FracTracker

BLOG AND DATA TOOL FOR TRACKING IMPACTS OF SHALE GAS EXTRACTION

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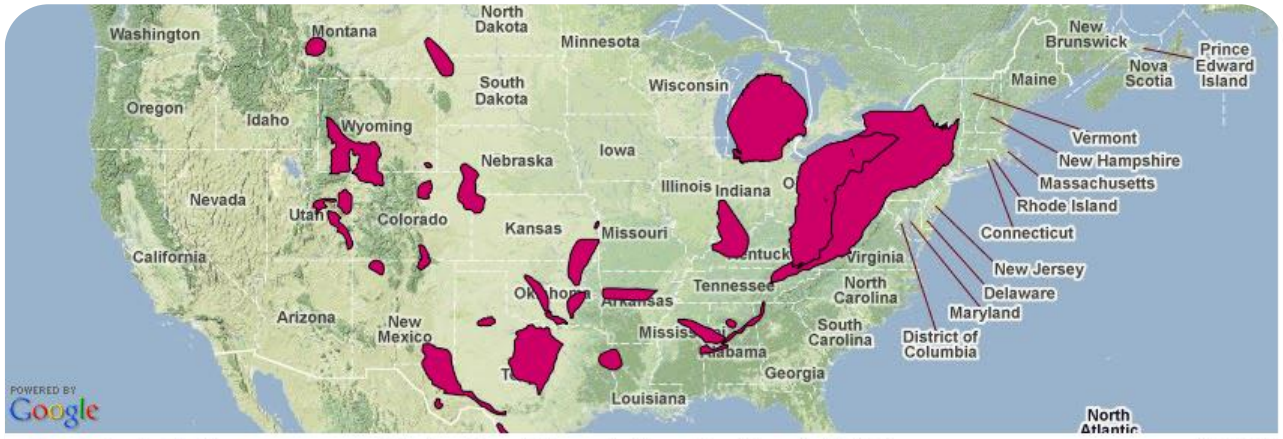
The Purpose

Manage Various Geo-located Datasets

- Environmental
- Environmental health
- Social & Behavioral Health
- Emergency preparedness
- Community & Public health
- Land use

Applications for All Shale Plays throughout U.S. & World



The Theory

CROWDSOURCING

USING THE MASSES TO MAKE SOMETHING BETTER THAN YOU COULD BUILD ALONE

Blog Features

Pages – About Us, Marcellus Resources, How FracTracker Works, DataTool, Events Calendar

Share It (Twitter, etc)

RSS Feeds – Most recent datasets from DataTool, CHEC documentary project videos, PA DEP News, Citizens' Photos

Links

Search Button

Archive

Blog Followers & Contributors

Labels/Tags from Posts

The Blog – http://fractracker.org

FRACTRACKER - MARCELLUS SHALE DATA TRACKING

TRACKING THE IMPACTS OF MARCELLUS SHALE GAS EXTRACTION

Blog | About Us | Marcellus Resources | How FracTracker Works | DataTool | Calendar

TUESDAY, AUGUST 24, 2010

Potential Shale Gas Extraction Air Pollution Impacts

How Organic Compounds Contained in the Shale Layer Can Volatilize Into Air, Become Hazardous Air Pollutants and Cause Ozone Formation

By: Conrad Dan Volz, DrPH, MPH; Drew Michanowicz, MPH, CPH; Charles Christen, DrPH, MEd; Samantha Malone, MPH, CPH; Kyle Ferrer, MPH - Center for Healthy Environments and Communities (CHEC), University of Pittsburgh, GSPH, EOH department

The Center for Healthy Environments and Communities has received numerous requests for information on how Marcellus shale gas extraction operations might contribute to air quality problems throughout the PA-NY-WV region, how air quality problems might develop in other shale plays around the country, and the potential human exposure to specific air contaminants generated in these processes. We are addressing this question in a very thorough academic fashion now by looking at the industrial processes involved from site clearance, to well drilling and hydrofracturing, to gas processing and methane and byproduct transport; we are developing conceptual site models of human exposure to contaminants generated by this very complicated industry with many sub-operations.

