Group Members: Tyler O’Keefe, Joyce He, Samantha Weisman, Evan Deangelis

Committee Name (from Supplemental Packet):Energy and Natural Resources

**Part 1: Research**

Before a committee of Congress persons presents their bill to the House of Representatives and Senate, they must be well informed about their topic. This requires research. The format attached will allow you to gather your information and present it in an orderly manner.

* Each congressperson is responsible for completing this research packet. There are 8 pages, make sure you complete the ENTIRE packet.
* You must cite all your work!
* At the end you will attach a formal bibliography.
* See individual rubrics for grade point requirements**.**
* This packet should be used as a rough draft of your work and your final product must be submitted in a typed format

**Part I:** **Topic Overview**  AS A GROUP

1. Name and explain your topic

Our group’s topic is hydraulic fracturing, more commonly referred to as *fracking* or *hydro-fracking* for short. Its is a recently introduced, advanced drilling technique that pumps water, sand and chemicals underground at a high pressure in order to access deposits of natural/methane gas or oil located in deep, shale rock formations.

1. Why does this topic interest you?

Fracking is highly intriguing and fascinating to us because it is not as common or well-known in the news as other global environment-related issues such as global warming (to us at least). We were curious about how its worked and the human and environmental factors involved with it since we heard and read many of negative comments concerning its pollution and harmful effects to animals mentioned by environmentalists and political figures in the news. However, we do know that it contributes to the drilling industry and the economy.

1. What do you think are the current controversies surrounding your topic?

The current controversies surrounding fracking include concerns about the numerous pollution hazards associated with the poisonous air and waste water discharged from fracking which could become drinking water for millions of people and harm endangered species. During the process of fracking, tons of carbon and chemicals are released into the atmosphere as well. The use of fresh water for fracking also conflicts with conservation efforts and sustainable resource use. Energy firms and governments have protested that fracking promotes a heavy reliance on fossil fuels instead of encouraging investment in renewable sources of energy. Declining oil prices are also the result of the fruitful amounts of gas produced by fracking.

**Part II: Preliminary Research** AS A GROUP

*You must use the Media Center Model Congress Pathfinder to look for research based on your topic. Use sources such as Ebsco Host Points of View, Issues and Controversies, Gail: Opposing View Points to help start your research*

1. What is the history/origin of your topic?

Commercial fracking got its start during the 1940s as a method to improve well production and extend a well’s life but other it can be traced back to the late 1860s. Before fracking was introduced, coal and oil were the main source of energy. But ever since it was possible to retrieve natural gas, ⅕ of America’s energy became derived from natural gas since 2011. Fracking is most popular in areas near bodies of water such as the coast of the Gulf of Mexico in the United States. It takes place everywhere across the U.S. but it mostly takes place in Michigan, Pennsylvania, West Virgina, New York, and Ohio.

2. What are the issues/problems regarding your topic?

Such issues regarding fracking include: water contamination (requires the use of millions of gallons of fresh water), air pollution, animal/ habitat destruction, contribution to seismic activity, and other various health hazards.

**Part III: Narrow your Focus**

1. As a group, which specific issue/problem will you focus on?

As a group, we will be focusing on the toxic and hazardous water discharged from fracking and the hazards associated with this water pollution.

1. Create a Preamble for that issue/problem (Write the solution to the problem.)

The government should design “protected zones” near residences and wildlife populations where fracking will be prohibited.

**Part IV: Supportive Evidence** EVERY GROUP MEMBER MUST CONTRIBUTE 2 MINIMUM

*Types of evidence could include the following: ~Courts Cases, ~Previous, existing, and/or pending Legislation, ~Statistics #’s (studies, polls/surveys, and research results), ~current events, ~Constitutional Connection (Preamble, 5 Basic Principles, and Amendments)*

1. *Research your case.*
2. *Each time you find a statistic or a relevant piece of information, add it to the chart and categorize it.*
3. *To find legislation, use Thomas.gov*
4. *To find current events, use EBSCOhost or Google News search.*
5. *To find court cases, use Oyez.org*

