

TECHNICAL SPECIALTIES

As a Principal with Roux, Dr. Hiebert provides business and environmental strategy and technical services to petroleum and chemical corporations. Dr. Hiebert has over 25 years of experience advising Texas clients on compliance with TCEQ, USEPA, TRRC and local rules and regulations regarding waste management, site investigation, corrective action, and closure via a variety of government programs (i.e., TRRP, VCP, MSD, LPST, IOP).

- Upstream Oil and Gas, Midstream, Terminals
- Site assessment and remediation
- Project strategy and regulatory compliance
- Environmental liability management
- Environmental restoration
- Soil/groundwater systems
- Organic contaminant hydrogeology
- Microbial geochemistry
- Marine oil spills
- Data, analytics, machine learning applications

EXPERIENCE SUMMARY

Dr. Hiebert has broad experience in environmental science, policy, state government, and restoration of contaminated areas. He is recognized as a thought-leader in environmental strategy and actions that embrace principles of sustainable development.

Dr. Hiebert is a nationally recognized authority on the application of natural attenuation to environmental remediation and regulatory compliance. His early research helped establish the scientific foundation for the use of natural processes in groundwater as corrective action. Dr. Hiebert directed the investigation and quantification of natural attenuation of fuel hydrocarbons and ether additives, chlorinated solvents, and arsenic in soil and groundwater for clients throughout the U.S., Europe, and Mexico. In Texas, his clients have successfully applied natural attenuation strategies for regulatory compliance and remediation through programs at the TCEQ and TRRC.

For the State of Texas, Dr. Hiebert served three terms as Chairman of the Texas On-site Waste Water Treatment Research Council (appointed by Govs. George W. Bush and Rick Perry). Under his leadership, the Council became a significant advocate for protection of public health and the environment through improved funding of professional research, technology transfer, and public communications.

CREDENTIALS

- Ph.D. (1994) The University of Texas at Austin; Department of Geological Sciences
- M.A. (1988) The University of Texas at Austin; Department of Geological Sciences
- B.A. (1981) Harvard University; History and Science

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS

Registered Professional Geoscientist in the State of Texas #5937

Society of Petroleum Engineers #4378218

University of Texas Environmental Science Institute – Board of Advisors

Devils River Conservancy – Board of Advisors

KEY PROJECTS

- Program Manager for a portfolio of environmental liabilities at former petrochemical facilities. Developed the strategy for each site and managed multiple projects to meet safety, financial, and technical goals of the client's corporate policy. Budgets were proposed and managed on an annual basis.
- Program Manager leading staff in the development of options and pilot studies for remediation of soil and groundwater at a former oil refinery and active terminals. Dr. Hiebert developed and implemented multiple options to meet the client's requirements for schedule, budget, community integration, enhanced business reputation, and improved relations with State regulators.
- Project leader for the redevelopment of a former refinery into a 15MW utility-grade renewable energy facility, with mixed wind and solar power generation. Responsible for project strategy, financial and technical planning, and implementation of a four-phase feasibility and design program.
- Consulting Scientist for the Col-Tex State Superfund site in Texas. Led research and field work to demonstrate that arsenic in groundwater was naturally occurring and not the result of industrial impact. Designed investigation, field implementation, and prepared reports and publications documenting results.
- Program Director and Senior Scientist designing and implementing feasibility studies of natural attenuation as a remediation mechanism for hydrocarbon and solvent-impacted groundwater at 30 different sites for seven clients. Used state-of-the-art techniques to measure key parameters that reflect in situ aquifer geochemical environment, microbial population, and microbial degradation capacity. Prepared study reports to present a complete picture of natural attenuation feasibility to the regulatory community. Performed modeling to predict effectiveness of natural attenuation and recommended enhancement scenarios when appropriate. Contaminants included chlorinated ethenes/ethanes and BTEX.
- Confidential Client, Eagle Ford Play – Led integrated environmental and social impact assessment for major upstream oil company entering the Eagle Ford as operator.

- Confidential Client, Eagle Ford Play – Gas to Liquids risk analysis. Led team that identified and planned the mitigation of environmental and community risks for an upstream operator that was shifting the business focus from gas to liquids.
 - Confidential Client, Eagle Ford, Marcellus, Bakken – Led team in supporting international oil and gas company in water planning, social impacts assessment, and environmental compliance efforts across exploration, production, and ongoing operations.
 - Confidential Client, Marcellus, 2011 – Led risk assessment integrating information about chemical concentrations in frac water and flow back water, pathways to potential exposure and toxicological information. Based on the evaluation of the chemical composition of frac-fluids, provided guidance on laboratory analyses of flow back water to provide chemical characterization relevant to the risk assessment, as well as other regulatory requirements.
- Confidential Clients Haynesville, Barnett, Marcellus, Eagle Ford, Bakken for multiple clients – Led team in design and execution of regional water studies in support of shale development. Scope included evaluation of water supplies from surface water, groundwater, and available wastewater in each area by evaluating all aspects of known water use in the region. Regional water use and resource information was gathered from local, state, and federal sources to identify readily accessible and available water supplies for potential purchase. Where groundwater was a viable source, the source aquifers were evaluated with respect to current withdrawals to determine whether the aquifer was in overdraft condition. Applied hydrogeology and technical approaches were utilized to demonstrate whether withdrawals for shale gas development might impact local groundwater supplies. Applicable regulations were considered to identify potential cost and feasibility of handling and disposal of saline wastewaters.