INTRODUCTION TO THE GWPC AND FRACFOCUS

A Presentation for the National Conference of State Legislatures
Mike Nickolaus, Ground Water Protection Council

12/19/ 2012
What is the Ground Water Protection Council?
What are our areas of interest?

• Water/ Energy
• Water Quality
• Water Use & Sustainability
• Inter-organization coordination (NGWA, ASDWA, SWC, State Tribal Climate Change, ACWA, IOGCC)
• Federal initiatives
• State participation in workgroups (NTW, NDWAC)
Our current projects/ work?

• Water/ Energy
  – Hydraulic Fracturing
  – Water impacts from oil & gas activity
  – Underground Injection Control
  – Induced Seismicity
  – Stray Gas
Our current projects/ work?

- Water Quality
  - Source Water Collaborative
  - Stormwater management
    - 319 CWA program
  - Nutrients
  - Water Quality Workgroups (ACWI)
    - Subcommittee on Groundwater
    - Monitoring efficiencies workgroup
    - Climate adaptation workgroup
Our current projects/ work?

- Water Use & Sustainability
  - Aquifer Storage & Recovery (NGWA Task Force)
  - Deep Groundwater
  - Water Usage for Energy Development
  - Alternate Sources of Drinking Water
  - Water Reuse
Our current projects/ work?

- Risk Based Data Management System (RBDMS)
  - Used by 23 states to manage UIC and Oil & Gas Data
  - RBDMS Water tracks water quality and quantity
  - Working on a proposal for an RBDMS module for the Class VI geosequestration program
Our current projects/ work?

A system for providing hydraulic fracturing chemical transparency for the public
Transparency Involves

- Creating a place where people can get accurate, factual information
- Making the information relevant to them
- Making it easy to find information and chemical disclosure records
- Making the site responsive to questions, comments and suggestions
FracFocus Facilitates Public Transparency

• **What is FracFocus?**
  – The ONLY national source for hydraulic fracturing chemical information authorized by state government agencies

• **What do we do?**
  – FracFocus provides transparency through a national Web site that discloses hydraulic fracturing chemical data and information.
History of FracFocus

• Joint-partnership formed in 2010
  – Ground Water Protection Council and Interstate Oil & Gas Compact Commission, both state organizations
  – Organizations’ missions revolve around responsible resource management and environmental protection

• Site launched April 2011
How Does FracFocus Work?

WWW.FRACFOCUS.ORG
Hydraulic Fracturing: How It Works

History of Hydraulic Fracturing

Hydraulic Fracturing: The Process

Site Setup

Fracturing Fluid Management

Looking for information about a well site near you?

FIND A WELL

Hydraulic Fracturing

Hydraulic Fracturing: Mixture of water, sand and chemicals pressurized and pumped into the well to form microscopic fractures in shale.

Hydraulic fracturing is not new. The first commercial application of hydraulic fracturing as a well treatment technology was to stimulate the production of oil or gas.
FracFocus Sections

• Hydraulic Fracturing: How it Works
• Groundwater Protection
• Regulations by State
• Chemical Use
• Frequent Questions
• Find a Well by State

These sections describe the fracturing process, the methods used to protect groundwater, why chemicals are used and which chemicals are used. To find information about the state regulatory agencies and their regulations. We also provide answers to frequently asked questions and provide a means for the public to pose questions about hydraulic fracturing. The site also allows a person to see the hydraulic fracturing records of individual wells.
How to Find a Well

Find a Well

SEARCH OPTIONS

STATE: Colorado
COUNTY: Choose a County
WELLS IN COUNTY: Choose a Well Name
OPERATOR: Anadarko Petroleum Corporation
API WELL NUMBER: __-__-______
WELL NAME: 

SEARCH  RESET  
(Note: One search option is required to do a search.)

LATEST WELLS

API Number: 3002536629
Well Name: Pithblende 27 Fed #1H
Operator: EOG Resources, Inc.

API Number: 4304750176
Well Name: NELI 521-175
Operator: Anadarko Petroleum Corporation

API Number: 3001532291
Well Name: Elk Wallow 11 State #4H
Operator: EOG Resources, Inc.