Color Codes: Tyler, Joyce, Samantha, Evan

**Requirement: You MUST include several Statistics and Constitutional Connection (amendments)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of Evidence** | **Supportive Information-Facts** | **Significance-Relevant to your topic** | **Citation** *(use EasyBib--add source as you go)* |
| Current news  article | In the article, a group of fracking activists in Washington D.C. storm a “climate and clean energy” event protesting for fracking to be completely banned and chanting phrases such as,“climate leaders don’t frack” since they believe fracking is polluting their town and environment | Our bill wants fracking to be stopped in resident’s areas and in wild life homes and the article wants it to be stopped in those places too | Follett, Andrew. "Green Civil War: Environmentalists Fight Each Other Over Fracking [VIDEO]." *The Daily Caller*. Http://dailycaller.com/, 20 Feb. 2016. Web. 23 Feb. 2016. |
| Statistics | Only 30-50% of the fracturing fluid is recovered, the rest of the toxic fluid is left in the ground and is not biodegradable. | This shows the danger produced by fracking and how much can be left oover and to show that it should be stopped | Dong, Linda. "What Goes In & Out of Hydraulic Fracking." *Dangers of Fracking*. Linda Dong, n.d. Web. 23 Feb. 2016. <http://www.dangersoffracking.com/>. |
| Legislation | Fracking is a significant violation of the clean water act. The clean water act (CWA) is a federal law that establishes the basis for regulating discharges of pollutants into the waters of the United States and sets the standards for the quality of surface waters. | This is relevant to our topic because fracking pollutes water. This act is saying that we need to keep our water clean. | CRS. "H.R.1175 - 114th Congress (2015-2016): Clean Energy Technology Manufacturing and Export Assistance Act of 2015." *H.R.1175*.  Https://www.congress.gov/, 27 Feb. 2015. Web. 23 Feb. 2016. |
| News Article | Two years ago, a Texas-based oil and gas company was caught fracking which was previously unknown to residents and local governments because well stimulation was not regulated nor did it require a separate permit. The discovery has worried environmentalists and officials about the chemicals and acids contaminating Florida’s soil. | This is relevant to our topic because it adds another reason why fracking is unsafe and harmful to society. | Alvarez, Lizette. "Unlikely Battle Over Fracking Intensifies in Florida." *The New York Times*. The New York Times, 23 Feb. 2016. Web. 24 Feb. 2016. |
| court case | New York’s Court of Appeals will hear appeals by Norse Energy Company against the Town of Dryden and Cooperstown Holstein Corp. against the Town of Middlefield. Zoning laws were under threat of violation by oil and gas companies who are trying to get drilling and fracking rights for the protected land. (Occurred in 2013) | This shows that whole communities  are trying to stop fracking. Showing how important this is to the public which our bill will permit this. | O'Connor, Timothy. "Fracking Cases to Top Court." *WSJ*. Wall Street Journal, 30 Aug. 2013. Web. 23 Feb. 2016. |
| Statistic | fracking is the 4th most aquatically wasteful oil  production method. Others use it mostly for irrigation of pollution and not oil recovery. | This shows how much water is  wasted by frackers, also putting a strain on water supplies. | "Fracking Saves Water?" *Fracking Saves Water?* Manhattan Institute, 4 Aug. 2014. Web. 25 Feb. 2016. |
| Statistic | There are over 1,000documented cases of water contamination next to areas of gas drilling as well as cases of sensory, respiratory, and neurological damage due to ingested contaminated water. | Fracking is dangerous to the health of humans *and* wildlife living near wells. | Dong, Linda. "What Goes In & Out of Hydraulic Fracking." *Dangers of Fracking*.Linda Dong, n.d. Web. 23 Feb. 2016. <http://www.dangersoffracking.com/>. |
| Statistic | Roughly 1.2-5 million gallons of water and nearly 330 tons of chemicals used per fracture, and 400 tanker trucks required to move water and supplies and 40,000 gallons of chemicals used which includes carcinogens and toxins  *72 trillion gallons of water and 360 gallons of chemicals needed to maintain 500,000 active gas wells in the U.S* | Fracking involves wasting huge amounts of fresh water, diesel fuel and chemicals which pollutes the environment and harms health. These colossal amounts of water could be used by thousands of people instead. | Dong, Linda. "What Goes In & Out of Hydraulic Fracking." *Dangers of Fracking*. Linda Dong, n.d. Web. 23 Feb. 2016. <http://www.dangersoffracking.com/>. |
| Statistic | During a year-long study of farm animals conducted by Cornell researchers, one case reported an accidental release of fracking fluids into a pasture adjacent to a drilling operation which killed 17 cows within an hour. Exposure to fracking fluids seeping into pastures or into streams or wells also reportedly caused pregnant cows to produce stillborn calves and create an exhibition of reproductive problems in goats. | This study confirms the the vulnerability of animals to fracking dangers and the hazards fracking bears towards animals. | "How Fracking Hurts Animals." *EcoWatch*. EcoWatch, 30 Jan. 2014. Web. 29 Feb. 2016. <http://ecowatch.com/2014/01/30/5-ways-fracking-hurts-animals/>. |
| Constitutional Connection | The General Welfare clause in the Constitution implies that the government is allowed and responsible for promoting the well-being and health of citizens. | Fracking produces tons of harmful chemicals which pollute the air and drinking water of citizens which does not encourage well-being and this means it is violating the General Welfare clause. | Social Studies Textbook |

