

Michiana Gem & Mineral Society
Jason Hefner, Editor
229 East State St
Etna Green, IN 46524



January 2012 Volume 52 Number 1



Think Spring

THE ROCKFINDER



We're on the Web! See us at: <http://www.sauktown.com/Michiana>

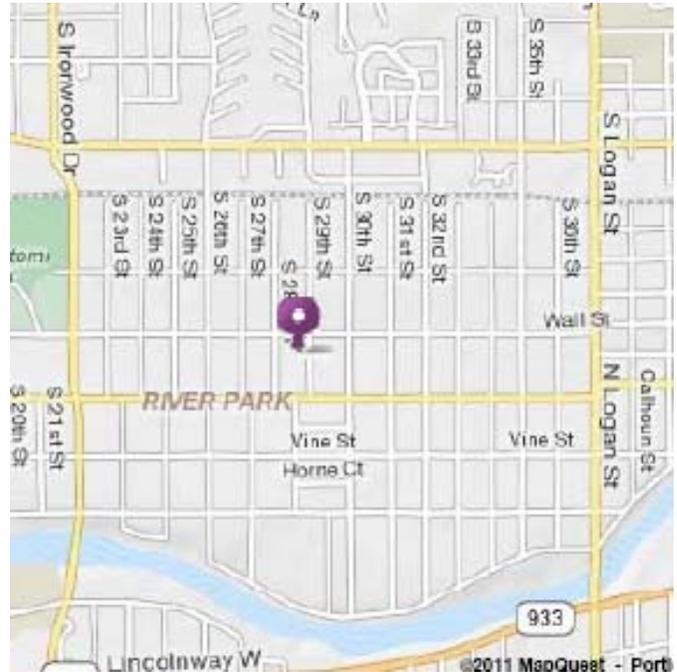
The purpose of the Michiana Gem & Mineral Society is to promote the study and enjoyment of the earth sciences and the lapidary arts, and to share lapidary knowledge and techniques. General meetings are usually held the fourth Sunday of each month at 2:00 p.m. at,

Our Redeemer Lutheran Church
805 S. 29th St.,
South Bend, IN.
Please see the map to the right.

Doors usually open at 1:30 for meet & greet time.

Regular meeting exceptions include May (third Sunday), July (Club Picnic), August (Club Show) and the November/December meeting and Christmas party.

Board meetings are held before the monthly meetings. The annual club show is in late August.



DUES

Yearly Membership Dues are payable by December 15th of each year. Please chose type of membership below.

- Individual \$15.00 Family \$20.00
- Junior \$1.00 Subscriber \$7.50

Please indicate areas of special interest.

- General Geology Gems & Minerals
- Fossils Micro mounts
- Crystals Field Trips
- Cabochons Faceting
- Carving Beads
- Jewelry Making

Name(s) _____
Street _____
City, ST, Zip _____
Phone(s) _____
Email _____

Please send your dues and the bottom half of this form to:



Please read and sign this section

With my signature I hereby release the Michiana Gem and Mineral Society, Inc., and its individual members and the owners of any premises upon which I enter under permit granted to the society, absolutely free of any liability whatsoever, to my person or property, and further I will respect the equipment and property of the aforesaid owners.

Signed _____ Date _____
Signed _____ Date _____

Family Information:

Name: _____ Birthday: _____
Name: _____ Birthday: _____
Name: _____ Birthday: _____
Name: _____ Birthday: _____
Name: _____ Birthday: _____

Michiana Gem & Mineral Society
c/o Marty Perry
29154 Frailey Dr
Elkhart, IN 46514

The purpose of the Michiana Gem & Mineral Society is to promote the study and enjoyment of the earth sciences and the lapidary arts, and to share lapidary knowledge and techniques.

Michiana Gem and Mineral Society (www.sauktown.com/Michiana), is a not-for-profit organization affiliated with the Midwest Federation of Mineralogical Societies <http://www.amfed.org/mw/> and with the American Federation of Mineralogical Societies www.amfed.org

The *Rockfinder* is published monthly except July and August.

Please note that all items for a given issue of the *Rockfinder* are due to the **Editor** no later than the 5th day of the previous month. This means that the due date for the March Issue will be February 5th. Advance items are appreciated. Material may be e-mailed to hefner_family@hotmail.com or submitted via the U.S. Mail.

