PROFESSIONAL PROFILE

CONTACT INFORMATION

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EDUCATION

PhD, Environmental Engineering, University of Delaware, 2008
MS, Environmental Engineering, Sharif University of Technology, Tehran, Iran, 2003
BSc, Civil Engineering, Shiraz University, Shiraz, Iran, 2001

PROFESSIONAL LICENSES

Licensed Professional Engineer
Illinois PE, No. 062.072715
Texas PE, No. 111697

Mir A. SeyedAbbasi, PhD, PE

Technical Director

EXPERIENCE SUMMARY

Dr. SeyedAbbasi has more than fifteen years of experience:

- Technical Director, Roux, Oak Brook, Illinois. 2021-Present.
- Senior Project Manager, Jacob & Hefner Associates, Inc., Downers Grove, Illinois. 2020-2021.
- Remediation Technical specialist, BP Corporation North America, Inc., Chicago, Illinois. 2014-2020.
- Senior Environmental Consultant, GSI Environmental Inc., Houston, Texas. 2009- 2014.
- Environmental Engineer, URS Corporation, Wilmington, Delaware. 2008-2009.
- Post-Doctoral Fellow, University of Pennsylvania, Philadelphia, Pennsylvania, 2008.

TECHNICAL SPECIALTIES

Dr. SeyedAbbasi has more than fifteen years of experience in soil and groundwater investigations, remediation, environmental fate and transport modeling, academic research, and environmental consulting. He has extensive experience in directing, managing, developing, troubleshooting, and reviewing flow and transport models for subsurface contamination evaluations and water resource management. He has worked on hydrologic and hydrogeologic modeling projects spanning a wide range of schedules and budgets, of multiple spatial and temporal scales, complex geological settings, diverse climatic conditions, unique water/contaminant management issues, and challenging numerical conditions. His modeling expertise also includes multi-phase, multi-component modeling capabilities by using widely tested and successfully applied programs for reactive transport simulations. His modeling experience includes model design, construction, calibration, implementation, and sensitivity analyses.

Dr. SeyedAbbasi has extensive professional experience in environmental litigation support, including roles as consulting testifying expert for numerous cases involving forensic analysis of environmental impacts; natural resource damage assessment; remediation of soil and groundwater; and creating and reviewing environmental fate and transport, spill and risk models, and allocation of liability for projects in the US, Latin America, the Middle East, and Central Asia. He has been the Co-Principal Investigator and participant for numerous environmental research and development projects for the Department of Energy, American Petroleum Institute (API), Interstate Technology & Regulatory Council (ITRC), and Department of Defense, and has extensive experience working with research and development teams comprised of mixed academic, industrial, and consulting members. He has conducted and published research on a variety of areas related to subsurface contamination, site investigation and characterization, remediation technologies, spill modeling, matrix diffusion, and multiphase fate and transport in unsaturated and saturated subsurface media.

REPRESENTATIVE PROJECTS

Environmental Fate & Transport Modeling/Spill Modeling

- **Non-aqueous Phase Liquid (NAPL) Recovery Capture Modeling, Former Refinery, Casper, Wyoming.** Project leader developing, calibrating, and conducting sensitivity analyses of a groundwater flow and transport model using MODFLOW/MODPATH using GWVISTAS GUI; evaluated the performance of existing recovery wells' capture zones and suggested the locations of new recovery wells; run multiple transient scenarios based on different boundary conditions.
- **Former Refinery, former Energy Cooperative, Inc. (ECI), Hammond, Indiana.** Developed a three-dimensional numerical groundwater model using Visual MODFLOW for simulating groundwater flow conditions at the former refinery site. This modeling was part of the evaluation to assess groundwater flow conditions at the Site and potential migration of

dissolved constituents in groundwater to adjacent surface water. The model was used to further understand the site hydrogeology and evaluate the loading of dissolved constituents from the site into the Lake George Branch Canal and evaluated the surface water concentrations from constituent loading via groundwater discharge.

