shale-related companies for a total of \$2,106,318.
 - The number of fines has increased from one in 2006 to 42 in 2010.^{xxxiii}
- In April 2011, a federal judge issued a temporary restraining order against Chesapeake Energy in one of three pending cases that challenge widespread waste-dumping practices in northern West Virginia.^{xxxiv}
- A “Ground Zero” law firm that won a major settlement for World Trade Center rescue workers is representing residents of Colorado’s Western Slope who say their health has been impacted by the boom in oil and gas operations in the region.^{xxxv}
- In December 2010, two lawsuits were filed in federal court alleging that Chesapeake Energy and Encana Oil & Gas operations contaminated property owners’ water wells.^{xxxvi}
- In September 2010, 13 families in Pennsylvania sued Southwestern Energy alleging that their drinking water was contaminated by the company’s drilling operations.^{xxxvii}

- In Colorado several years ago, EnCana reached a reportedly multi-million dollar settlement and was fined \$266,000 by regulators for release of gas production waste and failure to protect water bearing formations.^{xxxviii}
- Cabot Oil & Gas and Atlas Energy Inc. also face lawsuits over alleged water contamination in Pennsylvania.^{xxxix}
- Atlas Energy is being sued for allegedly contaminating soil and water in Pennsylvania after tests revealed the presence of seven potentially carcinogenic chemicals used in fracturing operations.^{xi}

Water Contamination Enforcement Actions

Companies are increasingly facing enforcement actions and fines associated with the environmental impact of their operations.

- In September 2010, EPA officials warned residents in Wyoming not to drink their water after finding benzene and other harmful chemicals in drinking water wells. Officials also encouraged residents to use fans while showering and washing clothes to prevent a possible explosion.^{xi}
- In January 2010, the Pennsylvania DEP fined Atlas Energy \$85,000 for failing to implement proper erosion and sedimentation control measures, discharging diesel fuel and hydraulic fracturing production fluids into the ground, and neglecting to restore two well sites after drilling was completed.^{xlii}
- In August 2010, the PA DEP again fined Atlas Resources over \$97,000 “for allowing used hydraulic fracturing fluids to overfill a wastewater pit and contaminate a high-quality watershed.”^{xliii}
- According to media reports, Range Resources faced enforcement actions twice in 2009 for the spillage of hydraulic fracturing fluids. In October 2009, the company faced a \$23,500 fine after it spilled close to 5,000 gallons of water including fracturing fluids into a protected watershed that was a rich fish habitat. In another case, Range spilled more than 10,000 gallons of wastewater and as a result, there was a substantial fish kill and significant clean-up was required.^{xliv}
- Cabot Oil & Gas Corporation has experienced significant problems with its natural gas wells and hydraulic fracturing operations. In September 2009, Pennsylvania ordered Cabot Oil & Gas to shut down all hydraulic fracturing operations in Susquehanna County. Cabot also faces a lawsuit brought by over a dozen families in Dimock, PA which alleges the company’s operations polluted their wells.^{xlv}
 - In April 2010, in an effort to protect the residents of Dimock Township from gas migration from company wells, Pennsylvania ordered Cabot Oil & Gas to pay a \$240,000 fine, install water treatment systems in 14 homes where drinking water was contaminated and barred the company from drilling any new wells in the township for a year.^{xlvi} But in December 2010, Cabot and Pennsylvania regulators came to an agreement where the company agreed to pay residents of Dimock \$4.1 million in compensation, paying each of the 19 families alleging damage twice the value of their home (with a minimum payment of \$50,000) and paying the state \$500,000 to mitigate the expense state agencies incurred exploring the problem. The agreement allowed the company to resume drilling in Susquehanna County in 2011.^{xlvii}

- Talisman Energy was fined \$15,500 in August 2010 for spilling 4,200 gallons of flowback fluid into a Pennsylvania wetland and the headwaters of an important coldwater fishery.^{xlviii}
- The PA DEP fined Fortuna Energy \$3,500 for discharging wastewater into a drainage ditch, eventually reaching a tributary of Sugar Creek.^{xlix}
- Tapo Energy was assessed a penalty of \$10,000 for contaminating a three mile section of Buckeye Creek with “petroleum-based material” associated with its hydraulic fracturing operations.^l

Wastewater Environmental Risks

Companies conducting fracturing operations must manage millions of gallons of wastewater—portions of fracturing fluids that return to the surface plus naturally-occurring formation waters brought to the surface during and following fracturing. This water contains highly toxic chemicals used in the fracturing process, naturally occurring radioactive materials, dissolved solids, and heavy metals. This waste must be stored, transported, treated, and then disposed of and/or recycled. These operations pose numerous risks.