Editor:
Jason Hefner
229 East State St
Etna Green, IN 46524

Permission is hereby granted to reprint any original *Rockfinder* articles as long as recognition is given along with the reprint.



Kathy's Column - President Kathy Miller

Expectations, Anticipation for 2012

Yes, I do expect and anticipate all kinds of good things for our club this year!! At the January 22nd meeting besides a great program on building your own lapidary equipment, and delicious refreshments, we will hear more about our involvement and good P.R. with the surrounding area, upcoming field trips from Chairman John Davis, calendar date for summer picnic, August show report by Joe Perry, and the 3 day bus trip in September.

As a "for your information" all those who have not paid your dues by the end of January, your name(s) will NOT be included in the Society's Directory for 2012. So be sure to get your dues in to Treasurer, Marty Perry A.S.A.P! We want to get the Directory out early in the year for everyone's use.

Continued on Page 2

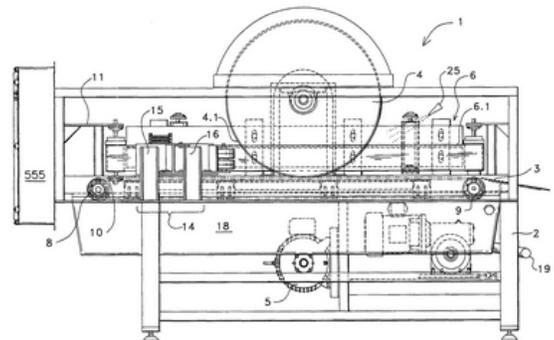
Up & Coming

Next Meeting: January 22, 2012

Place:
Our Redeemer Lutheran Church
805 S 29th Street
(29th & Wall)
South Bend, IN.
This is in the River Park area.

Refreshments:
Jennifer Hefner
Joan Hill
Phyllis Luckert

Program:
Building your own lapidary equipment – Bob Miller



Board of Directors

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Kathy Miller
574-291-0332

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269-465-5814

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574-272-7209

Sunshine: Sally Peltz
269-683-4088

Webmaster: Jim Daly
219-778-2196

Kathy's Column continued from Page 1

In the November issue of The Rockfinder, I mentioned that our club was going to have a touch/feel table with handout welcome packets for children at "Science Alive", a South Bend Library community event with a few thousand visitors attending on Saturday, February 4, 2012 from 10:00 a.m. to 4:00 p.m. The library will provide a parking map, serve a light breakfast and a lunch buffet for all exhibitors who volunteer. At the upcoming January meeting we need at least four (4) volunteers in helping Mike Skoczylas and Don Szczodrowski to man the table by handing out the bags of free items and posters (donated by Bob, Kathy & Linda Miller), plus keeping an eye on the assorted rocks, fossils and minerals set out for the Touch & Feel table.

By the way if anyone has a large rock, fossil or mineral they would like to loan or donate for the table (large enough that can NOT be put in a pocket) we would really appreciate it. All children are fascinated by such things and most of the young folks are at the K-8th grade level.

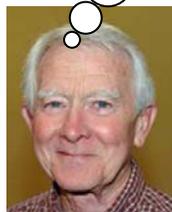
As a gentle reminder Trista McIntosh our Junior Chairman still needs volunteers to help with the younger member activities while the regular business meeting is held, and the Hostess Chairmen Linda Miller and Mary Davis need refreshment volunteers for March, April and October. Please sign up at the January meeting as another way of participation in our club.

As I write this it is New Year's Day 2012, a winter storm warning is out, Ahhhh....the Midwest, it gives us weather to stay inside to work on a club show display, polish a cab, sort through collections (as Bob is now doing) and look forward to spring, summer and fall to start collecting all over again with friends enjoying the same hobby!

I am looking forward to seeing all of you at the January meeting.

Rock on,
Kathy

What was
number 12
again? How
did I get 3
#2s....