A conceptual site model is a written and/or pictorial representation of an environmental system and the biological, physical and chemical processes that determine the transport and fate of contaminants from a source, through environmental media (air, groundwater, surface water, sediment, soils, and food) to environmental receptors (humans, aquatic and terrestrial organisms can all be environmental receptors) and their most likely exposure modes (ASTM, 2008). Again, because there are many sources and types of contaminants to understand and uncover within each gas

WELCOME!

FracTracker's Blog & DataTool, (hosted by the Foundation for PA Watersheds & funded by the Heinz Endowments), provide citizens with a common place to share their Marcellus Shale drilling experiences & data. Both the Blog & DataTool are managed by CHEC.

SHARE IT

Share this on Facebook

Tweet this

This has been shared 68 times.

Get this for your site

MOST RECENT FRACTRACKER DATASETS

Community Impacts of

Register

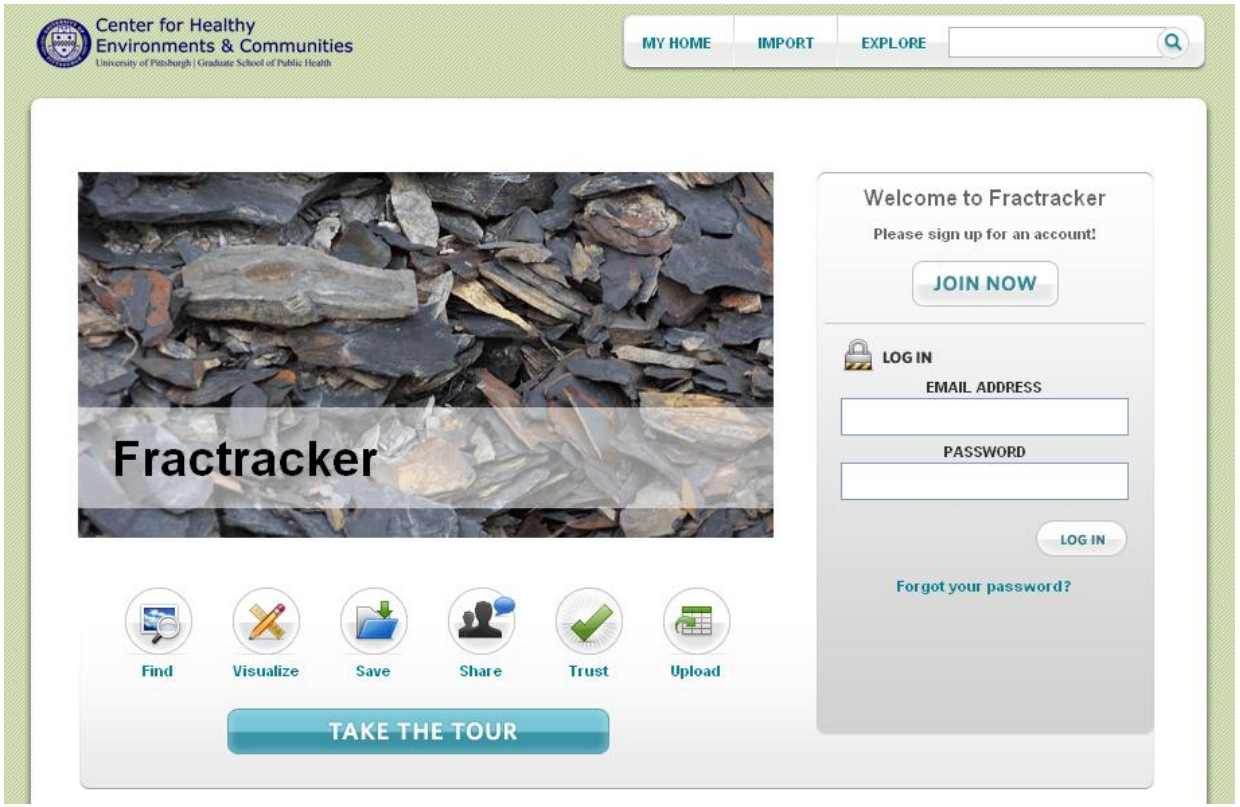
Splash page (screen shot right)

Free & automated using Rhiza tools (software developer)

Provide name and email address to encourage data accuracy

Can view datasets and take a tour without registering, but cannot upload or download data