API Number: 4304751248

All FracFocus well site information is voluntarily provided by participating oil and natural gas operators. Wells hydraulically fractured after January 1, 2011 will be added to the database over time. See the full list of participating production companies.
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<th>County</th>
<th>Operator</th>
<th>WellName</th>
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### Hydraulic Fracturing Fluid Composition:

Note: This mockup does not represent the requirements of any particular state regulation.

<table>
<thead>
<tr>
<th>Trade Name (Additive)</th>
<th>Supplier</th>
<th>Purpose</th>
<th>Ingredients</th>
<th>Chemical Abstract Service Number (CAS #)</th>
<th>Maximum Ingredient Concentration in Additive (% by mass)**</th>
<th>Maximum Ingredient Concentration in HF Fluid (% by mass)**</th>
<th>Comments</th>
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<tr>
<td>Acid 1,2,3</td>
<td>Acme</td>
<td>pH Adjuster</td>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
<td>60.00%</td>
<td>0.06840%</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Acetic acid</td>
<td>64-19-7</td>
<td>35.00%</td>
<td>0.30160%</td>
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<tr>
<td>FEAC-20</td>
<td>Acme</td>
<td>Iron control</td>
<td>Citric acid</td>
<td>77-92-9</td>
<td>35.00%</td>
<td>0.00100%</td>
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<tr>
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<td>Corrosion inhibitor</td>
<td>Propargyl alcohol</td>
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<td>0.00020%</td>
<td>Acme***</td>
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<tr>
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<td>Friction reducer</td>
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<td>Scale inhibitor</td>
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<td>Biocide</td>
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<td>0.02000%</td>
<td>Extrachem***</td>
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</table>

Ingredients shown above are subject to 29 CFR 1910.1200(a) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS

- Base fluid
- Produced water
- Sand
- Hemicellulose enzyme concentrate
- Mineral oil
- Surfactant

**Information is based on the maximum potential for concentration and thus the total may be over 100%
***Name of company or individual that requested proprietary status under a state or federal law
N/A means Not applicable
Proprietary means a chemical that is non-disclosable under a state of federal law protecting confidential business information or trade secrets.

Ingredient information for chemicals subject to 29 CFR 1910.1200(a) and Appendix D are obtained from the suppliers Material Safety Data Sheets (MSDS)
What About Trade Secrets?

• FracFocus reports but does not manage trade secret information: Why?
  • Trade secret laws and regulations vary by state
    • Technical
    • Administrative
    • Legal
Recent FracFocus Updates

- Server vs. client side processing
- New submission format to assist with data validation checks (dates, locations, volumes etc...)
- Expanded search capability
  - Dates
  - Chemical names
  - CAS numbers
- Added user categories
  - Registered agents
  - Service companies
  - State agencies
How Successful is FracFocus?

• Since April 11, 2011 FracFocus has:
  – Obtained participation from 442 companies
  – Had over 34,000 hydraulic fracturing chemical disclosure records entered; and
  – Had more than 350,000 website visits from 134 countries
State Benefits of Using FracFocus

- Provides transparency by answering questions about specific chemicals used in the hydraulic fracturing process
- Allows for reporting consistency by multi-state operators
- Makes compliance with state regulations easier by providing a single portal and system for disclosure
- Avoids development of new state data systems or revision of existing systems
- Can be linked with the multi-state Risk Based Data Management System
- Cuts down on public records requests by making the chemical disclosure information immediately available through the FracFocus website
- Provides a data entry form for states that choose to enter the data themselves
- Saves the state money while improving public access to information!
State Government Participation

- **States currently using FracFocus for regulatory reporting:**
  - Texas, Colorado, Montana, Pennsylvania, North Dakota, Louisiana, Utah, Ohio, Oklahoma, and Mississippi

- **States considering the use of FracFocus:**
  - California, Alaska, Alabama, West Virginia, Idaho, Illinois, Kentucky, New Mexico, Nebraska
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