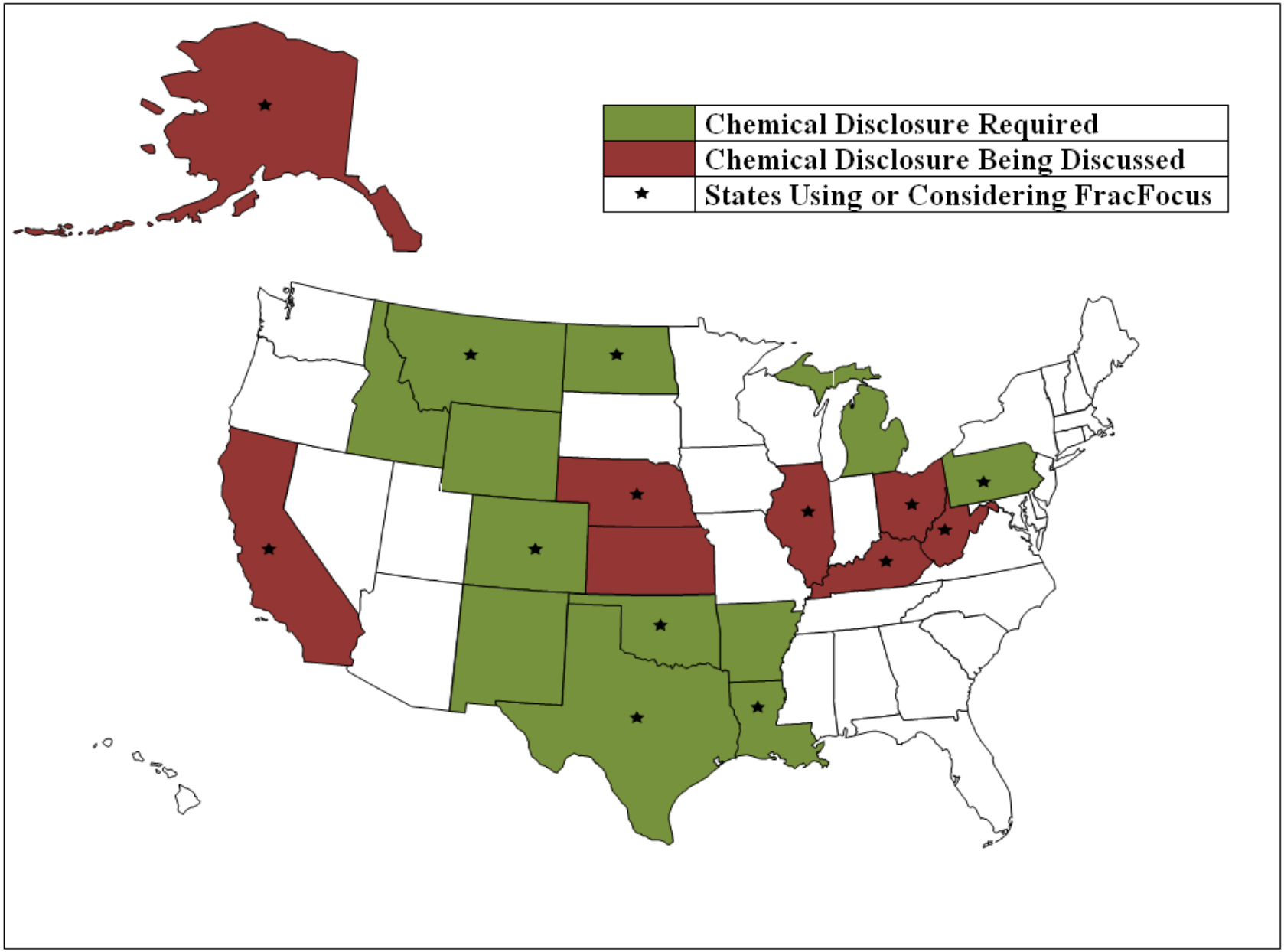
IOGCC Mid-Year Meeting

Vancouver, British Columbia

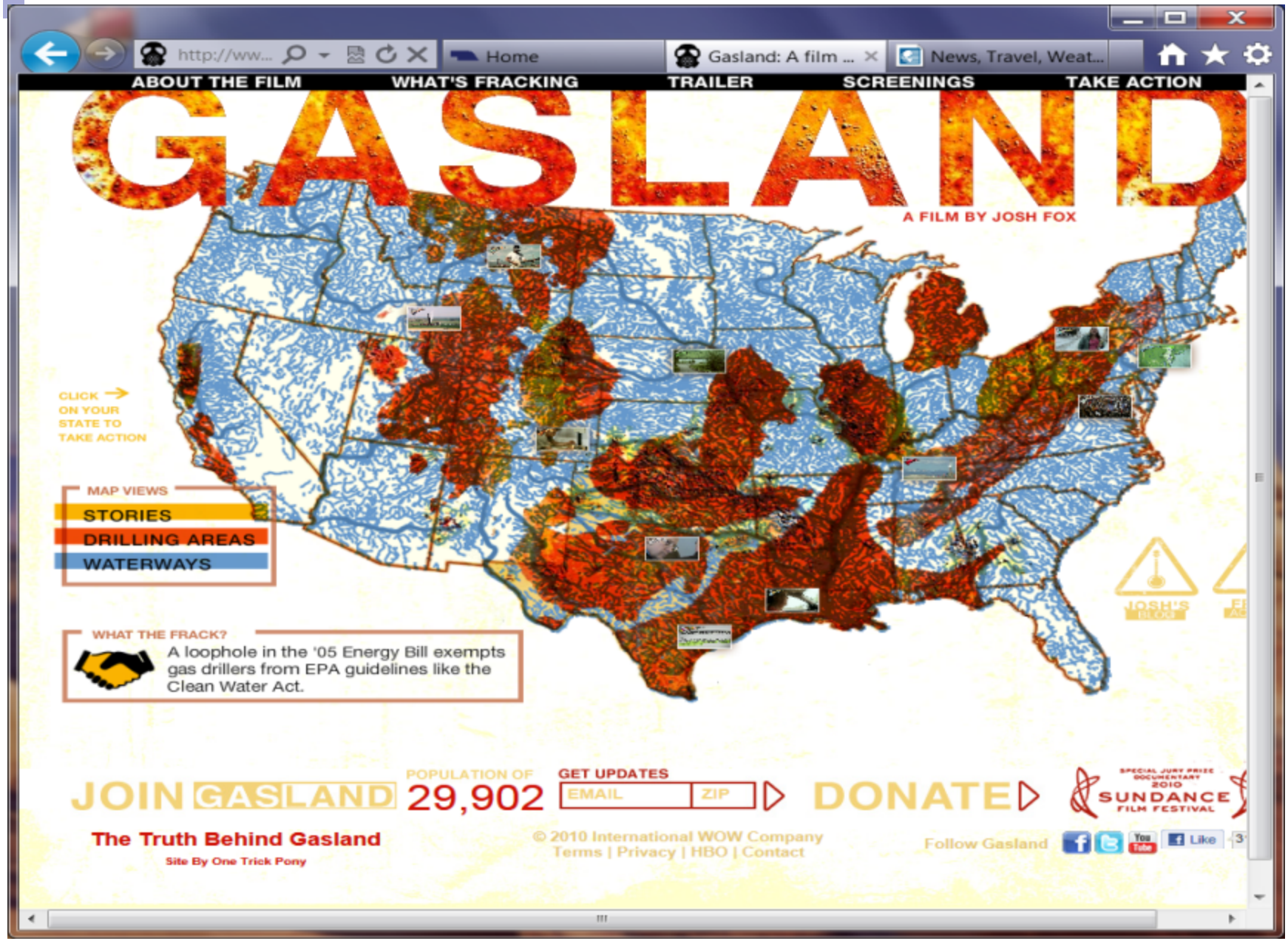
FracFocus
Chemical Disclosure Registry

GROUNDWATER
PROTECTION COUNCIL

IOGCC 75 Anniversary


Chemical Disclosure Required
Chemical Disclosure Being Discussed
States Using or Considering FracFocus