DataTool – http://data.fractracker.org



My Home

Your profile – name, contact info, & a summary of your activity

Library of datasets uploaded, snapshots created

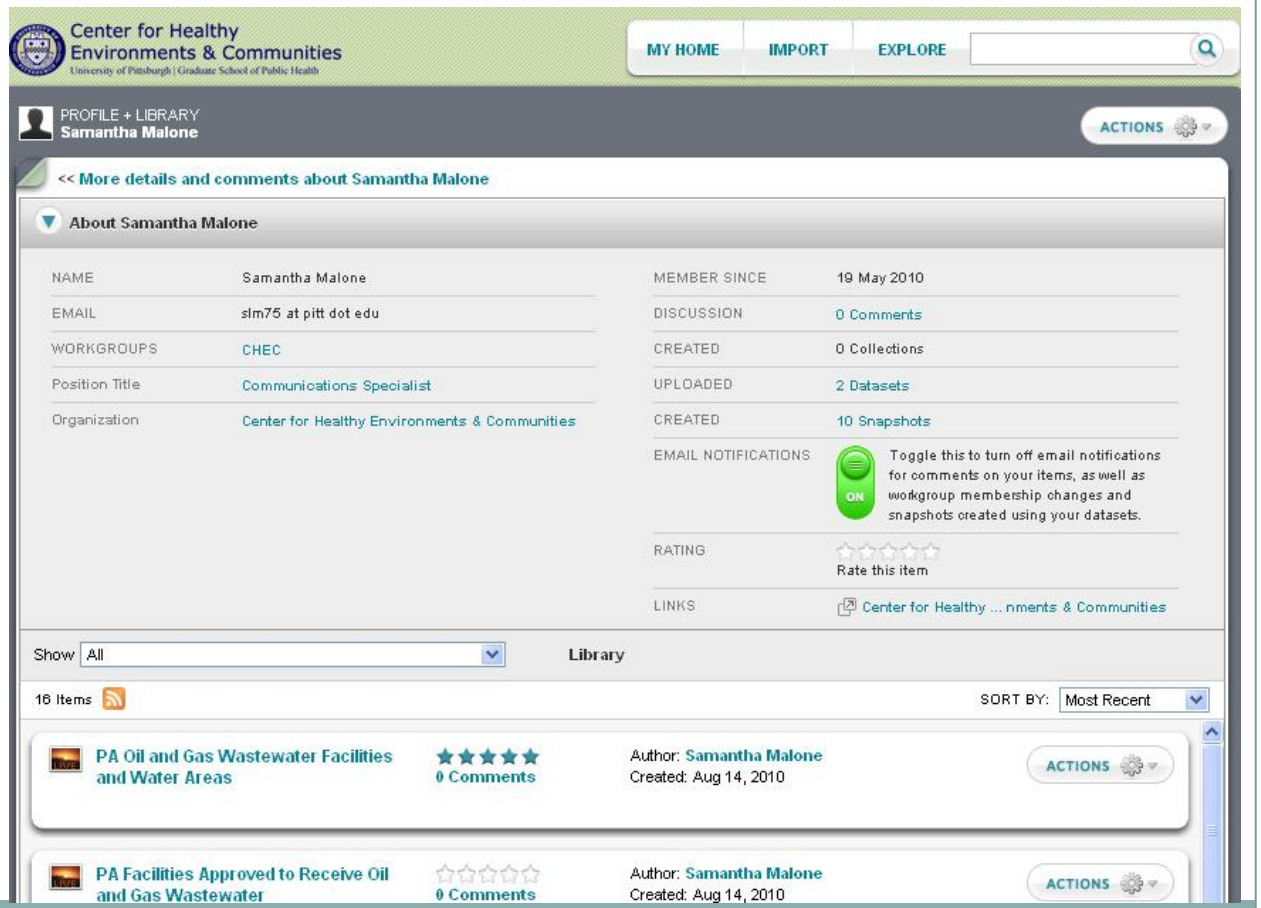
Everything is public.

