

## STEPHANIE HILL

### Education

BS Geological Sciences/Hydrogeology, University of Texas, Austin, Texas, 2000

### Licensure

Professional Geologist:

Florida	PG3074
Illinois	196001486
Kentucky	263129
Texas	15069

### Professional Affiliations

Groundwater Protection Council  
American Association of Petroleum Geologists

### Professional Experience

Stephanie Hill is a program leader for SCS Engineers' Carbon Sequestration and Deep Well Injection practice, hydrogeologist, and licensed Professional Geologist in Florida, Texas, Illinois, and Kentucky. She earned a BS in Geosciences with emphasis in hydrogeology and geomorphology at the University of Texas. Ms. Hill's early career focused on environmental compliance for mineral and fossil fuel industries at the Texas Commission on Environmental Quality (1996 to 2000) and the Railroad Commission of Texas (2000 to 2012). Since joining SCS in 2013, she co-leads a team of geologists and engineers to advise clients of various industries on geologic storage options for carbon neutrality and disposal of industrial liquid residuals. Examples of her project experience follow:

### Carbon Sequestration

#### **Confidential Clients: California, Louisiana**

Leads multi-disciplinary teams in siting, designing and overseeing installation of a stratigraphic test wells to characterize site-specific subsurface hydrogeology. Interprets test well data, participates in regulatory discussions and prepares applications for full-scale commercial deployment of carbon sequestration through Class VI underground injection control (UIC) injection wells. Facilitates relationships between carbon asset developers, industries seeking carbon neutrality options, tax equities advisors, and grant providers.

### Wastewater Disposal through Underground Injection Control

**Prairie State Generating Company, Washington County, Illinois**  
**Hamilton County Coal LLC, Mine No. 1, Hamilton County, Illinois**  
**Foresight Energy, Sugar Camp Mine, Franklin County, Illinois**  
**Countyline Corporate Park, Hialeah, Florida**

Prepared UIC permit applications for respective state regulatory agencies. Sited, designed and/or coordinated installation and workover activities on behalf of clients. Negotiated first of its kind temporary emergency permits through Illinois EPA. Oversaw full-scale construction of wells.

**Various Clients: Illinois, Florida.** Developed work plans for and oversaw compliance testing of Class I injection wells, including internal and external mechanical integrity tests, ambient pressure fall-off tests, and video, caliper, and radioactive tracer surveys. Prepared regulatory reports.

**Various Clients: Florida, Illinois, Kentucky, Louisiana, Texas .** Led preparation of studies to assess the feasibility of Class I injection wells by evaluating the geologic sufficiency and regional regulatory programmatic support.

## **Storm Water Management**

Consulted on the design and construction of numerous sedimentation ponds (surface area 0.5-100 acres, volume up to 950,000 acre-feet) and diversions either to capture and treat mine-water runoff prior to offsite discharge or divert fresh-water streamflow around disturbances.

Assisted in the development of NPDES/TPDES permits for coal mining industry for Texas Commission on Environmental Quality.

Developed/implemented surface water and groundwater monitoring plans for coal mines to establish baseline conditions and monitor active-mine and postmine impacts on quality and quantity; remediation plans developed and implemented as necessary.

Established matrix of appropriate and cost-effective best management practices based on soil type, anticipated hydrology, slope, permanence and aesthetics. Evaluated effectiveness of various water and erosion control BMPs using SEDCAD, Galena Slope Stability, HEC software, Aqtesolv, Aquachem, MODFLOW, AutoCAD and ARCGIS.

Assisted mine industry in the development of Surface Water Pollution Prevention Plans and site specific erosion control plans prior to implementation of construction of sedimentation ponds.

Facilitated relocation and restoration of numerous stream channels through and around mine-impacted lands. Used AutoCAD with Carlson software to implement geomorphic reclamation in post-mine conditions. Determined appropriate culvert sizing based on requisite hydraulics, hydrology and life of structure; developed plan to establish vegetation for erosion reduction prior to discharge through channel.