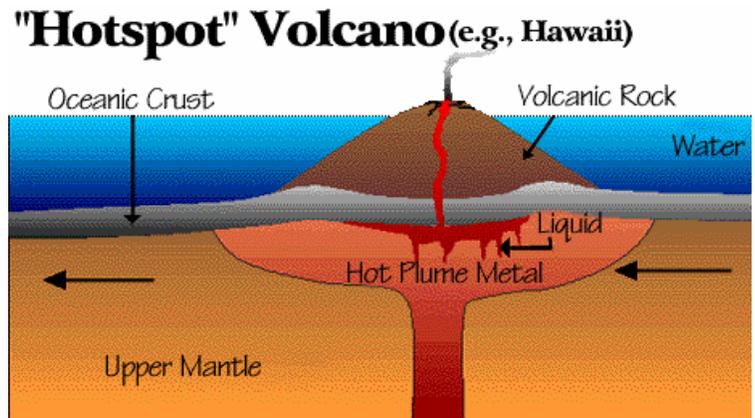


Olivine by Margie McHugh

Olivine: Olivine is one of the most common minerals of the earth. It makes up over 50% of the earth's mantle. The mineral olivine is made up of magnesium, iron, silica, and oxygen $(\text{Fe,Mg})_2(\text{SiO}_4)$. The iron rich form of olivine is called forsterite, and the more common magnesium-rich form is called fayalite. Olivine crystals are typically olive-green in color. Large, translucent crystals of olivine can be faceted into the gemstone known as peridot, the French word for olivine.

Olivine crystallizes in mafic rocks from magma (molten rock) that is rich in magnesium and low in silica. It is one of the first minerals to crystallize out of the melt. As the olivine crystallizes, it sinks to the bottom of the magma chamber, which can form thick layers of almost pure olivine crystals and a rock called dunite. If the magma continues to cool slowly and at great depth, it crystallizes as intrusive, igneous rocks, and the resultant mafic

rocks are called gabbro. If the magma cools quickly and closer to the earth's surface, as with volcanic eruptions, the magma creates extrusive igneous rocks, and the mafic rocks are called basalt. The islands of Hawaii are formed by melting of the earth's magnesium-iron rich mantle at a 'hot spot', and are erupted as lava flows, creating the shield volcanoes that have formed the islands.



Center for Educational Technologies

When the magma erupts to the surface, often some of the olivine that crystallized first get caught up in the ascending lava. When the olivine weathers out of the basalt flows, it can create beautiful green sand beaches. The green sand is actually olivine crystals, mixed with black basalt and white corals. But because olivine forms early, under very high temperatures and pressures deep in the magma chamber, it is not happy exposed to surface temperatures, pressures, and rainfall. It weathers (breaks down chemically) from a clear, green crystal into yellowish clays and iron oxides. So green sand beaches, unless they are renewed by more lava that contains olivine crystals, do not stay green for very long.

Olivine and the Hawaiian Islands are both fascinating topics on which to do research. An especially excellent website can be found at



<http://facstaff.gpc.edu/~pgore/Earth&Space/GPS/volcanism.html>, a website written by Pamela Gore, and inspired teacher who can make any geologic topic fascinating and understandable. A visit to Hawaii will also help you appreciate 'hot spot' volcanism and olivine. **Aloha!**

Margie is Kathy Miller's sister from Oregon. Margie and her husband John just returned from a trip to Hawaii where they undoubtedly saw some great beaches.

What is Shale Gas and where are the deposits?

Most of the Natural Gas Consumed in the United States Comes from Domestic Production. U.S. natural gas production and consumption were nearly in balance through 1986. After that, consumption began to outpace production, and imports of natural gas rose to meet U.S. demand for the fuel. Production increased from 2006 through 2010, when it reached the highest recorded annual total since 1973. The increases in production were the result of more efficient, cost-effective drilling techniques, notably in the production of natural gas from shale formations.

Share of 2010 natural gas marketed production:

Texas (30%)
Wyoming (10%)
Federal Offshore Gulf of Mexico (10%)
Louisiana (10%)
Oklahoma (8%)

In 2010, 88% of net imports came by pipeline, primarily from Canada, and 12% came by liquefied natural gas (LNG) tankers carrying gas from five different countries.