**Part V: Opposing Evidence** EVERY GROUP MEMBER MUST CONTRIBUTE 2 MINIMUM

1. *Research your case.*
2. *Each time you find a statistic or a relevant piece of information, add it to the chart and categorize it.*
3. *To find legislation, use Thomas.gov*
4. *To find current events, use EBSCOhost or Google News search.*
5. *To find court cases, use Oyez.org*

**Requirement: You MUST include several Statistics and Constitutional Connection (amendments)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of Evidence** | **Supportive Information-Facts** | **Significance-Relevant to your topic** | **Citation** *(use EasyBib--add source as you go)* |
| Article | The United States is now the world's largest oil and natural gas liquids exporter and would remain so for a while, overtaking both Saudi Arabia and Russia. | This shows that fracking is helping the U.S. to get oil and to get resources and it makes us #1 in the producing natural gas which generates lots of money and benefits the economy | Africa New Service. "U.S. Overtakes Russia As World's Largest Producer of Crude Oil." *Opposing Viewpoints*. Ic.galegroup.com/, 22 Dec. 2015. Web. 24 Feb. 2016. |
| Statistics | U.S. production of crude oil, along with liquids separated from natural gas, surpassed all other countries with daily output exceeding 11 million barrels during the first 5 months of 2015. | This show that Fracking is helping the U.S. get more natural gas and other resources during a short amount of time. This also shows that it is useful to help us get natural gas and other resources. | Africa New Service. "U.S. Overtakes Russia As World's Largest Producer of Crude Oil." *Opposing Viewpoints*. Ic.galegroup.com/, 22 Dec. 2015. Web. 24 Feb. 2016. |
| Current event/past bill | This bill gives states the ability to make their own boundaries where fracking can be. | This is relevant to our topic because it is allowing citizens to make any rules about fracking. Our bill wants the government to make the fracking boundaries and not the citizens. | CRS. "S.828 - 114th Congress (2015-2016): Fracturing Regulations Are Effective in State Hands Act." *S.828*. Congress.gov, 19 Mar. 2015. Web. 25 Feb. 2016. |
| Constitutional Connection | You have the right to  own and use property to your satisfaction. | This corresponds with our bill because it is saying that individuals and companies can allow fracking on their land. But our bill is about how fracking should be prohibited. | 14th Amendment |
| Statistic | In Obama’ State of the Union Address of 2012, he said, “We have a supply of natural gas that can last America nearly 100 years, and my administration will take every possible action to safely develop this energy,” which meant he intended to use fracking to its highest potential. Also, First Solar, America’s largest solar company, reported its disappointing second quarter numbers which supporters and analysts called a “downright disaster” | this shows how much fracking will help the country pay off our horrible debt and its potential. It also shows the unpredictability of sustainable energy | Hicks, Brian. "Obama Gives Fracturing the Green Light." *Obama Gives Fracturing the Green Light*. Wealth Daily, 1 Mar. 2012. Web. 25 Feb. 2016. |
| News article | Florida’s House of Representatives voted for fracking and Florida’s citizens are very upset. | This news article relates to our topic because we want there to be less fracking and boundaries for fracking. But Florida’s House of Representatives voted for fracking. | Bradshaw, Kate. "Hillsborough Commission Unanimously Passes Resolution Opposing Parts of State Pro-fracking Bills." *Creative Loafing Tampa*. Creative Loafing, 3 Feb. 2016. Web. 25 Feb. 2016. |
| Statistic | Between 2007 and 2013, consumer gas bills dropped by $13 billion due to increased fracking. Other energy consumers including industrial and commercial saw economic gains totaling $74 billions per year. | This data shows that increased fracking yields higher profits and cheaper gas prices, beneficial to families and companies. | Dews, Fred. "The Economic Benefits of Fracking." *The Brookings Institution*. The Brookings Institution, 23 Mar. 2015. Web. 25 Feb. 2016. <http://www.brookings.edu/blogs/brookings-now/posts/2015/03/economic-benefits-of-fracking>. |
| Court Case | The Colorado Oil and Gas Association filed a lawsuit challenging the ban imposed by Fort Collin and voters in Longmont in 2013, arguing that the ban violated case laws and regulations which only allow states to regulate drilling, not completely ban fracking.The lower courts then overturned the ban however the case was appealed to the Colorado Court of Appeals. | This case supports that the regulation of fracking is under control of whichever companies are responsible for Fracking, therefore the state nor government should be involved with setting limits on it. | Steffen, Jordan. "Colorado Supreme Court Will Hear Cases on Fracking Bans." *- The Denver Post*. Digital First Media, 21 Sept. 2015. Web. 25 Feb. 2016. <http://www.denverpost.com/news/ci\_28851657/colorado-supreme-court-will-hear-cases-fracking-bans>. |

