

From: "Patricia Carson"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 02/26/2011 10:30 AM
Subject: SAB meeting 7 March 2011

To Mr. E. Hanlon , Designated Federal Officer ; This is sent for the Mar. 7th & 8th Science Advisory Board meetings on the EPA's Hydraulic Fracturing Study . The one part of the hydraulic fracturing story that is being ignored (to our peril) is that of supercritical fluid . This is a nasty compressed (mostly CO₂) gas with many contaminates , left from the processing of oil . As a gas compressed to a fluid , it is subject to temperature & pressure changes , which allow it to expand again . This means it is volatile , dangerous & (when it gets loose) contributes greatly to global warming . In an article at www.winnipegfreepress.com/greenpage/environment/carbon-injected-underground-now-leaking-saskatchewan-farmers-study-says-113276449.htm there are details . I will send you a copy incase the oil companies have gotten it erased . A professor at SUNY Buffalo has found that frack fluids are combining with Radium 226 & 228 (found in many Marcellus shale gas wells) and is creating a whole new unknown (compound) substance . No testing (I know of) is being done to see what may be being created by supercritical fluid and the radioactive contaminates (and/or left in frack fluids) often encountered in the hydraulic fracturing process of many gas wells . So , we are dealing with unknown substances . What monsters are being created in the name of industry , jobs & profits ?? We have no way to know at this time ! In shale gas wells it is harder to gauge the pressure and/or temperature control of injected supercritical fluid for stimulating pressure or storage . Thus creating a risk of earthquakes and resulting leaks of many contaminates . The principles of this are on display in Arkansas & Saskatchewan Canada ! With CO₂ & global warming becoming more & more of a problem every day , we must not underestimate the dangers of using supercritical fluid in shale gas wells . It adds a whole new dimension to an already bad situation . This tends to get swept under the rug because it doesn't come up until the well has low pressure or is tapped for storage . But , because it is a process that hydraulic fracturing brings with it , it must not be ignored ! Thank you for your consideration of these details .
Sincerely ; Patricia G. Carson

From: "Patricia Carson"
To: Edward Hanlon/DC/USEPA/US@EPA
Date: 02/26/2011 10:54 AM
Subject: FW: CO₂ bubbling up in a field in saskatchewan from leaking injection wells/repository

To Mr. Edward Hanlon ; follow up to last email ; this is the copy of the article I mentioned . This is for the Science Advisory Board meeting of March 7th , 2011 .

From: Patricia Carson

Sent: Monday, February 21, 2011 7:28 PM

To:

Subject: FW: CO2 bubbling up in a field in saskatchewan from leaking injection wells/repository

FYI

From: Patricia Carson

Sent: Monday, February 14, 2011 6:

Subject: Fwd: CO2 bubbling up in a field in saskatchewan from leaking injection wells/repository

This article is the key to global warming. I have talked with Joan Gomberg of the USGS & she confirmed my research that drilling & carbon sequestration cause earthquakes . Until drilling was started in SK Can. That area had no real EQ history . It had no record of anything as large as a 3.0 mag. EQ ! Shortly before these leaks started in that area they started having EQ's large enough to give the supercritical fluid an escape route . This is happening all over the world . Look at a printout of arctic EQ's ! Russia is the worst , with the worlds' largest arctic EQ's , all in areas they were drilling in & resulting in additional methane seeps . This is happening all over the Arctic & North Sea & has been followed by (more & more) Antarctic quakes (see theoretical P Wave travel time) !! If you get a chance to look into the work of Richard D. McIver , you will see that all this activity has been adversely affecting the hydrate layer . The triple whammy comes in when the EQ's shatter the hydrate layer in the arctic & deep ocean at the same time it allows the supercritical fluid access to the surface . This increases melting , acidity of the sea , CO2 in the atmosphere and global warming . I have only pointed out the EQ pattern change in the arctic , but it is happening everywhere there is drilling . In addition , is the escaping supercritical fluid used to push oil & gas out of fading wells and all the heat & gas from the production & processing of oil/gas . The cumulative results threaten the survival of our species !! Global warming can not be slowed as long as we continue to use fossil fuels .
Thank You ; Pat Carson

From: Patricia Carson

Sent: Monday, February 07, 2011 8:28 AM

----- Original Message -----

Subject: CO2 bubbling up in a field in saskatchewan from leaking injection wells/repository

Date: Wed, 2 Feb 2011 21:08:33 -0500

To:

<http://www.winnipegfreepress.com/greenpage/environment/carbon-injected-underground-now-leaking-saskatchewan-farmers-study-says-113276449.html>

Breaking Environmental News

The Canadian Press - ONLINE EDITION

Land fizzing like soda pop: farmer says CO2 injected underground is leaking

By: Bob Weber and Jennifer Graham, The Canadian Press

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