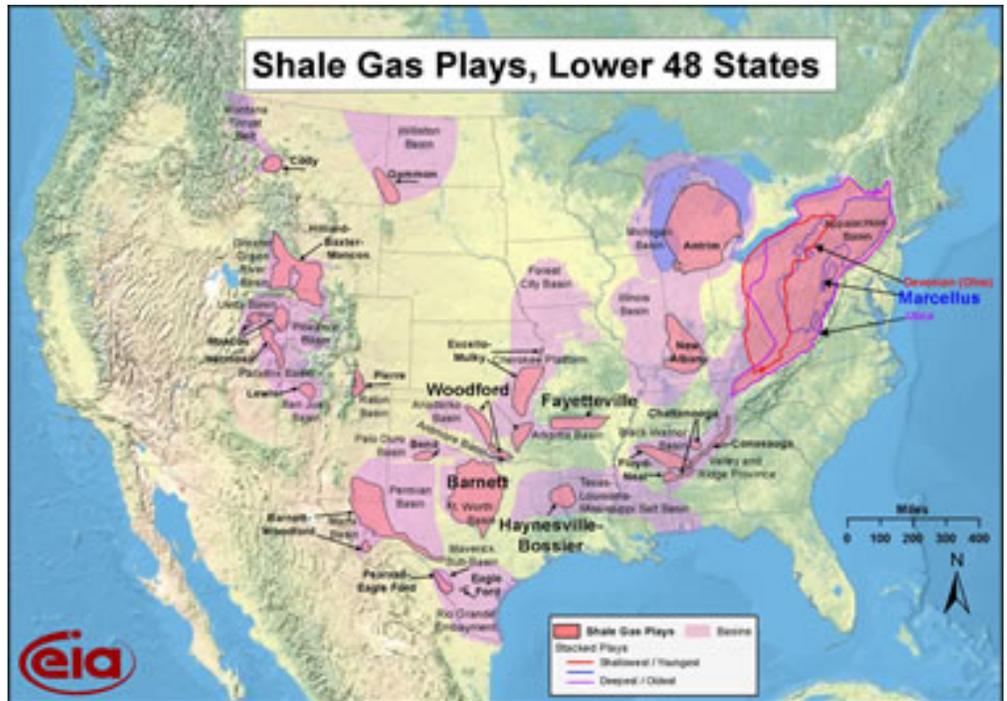
What is the Federal Offshore Gulf of Mexico?

Some natural gas and oil wells are drilled into [the ocean floor in waters off the coast of the United States](#). States have jurisdiction over any natural resources within three nautical miles of their coastline, except for Texas and the west coast of Florida where State jurisdiction extends to nine nautical miles. The Federal government retains ownership to resources past those limits. There are around 3,400 oil and gas production platforms in Federal waters up to roughly 7,500 feet deep and up to 200 miles from shore. Most of them are in the Gulf of Mexico.

What Are Gas Shales?

Shale is a very fine-grained sedimentary rock that is easily broken into thin, parallel layers. Shales can contain a large amount of natural gas, but it's not necessarily mobile. Extensive efforts such as horizontal drilling and creating artificial fractures in the rock are often needed to achieve satisfactory production rates.

Gas shale is one of a number of "unconventional" sources of natural gas; other unconventional sources of natural gas include natural gas produced from coalbeds and from "tight" (impermeable) sandstone or chalk formations. **Continued on page 7**



American Federation of Mineralogical Societies News

From The Top... by Lauren Williams, President

[AFMS Newsletter Volume 65, Number 2, December 2011 - January 2012](#)

At the ALAA meeting in Chehalis, Washington, the NFMS Show and Convention, I heard some arguments that I had not considered before. I present them here for your consideration.

Get your County Commissioners involved. Remind them that every time the Fed's shut down or 'with draw' a piece of land, for any reason, that the county is losing money, its' tax base. The County needs to re-write their Charter to include, 'when property is taken off the tax rolls, the taxes must be reimbursed'. In today's environment all branches of government are looking for more income. You and I become the 'scapegoat' for higher taxes when the county allows taxed property to be taken from away from the tax rolls.