**Part VI: Supportive Arguments**—***Cite your sources***

What are the three main reasons/arguments that support your topic AND choose the best evidence to support those reasons/arguments?

1. **Main Argument**:Water and Air Pollution

Evidence:

* The waste fluid is left in open air pits to evaporate, releasing harmful VOC’s (volatile organic compounds) into the atmosphere, creating contaminated air, acid rain, and ground level ozone.
* During this process, methane gas and toxic chemicals leak out from the system and contaminate nearby groundwater.
* Approximately 40,000 gallons of chemicals are used per fracturing.Only 30-50% of the fracturing fluid is recovered, the rest of the toxic fluid is left in the ground and is not biodegradable.

Dong, Linda. "What Goes In & Out of Hydraulic Fracking." *Dangers of Fracking*. Dangers of Fracking, n.d. Web. 26 Feb. 2016.

1. **Main Argument**: Waste of Energy and Resources

Evidence:

* Each fracture uses tons of chemicals and 1.2-5 millions gallons of freshwater as well as 40,000 gallons of harmful chemicals and requires 400 tanker trucks to move water and supplies
* *As a result, 72 trillion gallons of water and 360 gallons of chemicals are needed to maintain the 500,000 active gas wells in the U.S*
  + *Therefore, fracking wastes colossal amounts of water, chemicals and diesel fuel*
* Fracking is the 4th most aquatically wasteful oil production method which contradicts its purpose of expanding a well’s life
* The 70 - 140 billion gallons of waters used to maintain 35 wells could provide water for 40 to 80 cities with a population of 50,000

"Library." *HSI-STEM 2015 Summer Institute - Geology - Fracking Resources*. Napa Valley College, n.d. Web. 01 Mar. 2016. <http://www.napavalley.edu/Library/Pages/HSI-STEM-2015-Summer-Institute---Fracking-Resources.aspx>.

Dong, Linda. "What Goes In & Out of Hydraulic Fracking." *Dangers of Fracking*. Linda Dong, n.d. Web. 23 Feb. 2016. <http://www.dangersoffracking.com/>.

"Fracking Saves Water?" *Fracking Saves Water?* Manhattan Institute, 4 Aug. 2014. Web. 25 Feb. 2016.

1. **Main Argument**: Dangerous to Humans and Animals

* There have been more than 1,000 documented cases of water contamination next to areas of gas drilling as well as cases of sensory, respiratory, and neurological damage due to ingested contaminated water.
* Only 30-50% of the fracturing fluid is recovered, the rest of the toxic fluid is left in the ground and is not biodegradable.
* The toxic fluid that is left can harm us and the animals around us
* During a year-long study of farm animals conducted by Cornell researchers, one case reported an accidental release of fracking fluids into a pasture adjacent to a drilling operation which killed 17 cows within an hour. Exposure to fracking fluids seeping into pastures or into streams or wells also reportedly caused pregnant cows to produce stillborn calves and create an exhibition of reproductive problems in goats.

