SLIDES: What Went Wrong at Divide Creek?

Matthew Sura

Follow this and additional works at: https://scholar.law.colorado.edu/monitoring-and-protecting-groundwater-during-oil-and-gas-development

Part of the Energy and Utilities Law Commons, Energy Policy Commons, Environmental Health and Protection Commons, Environmental Policy Commons, Environmental Public Health Commons, Hydraulic Engineering Commons, Natural Resources Law Commons, Natural Resources Management and Policy Commons, Oil, Gas, and Energy Commons, Water Law Commons, and the Water Resource Management Commons

Citation Information
Sura, Matthew, "SLIDES: What Went Wrong at Divide Creek?" (2012). Monitoring and Protecting Groundwater During Oil and Gas Development (November 26).

Reproduced with permission of the Getches-Wilkinson Center for Natural Resources, Energy, and the Environment (formerly the Natural Resources Law Center) at the University of Colorado Law School.
Introduction...

- Former Director of Western Colorado Congress
- Graduate of University of Colorado Law School
- Attorney specializing in representation of landowners and mineral owners in oil and gas transactions and disputes
Colorado’s Oil and Gas Basins

- Sand Wash Basin
- Uintah Basin
- Piceance Basin
- North Park Basin
- South Park Basin
- Canon City Embayment
- Paradox Basin
- San Juan Basin
- San Luis Basin
- Raton Basin
- Denver Julesburg Basin
- Hugoton
IMPACTS TO WATER QUALITY
Hydraulic Fracturing
Example Horizontal Well

- Treatable Groundwater Aquifers
- Private Well
- Municipal Water Well: < 1,000 ft.
- Additional steel casing and cement to protect groundwater
- Protective Steel Casing
- Shale Fractures
SPILLS

Denver Post study: From 2008–2010, average of more than a spill per day, average size of 5,300 gallons
Leaking Waste Pits

Hydraulic fracturing pit.
Methane Seeps

Divide Creek in Silt Colorado, April 2004, contaminated with methane and ignitable. The accident also affected water wells in three homes.
GOOD MECHANICAL INTEGRITY

- CONDUCTOR PIPE
- SURFACE CASING
- PRODUCTION CASING

FRESH WATER AQUIFER ZONE

SHALLOW PRODUCING ZONE

TARGET PRODUCING ZONE
CEMENT CHANNELING

- Pressure builds up
- Conductor pipe
- Surface casing
- Production casing
- Fresh water aquifer zone
- Shallow producing zone
- Target producing zone

Swann Energy®
INSUFFICIENT CEMENT COVERAGE

CONDUCTOR PIPE

SURFACE CASING

PRODUCTION CASING

PRESSURE BUILDS UP

FRESH WATER AQUIFER ZONE

SHALLOW PRODUCING ZONE

TARGET PRODUCING ZONE
Matthew Sura
Attorney at Law
(720) 563-1866
mattssura.law@gmail.com