A recent investigation by *The New York Times* revealed significant concerns. Below are excerpts from its report and findings:

- “While the existence of toxic wastes has been reported, **thousands of internal documents obtained by *The New York Times* from the Environmental Protection Agency, state regulators and drillers show that the dangers to the environment and health are greater than previously understood.**”
- “The documents reveal that **wastewater which is sometimes hauled to sewage plants not designed to treat it and then discharged into rivers that supply drinking water contains radioactivity at levels higher than previously known, and far higher than the level that federal regulators say is safe** for these treatment plants to handle.”
- “...federal and state regulators are allowing most sewage treatment plants that accept drilling waste not to test for radioactivity. And most drinking-water intake plants downstream from those sewage treatment plants in Pennsylvania, with the blessing of regulators, have not tested for radioactivity since before 2006, even though the drilling boom began in 2008. In other words, **there is no way of guaranteeing that the drinking water taken in by all these plants is safe.**”
- “Gas has seeped into underground drinking-water supplies in at least five states, including Colorado, Ohio, Pennsylvania, Texas and West Virginia, and residents blame natural-gas drilling.”
- “More than 1.3 billion gallons of wastewater was produced by Pennsylvania wells over the past three years...Most of this water—enough to cover Manhattan in three inches of water—was sent to treatment plants not equipped to remove many of the toxic materials in drilling waste.”
- “Of more than 179 wells producing wastewater with high levels of radiation, at least 116 reported levels of radium or radioactive materials 100 times as high as the levels set by federal drinking-water standards. At least 15 wells produced wastewater carrying more than 1,000 times the amount of radioactive elements considered acceptable.”^{li}

The New York Department of Environmental Conservation found levels of radium-226, a radioactive derivative of uranium, at up to 267 times the limit for safe discharge when they

analyzed 13 samples of hydraulic fracturing wastewater. Radium has been shown to cause liver, bone, and breast cancers.^{lii}

Wastewater Capacity Limitations

Insufficient capacity for waste water management may pose a sizable constraint on the roll-out of hydraulic fracturing, especially in the Marcellus Shale. The company provides insufficient information on this key business issue to determine whether the company is adequately addressing waste water capacity concerns in its future planning.

- The New York State Department of Environmental Conservation is raising concerns regarding wastewater treatment and **has said it will not issue drilling permits until the companies demonstrate they are capable of adequately disposing of waste water.**^{liii}
- According to a 2009 analysis done by *ProPublica*, an investigative journalism center spearheaded by a former managing editor of the *Wall Street Journal*, found that among three potential disposal methods, none of the options appear to be feasible for New York State because of capacity limitations.^{liv}
- In Pennsylvania, the limitations are similar. According to a report presented to the Society of Petroleum Engineers Eastern Regional Meeting in 2009, Pennsylvania is establishing new regulatory limits for industrial discharges of TDS (total dissolved solids). The report declared that **“there are currently no facilities in the state that can treat flowback fluids to this level.”**^{lv} As noted above, Pennsylvania has since updated its regulations in this area.
- A 2010 EPA briefing acknowledged the problems associated with wastewater management. “Although several centralized oil & gas wastewater treatment facilities and PA (Pennsylvania) POTWs (Public Owned Treatment Works) are accepting brine for conventional treatment, disposal remains a bottleneck for the industry and several proposals for new/expanded treatment are in play.”^{lvi}

Produced Water Shortcomings of Recycling Efforts

Recently, many companies have begun to recycle and reuse their waste water but this comes with its own risks.

- Brent Halldorson, chief operating officer of Aqua-Pure/Fountain Quail Water told *The New York Times*, “no one wants to admit it, but at some point, even with reuse of this water, you have to confront the disposal question.” He added that “the wastewater contains barium, strontium, and radioactive elements that need to be removed.”^{lvii}
- According to Pennsylvania regulators, even though companies are recycling substantial portions of their wastewater, more wastewater continue to be dumped into rivers because the number of drilling rigs continues to skyrocket.^{lviii}

Risks Related to Chemicals

Waste Management and Disposal

Hydraulic fracturing fluids include numerous hazardous chemicals. The industry generally argues that chemical additives make up only 0.5% of fracturing fluid. While the statement may be accurate in some cases, it is also misleading and underplays the associated risks because it fails to convey the enormous volumes of liquid used to fracture wells. If a fracturing operation uses 3 million gallons—and some use much more—to fracture one well one time, that 0.5% means that the companies are using 15,000 gallons of chemicals.