"How Fracking Hurts Animals." *EcoWatch*. EcoWatch, 30 Jan. 2014. Web. 29 Feb. 2016. <http://ecowatch.com/2014/01/30/5-ways-fracking-hurts-animals/>.

Dong, Linda. "What Goes In & Out of Hydraulic Fracking." *Dangers of Fracking*.Linda Dong, n.d. Web. 23 Feb. 2016. <http://www.dangersoffracking.com/>.

**Part VII: Opposing**—***Cite your sources***

What are the three main reasons/arguments opposing your topic AND choose the best evidence to support those reasons/arguments?

1. **Main Argument: Creates jobs and increases national funds**

Evidence:Hicks, Brian. "Obama Gives Fracturing the Green Light." *Obama Gives Fracturing the Green Light*. Wealth Daily, 1 Mar. 2012. Web. 25 Feb. 2016.

* It creates jobs and increases the funds for the country. For instance, America is the leading producer of crude oil.
* U.S. production of crude oil, along with liquids separated from natural gas, surpassed all other countries with daily output exceeding 11 million barrels during the first 5 months of 2015.
* Between 2007 and 2013, consumer gas bills dropped by $13 billion due to increased fracking. Other energy consumers including industrial and commercial saw economic gains totaling $74 billions per year.
* Also, it is common sense that the addition of work adds new jobs.
* Lastly,the new jobs are vital to pay off national debt which is self evidently important.

Hicks, Brian. "Obama Gives Fracturing the Green Light." *Obama Gives Fracturing the Green Light*. Wealth Daily, 1 Mar. 2012. Web. 25 Feb. 2016.

Africa New Service. "U.S. Overtakes Russia As World's Largest Producer of Crude Oil." *Opposing Viewpoints*. Ic.galegroup.com/, 22 Dec. 2015. Web. 24 Feb. 2016.

Dews, Fred. "The Economic Benefits of Fracking." *The Brookings Institution*. The Brookings Institution, 23 Mar. 2015. Web. 25 Feb. 2016. <http://www.brookings.edu/blogs/brookings-now/posts/2015/03/economic-benefits-of-fracking>.

1. **Main Argument**: The Government Does Not Have The Right to Ban Fracking

Evidence:

* *Court Case:* The Colorado Oil and Gas Association filed a lawsuit challenging the ban of fracking imposed by Fort Collin and voters in Longmont in 2013, arguing that the ban violated case laws and regulations which only allow states to regulate drilling, not completely ban fracking.The lower courts then overturned the ban, however the case was appealed to the Colorado Court of Appeals
* The 14th Amendment allows people to own and use their property to his or her satisfaction.
* The bill S.828 gives states the ability to make their own boundaries regulate where fracking can be

Steffen, Jordan. "Colorado Supreme Court Will Hear Cases on Fracking Bans." *- The Denver Post*. Digital First Media, 21 Sept. 2015. Web. 25 Feb. 2016. <<http://www.denverpost.com/news/ci_28851657/colorado-supreme-court-will-hear-cases-fracking-bans>>

CRS. "S.828 - 114th Congress (2015-2016): Fracturing Regulations Are Effective in State Hands Act." *S.828*. Congress.gov, 19 Mar. 2015. Web. 25 Feb. 2016.

**Optional: Part VIII: Government Spending**

“To create a new program, the government normally gets the money either by cutting funds to an existing program OR by raising taxes.” The budget has two large spending categories, **mandatory** and **discretionary**. Mandatory spending is required by law on specific programs. After those programs are paid for, the president and Congress may use the remaining money for discretionary spending on programs they choose. Each year, roughly 30 percent of the federal budget is in discretionary spending. (Note-taking format done with your group)

Fill in the following sentence.

**A.** **Indicate whether your Bill’s spending be discretionary or mandatory? *Hint: EVERYONE should be DISCRETIONARY.***

Our Bill’s spending will be discretionary.