- **Groundwater Flow and Contaminant Transport Modeling for the Feasibility Study, Port Newark, New Jersey.** Project leader created a three-dimensional groundwater flow and solute transport model using MODFLOW/MT3DMS to evaluate the potential migration of the selected indicator compounds, primarily benzene, in the aquifer at the Site under various remediation corrective action scenarios. Conducted the construction, calibration, and sensitivity analysis of the model and ran several simulations of remediation scenarios.
- **Matrix Diffusion Modeling, Multiple Sites in South Carolina, New York, and California.** Project team leader to conduct an evaluation of existing site data to characterize the role of contaminant mass storage and transport from low permeability layers in the persistence of large and dilute plumes; conducted matrix diffusion modeling in a limestone aquifer and its impact on the remediation time frame, including determination of the mass of contaminant present in the aquifer matrix, back diffusion and time to reach acceptable regulatory concentrations (MCLs); conducted a conceptual matrix diffusion modeling to investigate the relative contribution of DNAPL dissolution and matrix diffusion to the long-term persistence of chlorinated solvent source zones.
- **Surfactant-Enhanced Aquifer Remediation (SEAR) Modeling, Former Refinery, Casper, Wyoming.** Project team leader to evaluate the data collected prior to and during a surfactant injection pilot test and characterize the role of contaminant mass storage and NAPL dissolution/mobilization on the SEAR performance at the site. Conducted multi-phase multi-component reactive flow and transport modeling unsaturated and saturated porous media using UTCHEM model to help with data collection, design calculations, surfactant injection system design, implementation, and monitoring.
- **Oil Spill Flow and Transport Modeling, Evrona, Israel.** Project leader conducting oil spill modeling of spill from a buried pipe transporting crude oil that resulted in an estimated release volume of approximately 5,000 cubic meters. Analyzed and modified the digital elevation models (DEM) of different resolutions to create “hydrologically sound” DEMs in order to maintain positive flow across the DEM. Predicted the flow path on the ground surface and evaluated the extent of a released product onto the ground surface along the flow path based on the estimated release volume and time duration, product properties, surface soil properties, and air temperature.
- **Natural Attenuation of Dissolved Petroleum Hydrocarbons, Former Terminal, Jackson, Michigan.** Project leader conducting BIOSCREEN modeling of Methyl-tert-butyl-ether (MTBE) fate and transport in overburden and bedrock aquifers at a former terminal. MTBE had been detected in potable wells for residential homes located near the terminal. Conducted assessment of MTBE plume migration and degradation using the USEPA’s BIOSCREEN groundwater transport Model. Evaluated the extent of MTBE plume migration to predict whether the potable wells for homes outside of the water district and on the southern shore of nearby lake may be impacted by MTBE.
- **Environmental Risk and Dose Modeling from Residual Radioactive Materials, Chemical Manufacturing Facility, Gulf Coast, Texas.** Conducted radiological assessment for Radioactive Material License (RML) application including environmental risk and radiation dose modeling with RESRAD and RESRAD-OFFSITE software and infiltration rate calculations using SAM and HELP models.

Environmental Assessment, Investigation and Remediation

- Phase I Environmental Site Assessments. Performed multiple Phase I ESAs for various commercial clients and government agencies. Properties have included vacant, agricultural, commercial, and residential properties; and active and vacant industrial facilities. Conducted examination of potential soil contamination, groundwater and surface water quality and reviewing existing topographic, geologic, hydrogeologic, and hydrologic information according to ASTM or other applicable standards.
- Phase II Environmental Site Assessments. Managed numerous Phase II soil and groundwater sampling projects for various clients throughout the United States. Soil and groundwater investigations have been completed on vacant, agricultural, commercial, industrial, and government properties. Conducted hydrogeological investigations, surface and subsurface soil investigations, soil, groundwater, and surface-water sampling, collect, preserve, ship the samples to a laboratory according to standard industry methods.
- Response Action Planning and Response, Houston Texas. Prepared the Response Action Plan including the environmental sampling and analysis program to complete affected property assessments and response actions under the Texas Risk Reduction Program (TRRP). Completed site-closure investigation, including soil and groundwater sampling and managed subcontractor during decommissioning.
- Site Investigation and Affected Property Assessment, Gas Plant Site, Midland Texas. Provided technical support for a soil and groundwater site investigation to delineate the extent of the affected soil and groundwater at a Gas Plant site. Completed

soil and groundwater field investigations to define extent of petroleum LNAPL impact in soil and groundwater. Developed a Conceptual Site Model (CSM) used to communicate site subsurface conditions to stakeholders and assist in environmental liability evaluation.