Explore

Dashboard / summary of site's recent activity

Search / sort by datasets, snapshots, users, geographic area

My Home & Explore Pages



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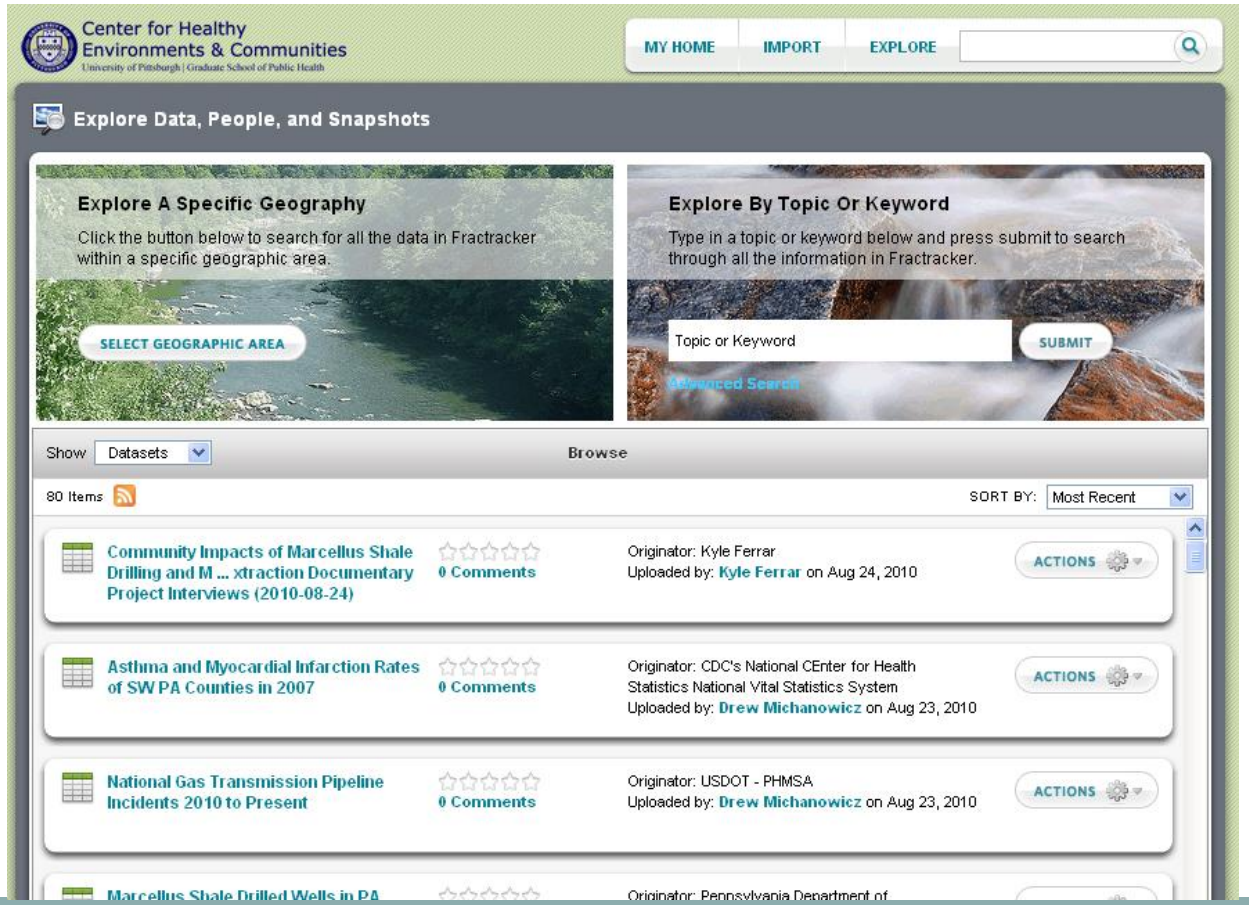


Upload

Accepts ESRI shape files, GeoTIFF raster imagery, KML, CSV, or GPX

Upload from URL or computer – Can be a new, part of a series, or replacement dataset