Physical Risks: Quantities of Chemicals Used

Given the significant quantities of water used and produced, the quantities of toxics present are very significant. In April 2011 a Congressional investigation reported that oil and gas companies, as part of their fracking process, injected hundreds of millions of gallons of hazardous or carcinogenic chemicals into wells in more than 13 states from 2005 to 2009.^{lix}

Business Risks: Chemicals Management

The vast quantities of chemicals also pose substantial business risks as the companies are responsible for securing them throughout the entire supply chain. These chemicals must be trucked to drill sites, stored on site, pumped into the ground, and, finally, disposed of properly, which often requires them to be piped or trucked away. The company faces significant financial risks including the potential for enforcement actions or even litigation if problems occur at any point in this process.

Risks to Human Health and the Environment

- The chemicals used can be highly toxic. Hazen and Sawyer noted that well service companies and chemical suppliers providing data for New York State's draft supplemental generic environmental impact statement for natural gas extraction and hydraulic fracturing (dSGEIS) list 197 chemical products and 260 unique chemicals.^{lx}
- These toxic fluids have the potential to contaminate groundwater and the surrounding environment. According to independent tests done in Colorado in 2008, **at least 65 chemicals used by natural gas companies were defined as hazardous** under the major federal statutes designed to protect against toxic contamination. **If these chemicals were released from an industrial facility, reporting to the Environmental Protection Agency (EPA) would be required, and specific clean-up protocols prescribed.**^{lxi}
- 85% of fluids used during hydraulic fracturing in the Marcellus Shale are being left underground, according to three company spokesmen and one regulatory official interviewed by *ProPublica*. Therefore, more than 3 million gallons of chemicals and wastewater could be deposited permanently underground for each modern gas well.^{lxii}
- Endocrinologist Theo Colborn, a former EPA science advisor, found that of the 246 chemicals on a partial list of hydraulic fracturing compounds, 228 had at least one negative health effect. Many were endocrine disrupting, meaning they can impact normal developmental, reproductive, and neurologic functioning.^{lxiii}
- The Environmental Working Group estimates the amount of diesel and petroleum distillates used in a single well is enough to contaminate 650 million gallons of drinking water.^{lxiv}
- An April 2011 report by the U.S. House Committee on Energy and Commerce on the chemicals used in hydraulic fracturing found that "between 2005 and 2009, the 14 leading hydraulic fracturing companies in the United States used over 2,500 hydraulic fracturing products containing 750 compounds. More than 650 of these products contained chemicals that are known or possible human carcinogens, regulated under the Safe Drinking Water Act, or listed as hazardous air pollutants."^{lxv}

The proponents contend there are clear environmental risks associated with the lifecycle of fracturing operations and the company fails to provide information with sufficient information to determine if it is mitigating the associated risks.

Risks to Air and Climate

While the primary concern about fracturing has been its impact on water quality, there is a growing body of science identifying its impacts on air and climate that may also pose significant risks.

- Cornell University professors will soon publish research that concludes natural gas produced with a drilling method called “hydraulic fracturing” contributes to global warming as much as coal, or even more.^{lxvi}
- Rural Wyoming, known for breathtaking vistas, now has worse smog than Los Angeles because of its boom in natural gas drilling.^{lxvii}
- Dish, Texas has been called the Grand Central Station of the Barnett Shale. Town officials arranged for the Texas Department of State Health Services to come investigate effects the gas industry’s emissions could be having on the residents’ health. In 2009, town officials spent 15% of the town’s annual budget on an independent air quality test that found benzene, xylene, naphthalene, carbon disulfide, and other chemicals at elevated levels.^{lxviii}

3. SAFETY CLAIMS

ULTRA’S OPPOSITION STATEMENT says that “hydraulic fracturing has been used safely over one million times in the decades since its first commercial use in the oil and gas industry.”

Proponent Response

Ultra offers shareholders only a broad generalized statement that attempts to imply safety but fails to provide any supporting evidence—nor does it place modern hydraulic fracturing in context.

- The process was developed by Halliburton and made its industrial appearance in 1950’s, but only recently became widely used.
- According to a new report, “[hydraulic fracturing] was only proved out over the course of the first decade of the twenty-first century. The scale was not even really recognized until 2007-08; and it did not enter the US national energy discussion until the second half of 2009. And yet it ranks as the most significant energy innovation so far this century.”^{lxix}
- According to the industry, **fracturing is used in 90% of operational wells today** and 60-80% of new wells will require fracturing to remain viable.^{lxx}

ULTRA’S OPPOSITION STATEMENT makes another reference to the EPA saying that “in December 2009, three officials from the U.S. Environmental Protection Agency testified before the U.S. Senate that they were not aware of any verifiable instances of groundwater contamination caused by hydraulic fracturing.”

Proponent Response

The company fails to mention that: 1) the EPA has launched a new study at Congress’s request, which could have significant business implications; 2) most of the EPA’s regulatory control over fracking was taken away in 2005; and 3) that the findings of EPA’s 2004 study have been hotly contested.