British Columbia


http://ww...
Home
Gasland: A film ...
News, Travel, Weat...
ABOUT THE FILM
WHAT'S FRACKING
TRAILER
SCREENINGS
TAKE ACTION
GASLAND
A FILM BY JOSH FOX
CLICK ON YOUR STATE TO TAKE ACTION
MAP VIEWS
STORIES
DRILLING AREAS
WATERWAYS
WHAT THE FRACK?
A loophole in the '05 Energy Bill exempts gas drillers from EPA guidelines like the Clean Water Act.
JOSH'S BLOG
JOIN GASLAND
POPULATION OF
29,902
GET UPDATES
EMAIL
ZIP
DONATE
SPECIAL JURY PRIZE DOCUMENTARY 2010 SUNDANCE FILM FESTIVAL
The Truth Behind Gasland
Site By One Trick Pony
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BANANA

Build Absolutely Nothing Anywhere Near Anything

NOPE

Nowhere on Planet Earth

WHY IS HYRAULIC FRACING A CONTINUING PROBLEM?

- Exploration in new geographic areas
- Severed Minerals Estates
- Highly Technical Process
- Misinformation from Press
- Incomplete water well testing
- Lack of Information
- Trade Secrets from Service Companies

INSIDE THE DC BELTWAY

Legislatively

The “FracAct” is Dormant

Administratively

DOE, EPA and BLM are very active

EPA

- Regulate HF under the UIC Program
- Issue Guidance for wells using Diesel
- Guidance on Seismic Sensitive Areas
- Review of Potential EPA Jurisdiction Areas
  - SDWA
  - RCRA
  - CWA

Joint Leadership Initiative of the GWPC and IOGCC

GROUNDWATER PROTECTION COUNCIL

IOGCC 75 Anniversary

Home | FracFocus Chemical Disclosure Registry - Windows Internet Explorer

http://fracfocus.org/

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Frac Focus
Chemical Disclosure Registry

HYDRAULIC FRACTURING HOW IT WORKS | GROUNDWATER PROTECTION | CHEMICAL USE | REGULATIONS BY STATE | FIND A WELL BY STATE | FREQUENT QUESTIONS

WELCOME

Welcome to FracFocus, the hydraulic fracturing chemical registry website. This website is a joint project of the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission.

On this site you can search for information about the chemicals used in the hydraulic fracturing of oil and gas wells. You will also find educational materials designed to help you put this information in perspective.

LEARN MORE

Welcome | Hydraulic Fracturing | Casing & Cement | State Regulations | Chemical Use

Looking for information about a *well site near you?*

Search for nearby well sites that have been hydraulically fractured to see what chemicals were used in the process.

FAQs

1 / 3

Q. I know there are wells in my area that have been fractured, but when I search for them I get no results. Why?

A. The most likely reasons are that either the wells were fractured before January 1, 2011 or they have not yet been entered into the system. Only wells fractured after January 1st will be entered into the system and since the uploading of records began only recently it will take some time before a large number of wells is available. Please keep checking back as wells are added on a daily basis.

All FAQs »

Groundwater Protection: Priority Number One

Oil and natural gas producers have stringent requirements for how wells must be completed. The genesis of these requirements is water safety.

Casing is the first line of defense used to protect freshwater aquifers.

11:37 AM
7/5/2011

FracFocus Elements

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

FracFocus Statistics

	2011	2012
Participating companies	46	286
Reporting companies	34	153
Wells reported	1732	18,314
Site visits	43,592	258,531
Unique visitors	32,146	181,364
Countries	103	135+

Wells By Company

Operator Name	Upload Count
Anadarko Petroleum Corporation	1917
Chesapeake Operating, Inc.	1800
XTO Energy/ExxonMobil	1393
EOG Resources, Inc.	964
Pioneer Natural Resources	942
Encana Oil & Gas (USA) Inc.	835
Devon Energy Production Company L. P.	731
Noble Energy, Inc.	727
WPX Energy	604
Southwestern Energy	583
Energen Resources Corporation	566
ConocoPhillips Company	477
Chevron USA Inc.	438
Apache Corporation	396
Occidental Oil and Gas	377
SandRidge Energy	322
Marathon Oil	316
Shell Oil Company affiliate	315
Petrohawk Energy Corporation	247
Range Resources Corporation	219
BP America Production Company	218

Operator Name	Upload Count
El Paso E&P Company	217
Talisman Energy USA Inc.	216
Newfield Exploration	192
EXCO Resources, Inc.	181
Whiting Petroleum	180
Bill Barrett Corp	149
QEP Energy Company	147
Laredo Petroleum, Inc.	137
SM Energy	135
Ultra Resources	135
Hess Corporation	129
Cabot Oil & Gas Corp	116
Continental Resources, Inc	115
Plains Exploration & Production Company	95
Samson	85
COG Operating LLC	83
CONSOL Energy Inc.	83
Omni Oil & Gas, Inc.	82
HighMount Exploration & Production	77
EQT Production	76
PDC Energy	65

Wells By Company

Operator Name	Upload Count
Linn Energy, LLC	62
Carrizo Oil & Gas, Inc.	60
FIML Natural Resources, LLC	59
Chief Oil & Gas	55
Comstock Oil & Gas	51
Seneca Resources Corporation	39
Penn Virginia Oil & Gas Corporation	38
EnerVest, Ltd.	36
Rosetta Resources	35
Fasken Oil and Ranch, Ltd.	31
Henry Resources LLC	30
Swift Energy Operating, LLC	30
Energy Corporation of America	28
J-W Operating Company	28
Rex Energy	28
Titan Operating, LLC	26
Bonanza Creek Energy, Inc.	23
Forest Oil Corporation	22
Cimarex Energy Co. of Colorado	21
Pennsylvania General Energy	21
Brigham Oil & Gas, L.P.	20

Operator Name	Upload Count
Hunt Oil Company	18
W&T Offshore, Inc.	16
Denbury Onshore, LLC	15
Patara Oil & Gas, LLC	15
Slawson Exploration Company, Inc.	15
Legend Natural Gas, LLC	14
Murphy Exploration and Production USA	14
Quicksilver Resources Inc.	14
G3 Operating, LLC.	12
Aera Energy LLC	11
Atlas Energy, L.P.	11
Cheyenne Petroleum Company	11
Cimarex Energy Co.	11
Delta Oil & Gas Ltd.	11
Parsley Energy Operations, LLC	11
Platinum Energy Solutions	11
Reliance Energy, Inc	11
Unit Petroleum	11
Athlon Energy Operating LLC	10
Black Raven Energy, Inc.	10
Indigo Minerals	10

Wells By Company

Operator Name	Upload Count
K.P. Kauffman Company	10
BHP Billiton Petroleum (Fayetteville) LLC.	9
WG Operating, Inc.	9
Finley Resources, Inc.	8
Hunt Marcellus Operating Company	8
J CLEO THOMPSON	8
Triana Energy	7
Black Diamond Minerals LLC	6
Chaparral Energy, LLC	6
Citation Oil and Gas Corp.	6
Fidelity Exploration & Production	6
Great Western Oil & Gas Company, LLC	6
Tecpetrol Operating LLC	6
Ward Petroleum	6
Anschutz Exploration Corporation	5
Aruba Petroleum, Inc.	5
Berry Petroleum	5
DTE Gas Resources, LLC	5
EagleRidge Energy, LLC	5
Oasis Petroleum	5
Southwest Royalties, Inc.	5