- Remedial Investigation and Feasibility Study (RI/FS), Carson, California. Provided evaluation of remedial action alternatives developed for unsaturated zone remediation of LNAPL product at Carson site including cost estimation for different remediation alternatives, carbon footprint, and implementability. Completed soil and groundwater field investigations to define the extent of petroleum hydrocarbon impact in soil and groundwater.
- Pulsed Oxygen Biosparging (POBS) Pilot Test, Carson, California Terminal. Project team leader developing the work plan for the implementation, monitoring, and expected performance of a pulsed oxygen biosparging (POBS) pilot test for remediation of light-non aqueous phase liquid (LNAPL) at a major O&G company Terminal in Carson, California. Analysis included site characterization data review, calculation of system design and performance parameters, and development of a monitoring plan for a pilot test.
- Bioventing Pilot Test, Carson, California. Project team leader developing the work plan for the implementation, monitoring and expected performance of a modified diffusion-based bioventing system to treat residual LNAPL and soil vapor from the vadose zone at an industrial site. Analysis included site characterization data review, calculation of system design and performance parameters, and development of a monitoring plan for a pilot test.
- Site Remediation, Galveston, TX. Conducted remediation activities at a site impacted by chlorinated compounds, involving injections of chemical oxidant and electron donor for sustained enhanced reductive dechlorination, involving 165 injection locations over a period of six weeks. Provided technical review of operational data to optimize system performance.
- Remedial Investigation and Feasibility Study, Sauget Area 1, Sauget and Cahokia, Illinois. Provided evaluation of remedial action alternatives developed for Sauget Area 1 sites and cost estimation for different remediation alternatives using RACER. Provided project management, and technical support to the field team investigating soil and groundwater impact from chlorinated solvents release. Completed data evaluation and groundwater fate and transport modeling of dissolved constituents.
- Groundwater Investigation, Former Chemical Plant, Houston, Texas. Project manager installing, developing, and sampling temporary piezometers and permanent monitoring wells to define local groundwater conditions; implemented field groundwater sampling programs to ensure that site constituents are being remediated or captured; and for completion of affected property assessments under TRRP.
- Radioactive Material License (RML) Application, Chemical Manufacturing Facility, Gulf Coast, Texas. Conducted radiological assessment for RML Application, including environmental risk and dose modeling with RESRAD and RESRAD-OFFSITE software and infiltration rate calculations using SAM and HELP models.
- RCRA Permit Renewal Application, Commercial Hazardous Waste Disposal Facility, Houston Ship Channel, Texas. Prepared the renewal application for a facility permitted for 7 container storage areas and 50 tanks, including updating and verification of facility plans, waste analysis plan, engineering reports, closure plans, and financial assurance.

Air Quality Impact Analysis/Dispersion Modeling

- **Air Quality Impact Statement (AQIS) Analysis and Reporting for Multiple Sites in Chicago, Illinois.** Evaluated and quantified the stationary and mobile sources of air pollution at the sites describing the proposed source and the nature and quantity of air contaminants emitted directly and indirectly from development of the sites. Conducted air dispersion modeling utilizing US Environmental Protection Agency (EPA) AERMOD atmospheric dispersion modeling system. Assessed impacts of the development on the National Ambient Air Quality Standards (NAAQS) to determine if the project will cause significant adverse impacts to existing air quality.
- **Air Quality Assessment West Windsor, New Jersey.** Evaluated the emissions related to a 1.2 million-square-foot redevelopment Site including air dispersion modeling and planting of trees impact on NOx and PM2.5 removal to show that the site development did not have any adverse air quality impact on-site and surrounding neighborhood.
- **In-Home Air Quality Testing in Chicago, Illinois.** Prepared indoor air quality testing methodology consistent with applicable industry and professional standards to characterize indoor air quality and presented to Chicago Department of Aviation (CDA) and City of Chicago Department of Law (DOL).