**B: Complete the following sentence using information from the Executive Agency chart and the Federal Budget chart.**

*The executive department/agency that will receive funding for our bill is the Department of Energy and the EPA. We will need around $900,000 from the budget to implement our bill. The money will be used to ensure that companies and individuals obey the fracking regulations and aid in dismantling offending fracking machinery as well as monitor pollution levels in the atmosphere and water.*

**Don’t forget your final Bibliography:** You must cite each section you complete. Attach your formal bibliography to the end of your typed final research. You must have at least five different sources

"Fracking." *Opposing Viewpoints Online Collection*. Detroit: Gale, 2015. *Opposing Viewpoints in Context*. Web. 29 Feb. 2016

"H.R.1175 - 114th Congress (2015-2016): Clean Energy Technology Manufacturing and Export Assistance Act of 2015." *H.R.1175*. Congress.gov, 27 Feb. 2015. Web. 29 Feb. 2016.

Follet, Andrew. "Green Civil War: Environmentalists Fight Each Other Over Fracking [VIDEO]." *The Daily Caller*. The Daily Caller, 20 Feb. 2016. Web. 29 Feb. 2016.

"The Economic Benefits of Fracking." *The Brookings Institution*. New Digital Products, 23 Mar. 2015. Web. 29 Feb. 2016.

"Fracking Across the United States." *Earthjustice*. EARTHJUSTICE, 12 Apr. 2011. Web. 02 Mar. 2016.

Alvarez, Lizette. "Unlikely Battle Over Fracking Intensifies in Florida." *The New York Times*. The New York Times, 23 Feb. 2016. Web. 24 Feb. 2016.

O'Connor, Timothy. "Fracking Cases to Top Court." *WSJ*. Wall Street Journal, 30 Aug. 2013. Web. 23 Feb. 2016.

"Fracking Saves Water?" *Fracking Saves Water?* Manhattan Institute, 4 Aug. 2014. Web. 25 Feb. 2016.

Hicks, Brian. "Obama Gives Fracturing the Green Light." *Obama Gives Fracturing the Green Light*. Wealth Daily, 1 Mar. 2012. Web. 25 Feb. 2016.

"How Fracking Hurts Animals." *EcoWatch*. EcoWatch, 30 Jan. 2014. Web. 29 Feb. 2016. <http://ecowatch.com/2014/01/30/5-ways-fracking-hurts-animals/>.

Social Studies Textbook

Dews, Fred. "The Economic Benefits of Fracking." *The Brookings Institution*. The Brookings Institution, 23 Mar. 2015. Web. 25 Feb. 2016. <http://www.brookings.edu/blogs/brookings-now/posts/2015/03/economic-benefits-of-fracking>.

Steffen, Jordan. "Colorado Supreme Court Will Hear Cases on Fracking Bans." *- The Denver Post*. Digital First Media, 21 Sept. 2015. Web. 25 Feb. 2016. <http://www.denverpost.com/news/ci\_28851657/colorado-supreme-court-will-hear-cases-fracking-bans>.

Dong, Linda. "What Goes In & Out of Hydraulic Fracking." *Dangers of Fracking*. Linda Dong, n.d. Web. 23 Feb. 2016. <<http://www.dangersoffracking.com/>>.

"Introduction - What Is Hydraulic Fracturing? | What Is Fracking." *What Is Fracking*. EnergyFromShale.org, n.d. Web. 01 Mar. 2016.

"U.S. Overtakes Russia As World's Largest Producer of Crude Oil." *Africa News Service* 22 Dec. 2015.*Opposing Viewpoints in Context*. Web. 1 Mar. 2016.

Africa New Service. "U.S. Overtakes Russia As World's Largest Producer of Crude Oil." *Opposing Viewpoints*. Ic.galegroup.com/, 22 Dec. 2015. Web. 24 Feb. 2016.

CRS. "S.828 - 114th Congress (2015-2016): Fracturing Regulations Are Effective in State Hands Act." *S.828*. Congress.gov, 19 Mar. 2015. Web. 25 Feb. 2016.

Bradshaw, Kate. "Hillsborough Commission Unanimously Passes Resolution Opposing Parts of State Pro-fracking Bills." *Creative Loafing Tampa*. Creative Loafing, 3 Feb. 2016. Web. 25 Feb. 2016.

Constitution