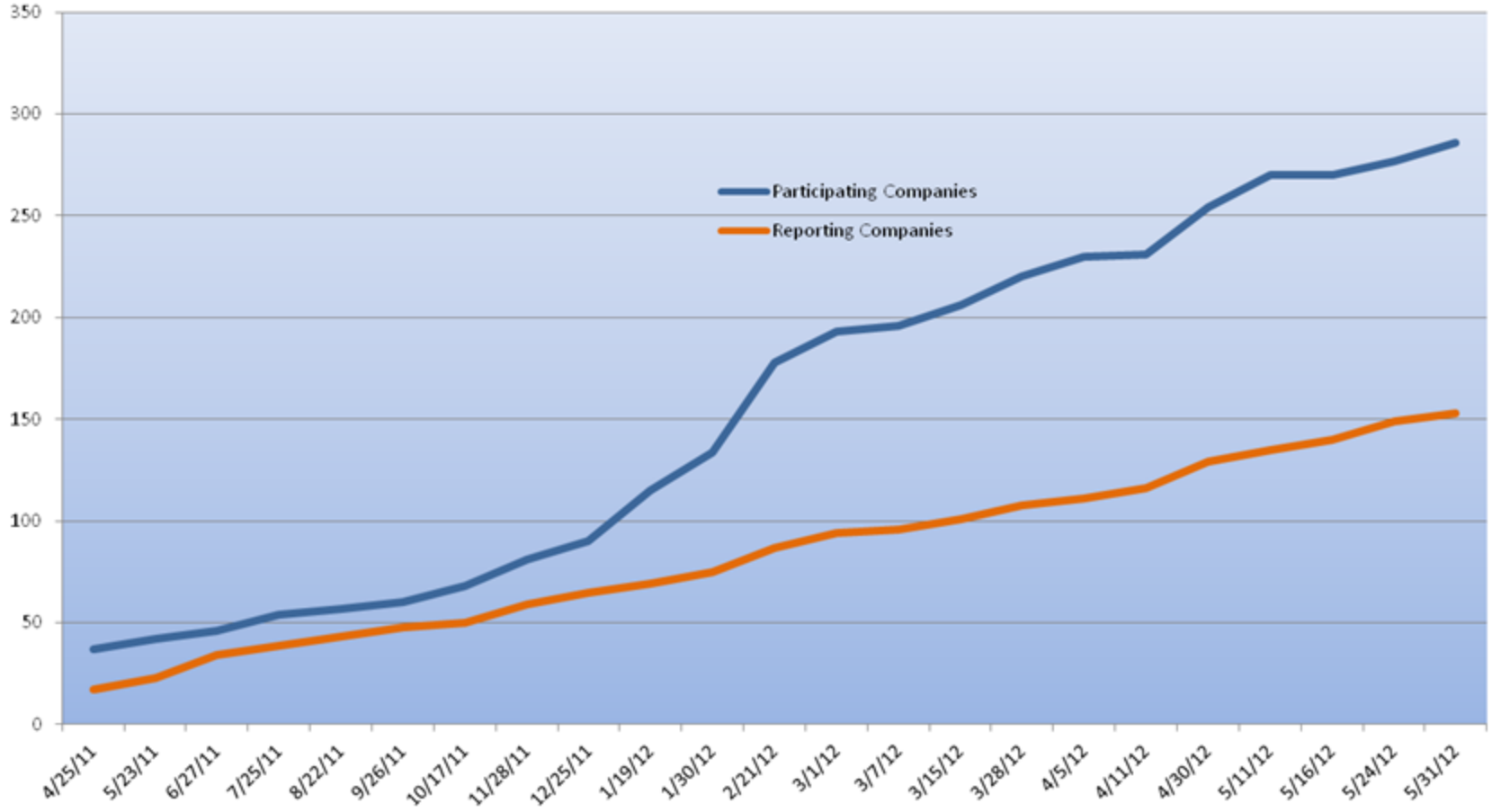
Operator Name	Upload Count
Burnett Oil Co., Inc.	4
Enerplus Resources (USA) Corporation	4
MEWBOURNE OIL COMPANY	4
PETEX	4
Goodrich Petroleum Company, LLC	3
H&L Exploration Company, LLC	3
Opal Resources Operating Company	3
RKI Exploration & Production	3
Texakoma Operating, L.P.	3
Windsor Permian LLC	3
Best Petroleum Explorations, Inc.	2
Cinco Natural Resources Corporation	2
CML Exploration, LLC	2
Foree Oil Company	2
Gunn Oil Company	2
LCS Production Company	2
Lewis Energy Group	2
Magnum Hunter Resources Corp	2
Murex Petroleum Corp.	2
Piedra Operating, LLC	2
Resolute Natural Resources	2

Wells By Company

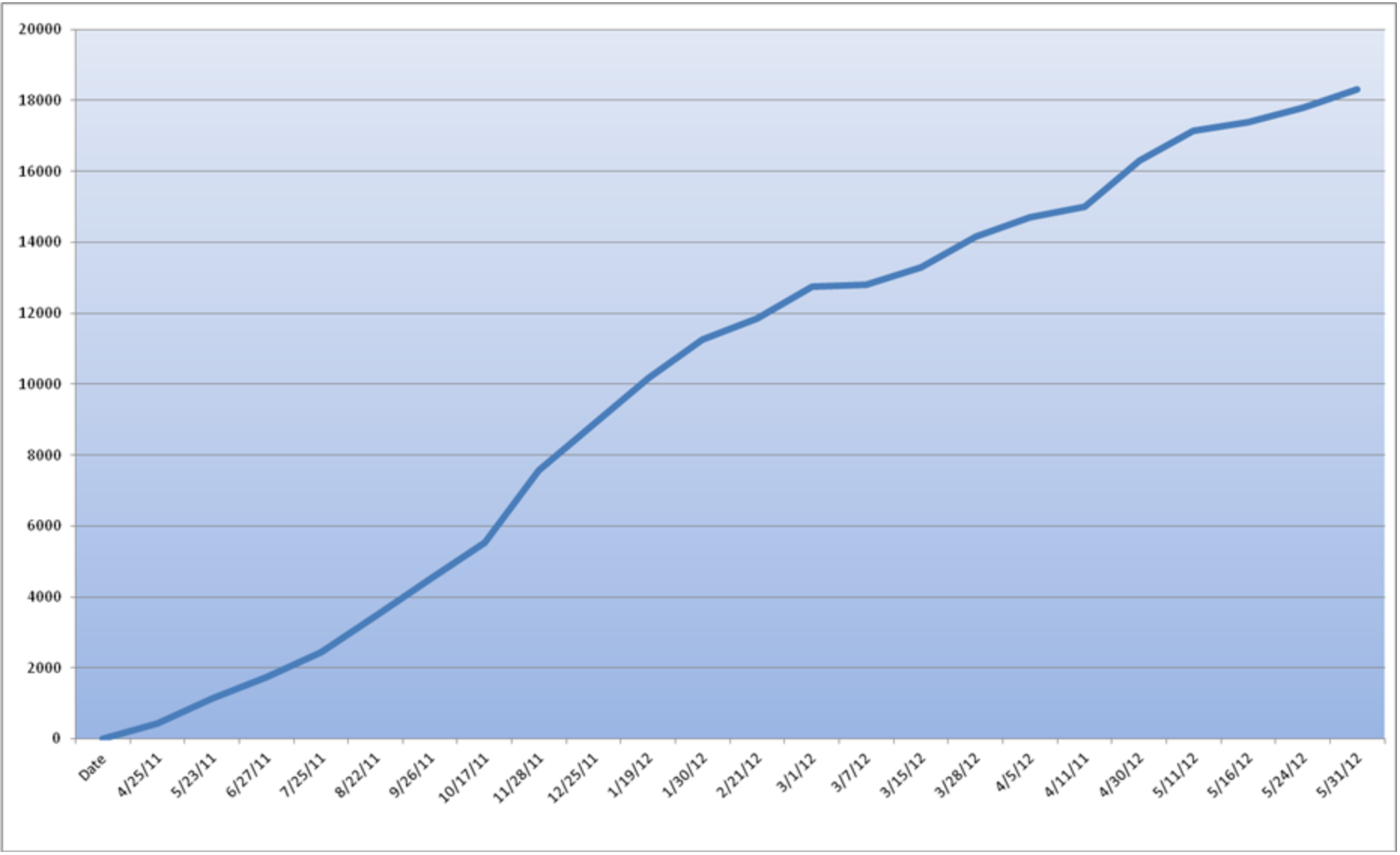
Operator Name	Upload Count
RK Petroleum Corp.	2
S. B. STREET OPERATING, INC.	2
Samson Exploration, LLC	2
Seaboard Operating Co.	2
Veritas Energy, LLC	2
WILLIAMS OIL COMPANY	2
Willowbend Investments, Inc.	2
Woolsey Operating Co. LLC	2
BC Operating, Inc.	1
Big Star Oil & Gas, LLC	1
Black Hills Exploration and Production	1
BVX OPerating Inc.	1
Element Petroleum Operating, LLC	1
Fairways Exploration & Production, LLC	1
Franks Exploration Company, LLC	1
Gunnison Energy Corporation	1
Indigo II Louisiana Operating, LLC	1
Juno Operating Company II, LLC	1
LeClair Operating Co., Inc.	1
Merit Energy Company	1
Mesa Energy Partners, LLC	1