Environmental Research & Development

- **Former atlas missile site in York, Nebraska.** Co-Principal Investigator on team investigating enhanced attenuation of unsaturated chlorinated solvent source zones using direct hydrogen delivery (ESTCP ER-201027). Evaluated the performance, implementability, and cost of the hydrogen-based treatment (H2T) as a remediation technology for the unsaturated zone, either as the initial remediation technology applied at a site or as a polishing technology that will allow

Department of Defense (DoD) site managers to shut down an existing expensive, low performance SVE system, but where monitored natural attenuation may not be sufficient to control the groundwater plume that is sourced by the residual contaminants in the unsaturated zone. With such a technology, the cost for remediating these groundwater plumes can be greatly reduced, and a much more sustainable remedy can be implemented.

- **Matrix Diffusion Modeling Toolkit.** Co-Principal Investigator on team preparing a decision support system for matrix diffusion modeling (ESTCP ER-201126). Created accessible, easy-to-use, and useful models to evaluate matrix diffusion effects. Results of the Air Force Civil Engineering Center (AFCEC) and SERDP research projects were developed into analytical matrix diffusion models. These models were used to create a decision support system that will enable users to enter site-specific parameters that can be used to predict matrix diffusion effects. Developed a decision support system equipped with planning level Mass Discharge Module and Concentration Module models; created an interactive help guide and user's manual; and tested the decision support system using data from ESTCP and SERDP projects.
- **Matrix Diffusion Modeling Research Study.** Project team leader conducted a conceptual matrix diffusion modeling to investigate the relative contribution of DNAPL dissolution and matrix diffusion to the long-term persistence of chlorinated solvent source zones. Extensive modeling performed to determine if matrix diffusion is a plausible explanation for the lower-concentration but persistent chlorinated solvent plumes in the groundwater-bearing units at three different pump-and-treat systems. Groundwater models were applied to study the persistence of the plumes in the absence of contributions from the historical source zones.
- **OverLand Oil Flow Model (OLOF).** Created a model that runs within the ArcGIS platform and is used for evaluating potential oil spill scenarios on the ground surface. The model can be used to predict the flow path on the ground surface and evaluate the extent of a released petroleum product onto the ground surface along the flow path based on release volume and time duration, product properties (e.g., specific gravity, viscosity, etc.), surface soil properties, and air temperature. OLOF model accounts for oil lost to infiltration and evaporation. The results of the model are presented as a series of vectors and images showing the modeled size and extent of the spill. These images may be superimposed on aerial photography, topography maps, and/or maps showing sensitive features (such as surface water bodies) in the region of the spill.

