WISCONSIN TOWNS ASSOCIATION MEETING

FRAC SAND MINING AND PROCESSING

WHY? WHERE?

December 1, 2011
January 12, 2011
Why?? – Domestic Natural Gas Production

Shale Gas Plays, Lower 48 States

[Map showing shale gas plays across the Lower 48 States, with various regions shaded in colors indicating different plays.]

Source: Energy Information Administration based on data from various published studies. Updated: May 28, 2009.
Old Methods – New Applications: Directional Drilling & Hydrofracking a well

Horizontal drilling combined with hydrofracking increases well yield. Fluid pressure fractures the rock, sand grains keep the fractures open

from K. Green
What is Frac Sand?

- Quartz sand
- Highly rounded
- High compressive strength

Most desirable if:

- Easily recoverable
- Minimal processing steps (costs), quartzite cement?
- Ability to get from mine to oil/gas drilling sites easily (close to transportation routes - i.e. train)

from K. Green 2011
WHY WESTERN WISCONSIN?

It’s the Geology

High Quartz Content Sandstone Formations

West

St. Peter Formation

East

Jordan Formation

Wonewoc Formation

from K. Green 2011
ACTIVE AND PROPOSED MINE SITES

‘Frac sand’ deposits in Wisconsin

Active mine or plant
In development or proposed

Possible frac sand areas

SOURCE: Research by Jason Smathers and Julie Strupp, WCIJ
KATE G. DEN Wisconsin Center for Investigative Journalism