Provide metadata

- - - - - - - - - - - - - - - - - -

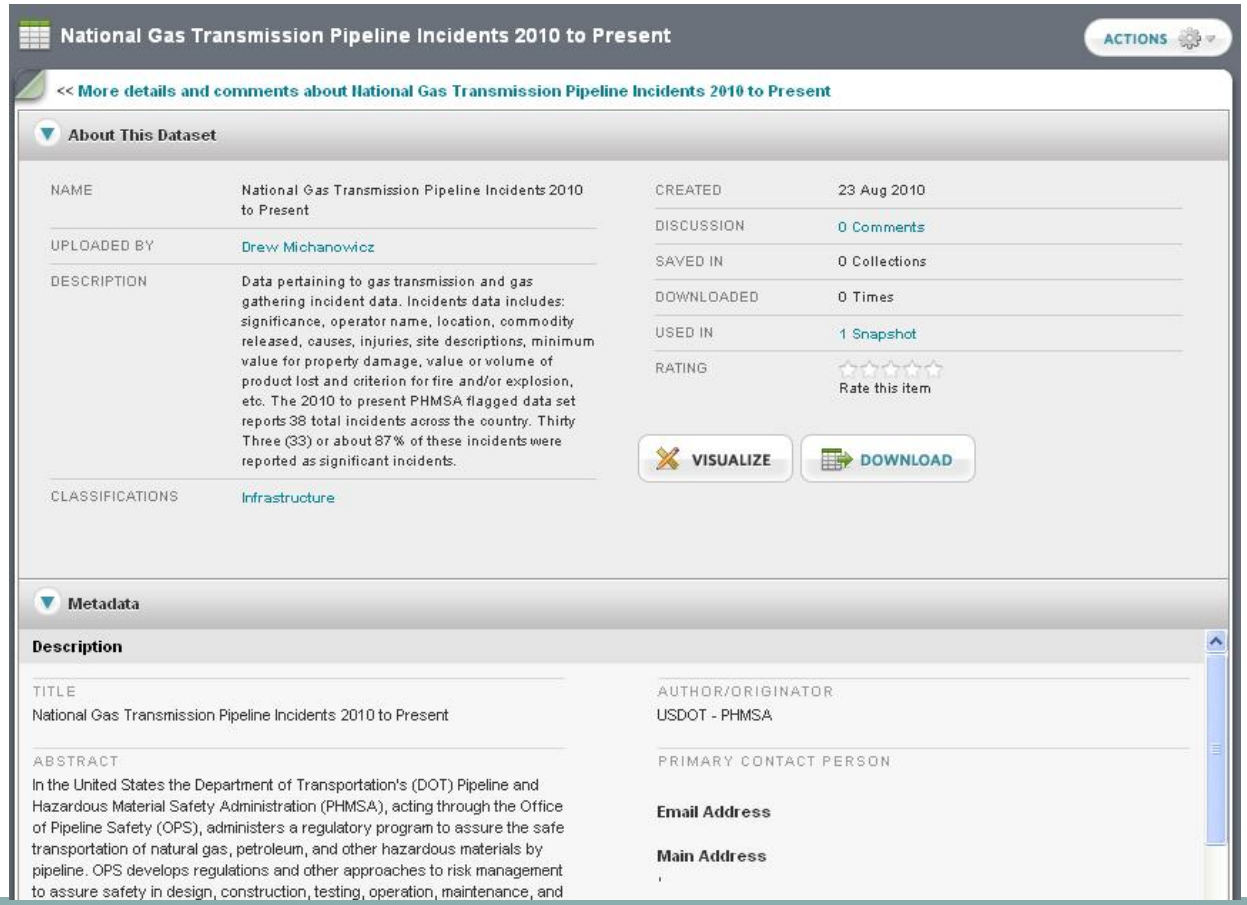
View Dataset

Preview page (shown right) – Uploader info

Visualize data, comment or rate the dataset, or download the data

Metadata

Upload & View Dataset



Visualize = Map the data

This is why latitude and longitude are critical