The 2010 EPA Study

In March 2010, the EPA announced it would embark on a \$1.9 million study to examine how hydraulic fracturing could impact drinking water.^{lxxi} The EPA's first public meeting was held just weeks later and its Science Advisory Board Environmental Engineering Committee took public comments on the proposed study of hydraulic fracturing and its potential impacts on public health and the environment.^{lxxii} This new EPA study will be more important than the 2004 report as these findings will be more in-depth and may have significant financial impact on costs related to hydraulic fracturing.

The 2005 EPA Exemption

- In most cases, the EPA regulates chemicals used in underground injection under the Safe Drinking Water Act.
- The 2005 Energy Policy Act, allegedly shepherded through Congress by former Vice President Dick Cheney, former CEO of Halliburton, stripped the EPA of its authority to monitor hydraulic fracturing. *The New York Times* has dubbed this the "Halliburton loophole" and legislators are strongly pushing to reinstate EPA authority.^{lxxiii}

The Contested 2004 EPA Report

- The 2004 EPA analysis that the industry often refers to as proving that hydraulic fracturing is safe was a "**literature review**" and "**there were no samples taken.**"^{lxxiv}
- According to EPA chief Lisa Jackson, "that study is widely cited as saying, 'see, that proves it's safe,' and I don't think that's a fair or accurate summation of that study. I think that's an overbroad reading. We need some data."^{lxxv}
- According to EPA employee and whistleblower Weston Wilson, the EPA's 2004 report was "scientifically unsound." He continues, "while EPA's report concludes this practice poses little or no threat to underground sources of drinking water, based on the available science and literature, **EPA's conclusions are unsupported.**"^{lxxvi}
- Others at the EPA contend the report's conclusions have been over-applied. According to one of the study's three main authors, Jeffrey Jollie, "**It was never intended to be a broad, sweeping study.**"^{lxxvii}

ULTRA'S OPPOSITION STATEMENT makes another reference to the Ground Water Protection Council stating that "the Groundwater Protection Council concluded in May 2009 that most additives contained in fracturing fluids pose low to very low risks to human health and the environment."

Proponent Response

The Ground Water Protection Council (GWPC) report looks at several practices including fracturing and among its specific comments on fracturing fluids was "the best way to eliminate concern would be to use additives that are not associated with human health effects." In fact, the report's final recommendations regarding hydraulic fracturing are more aligned with that of the shareholder proponents than of Ultra's board. For example:

- "Comprehensive studies should be undertaken to determine the relative risk to water resources from the practice of shallow hydraulic fracturing," according to suggested

Action 2a. It also recommends “develop(ing) additional state regulations relative to the practice.”

- Suggested Action 2b offers that “states should consider requiring companies to submit a list of additives used in formation fracturing and their concentration within the fracture fluid matrix. Further, states that do not currently regulate handling and disposal of fracture fluid additives and constituents recovered during recycling operations should consider the need to develop such regulations.”
- Suggested Action 2d firmly states that “hydraulic fracturing in oil or gas bearing zones that occur in non-exempt USDW [Underground Sources of Drinking Water] should be either stopped, or restricted to the use of materials that do not pose a risk of endangering ground water and do not have the potential to cause human health effects (e.g. fresh water, sand etc...).”^{lxxviii}

4. LACK OF DISCLOSURE

ULTRA’S OPPOSITION STATEMENT says “the Company plans to employ hydraulic fracturing on most of its future natural gas wells.”

Proponent Response

As a result of current and future widespread use, investors believe companies must increase transparency and disclosure to reflect this new dependence on hydraulic fracturing. It is important to note that the shareholder proposal is not asking that the company stop hydraulic fracturing; rather, the proponents want to ensure that fracking is done in a way that both minimizes its impact on drinking water and the surrounding communities while also protecting the company’s bottom line.

ULTRA’S OPPOSITION STATEMENT says “the Company accounts for the environmental, compliance, litigation and reputational impacts of hydraulic fracturing as a part of its ordinary business activities.”

Proponent Response

Based on the company’s financial statements and website it is hard to understand how the company is accounting for the above considerations. The company’s 10-K offers generic statements regarding its compliance with regulations and laws and that these and other market conditions may change.

ULTRA’S OPPOSITION STATEMENT states that “more information about the Company’s hydraulic fracturing activities is available at its website.”

Proponent Response

The website’s internal search engine returned no results on such key issues as reducing fracturing fluid toxicity, pre-drilling water quality monitoring, cement bond logging, water contamination, wastewater treatment capacity, water scarcity, and wastewater recycling.