Litigation Support

- **Litigation Support, PFAS Fate and Transport Modeling Utilizing MODFLOW/MT3DMS in Minnesota.** Conducted flow, particle tracking and solute fate and transport modeling for large multi-layer model with an unstructured grid (USG) discretization. Evaluated the impact of non-point source of PFAS entering the subsurface from dumping areas.
- **Litigation Support, 1,4-Dioxane Fate and Transport Modeling Utilizing MODFLOW/MT3DMS in Suffolk County, New York.** Conducted flow, particle tracking, and solute fate and transport modeling for large multi-layer model. Evaluated the impact of non-point source of 1,4-Dioxane entering the subsurface from septic tank and cesspool systems.
- **Litigation Support, Group of Retail Gas Stations Sites, California.** Provided technical support on various environmental issues associated with the litigation project, including chemicals fate and transport modeling of MTBE with MODFLOW/MT3DMS, chemical fingerprinting, and model evaluation. Analyzed groundwater, soil vapor and indoor air data to identify potential impacts from saturated zone sources to indoor air. Developed detailed hydrogeological cross sections for depiction of soil and groundwater conditions and delineation and extent of chemical plumes in a fractured media. Analyzed the plaintiff's groundwater flow and contaminant transport model to support legal team in defense of claims of groundwater contamination from MTBE.
- **Litigation Support, West Hempstead, New York.** Provided litigation and expert witness support. Assisted clients by conducting site assessments and investigations, fate and transport modeling of benzene and MTBE, evaluating environmental operations against regulations, conducting historic and current standards of practice, and allocating remediation costs among a number of potentially responsible parties (PRPs). Provided technical support to expert witnesses on significant cases regarding forensic analysis of causation, environmental remediation damages, cost recovery, etc., for oilfield, chemical, and waste management facilities.
- **Litigation Support, Palo Alto, California.** Provided technical support to expert witness on various environmental issues associated with the litigation project, including local and regional hydrogeology, contaminant fate and transport, chemical fingerprinting, and DNAPL penetration and distribution. Conducted site investigation to identify the source and extent of impacts, as well as the need for any remediation as well as scope and cost of required remediation. Site-specific evaluations that include consideration of applicable regulations, potential impacts to beneficial use, and potential risk to human health and the environment.

- **Litigation Support, Fayette, Mississippi.** Provided technical support to expert witness on various environmental issues associated with the litigation project, including local and regional hydrogeology, and contaminant fate and transport modeling. Analyzed groundwater, soil vapor, sub-slab gas, and indoor air data to identify potential impacts from saturated zone sources to indoor air. Conducted on-site sub-slab and indoor air sampling and analysis using portable GC/MS and evaluation techniques to determine the true source of alleged indoor air impacts (e.g., indoor sources versus vapor intrusion).
- **Litigation Support, Louisiana.** Provided technical support to on various environmental issues associated with the litigation project, including detailed hydrogeological cross sections, local and regional hydrogeology, and contaminant fate and transport. Conducted saline water intrusion modeling to evaluate the alleged impact of pumping rates from client's oil production wells compared to nearby wells on saline water intrusion into plaintiff agricultural irrigation wells. Evaluated the model created by the plaintiff and ran multiple additional scenarios.
- **Litigation Support, Merced County, California.** Developed detailed hydrogeological cross sections for depiction of soil and groundwater conditions and delineation and extent of contaminant plumes in a fractured media. Analyzed groundwater and soil data to identify potential impacts from a product use at a refinery on the neighboring properties. Conducted unsaturated and saturated modeling of fumigants, modeled fate & transport of contaminants of concern and evaluated the risk to down-gradient receptors.

PROFESSIONAL TRAININGS

8-hour General Site Worker and Supervisor Refresher Training, OSHA HAZWOPER, last refresher October 2020

40-hour General Site Worker Training, OSHA HAZWOPER, June 2009

PROFESSIONAL AFFILIATIONS

Petroleum Environmental Research Forum (PERF) – Board Member, 2016 – Present

National Groundwater Association (NGWA)

American Society of Civil Engineers (ASCE)

American Geophysical Union (AGU)

American Chemical Society (ACS)

PUBLICATIONS

Seyedabbasi M.A., Newell, C.J., de Blanck, P.C., Determination of Tortuosity Factor for Matrix Diffusion Calculations in Different Soil Media, Submitted to Journal of Contaminated Hydrology.

Adamson, D.T., McHugh, T.E., Rysz, M.W., Landazuri, R., Seyedabbasi, M.A., Hass, P.E., Newell, C.J., On-Site Vapor-Phase analysis as a Novel Approach for Monitoring Groundwater Wells. Groundwater Monitoring & Remediation Journal. Volume 34, Issue 2, 42–59, DOI: 10.1111/gwmr.12048.

Seyedabbasi M.A., Kulkarni P.R., McDade J.M., Newell C.J., Gandhi D., Gallinatti J.D., Cocianni V., Ferguson D.J. (2013) Matrix Diffusion Modeling Applied to Long-term Pump and Treat Data: 2. Results from Three Sites, Remediation Journal, 23 (2), 93–109, DOI: 10.1002/rem.21350.