Operator Name	Upload Count
NFR Energy LLC	1
Petroglyph Operating Company, Inc.	1
Trey Resources Inc.	1
Tri-C Resources, LLC	1
Trio Consulting & Management, LLC	1
Wodbine Acquisition LLC	1

Companies growth chart



Disclosures reported growth chart



FracFocus 2.0 Review

Complete & Ongoing Work

The Future of FracFocus

1. **Easier search and record access capability**
2. Administrative tools to help operators upload and manage their records
3. Communication with state database systems
   - State required search ability
   - Bi-Directional Data Flow
     - RBDMS/Non RBDMS States
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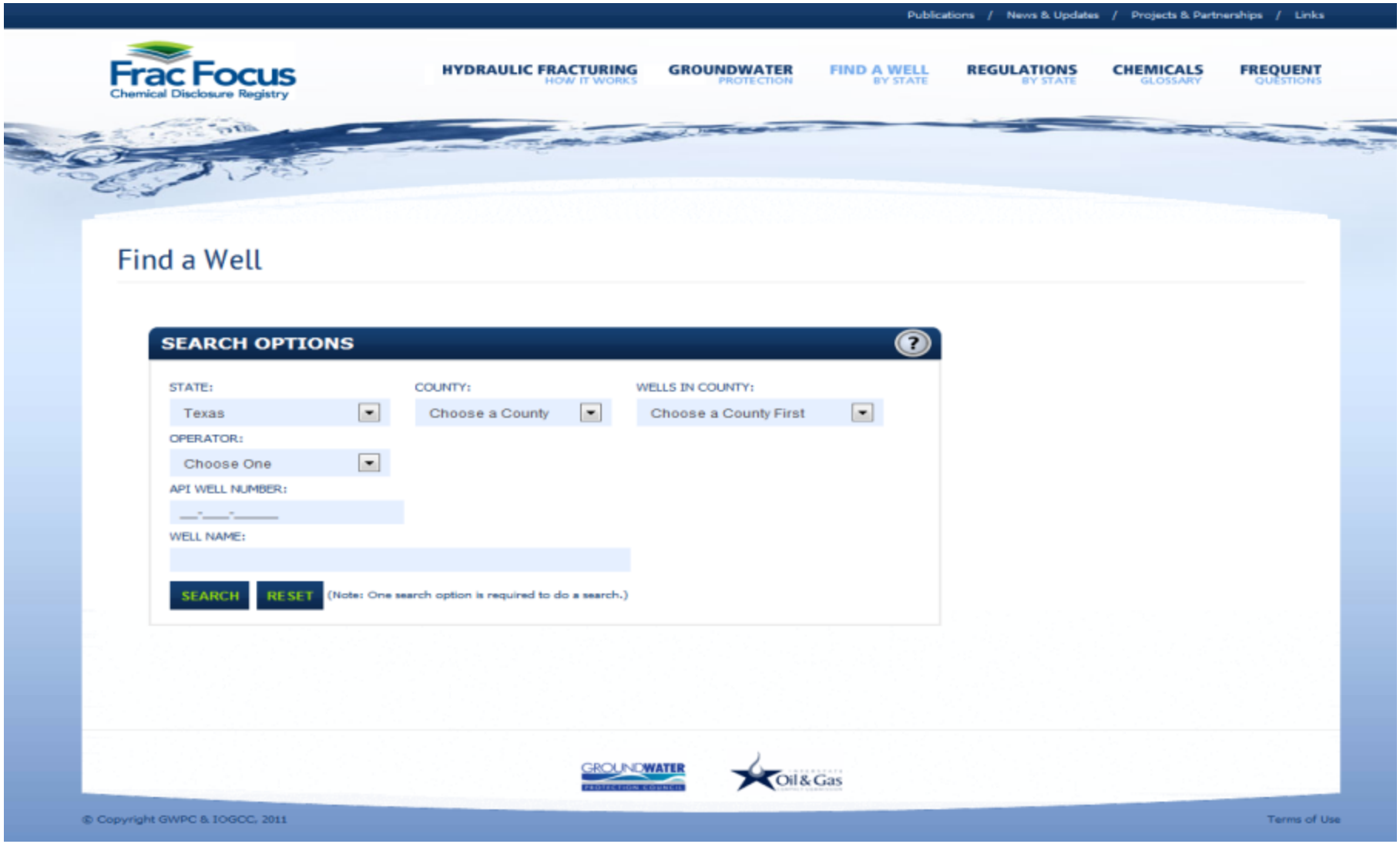
4. Additional Background Information

Find Chemical Record



Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	1/26/2011
State:	Texas
County:	Wheeler
API Number:	42-483-33102
Operator Name:	Apache Corp
Well Name and Number:	Stiles 16 #1016H
Longitude:	-100.090508
Latitude:	35.459572
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	13,651
Total Water Volume* (gal):	6,224,064

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	BHI	Carrier	Water	7732-18-5	100.00%	93.89335%	
Prime Plus	BHI	Proppant	Quartz (SiO2)	14808-60-7	100.00%	5.33749%	
Mineral Oil	BHI	Solvent	Mineral Oil	8042-47-5	100.00%	0.01149%	
GBW-5	BHI	Breaker	Ammonium Persulfate	7727-54-0	100.00%	0.00918%	
Alpha 1427	BHI	Biocide	Glutaraldehyde	111-30-8	30.00%	0.00469%	
			Quaternary Ammonium Chloride	7173-51-5	10.00%	0.00156%	
			Alkyl Dimethyl Benzyl Ammonium Chloride (C12-16)	68424-85-1	7.00%	0.00109%	
			Ethanol	64-17-5	5.00%	0.00078%	
			Water	7732-18-5	60.00%	0.00937%	
ClayCare	BHI	Clay Control	Choline Chloride	67-48-1	75.00%	0.07684%	
			Water	7732-18-5	30.00%	0.03073%	
FRW-20	BHI	Friction Reducer	Hydrotreated Light Distillate	64742-47-8	30.00%	0.03527%	
NE-900	BHI	Non-emulsifier	Methanol	67-56-1	30.00%	0.01406%	