- In 2010 the company’s CEO and legal counsel agreed to post information on its website regarding four topics of safety, fracking fluids, risk assessment and current job locations. It failed to do so.
- In 2011 the company again agreed to post the above information on its website and again failed to do so.
- By comparison, the company’s website offers 11 pages on governmental elections and how to engage in political activism.

The lack of disclosure in the company’s financial statements and website obviously fails to meet the resolution’s request for detail on the company’s policies and practices for reducing and eliminating the hazards associated with the life cycle of hydraulic fracturing operations. The company’s disclosure is grossly inadequate to enable investors to determine if the company is taking the steps necessary to reduce the financial risks associated with hydraulic fracturing operations, including risks to its license to operate.

Many of Ultra’s sector peers have begun to provide increased transparency. The below list presents a selection of the disclosures sector peers have made to provide increased transparency on their fracturing operations and steps companies employ to mitigate risk. Investors are asking Ultra to improve its disclosure in this area.

- **Cabot Oil & Gas**, which has repeatedly been cited for violations of proved and alleged environmental harms, has dramatically improved its reporting. It clarifies the following:
 - All flowback water is stored in closed containers, not pits.
 - The company pressure tests wells to check for integrity.
 - The company monitors 2,500 feet around their well. This is 1,500 feet beyond the 1,000 foot boundary where, under state law in Pennsylvania, if well contamination begins within six months of drilling, the driller is assumed to be responsible.
 - Sampling is done by a third party lab and results are provided to landowners^{lxxxix}
- In December 2010, **Williams Companies** released a new CSR report which substantially improves the company’s reporting on key risks to investors, particularly how the company manages wastewater and the protective measures it takes to assure well integrity.
- **Talisman** has a newly-developed code for contractors, provides information on its efforts to protect groundwater, and provides information on its environmental violations.^{lxxx}
- **Chief Oil & Gas** has a “Best Management Practices” web page that lists many of its protective practices related to its natural gas operations. These include storing wastewaters in steel tanks, well-specific chemical disclosure, “closed loop” systems for drilling fluids, and waste water recycling.^{lxxxii}
- In April 2011 the **Ground Water Protection Council** launched a fracking fluid disclosure database that enables companies to voluntarily report the chemicals they are using. To date, 22 companies are listed as participating and have already uploaded hundreds of wells to the site. Ultra is not listed among the participants.^{lxxxiii}

The proponents believe that the company’s existing disclosures do not go far enough to address community and investor concerns. In the past year, investors have seen a dramatic increase in the amount of information disclosed by some companies involved in hydraulic fracturing, yet Ultra remains a laggard on this issue.

5. CONCLUSION

Hydraulic fracturing operations have the potential to have a significant impact on the environment and could pose threats to public health. As a result of these concerns, policymakers at the state and federal levels are reevaluating the existing regulatory regime and the resulting regulatory uncertainty poses substantial business risks.

The proponents are concerned about whether their investments may be undermined by company decision-making and policies that may fall behind public and regulatory expectations for environmental protection. In response, investors are requesting increased transparency and disclosure from numerous companies, and over the course of the last year, have begun to see substantial improvements in disclosure from several companies. But Ultra has failed to meet the emerging expectations around disclosure.

In the absence of meaningful disclosure, investors have no way of fully assessing the risks and rewards from investing in various companies in the energy sector, and are concerned about shocks to shareholder value. Shareholders need assurance that companies are candidly disclosing these risks and are adopting best management practices to minimize them.

Corporate policies for the management of social and environmental issues related to hydraulic fracturing may well play a major role in determining the success or failure of the Ultra Petroleum's efforts to maintain or expand its operations in this promising area of growth. The proposal seeks information to assess how the company is addressing social and environmental challenges, and whether the company is effectively positioned to seize the new market opportunities associated with natural gas development.

This is not a solicitation of authority to vote your proxy. Please DO NOT send us your proxy card; the proponent is not able to vote your proxies, nor does this communication contemplate such an event. The proponent urges shareholders to vote FOR proposal number #10 following the instruction provided on the on the management's proxy mailing.

ⁱ U.S. Department of Energy, Office of Fossil Energy, National Energy Technology Lab, and the Ground Water Protection Council, "State Oil and Natural Gas Regulations Designed to Protect Water Resources," May 2009.

ⁱⁱ Kara Cusolito, "America's Next Drilling Disaster?" *The Nation*, June 9, 2010.

ⁱⁱⁱ *Ibid*

^{iv} "Arkansas To Require Hydraulic Fracturing Fluid Disclosure in January," *Platts*, December, 8, 2010.

^v Darryl Fears, "Sitting atop huge gas reserve, Maryland debates drilling practice known as fracking," *The Washington Post*, March 27, 2011.

^{vi} "Md. governor calls for fracking caution," *WTOP FM*, March 14, 2011.