## **Hazardous Waste Management**

Performed site assistance visits to small businesses (various industry types) with follow-up reports with solutions prepared and presented to company management for purposes of achieving environmental compliance. Provided bi-yearly pollution prevention training to small businesses offering up-to-date solutions for environmental concerns; established clearinghouse for purchase of industry waste streams.

## **Class Action Litigation**

**Luminant Mining Company, LLC, Leesburg Mine, Permit No. 51, Camp County, Texas.** Served as expert witness (permit review coordinator) for State of Texas on review of new permit application by multi-disciplinary team. Testified on overall team review for compliance with Regulations and portions of hydrology.

**Dos Repúblicas Coal Partnership, Eagle Pass Mine, Permit No. 42, Maverick County, Texas.** Served as expert witness on review of permit renewal application, testifying on overall team review for compliance of Regulations, team credential defense and portions of hydrology.

## **Environmental Management and Compliance**

Participated in a work group centered on efficient management and disposal of coal combustion residuals at state-regulated surface coal mines in compliance with the United States Environmental Protection Agency's draft rules (pre-published version released on December 19, 2014). Worked with the Office of Surface Mining and Reclamation Enforcement and Interstate Mining Compact Commission to develop disposal processes and responsible regulation based on draft rules.

Conducted investigations of acidic seeps from post-mine reclamation soils; acted as consultant to provide long-term and short-term remediation solutions (anoxic lime drains and total submersion via ponds). Participated in work groups with federal oversight (Office of Surface Mining and Reclamation Enforcement) for permanent solution.

Consulted with mine industry to identify all administrative/environmental/logistical components of proposed mines prior to application of requisite permits (baseline environmental conditions, proposed detailed mine and reclamation plans, determination of forfeiture bonds, identification of owners/controllers).

## **Technical Presentations**

Texas Commission on Environmental Quality (formerly Texas Natural Resources Conservation Commission) "Pollution Prevention Training for Small Businesses" Various locations throughout Texas, 1996-2000

Office of Surface Mining and Reclamation Enforcement (via Department of the Interior), "Intergovernmental Benchmarking Workshop on Probable Hydrologic Consequences Determinations and Cumulative Hydrologic Impact Assessments (PHC/CHIA)" New Orleans, LA, 2002

Office of Surface Mining and Reclamation Enforcement (via Department of the Interior), "Annual Meeting; National Pollutant Discharge Elimination System Point Source Collection vs. Texas Pollutant Discharge Elimination System Composite Sampling" St. Louis, MO, 2009

Groundwater Protection Council, Annual Forum "Geologic Suitability of Class I Injection Wells in the Deeper Portions of the Illinois Basin" Oklahoma City, OK, 2015

National Groundwater Association, Groundwater Summit "Geologic Suitability of Class I Injection Wells in the Deeper Portions of the Illinois Basin" Denver, CO, 2016

Chemical Industry Council of Illinois, Brown Bag Luncheon "Deep Well Injection, An Illinois Water Management Option" St. Louis, MO, 2016

SCS Engineers, Liquids Management Strategic Initiative Breakout Session "Deep Well Injection, A Viable Liquids Management Option" Baltimore, MD, 2017

Missouri Waste Control Coalition, Annual Meeting "Geochemical Evaluation for Reduction of Scaling in Landfill Leachate Collection Systems" Osage Beach, MO, 2018

Groundwater Protection Council, UIL Conference "Innovative Annulus Monitoring and Control Design for High Pressure Class I Wells" San Antonio, TX, 2018

Missouri Waste Control Coalition, Annual Meeting "Injection Wells for Responsible Leachate Management" Osage Beach, MO, 2019

Groundwater Protection Council, Annual Conference "Microbially Influenced Corrosion in Injection Wells" Salt Lake City, MO, 2022