Search Results

Publications / News & Updates / Projects & Partnerships / Links

Frac Focus
Chemical Disclosure Registry

HYDRAULIC FRACTURING HOW IT WORKS | GROUNDWATER PROTECTION | FIND A WELL BY STATE | REGULATIONS BY STATE | CHEMICALS GLOSSARY | FREQUENT QUESTIONS

Find a Well

Back To Search

	API No.	Job Date	State	County	Operator	Well Name	Well Type	Latitude	Longitude	Projection
	42-483-33102	1/26/2011	Texas	Wheeler	ALL Consulting - Test Users	Stiles 16 #1016H	Gas	35.459572	-100.090508	NAD27

GROUNDWATER PROTECTION COUNCIL

Oil & Gas

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FracFocus
Chemical Disclosure Registry

HYDRAULIC FRACTURING HOW IT WORKS | GROUNDWATER PROTECTION | CHEMICAL USE | REGULATIONS BY STATE | FIND A WELL BY STATE | FREQUENT QUESTIONS

Map Search | Standard Search

Back To Search

Next Page

Page 1 of 8 Go

API No.	Job Date	State	County	Operator	WellName	Well Type	Latitude	Longitude	Datum
04-029-58674	2/22/2012	California	Kern - 29	Occidental Oil and Gas	3-32A-36R	Oil	35.279504	-119.461341	NAD83
04-029-01980	2/19/2012	California	Kern - 29	Occidental Oil and Gas	512-28B	Oil	35.205632	-119.517075	NAD83
04-029-27274	2/29/2012	California	Kern - 29	Occidental Oil and Gas	362-36R	Oil	35.279574	-119.453421	NAD83
04-029-13335	1/3/2012	California	Kern - 29	Occidental Oil and Gas	521-1C	Oil	35.179501	-119.459108	NAD83
04-029-15840	2/22/2012	California	Kern - 29	Occidental Oil and Gas	535-20B	Oil	35.212839	-119.528830	NAD83
04-029-62732	1/18/2012	California	Kern - 29	Occidental Oil and Gas	3-48-26R	Oil	35.282795	-119.474900	NAD83
04-029-15853	2/9/2012	California	Kern - 29	Occidental Oil and Gas	511-29B	Oil	35.207776	-119.534604	NAD83
04-029-89128	1/29/2012	California	Kern - 29	Occidental Oil and Gas	521A-7D	Oil	35.151797	-119.439331	NAD83
04-030-05403	1/4/2012	California	Kern - 30	Occidental Oil and Gas	745-20B	Oil	35.211316	-119.528154	NAD83
04-030-46895	5/3/2012	California	Kern - 30	Aera Energy LLC	533A6-35	Oil	35.533530	-119.779670	NAD83
04-030-46902	5/1/2012	California	Kern - 30	Aera Energy LLC	548N4-35	Oil	35.532510	-119.780126	NAD83
04-030-46896	5/3/2012	California	Kern - 30	Aera Energy LLC	533N4-35	Oil	35.534324	-119.779646	NAD83
04-030-46897	5/2/2012	California	Kern - 30	Aera Energy LLC	534U8-35	Oil	35.534768	-119.781518	NAD83

The Future of FracFocus

1. Easier search and record access capability
2. **Administrative tools to help operators upload and manage their records**
3. Communication with state database systems
   - State required search ability
   - Bi-Directional Data Flow
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- Improved public searchability
4. Additional Background Information

Operator Login

Home | Find Chemical Record | What is Fracing? | About

[Log In]

[Log In]

Hydraulic Fracturing DISCLOSURE

FracFocus Chemical Disclosure Registry

FIND A WELL BY STATE

ABOUT PROJECT PARTNERS

(Note: Clicking the FracFocus, FIND A WELL links will opn a new window.)

Operator Log In

USER MENU

- Home
- Register

Please enter your Email Address and Password. Click here to REGISTER if your Company does not have an account.

Account Information

Email:
mlayne@all-llc.com

Password:
****

Validation Question:
What is the name of the street on which you grew up?

Validation Answer: Tulsa

Keep me logged in

Log In

Forgot Password?

Use Terms | © Copyright GWPC & IOGCC, 2010

Registration Form Upgrade

Select the type of entity/company that represents your activities in the system: Only allowed one type per Company.

Hydraulic Fracturing DISCLOSURE

FracFocus Chemical Disclosure Registry

FIND A WELL BY STATE | ABOUT PROJECT PARTNERS

(Note: Clicking the FracFocus, FIND A WELL links will open a new window.)

Company Registration

USER MENU
- Home
- Register
- How To Guide

Use the form below to apply for a new Company account to be used to submit chemical data to the registry.

Note: Upon submission of application for a new Company notice will be sent to the Hydraulic Fracturing Disclosure Administrator for approval.

New Company Registration

Email: | Confirm Email:

First Name: | Last Name:

Address: | City:

State: | Postal Code:

Phone: 555-555-5555 | Company:

Choose A Validation Question:
What is the first name of your favorite uncle?

Validation Answer:

Password: (Example : RedDice)

Confirm Password:

Passwords are required to be a minimum of 6 characters in length. It also must contain at least 1 non-alphanumeric character (!@$)

charming

Type the two words:

WEB SITE TERMS AND CONDITIONS OF USE

Read the document to the left.
Check the box below to proceed.

I agree to the WEB SITE TERMS AND CONDITIONS OF USE

Please Choose From The List Below, The Type Of Entity Being Registered To Use FracFocus.org.

Keep In Mind That Only One (1) Registration Per Entity Is Allowed, And Is Verified Prior To Receiving Login Access.

- E & P Operator
- Government Agency
- Service Company
- Registered Agent

Apply for FracFocus Account

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- E & P Operator
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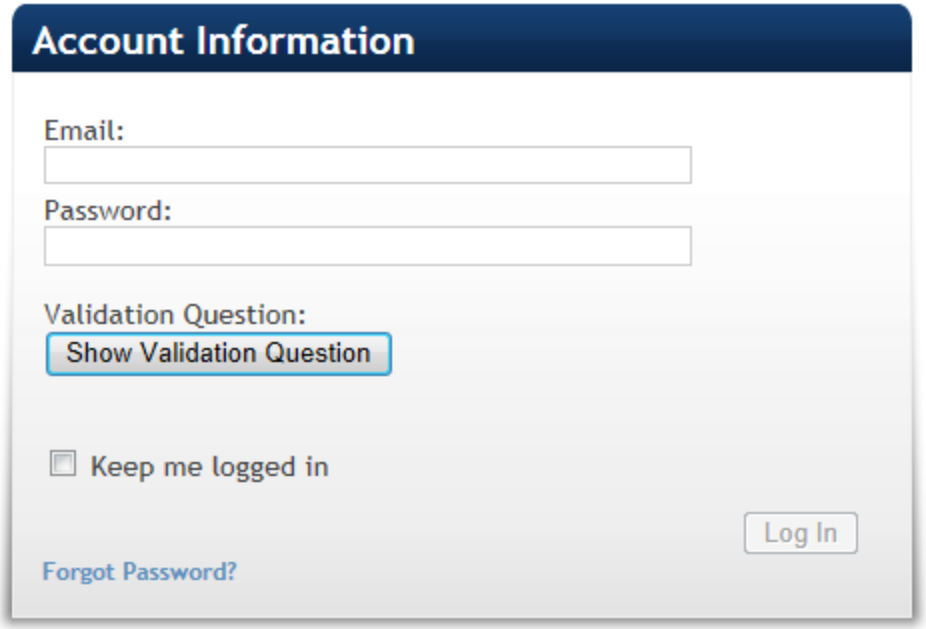
Apply for FracFocus Account

Login

Same Interface for All User Types:

- Operator
- Regulatory Agency
- Service Company
- Registered Agent



After Login user directed to dashboard that provides the user with the options they have available and can launch to desired function.