McDade J.M., Kulkarni P.R., Seyedabbasi M.A., Newell C.J., Gandhi D., Gallinatti J.D., Cocianni V., Ferguson D.J. (2013) Matrix Diffusion Modeling Applied to Long-term Pump and Treat Data: 1. Method Development, Remediation Journal, 23 (2), 71–91, DOI: 10.1002/rem.21349.

Seyedabbasi M.A., Newell C.J., Adamson D.T., Sale T.C. (2012) Relative Contribution of DNAPL Dissolution and Matrix Diffusion to the Long-Term Persistence of Chlorinated Solvent Source Zones, Journal of Contaminant Hydrology, pp. 69-81, DOI: 10.1016/j.jconhyd.2012.03.010.

Farthing, M.W., M.A. Seyedabbasi, P.T. Imhoff, C.T. Miller (2012) Influence of porous media heterogeneity on nonaqueous phase liquid dissolution fingering and upscaled mass transfer, Water Resour. Res., 48, W08507, DOI: 10.1029/2011WR011389.

Seyedabbasi, M.A., Pirestani, K., and P.T. Imhoff, Importance of Intra-NAPL Diffusion on Solute Elution from Nonaqueous Phase Liquid (NAPL) Pools into Groundwater, Submitted to the Journal of Contaminant Hydrology.

Seyedabbasi, M.A., Imhoff, P.T., Light Transmission Technique for the Measurement of Water and NAPL Content in Transient two-phase Systems in Heterogeneous Porous Media, Submitted to the Journal of Contaminant Hydrology.

Seyedabbasi, M.A., Farthing, M.W., Imhoff, P.T., Miller, C.T. (2008) Influence of Wettability and Boundary Conditions on NAPL Dissolution Fingering, Advances in Water Resources, DOI: 10.1016/j.advwatres.2008.08.003, 31, 1687-1696.

Ataie-Ashtiani, B. and Seyedabbasi, M.A. (2006) Effects of sea-water intrusion interface on the flux of contaminant from coastal aquifers into the coastal water: Results of seven years of continuous work on modeling of ground water discharge into the coastal zone, Journal of Coastal Research, 3 (39), 1654-1657.

PRESENTATIONS

Seyedabbasi A., Newell C.J., Adamson D.T., McGuire T.M., Looney B.B., Hughes J.B., Simon M.A., Evans P.J., Coyle C.G. (2011) Enhanced Attenuation of Unsaturated Chlorinated Solvent Source Zones using Direct Hydrogen Delivery, Partners in Environmental Technology Technical Symposium & Workshop, Washington, D.C., Nov. 29-Dec. 1, 2011.

Swann T.N., Newell C.J., Kamath R., Kulkarni P., and Seyedabbasi A. (2011) Sustainability Benefits of Transitioning from High-Intensity SVE to Low-Intensity, Enhanced Attenuation Processes for Unsaturated Zone Treatment, International Symposium on

Bioremediation and Sustainable Environmental Technologies – Reno, NV; June 27-30.

Seyedabbasi A., Adamson D. T., Newell C. J. (2010) Enhanced Attenuation of Unsaturated Chlorinated Solvent Source Zones using Direct Hydrogen Delivery, Partners in Environmental Technology Technical Symposium & Workshop sponsored by SERDP and ESTCP, ESTCP Project ER-1027, Nov. 30-Dec. 2, 2010, Washington, DC.

Newell C.J., Seyedabbasi A. (2010) Impact of Matrix Diffusion on Remediation Timeframe, Remediation of chlorinated and recalcitrant compounds, the Seventh International Battelle conference Proceedings, May 24-27, 2010, Monterey, California

Newell, C.J., Seyedabbasi, M.A., (2009) University Consortium for Field-Focused Groundwater Contamination Research, 2009 Annual Meeting, May 19-20, Guelph, Ontario.