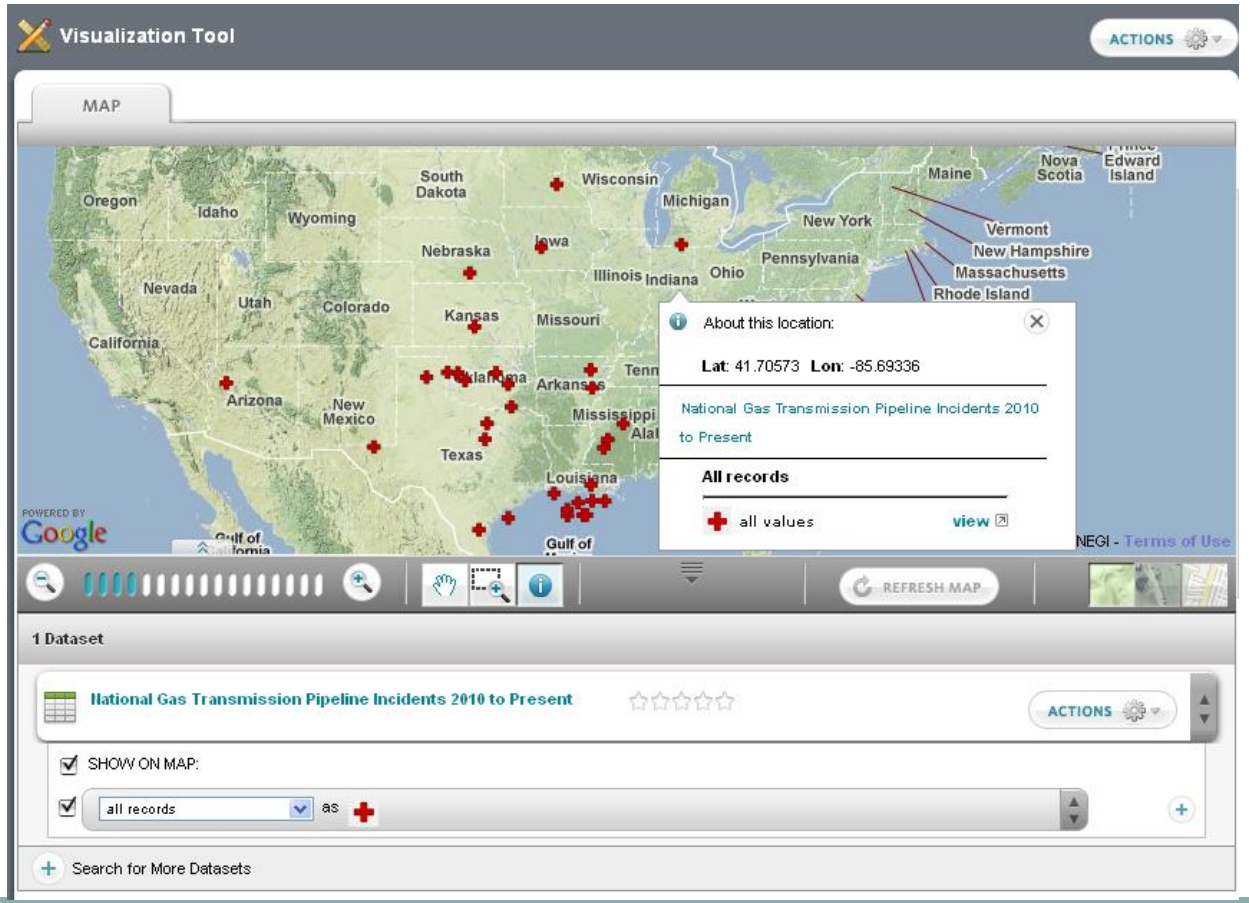
Define what you want to show on the map

Adjust the screen to zoom in on an area

Learn more about an individual record

Save session for later or create a snapshot

Visualize Data



Just like a snapshot you take with a camera, except this one can update automatically!