Service Company Dashboard

Representative Supervisor & Users Role Dashboard:

Provides the ability for a Service Company to manage their registered Supervisors and Users.

Also provides access to Upload XML to Operators

Regulatory Agency Dashboard

Agency Manage Users

Single Agency Role

No Dual Layer of Users

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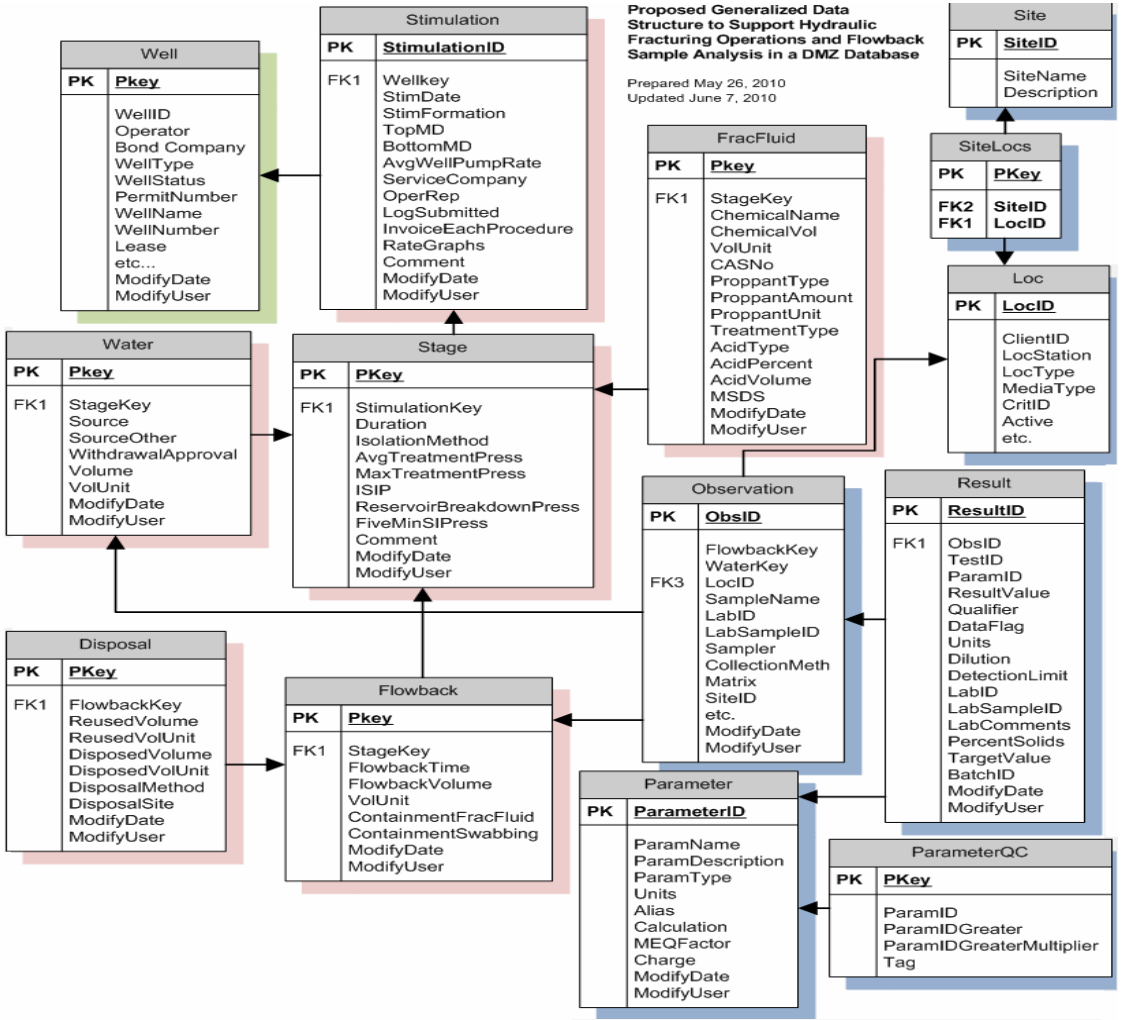
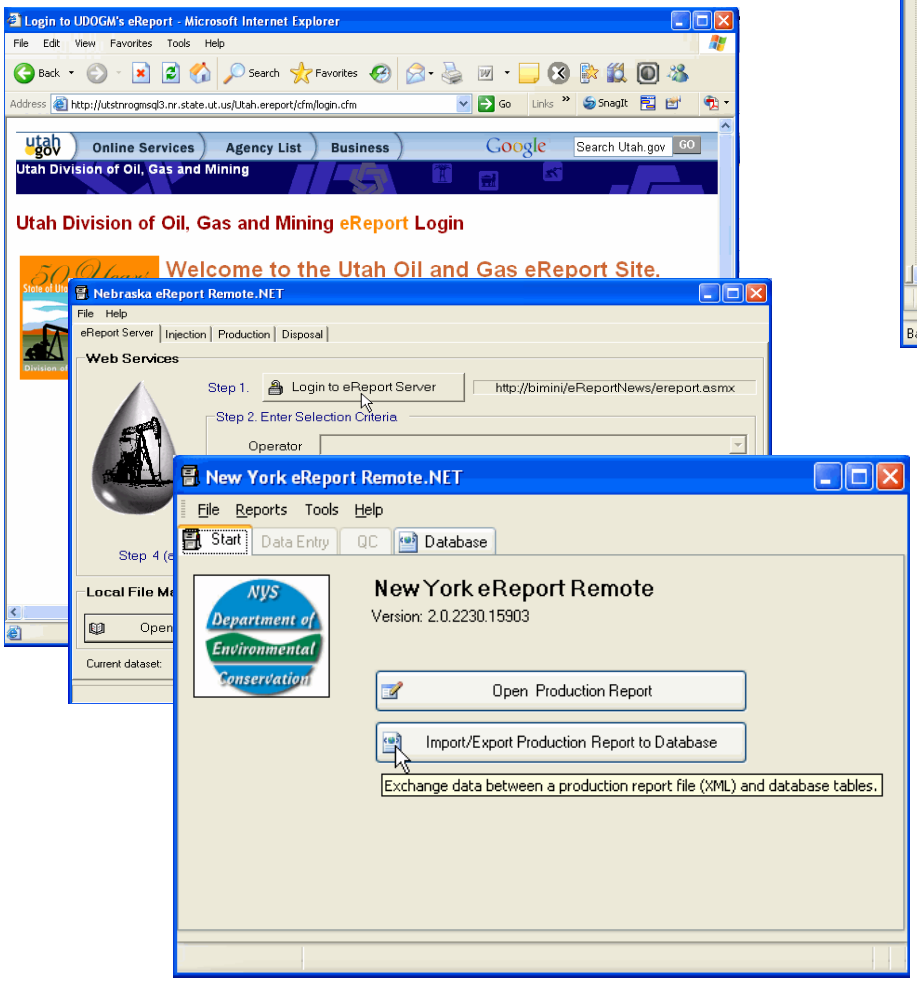
4. Additional Background Information

