

MIKE S. LYBRAND, P.G.
Lybrand Consulting, LLC
Hot Springs, Arkansas 71902

EDUCATION

M.S., Geology, University of Arkansas, Fayetteville, AR, 1989
B.S., Geology, Arkansas Tech University, Russellville, AR, 1986

PERSONAL INTERESTS

Outdoor activities, including hiking, boating, biking, and snow skiing.

QUALIFICATIONS

- Environmental Site Assessments
- Remedial Investigations/Remedial Design/Construction Oversight/O&M
- Regulatory Permitting and Compliance

Mr. Lybrand, owner of Lybrand Consulting, LLC, has over 25 years experience in environmental consulting. He has specialized in environmental assessments, remedial investigations, and environmental permitting. Mr. Lybrand is an experienced project manager and field geologist, and is well versed in acquisition, analysis, and interpretation of environmental data. Mr. Lybrand has proven project management and field experience in successfully completing complex environmental projects.

PROFESSIONAL EXPERIENCE

□ ENVIRONMENTAL ASSESSMENTS

Phase I and Phase II Environmental Site Assessments, *Project Manager.* Managed dozens of Phase I and II environmental site assessments required for real estate transfers, primarily in Arkansas, Alabama, Mississippi, Missouri, and Oklahoma. Projects involved site visits, personnel interviews, and record reviews to assess potential environmental liabilities at subject property and surrounding properties. Soils and/or groundwater screening (Phase II) was performed subsequently, as appropriate. Clients include industrial, commercial, and loan institution entities.

Soils and Groundwater Investigations, *Project Manager and Field Team Leader.* Manager of soils and groundwater assessment projects at over 20 natural gas compressor stations in the Southeastern United States, under both EPA and state agency oversight. Duties involved development of work plans, management of field activities, data evaluation and interpretation, report preparation, and communications with client and regulatory representatives.

□ REMEDIAL INVESTIGATIONS

Brownfields Project Implementation, *Project Manager.* Manager of Brownfields project at industrial facility in west-central Arkansas. Project involved development of a Sampling and Analysis Plan, implementation of soil and groundwater sampling activities, evaluation of analytical data with respect to human health risk-based levels, preparation of a Site Investigation Report, and development of a Memorandum of Agreement (MOA) under the Arkansas Department of Environmental Quality's (ADEQ's) Brownfields program.

Remedial Investigation, Project Manager. Manager of ongoing soils and groundwater remedial investigation at former pentachlorophenol (PCP) wood treating facility in Mississippi, involving: site characterization, treatability testing, feasibility studies, remedial planning/design, construction oversight, long-term operation and monitoring, and coordination/communication with the Mississippi Department of Environmental Quality (MDEQ).

Remedial Investigation, Project Manager. Manager of three separate projects involving CERCLA clean-up at former copper/chromium/arsenic (CCA) wood treating facilities in Mississippi and Alabama. Tasks included: characterization of arsenic and chromium in soils, preparation of remedial action plan, development of alternative clean-up levels, oversight of remediation of soils above action levels, and closure reporting.

Groundwater Assessment, Project Geologist. Field geologist for groundwater assessment project at active manufacturing facility in western Arkansas. Project duties include: preparation of work plans and correction action plan, installation of groundwater monitor wells, groundwater sampling, aquifer testing, data evaluation, and reporting. Project was conducted under the ADEQ's Hazardous Waste Division.

Remedial Investigation, Project Geologist. Field geologist for installation of borings and monitor wells at petroleum terminal in northwestern Arkansas. Project involved collection of soil samples and drilling/well installation within limestone formation. Project was conducted under ADEQ's Registered Storage Tank (RST) Program.

Groundwater Monitoring/Remediation, Project Geologist. Field geologist for groundwater remediation project in southwestern Arkansas. Project duties included: quarterly groundwater sampling and routine operation and maintenance (O&M) of air sparging/soil vapor extraction system. Project was conducted under the ADEQ's RST Program.

Groundwater Monitoring/Remediation, Project Geologist. Field geologist for ongoing groundwater remediation project in Central Arkansas. Project duties include: quarterly groundwater sampling and gauging, bimonthly groundwater nutrient injections, and routine O&M of dual-phase extraction system. Project is being conducted under the ADEQ's RST Program.