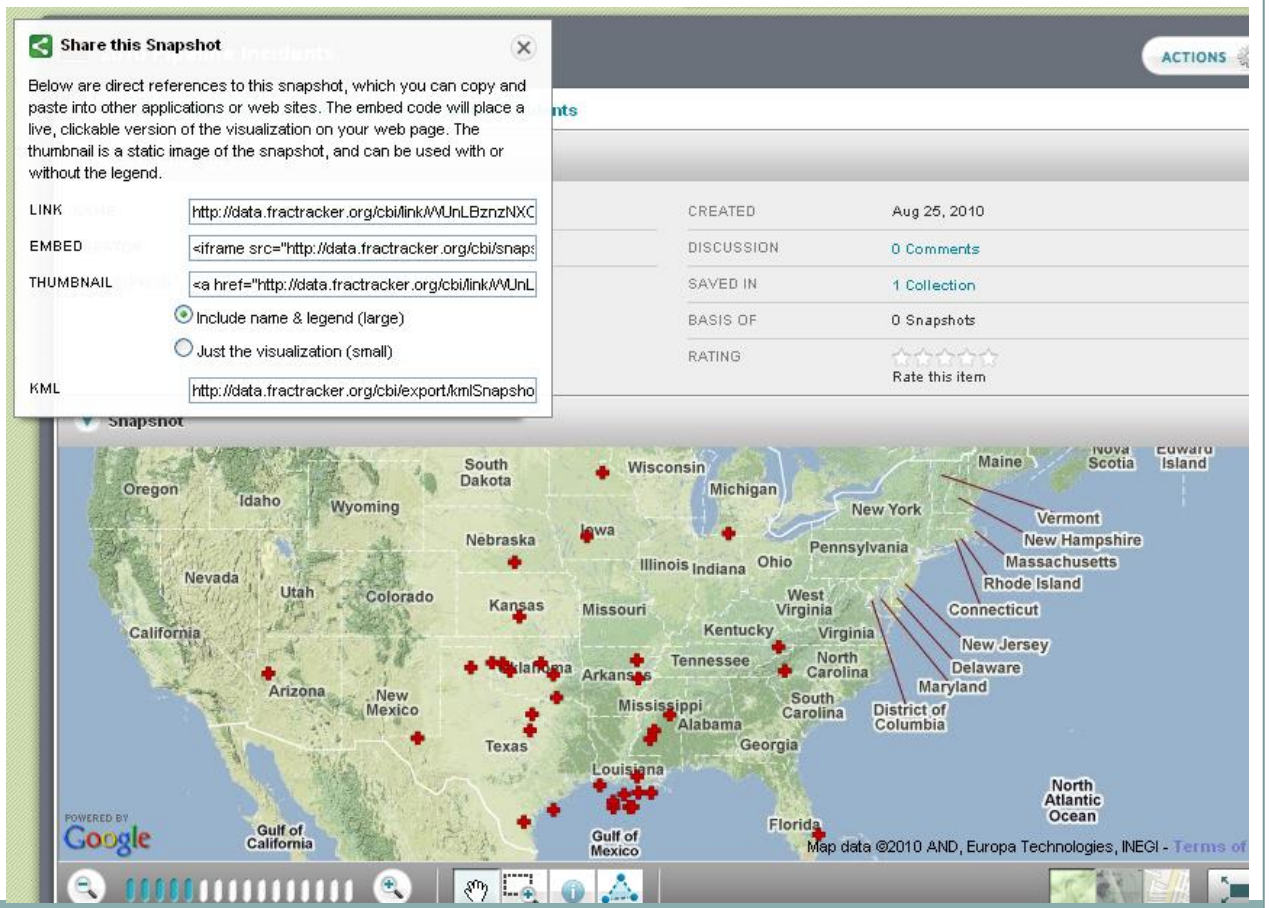
Provides information on how the snapshot is being used & what datasets were used to create it