^{vii} John Filippelli, "Comments on the New York State Department of Environmental Conservation September 2009 draft SGEIS for the Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs," Environmental Protection Agency Region 2, December 30, 2009.

^{viii} Steven W. Lawitts, Acting Commissioner, New York City Department of Environmental Protection, Comments on the Draft Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program, December 22, 2009.

^{ix} Jad Mouawad and Clifford Krauss, "Gas Company Won't Drill in New York Watershed," *The New York Times*, October 27, 2009.

^x Marc Levy, "Waste From Gas Drilling At Issue," Associated Press appearing in the *Times Union*, April 20, 2011.

^{xi} Sean Hamill, "What fines reveal about drilling in state," *Pittsburgh Post-Gazette*, April 17, 2011.

-
- ^{xii} Kate Gilbraith. "Hydraulic Fracturing Bill Could Force Disclosure." *The New York Times*, March 24, 2011.
- ^{xiii} Brodie Farquhar, "Wyoming First In Nation to Require Public Disclosure of Chemicals Used in Gas, Oil Drilling," *NewWest.net*, September 8, 2010.
- ^{xiv} Mike Soraghan, "Obscure Regulator Hits Brakes on Northeast Shale Drilling Rush," *Greenwire* reported in *The New York Times*, September 13, 2010.
- ^{xv} Andrew Maykuth, "Marcellus Shale Dispute Bubbling Up in Northeast Pennsylvania," *The Philadelphia Inquirer*, July 4, 2010.
- ^{xvi} Mike Soraghan, "Northeast Regulator Eases Proposed Natural Gas Drilling Curbs," *The New York Times*, December 9, 2010.
- ^{xvii} Senator Robert Casey, Jr, "Statement for the Record, Introduction of the Fracturing Responsibility and Awareness of Chemicals (FRAC) Act," June 9, 2009, available at: <http://casey.senate.gov/newsroom/press/release/?id=3D78271C-E412-4B63-95B8-419E75CE2BB6>.
- ^{xviii} Committee on Energy and the Environment, "Energy & Commerce Committee Investigates Potential Impacts of Hydraulic Fracturing," February 18, 2010, updated July 19, 2010, accessed: September 23, 2010.
- ^{xix} Abraham Lustgarten, "Democrats Call for Studies as Industry Assails Proposals to Regulate Hydraulic Fracturing," *ProPublica*, July 13, 2009.
- ^{xx} Editorial, "The Halliburton Loophole," *The New York Times*, November 3, 2010.
- ^{xxi} Nicholas Kusnetz, "EPA Wants To Look At Full Lifecycle of Fracking in New Study," *ProPublica*, February 9, 2011.
- ^{xxii} "Drilling Down – Documents: Natural Gas's Toxic Waste." *The New York Times*, February 26, 2011.
- ^{xxiii} Ibid
- ^{xxiv} "Drilling Down: Documents: Politics, Recycling and Tracking of Natural Gas Waste," *The New York Times*, March 1, 2011 <http://www.nytimes.com/interactive/2011/03/01/us/natural-gas-documents-2.html#document/p64/a10110>.
- ^{xxv} Drilling Down: Wastewater Recycling No Cure-All in Gas Process," *NY Times*, March 1, 2011.
- ^{xxvi} Environmental Violations at Marcellus Shale Drilling Sites, Jan. 1, 2010 – Dec. 31, 2010," Clean Water Action, Pennsylvania, http://www.cleaneaction.org/files/publications/pa/violation_summary_2010.pdf.
- ^{xxvii} "Drilling fluid gushes from northern Pa. gas well," *Wall Street Journal*, April 20, 2011.
- ^{xxviii} "Western Pa. Gas Well Blast injures 3 Workers," *Bloomberg*, February 24, 2011.
- ^{xxix} Casey Junkins, "Well Woes Grow: Accidents Leave Nerves Rattled," *The Intelligencer/Wheeling News-Register*, September 26, 2010.