Brownfields Groundwater Assessment, Project Manager. Managed groundwater assessment project at former school bus maintenance facility in northern Mississippi. Project was conducted through the MDEQ's Brownfields Program, via EPA Brownfields grant. Institutional controls were put in place, per site's correction action plan, and site was re-developed into shopping center.

Brownfields Groundwater Assessment, Project Manager. Manager of groundwater assessment project at manufacturing facility in western Mississippi. Project tasks involved: preparation of work plans and corrective action plan, groundwater monitor well installation and sampling, data evaluation, implementation of institutional controls and contingency measures, long-term monitoring, and reporting. Project was conducted under the MDEQ's Brownfields Program. Facility was transferred to local government under Brownfields Agreement.

Soil and Groundwater Characterization, Project Manager. Manager of ongoing soil and groundwater characterization project at former liquid fertilizer storage facility in Alabama. Project activities include: preparation of work plans and corrective action plan, soil and groundwater characterization, product recovery, implementation of corrective actions and institutional controls, long-term monitoring, and reporting. Project is being conducted under an Alabama Department of Environmental Management (ADEM) Administrative Order.

□ REGULATORY PERMITTING AND COMPLIANCE

Environmental and Regulatory Compliance Audits, Project Manager. Conducted environmental and regulatory compliance audits at four sawmill facilities and fourteen other related sites in Mississippi and Louisiana, prior to purchase by major wood products company. Reporting addressed: environmental-related conditions, status of existing environmental permits, compliance with current State and Federal environmental regulations, potential environmental liabilities at facilities, and recommendations for reducing liabilities.

Regulatory Compliance Audits, Project Manager. Managed regulatory compliance audits for nine wood products facilities in Mississippi and Alabama. Audits involved site inspections and review of existing NPDES wastewater/storm water permits and SPCC plans. Non-compliance issues were reported, and recommendations were made regarding modification of existing permits/plans and applications for new permits. Follow-up activities included: discussions with regulatory agencies, modification of permits/plans, and development of formal program to assist client with future management of site inspections, sampling, and reporting.

Storm Water and Wastewater Permitting, Project Manager. Managed dozens of projects involving preparation of storm water and wastewater permit application materials at various industrial facilities, primarily in Alabama, Arkansas, Louisiana, Mississippi, and Tennessee.

CERTIFICATIONS

- OSHA 40-Hour Hazardous Waste Operations and 8-Hour Updates
- Professional Geologist – Arkansas, Alabama, Louisiana, Mississippi, and Tennessee

APPOINTMENTS/PUBLIC SERVICE

Governor appointee to Arkansas State Board of Registration for Professional Geologists (Term 2016 to 2021)

PUBLICATIONS

Borazjani, H., S. Diehl, R. Britto, and M. Lybrand. 2005. *In-Situ Biosparging of Pentachlorophenol (PCP) Contaminated Groundwater*. Proceedings of Environmental Science and Technology - 2005. New Orleans, Louisiana.

Diehl, S., M. Lybrand, A. Borazjani, and R. Penmetsa. 1997. *Bioremediation of PCP and TPH Contaminated Soil in A Pilot-Scale Field Study*. Proceedings from the In Situ and On-Site Bioremediation Fourth International Symposium. New Orleans, Louisiana.

Lybrand, M., R. Penmetsa, S. Diehl, H. Borazjani. 1996. *Pilot-Scale Biotreatment of Pentachlorophenol Contaminated Soil and Wood Matrices*. Proceedings of American Chemical Society Symposium. Birmingham, Alabama.

Steele, K.F., M.S. Lybrand, G.L. Wheeler, E.R. Lawson, and J.B. Waide. 1992. *Effects of Season and Silviculture Practices on the Chemistry of First-Order Streams in the Ozark National Forest, Arkansas, U.S.A.* Proceedings of IAHS International Symposium. Vienna, Austria.

Lybrand, M.S. 1990. *Seasonal and Forestry Treatment Effects on First Order Streams in the Ozark National Forest, Arkansas*. Proceedings of AWRA Symposium. Denver, Colorado.

Lybrand, M.S. 1989. *The Variation of Headwater Stream Chemistry in Watersheds with Different Forestry Practices, Northwest Arkansas*. Graduate School Thesis. University of Arkansas. Fayetteville, Arkansas.