Get your Sheriff involved. There are several Sheriffs in Oregon and Northern California who are taking a stand to honor their 'Oaths' of protecting their citizens and that they are the 'law enforcement' in their county. Continued on Page 6

Midwest Federation of Mineralogical Societies News

Presidents Message by Cindy Root

[MWF News January 2012 - ISSUE NO. 508](#)

On November 2, I attended a meeting of the Big Rapids Rock, Gem & Mineral Club. This club is one of the newest members of the Midwest Federation and being able to participate in one of their meetings was a very enjoyable experience. The Big Rapids club is currently in the process of deciding whether or not they want to start doing a show. Consider sending them an e-mail with suggestions. Remember, they're starting from the ground floor.

But now that January is here, I want to remind all of you about the deadlines for the many contests held throughout the Midwest and American Federations. Challenge yourself by participating, or start planning now to participate next year. All the information you need can be found on the Midwest and American Federation web sites.

You have an almost unlimited source of information regarding the rockhounding hobby when you take the time to contact any of the committee chairs for our federation. Be certain to use all the resources available to you. Allison Conrad always ends with "rock on!" Ditto.



Purpose of the AFMS

To promote popular interest and education in the various Earth Sciences, and in particular the subjects of Geology, Mineralogy, Paleontology, Lapidary and other related subjects, and to sponsor and provide means of coordinating the work and efforts of all persons and groups interested therein; to sponsor and encourage the formation and international development of Societies and Regional Federations and by and through such means to strive toward greater international good will and fellowship.

www.amfed.org



Purpose of the MWF

To promote interest and education in geology, mineralogy, paleontology, archaeology and lapidary, and to sponsor and provide means of coordinating the work and efforts of groups interested in these fields.

www.amfed.org/mwf

Coming Events

January:

28: LINCOLN, NE. Lincoln Gem & Mineral Club, Inc's Annual Mid-winter Swap; Bethany Park Shelter House, Cotner Blvd. & Vine St.; Sat. 1-5; CONTACT: Lincoln Gem & Mineral Club, P.O. Box 5342, Lincoln, NE 68505, jna@inetnebr.com, www.lincolngemmineralclub.org.

February

12: LINCOLN, NE. Lincoln Gem & Mineral Club, Inc.'s Geology Day; Pioneer Park Nature Center, Coddington & W. Van Dorn; Sun. 1-4; CONTACT: Lincoln Gem & Mineral Club, Inc., P.O. Box 5342, Lincoln, NE 68505, jna@inetnebr.com, www.lincolngemmineralclub.org.

25-26: ROSEVILLE, MN. Anoka County Gem & Mineral Club's Pre-Spring Show; Har Mar Mall, 2100 Snelling; Sat. 10-6, Sun. 12-5; CONTACT: Martha Miss, 8445 Grange Blvd., Cottage Grove, MN, 55016, (651) 459-0343, info@rock-biz.biz.

March

3-4: LIVONIA, MI. Roamin' Club's 40th Annual Silent & Verbal Auctions; Schoolcraft College, Visatech Center Bldg., 18600 Haggerty Rd.; Sat. 11-6, Sun. 12-6; CONTACT: Don Brown (734) 421-8159 or Todd Gall (248) 348-5093.

10: SKOKIE, IL. Chicago Rocks & Mineral Society's 63rd Annual Silent Auction of Rocks, Minerals, Fossils and Lapidary Treasures; St. Peter's United Church of Christ, 8013 Laramie Ave. (across from the public library on Oakton); Sat. 6-9 p.m.; CONTACT: Jeanine N. Mielecki, (773) 774-2054 or jaynine9@aol.com.

10-11: MACOMB, IL. Geodeland Earth Science Clubs' 32nd Annual Show; Student Union Ballroom, Western Illinois University; Sat. 10-6, Sun. 10-5; CONTACT: Regina Kapta, 1483 E. Wood St., Decatur, IL 62521, (309) 830-6516, cigmc@comcast.net.

23-25: BRIDGETON, MO. Rock Hobby Club's 52nd Annual Gem, Mineral, & Jewelry Show; Machinists' Hall Auditorium, 12365 St. Charles Rock Rd, Bridgeton; Fri. 4- 9, Sat. 10-7, Sun. 10-5; CONTACT: Vickie Corley, 1727 Parkway Acres Ct., St. Louis, MO 63043, 314-439-5556, sales@butterfliesbygod.com.