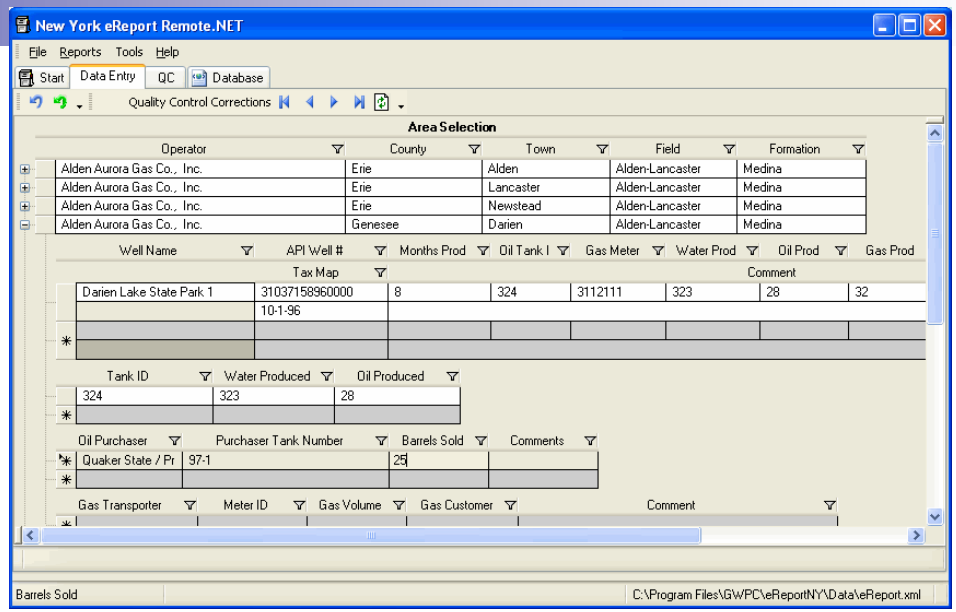
Shale Gas Basins with RBDMS States

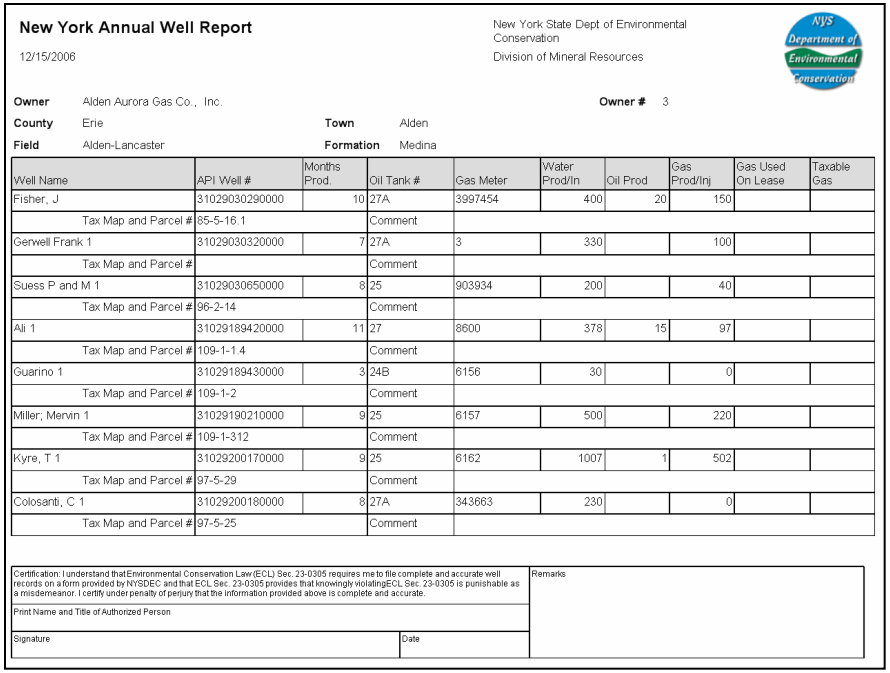
RBDMS and HF Schema



eReport







New York Annual Well Report

12/15/2006

New York State Dept of Environmental Conservation
Division of Mineral Resources

Owner Alden Aurora Gas Co., Inc. **Owner #** 3
County Erie **Town** Alden
Field Alden-Lancaster **Formation** Medina

Well Name	API Well #	Months Prod.	Oil Tank #	Gas Meter	Water Prod/In	Oil Prod	Gas Prod/Inj	Gas Used On Lease	Taxable Gas
Fisher, J	31029030290000	10	27A	3997454	400	20	150		
Tax Map and Parcel #	85-5-16.1		Comment						
Gerwell Frank 1	31029030320000	7	27A	3	330		100		
Tax Map and Parcel #			Comment						
Suess P and M 1	31029030650000	8	25	903934	200		40		
Tax Map and Parcel #	96-2-14		Comment						
Ali 1	31029189420000	11	27	8600	378	15	97		
Tax Map and Parcel #	109-1-1.4		Comment						
Guarino 1	31029189430000	3	24B	6156	30		0		
Tax Map and Parcel #	109-1-2		Comment						
Miller; Mervin 1	31029190210000	9	25	6157	500		220		
Tax Map and Parcel #	109-1-312		Comment						
Kyre, T 1	31029200170000	9	25	6162	1007	1	502		
Tax Map and Parcel #	97-5-29		Comment						
Colosanti, C 1	31029200180000	8	27A	343663	230		0		
Tax Map and Parcel #	97-5-25		Comment						

Certification: I understand that Environmental Conservation Law (ECL) Sec. 23-0305 requires me to file complete and accurate well records on a form provided by NYSDEC and that ECL Sec. 23-0305 provides that knowingly violating ECL Sec. 23-0305 is punishable as a misdemeanor. I certify under penalty of perjury that the information provided above is complete and accurate.