- ^{xxx} Pennsylvania Department of Environmental Protection media release, "DEP Orders EOG Resources to Halt All Natural Gas Drilling Activities in PA," June 7, 2010.
- ^{xxxi} Commonwealth of Pennsylvania, Department of Environmental Protection media release, "Independent Report Faults Clearfield County Gas Well Operators for June 3 Blowout DEP Outlines Proper Procedures for All Marcellus Drilling Firms," July 13, 2010.
- ^{xxxii} Craig Michaels. "Fractured Communities" Riverkeeper, September, 2010.
- ^{xxxiii} Sean Hamill, "What fines reveal about drilling in state," *Pittsburgh Post-Gazette*, April 17, 2011.
- ^{xxxiv} Ken Ward Jr., "Lawsuits challenge waste dumping by gas drillers." *The Charleston Gazette*, April 13, 2011.
- ^{xxxv} David Frey, "Ground zero law firm sues over Colorado drilling," *New West*, March 27, 2011.
- ^{xxxvi} Jack Z. Smith, "Two Lawsuits Contend Groundwater in Barnett Shale Contaminated by Drilling," *Star-Telegram.com*, December 15, 2010.
- ^{xxxvii} Jim Efstathiou Jr., "Pennsylvania Families Sue Southwestern Energy on Shale Drilling," *Bloomberg*, September 15, 2010.
- ^{xxxviii} Abraham Lustgarten, <http://www.propublica.org/feature/buried-secrets-is-natural-gas-drilling-endangering-us-water-supplies-1113>, *ProPublica*, November 13, 2008.
- ^{xxxix} Michael Rubinkam, "Pennsylvania Residents Sue Gas Driller Over Polluted Wells," *The Associated Press*, November 20, 2009; Joh Hurdle, "Pennsylvania Lawsuit Says Drilling Polluted Water," Reuters, November 9, 2009; "Pa. Woman Sues Gas Driller, Claims Water Tainted," *The Associated Press*, October 29, 2010.
- ^{xl} Fracking Resource Guide. April 19, 2010.
- ^{xli} Abraham Lustgarten, "Feds Warn Residents Near Wyoming Gas Drilling Sites Not To Drink Their Water," *ProPublica*, September 1, 2010.
- ^{xlii} Craig Michaels, "Fractured Communities" Riverkeeper, September, 2010.
- ^{xliiii} Pennsylvania Department of Environmental Protection Southwest Regional Office media release, "PA DEP Fines Atlas Resources For Drilling Wastewater Spill in Washington County," August 17, 2010.
- ^{xliiv} Sabrina Shankman, "Pennsylvania's Gas Wells Booming-But so Are Spills," *ProPublica*, January 27, 2010. <http://www.propublica.org/feature/pas-gas-wells-booming-but-so-are-spills-127>.
- ^{xliv} Commonwealth of Pennsylvania, Department of Environmental Protection media release, "DEP Orders Cabot Oil and Gas to Cease all Well Fracking in Susquehanna County," September 25, 2009; Michael Rubinkam, "Pennsylvania Residents Sue Gas Driller Over Polluted Wells," *The Associated Press*, November 20, 2009.
- ^{xlivi} Commonwealth of Pennsylvania, Department of Environmental Protection media release, "DEP Takes Aggressive Action Against Cabot Oil & Gas Corp to Enforce Environmental Laws Protect Public in Susquehanna County," April 15, 2010.
- ^{xliiii} "UPDATE 1-Cabot To Pay \$4.1 Mln In Penn. Gas Contamination," *Reuters*, December 15, 2010.
- ^{xliiii} Craig Michaels, "Fractured Communities" *Riverkeeper*, September 2010.
- ^{xlix} Ibid
- ⁱ Ibid
- ⁱⁱ Ian Urbina, "Regulation Lax as Gas Wells' Tainted Water Hits Rivers," *The New York Times*, February 26, 2011. Emphasis added.
- ⁱⁱⁱ Abraham Lustgarten, "Is New York's Marcellus Shale Too Hot to Handle?" *ProPublica*, November 9, 2009.