From The Top... continued from Page 5

They are giving the NFS and BLM some grief about who can write tickets, and road closures that are needed for fire fighting and search and rescue. Have your Sheriff check this out.

When someone in order to support their argument says, "there are studies about/that prove", ask them to produce a black and white report of that study, do not let them off the hook, they made the assertion. Why was the study done, who financed it, when was the study done , etc.

For those of you who think that you do not have any public lands consider that it doesn't really matter who introduces the legislation; when a private person cannot obtain rocks, regardless of how you classify them, then you will not have any material that you can use for a Club or Federation show or tail-gate.

I am painfully aware that the above is very controversial . It is presented here for your information and consideration.

I hope all of you have safe and happy holidays!

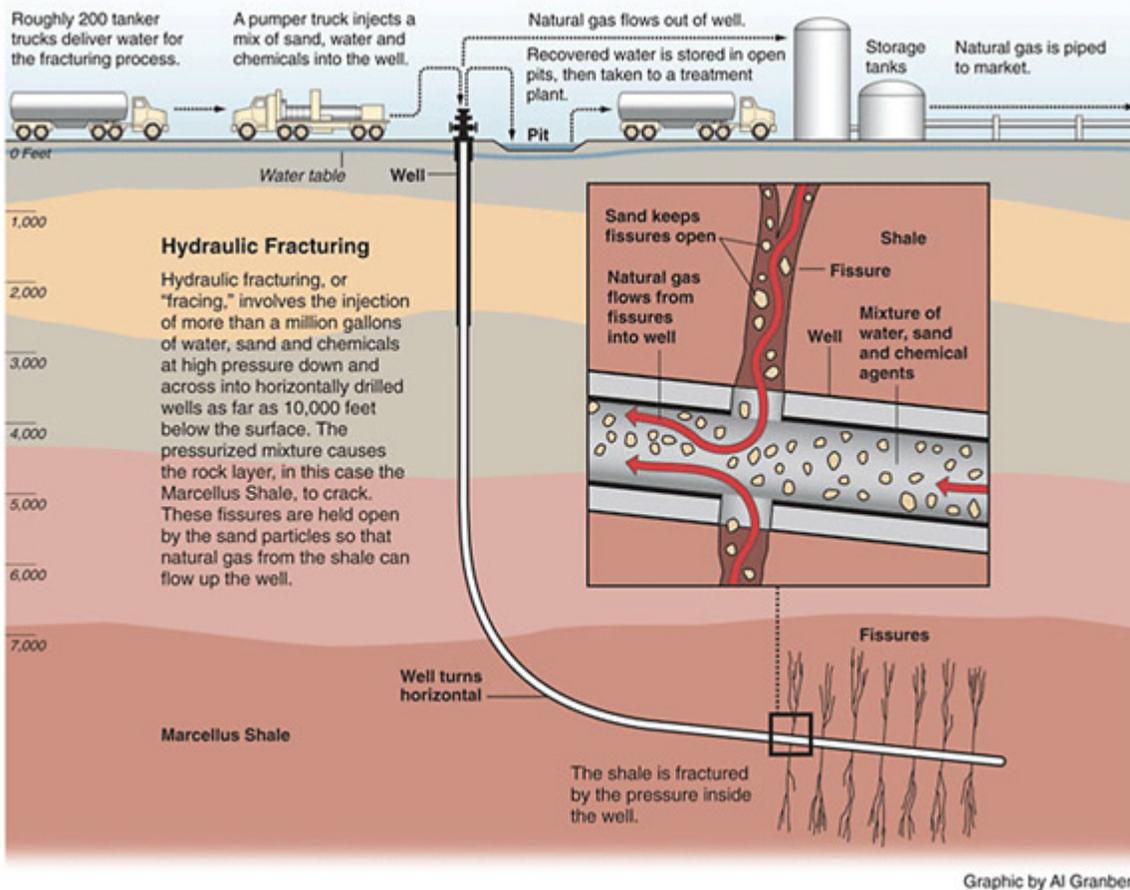
Lauren



Shale Gas continued from page 4

What is Hydraulic Fracturing?