Print Name and Title of Authorized Person

Signature Date

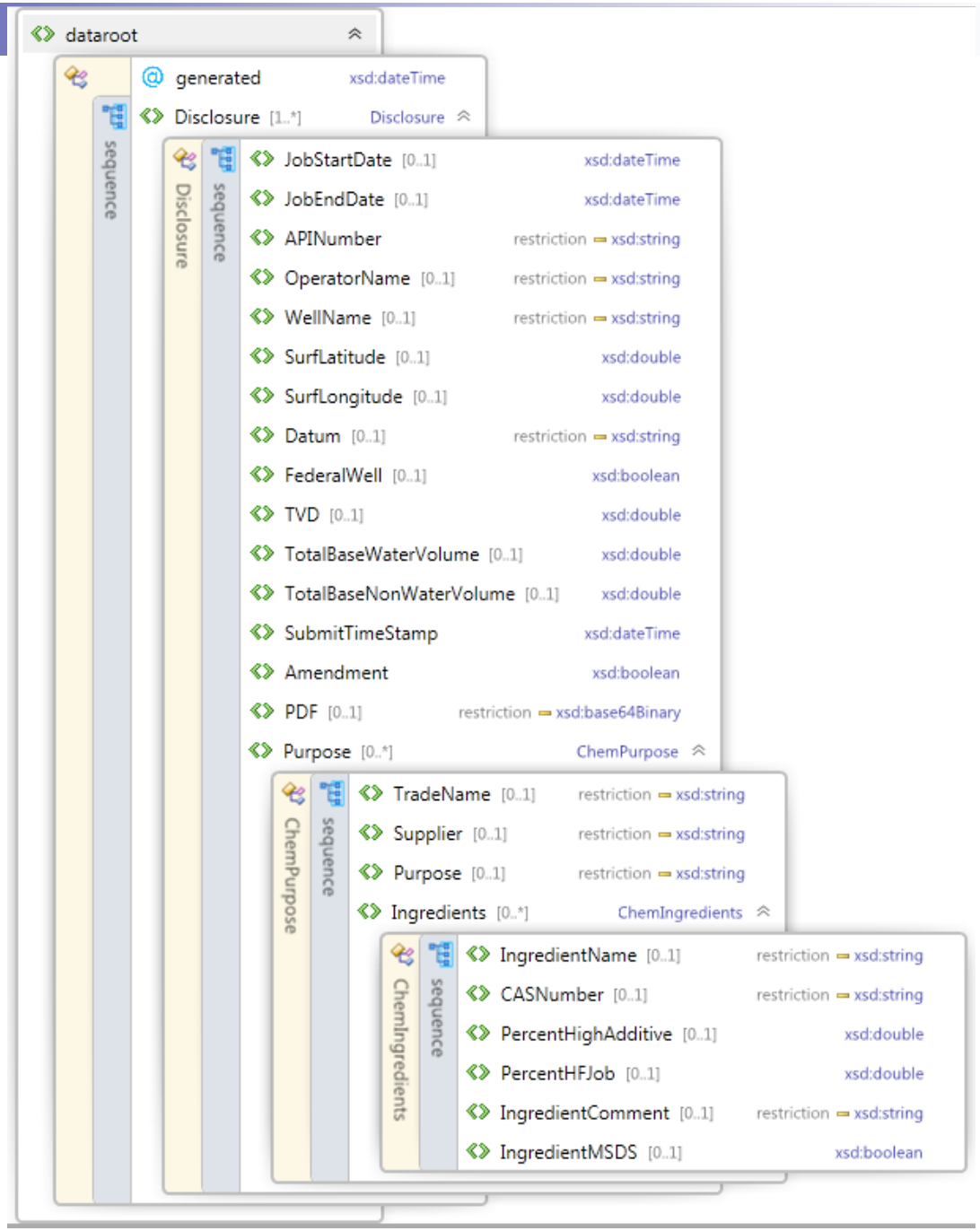
Remarks

Now in use in NE, UT, PA, NY, MT, ND, AK, AR, and is being installed in MS.

State Agency Output Structure

Proposed RBDMS FracFocus Functionality:

Regulatory Agency selects the data they desire to have delivered to their agency.



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     - RBDMS/Non RBDMS States
- Improved public searchability
4. **Additional Background Information**

Educate Users

Water Safety
& USAGE

Pure, clean drinking water. Nothing can replace it. This is why fresh-water aquifers are protected through strictly regulated safety practices.

MORE ABOUT WATER SAFETY >

Water Safety & Usage

- Groundwater Aquifers
- Casing Process
- Drilling Usage
- Hydraulic Fracturing Usage

Looking for information about a *well site near you?*

Search for nearby well sites that have been hydraulically fractured to see what chemicals were used in the process.

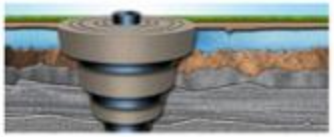
WATER USAGE

Hydraulic fracturing requires large quantities of water. Oil and natural gas producers have developed multiple ways to obtain the water necessary for wells that are hydraulically fraced.

Building ponds and reservoirs to capture rain, recycling water and contracting with public works and farmers are some of the innovative ways the industry is obtaining, monitoring and regulating water usage in areas.

Learn More >

A CLEAR CASE FOR PROTECTION



Casing is a process that is regulated by the state for each hydraulically fraced well site.
Well casing acts as a protective barrier between hydraulic fracturing fluid, oil and natural gas that flows through the well and the freshwater aquifers.

The casing layers extend underground with the surface casing reaching anywhere from 50-1,500 feet below freshwater aquifers. Production casing can extend from 5,000-10,000 feet underground.

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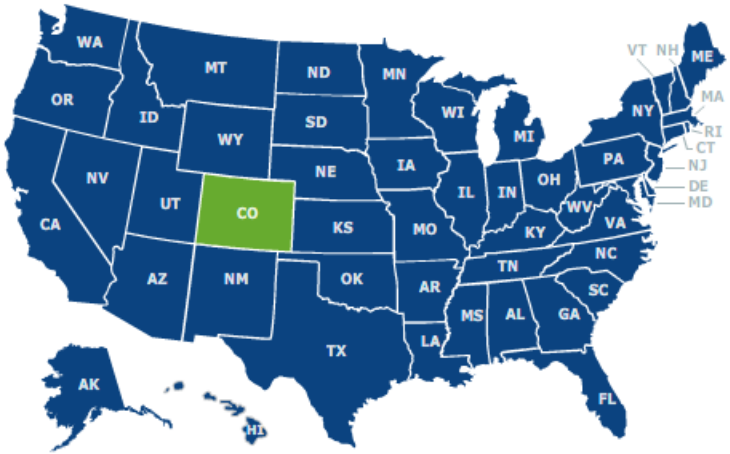
Regulations By State



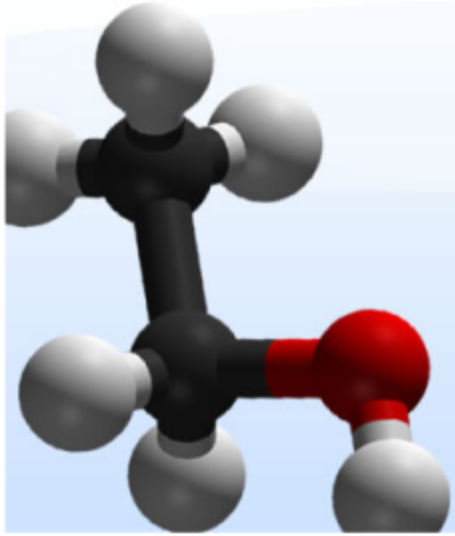
Colorado Contact Information

Oil and Natural Gas Representatives:
Colorado Oil & Gas Conservation Commission
Phone: 303.894.2100
Email: dnr.ogcc@state.co.us

Regulations:
Learn More About Regulations ‡
View Colorado Regulations ‡

‡ - *When you click links marked with the ‡ symbol, you will leave the FracFocus website and go to websites that are not controlled by or affiliated with this site.*

Frac Focus
Chemical Disclosure Registry



Chemicals Glossary

WHAT'S USED IN HF?

While chemical mixtures are used in hydraulic fracturing, they make up less than 1% of the total mix. These chemicals have multiple purposes such as reducing friction and dissolving minerals in the well.

Chemical Search

Name

CAS Number

SEARCH

Note: Not every chemical listed here is used in every fracturing job.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z search

Acetaldehyde

Acetic Acid

Ammonium Persulfate

You have questions.
WE HAVE ANSWERS.

Find out what you'd like to know about hydraulic fracturing. And if you don't find your answer here, drop us a line using our "Ask a Question" section.

HOW HYDRAULIC FRACTURING WORKS >

WHAT IS HYDRAULIC FRACTURING?

Hydraulic fracturing, commonly referred to as fracing, is the process of creating small cracks, or fractures, in underground geological formations to allow natural gas to flow into the wellbore and on to the surface where the gas is collected and prepared for sale to a wide variety of consumers.

During the fracing process, a mixture of water, sand and other chemical additives designed to protect the integrity of the geological formation and enhance production is pumped under high pressure into the shale formation to create small fractures.

The newly created fractures are "propped" open by the sand, which allows the natural gas to flow into the wellbore where it is collected at the surface and subsequently delivered to a wide ranging group of consumers.

- How does natural gas end up in reservoirs or pockets?
- Why is hydraulic fracturing necessary?
- What chemicals are used in fracing?
- Are fracing chemicals dangerous?
- How can I be sure that my groundwater is protected?
- What is the likelihood of a spill at the wellhead during the fracing process?

Not finding your answer?
ASK A QUESTION.

NAME

PHONE

EMAIL

STATE SELECT STATE

QUESTION

TEXT BELOW

ASK

Oil & Gas

GROUNDWATER

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Questions Submitted to FracFocus

- **Question**: does the water ever come back after being pumped into the ground?

- **Answer**: The amount of fluids that return to the surface through the well casing after hydraulic fracturing varies substantially depending upon the several factors including the depth of emplacement, the formation characteristics and the bottom hole pressure. In general, however, you can expect a range of as little as 13% to as much as 70% or more of the fluids to be returned.

Questions Submitted to FracFocus

- **Question**: Isn't it typical for fracturing fluid flowback to come all the way to the surface, or at least to the level of groundwater?

- **Answer**: Yes, flowback typically returns to the surface through the inside of the well casing where it is isolated from groundwater zones. It is then gathered and typically transported to disposal wells or treated and re-cycled in new fracture jobs.

Questions

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