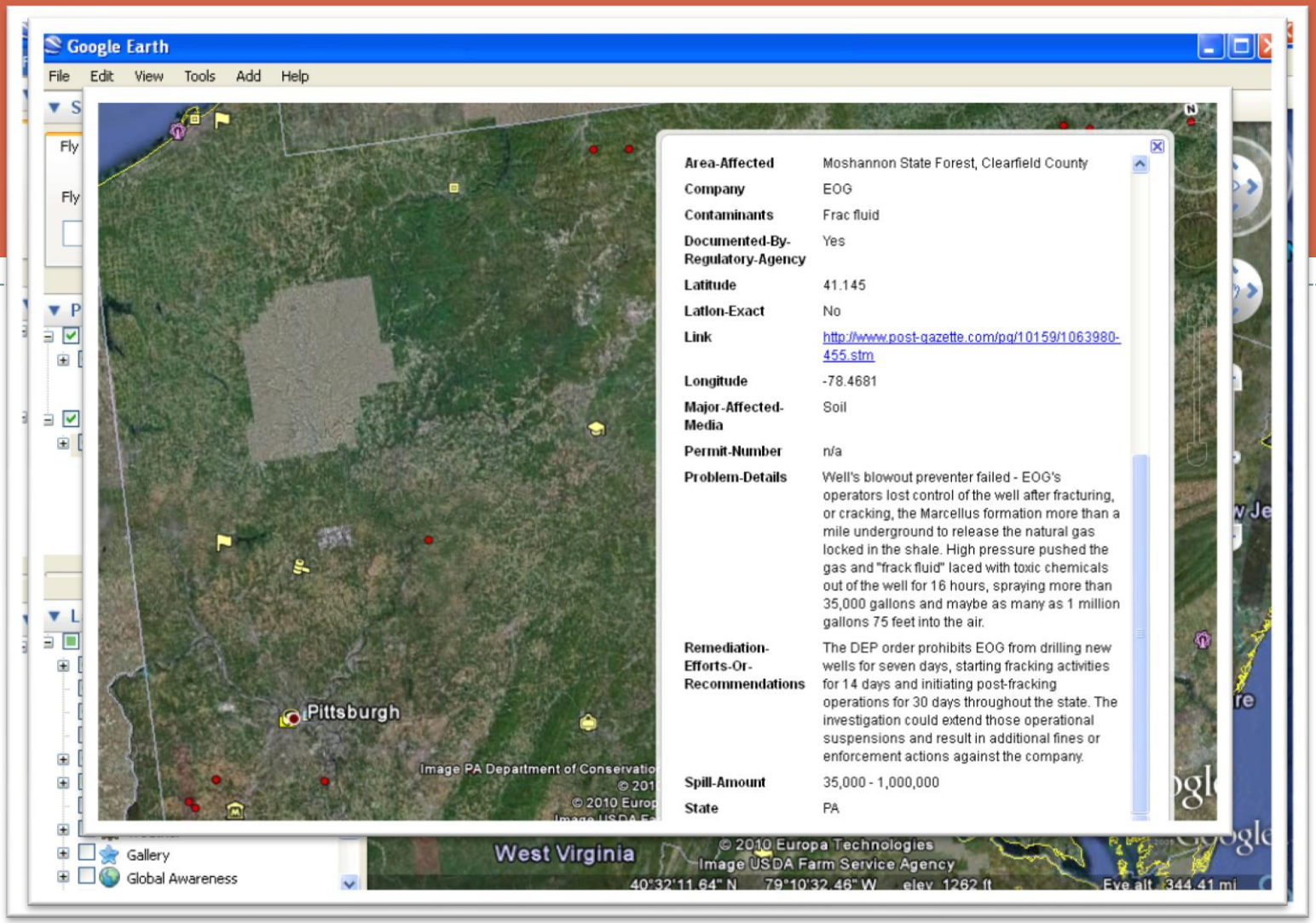
Create a new visualization based on the snapshot

Download it

Or share it online (in pop up box to the right)

Snapshots




Google Earth
File Edit View Tools Add Help
Area-Affected Moshannon State Forest, Clearfield County
Company EOG
Contaminants Frac fluid
Documented-By-Regulatory-Agency Yes
Latitude 41.145
Latlon-Exact No
Link http://www.post-gazette.com/pg/10159/1063980-455.stm
Longitude -78.4681
Major-Affected-Media Soil
Permit-Number n/a
Problem-Details Well's blowout preventer failed - EOG's operators lost control of the well after fracturing, or cracking, the Marcellus formation more than a mile underground to release the natural gas locked in the shale. High pressure pushed the gas and "frack fluid" laced with toxic chemicals out of the well for 16 hours, spraying more than 35,000 gallons and maybe as many as 1 million gallons 75 feet into the air.
Remediation-Efforts-Or-Recommendations The DEP order prohibits EOG from drilling new wells for seven days, starting fracking activities for 14 days and initiating post-fracking operations for 30 days throughout the state. The investigation could extend those operational suspensions and result in additional fines or enforcement actions against the company.
Spill-Amount 35,000 - 1,000,000
State PA
Pittsburgh
West Virginia
Gallery
Global Awareness
© 2010 Europa Technologies
Image USDA Farm Service Agency

Community Engagement – FracTracker Comments

Suggestions

- Great platform to start this database work. Not sure how exactly the general public will be able to use it.
- Add a page on the blog that summarizes the datasets available on the datatool so that unfamiliar users can access categorized information.
- More data needs to be added for drilling occurring or planned outside of PA.
- Conduct user interface testing with various user groups.

Praise

- My brain hurts in most computer situations but you made it possible for me to visit and use FracTracker in the future.
- Very excited that this tool helps to bring together diverse groups of stakeholders!
- I'm very interested to see how the tool evolves.
- The scope and successful application of technology of the FracTracker tool is fantastic. These is so much potential here.