Hydraulic fracturing (commonly called “fracking” or “hydrofracking”) is a technique in which water, chemicals, and sand are pumped into the well to unlock the hydrocarbons trapped in shale formations by opening cracks (fractures) in the rock and allowing natural gas to flow from the shale into the well. When used in conjunction with horizontal drilling, hydraulic fracturing enables gas producers to extract shale gas at reasonable cost. Without these techniques, natural gas does not flow to the well rapidly, and commercial quantities cannot be produced from shale.

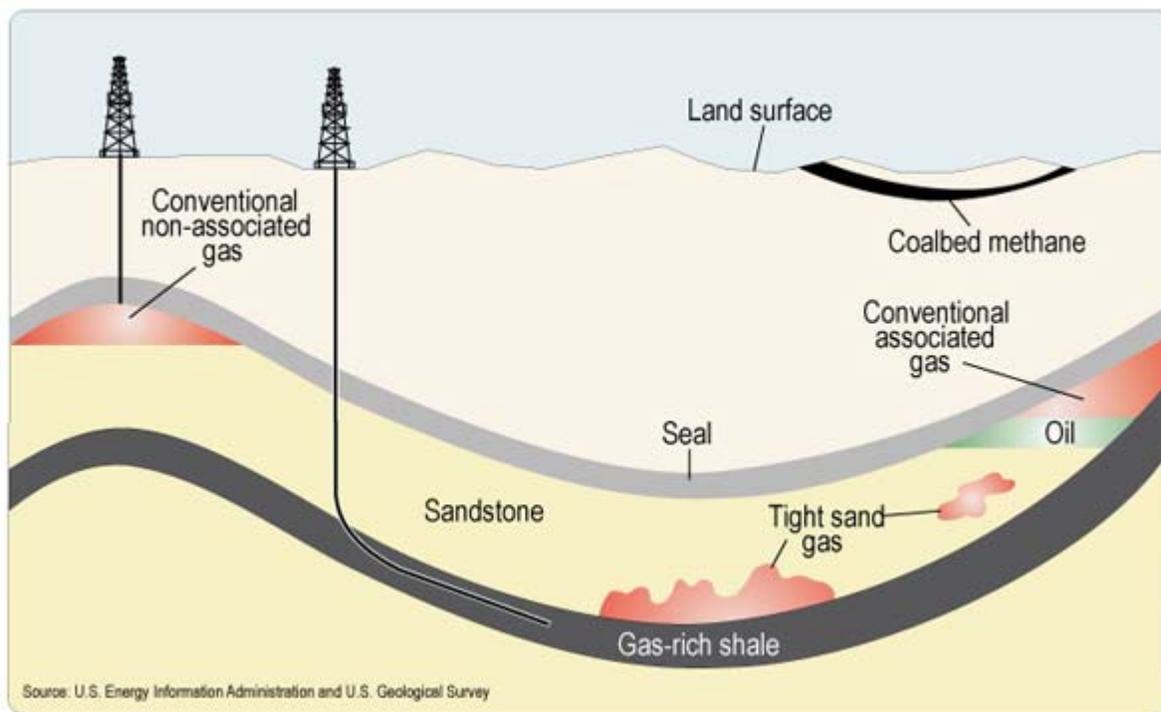


Shale Gas continued from page 7

However, there are some potential environmental concerns that are also associated with the production of shale gas. The fracturing of wells requires large amounts of water. In some areas of the country, significant use of water for shale gas production may affect the availability of water for other uses, and can affect aquatic habitats.

Second, if mismanaged, hydraulic fracturing fluid — which may contain potentially hazardous chemicals — can be released by spills, leaks, or various other exposure pathways. Any such releases can contaminate surrounding areas.

Finally, fracturing also produces large amounts of wastewater, which may contain dissolved chemicals and other contaminants that require treatment before disposal or reuse. Because of the quantities of water used and the complexities inherent in treating some of the wastewater components, treatment and disposal is an important and challenging issue.



References collected from the following websites, January 3, 2012

US Energy Information Administration – “Energy is Brief”

http://www.eia.gov/energyexplained/index.cfm?page=natural_gas_where

http://www.eia.gov/energy_in_brief/about_shale_gas.cfm