Seyedabbasi, M.A., Farthing, M.W., Imhoff, P.T., and C.T. Miller (2008) Influence of Porous Media Heterogeneity on NAPL Dissolution Fingering and Upscaled Mass Transfer, Fall Meeting of the American Geophysical Union.

Gasda, S.E., Farthing, M.W., Seyedabbasi, M.A., Kees, C.E., Imhoff, P.T., and C.T. Miller (2008) The Influence of Heterogeneity and Spill Conditions on NAPL Dissolution Fingering, Fall Meeting of the American Geophysical Union.

Seyedabbasi, M.A., Imhoff, P.T., Farthing, M.W., Miller, C.T., (2007) Developing Upscaled Models for NAPL Dissolution Fingering: Effect of Porous Media Heterogeneity, DNAPL-2: The Second International Conference on DNAPL Characterization and Remediation, Niagara Falls, NY.

Seyedabbasi, M.A., Imhoff, P.T., Farthing, M.W., Miller, C.T., (2006) Developing Upscaled Models for NAPL Dissolution Fingering: Effect of Porous Media Wettability and Boundary Conditions, DNAPL-1; The First International Conference on DNAPL Characterization and Remediation, Pittsburgh, PA.

Farthing, M.W., Seyedabbasi, M.A., Imhoff, P.T., and Miller C.T. (2006) Assessing the Impact of Wettability and Heterogeneity on NAPL Dissolution Fingering. EOS Transactions, American Geophysical Union, Vol. 87 No. 52, Abstract H11C-1265, American Geophysical Union Fall Meeting, San Francisco, CA.

Seyedabbasi, M.A., K. Pirestani, S.B. Holland, and P.T. Imhoff (2005) Investigation of Processes Controlling Elution of Solutes from Nonaqueous Phase Liquid (NAPL) Pools into Groundwater, Fall Meeting of the American Geophysical Union.

Farthing, M.W., Seyedabbasi, M.A., Imhoff, P.T., and Miller, C.T. (2005) Efficient Numerical Methods for Modeling NAPL Dissolution Fingering. EOS Transactions, American Geophysical Union, Vol. 86 No. 52, Fall Meeting Supplement, Abstract H11D-1294. American Geophysical Union Fall Meeting, San Francisco, CA.

Ataie-Ashtiani, B., Seyedabasi, M.A., (2004) Effects of Sea-Water Intrusion Interface on the Flux of Contaminant from Coastal Aquifers into the Coastal Water, Book of Abstracts of the 8th International Coastal Symposium, pp. 246 Itajai, SC, Brazil.

Seyedabbasi, M.A., Sabour, M.R., (2003) Soil Contamination Investigation through Heavy Metals Adsorption/Desorption Processes, 4th Civil Eng. International Conference, Tehran, Iran.

SOFTWARE AND PROGRAMMING EXPERIENCE

MODFLOW, MODSharp, MT3DMS, RT3D, Visual MODFLOW, Groundwater Vistas, GMS – Flow and transport in saturated porous media

OLOF, ERGO, RISC – Oil spill, risk, and prevention modeling

UTCHEM, TOUGH2, TMVOC, Petrasim, HYDRUS – Multi-phase flow and transport in unsaturated and saturated porous media

S3GRAF, HydroGeo Analyst, ArcGIS, ArcView, QGIS – Visualization of hydrogeologic and contaminant systems

HSSM, LDRM – Light nonaqueous-phase liquid (LNAPL) flow and transport, and recovery performance analysis

GSLIB – Statistically correlated random (heterogeneous) field generation of different porous media properties (e.g., permeability, porosity, etc.)

Johnson & Ettinger Models – Human health risks from subsurface vapor intrusion into buildings

RESRAD, RESRAD-OFFSITE – Environmental risk and does modeling, radiation doses and risks from residual radioactive materials

BIOSCREEN, BIOCHLOR – Natural attenuation of dissolved petroleum hydrocarbons and chlorinated volatile organic compounds.

Microsoft Office Word, Excel, PowerPoint, Access, Power BI

Familiar with programming in Visual Basic, Visual Fortran, MATLAB, Python