- ^{liii} Joaquin Sapien and Sabrina Shankman, "Drilling Wastewater Disposal Options in N.Y. Report Have Problems of Their Own," *ProPublica*, December 29, 2009, available at: <http://www.propublica.org/feature/drill-wastewater-disposal-options-in-ny-report-have-problems-1229>. Emphasis added.
- ^{liiv} Joaquin Sapien and Sabrina Shankman, "Drilling Wastewater Disposal Options in N.Y. Report Have Problems of Their Own," *ProPublica*, December 29, 2009, available at: <http://www.propublica.org/feature/drill-wastewater-disposal-options-in-ny-report-have-problems-1229>.
- ^{liv} M.E. Blanch, Superior Well Services, Inc.; R.R. Myers, T. R. Moore; B.A. Lipinski, Exco - North Coast Energy, Inc.; N.A. Houston, Superior Well Services, Inc, "Marcellus Shale Post-Frac Flowback Waters - Where is All the Salt Coming from and What Are the Implications?," SPE Eastern Regional Meeting, 23-25 September 2009, Charleston, West Virginia, USA.
- ^{lvi} *The New York Times*, "Drilling Down – Documents: Natural Gas's Toxic Waste." February 26, 2011.
- ^{lvii} Ian Urbina, "Wastewater Recycling No Cure-All in Gas Process," *The New York Times*, March 1, 2011.
- ^{lviii} David B. Caruso, "Despite Overhaul, Gas Wastewater Still A Problem," *The Associated Press*, March 12, 2011.
- ^{lix} Ian Urbina, "Chemicals were injected into wells, report says," *The New York Times*, April 16, 2011.
- ^{lx} Hazen and Sawyer, "Final Impact Assessment Report: Impact Assessment of Natural Gas Production in the New York City Water Supply Watershed", Prepared for the New York City Department of Environmental Protection, December 2009, page 36.
- ^{lxi} Dusty Horwitt, Senior Analyst, Environmental Working Group and Theo Colborn, President, The Endocrine Disruption Exchange, letter to David Patterson, Governor of New York and Michael Bloomberg, Mayor of New York City, August 11, 2008, available at: <http://www.awwa.org/files/Publications/WaterWeek/1219434939844.pdf>.
- ^{lxii} Abraham Lustgarten. "In New Wells, More Drilling Chemicals Remain Underground." *ProPublica*, December 27, 2009.
- ^{lxiii} Kara Cusolito. "America's Next Drilling Disaster?" *The Nation*, June 9, 2010.
- ^{lxiv} *Ibid*
- ^{lxv} United States House of Representatives Committee on Energy and Commerce. "Chemicals Used in Hydraulic Fracturing." April 2011.
- ^{lxvi} Ben German, "Study: Gas from 'fracking' worse than coal on climate," *The Hill*, April 10, 2011.
- ^{lxvii} Wendy Koch, Wyoming's smog exceeds Los Angeles' due to gas drilling *USA Today*, March 9, 2011.
- ^{lxviii} Elizabeth Smith, "Atmosphere of concern: Residents of Dish feel change in air," *The Denton Record-Chronicle*, March 28, 2011
- ^{lxix} "Fueling North America's Energy Future: The Unconventional Natural Gas Revolution and the Carbon Agenda," HIS Cambridge Energy Research Associates, 2010, ES-1.
- ^{lxx} "Energy and Economic Benefits," Energy In Depth Fact Sheet, Available at: <http://www.energyindepth.org/in-depth/frac-in-depth/energy-and-economic-benefits/>, Accessed: March 15, 2010.
- ^{lxxi} Juliet Eilperin, "EPA to Study Natural-Gas Drilling's effect on Water," *Washington Post*, March 19, 2010, available at: <http://www.washingtonpost.com/wp-dyn/content/article/2010/03/18/AR2010031805091.html>.
- ^{lxxii} Environmental Protection Agency, Notification of a Public Meeting of the Scientific Advisory Board, Federal Register: March 18, 2010 (Volume 75, Number 52), available at: <http://edocket.access.gpo.gov/2010/2010-5956.htm>.
- ^{lxxiii} Abraham Lustgarten, "Democrats Call for Studies as Industry Assails Proposals to Regulate Hydraulic Fracturing," *ProPublica*, July 13, 2009; "Editorial--The Halliburton Loophole," *The New York Times*, November 3, 2010.
- ^{lxxiv} Tom Fowler, "EPA administrator defends hydraulic fracturing study," *News Watch Energy Blog*, *Houston Chronicle*, April 28, 2010.
- ^{lxxv} *Ibid*
- ^{lxxvi} Letter from Weston Wilson to Senators Allard and Campbell and Representative DeGette (8 October 2004), available at: <http://latimes.image2.trb.com/lanews/media/acrobat/2004-10/14647025.pdf>.
- ^{lxxvii} Abraham Lustgarten, "Drilling process causes water supply alarm," *Denver Post*, November 11, 2008.
- ^{lxxviii} Ground water protection Council, "Sate Oil And Natural Gas Regulations Designed To Protect Water Resources," May 2009. <http://www.gwpc.org/elibary/documents/general/State%20Oil%20and%20Gas%20Regulations%20Designed%20to%20Protect%20Water%20Resources.pdf>.
- ^{lxxix} <http://www.cabotog.com/pdfs/HFOAclean3.pdf>.
- ^{lxxx} "Talisman...has created a global standard for Contractor HSE Management. The Global Contractor HSE [Health, Safety, and Environment] Standard will provide a benchmark for Talisman to select and manage business partners and exercise greater control in managing HSSE/OI risks." See: http://cr.talisman-energy.com/upload/pdf_2009/10/03/tlm_cr09-process-safety-and-operational-integrity.pdf, http://www.talismanusa.com/how_we_operate/groundwater-protection.html, http://www.talismanusa.com/how_we_operate/notices-of-violation/.
- ^{lxxxi} http://www.chiefog.com/marcellus_shale_best_practices.html.
- ^{lxxxii} Fracfocus Chemical Disclosure Registry, <http://fracfocus.org/>.