

JOSEPH ERIC ODENCRANTZ, Ph.D., P.E.

Water and Environmental Expert

Professional Areas of Practice

- Water Resources Impact Analysis and Water Supply Protection
- Groundwater, Surface Water, Sediment, Soil and Air Transport Process Evaluation
- Waste Water and Water Treatment Design, Management and Monitoring
- Advanced Physical, Chemical and Biological Remediation and Treatment
- Soil, Water and Air Assessment, Remediation and Monitoring
- Passive Soil Gas, Vapor Intrusion/Indoor Air Assessment and Decision-Making
- Cleanup Level Determination/Risk-Based Corrective Action/Risk Evaluation
- Site Closure, Monitored Natural Attenuation and Economics of Risk Reduction
- Regulatory Negotiations and Project Management
- Emergency Response and Media Relations

Dr. Joseph Odencrantz is a California-based environmental and water consultant with over twenty-five years of experience in the private/public sectors. Dr. Odencrantz is a water and environmental expert with a unique set of qualifications and experience that spans from traditional civil and environmental engineering to current state-of-the-art methods. Dr. Odencrantz founded Tri-S Environmental (Tri-S) in 1994 and continues to set new standards of excellence in the practice of water and environmental management. He directs routine and complex analysis, investigations, special projects, vapor intrusion evaluations, water treatment, waste water treatment and remediation projects on behalf of a variety of clients. He has extensive testifying experience as an expert witness.

Education

- 1992 Ph.D., Civil & Environmental Engineering, University of Illinois at Urbana-Champaign: *Area of Specialization-Groundwater and Environmental*Dissertation Title: Modeling the Biodegradation Kinetics of Dissolved Organic Contaminants in a Heterogeneous Two-Dimensional Aquifer
- 1988 Completed The University of Waterloo Summer Hydrogeology Field School, Canada. A three-week applied program in which two graduate students from the United States are invited to attend each year.
- M.S., Civil Engineering, University of Illinois at Urbana-Champaign: Area of Specialization-Water Resources Systems and Hydrology
 Masters Project Title: Experimental Investigation of Mass Exchange from Recirculating Regions of Rivers and Streams
- 1984 B.S., Civil Engineering, University of Maine at Orono.

 Summer Cooperative Education Project Report Title: Effectiveness of Silt Fence at

 Reducing Sediment Load Through a Sensitive Salmon Spawning Area via

 Regression Analysis of Sediment Transport Data

Professional Positions

- Tri-S Environmental, Sensible Strategies and Solutions for the Environment, Principal Civil and Environmental Engineer, Newport Beach, California, 1994-present
- Kyoto University, Research Center for Environmental Quality Management, Visiting Scholar, January-June 2007
- Levine-Fricke: Engineers, Hydrogeologists & Applied Scientists-now Arcadis, Senior Civil Engineer, Irvine, California, 1990-1994
- University of Illinois at Urbana-Champaign, Department of Civil and Environmental Engineering, Graduate Research Assistant, Urbana, Illinois, 1984-1990
- Illinois State Water Survey, Research Assistant, Champaign 1985-1986
- Maine Department of Transportation, Location and Environment Division, Research Assistant, Augusta, Maine, 1983
- U.S. Geological Survey, Water Resources Division, Hydrologic Field Technician/Supervisor, Augusta, Maine, 1980-1982 and 1984.

Registrations

Registered Professional Civil Engineer, State of California

Notable Projects

• City of Dallas, Texas:

Explorer Pipeline Break/Water Supply Response Consultant

• City of Los Angeles, California:

Gateway Center Parking Garage Dewatering System Project Design/Manager

• City of South Lake Tahoe, California:

Groundwater Expert

• City of Fryeburg, Maine:

Over-Pumping of Local Groundwater Consultant

• City of Punta Cana, Dominican Republic:

Seawater Intrusion Consultant

• William Lyon Homes, California:

Groundwater and Landslide Analysis Expert

• Atlas Galvanizing, California:

Stringfellow Superfund Site Expert

• Repsol, Spain:

Soil, Sediment and Groundwater Consultant for Europe and South America. Some refinery wastewater projects in Europe were implemented using FIDIC conditions of contract.

• Shell Exploration&Production, California:

Soil and Groundwater Expert on the Taper Site

• Coast Wholesale Florist, California:

Most Knowledgeable Person Testimony for Transport and General Operations

• Walnut Creek Manor, California:

Soil and Groundwater Consultant, Hookston Site

• <u>Unocal, California</u>: Guadalupe Oil Field Volume Estimation Consultant

Editorial Boards

Associate Editor, Journal of Remediation-Wiley, 1997-present
Associate Editor, Biodegradation-Springer, February 2001-present
Reviewer, Journal of Contaminant Hydrology-Elsevier, 2000-present, Outstanding
Reviewer Status-top 10th percentile in terms of number of reviews 2012-2014
Reviewer, Journal of Air &Waste Management Association, 2009-present
Associate Editor, Environmental Forensics-Taylor & Francis, January 2007-March
2009

Advisory Board/Editor, Underground Tank Technology Update-Department of Engineering Professional Development, Funded by U.S.E.P.A., University of Wisconsin-Madison, 1999-2006

<u>Associate Editor</u>, *Journal of Ground Water Monitoring and Remediation*, NGWA, 1997-2001

Associate Editor, Journal of Ground Water, NGWA, 1994-1996

Examples of Professional Experience

- Environmental and water expert for international arbitration cases on behalf of several prominent law firms, municipalities, oil companies and insurance organizations. These cases involved impacts to public and private water supply systems (groundwater and surface water), waste water treatment systems and the responsible party's previous knowledge of the fate, transport and taste/odor characteristics of organic compounds.
- Provided expert consulting services to Dallas Water Utilities (DWU), Dallas, Texas in response to the largest surface water impact of MTBE in United States history. Designed and managed the collection of data from surface water, soil and sediments in an effort to track gasoline components released from a substantial pipeline rupture. Participated in numerous public meetings on DWU's behalf in an effort to keep the citizens of Dallas informed of the risk to their water supply and treatment systems.
- Designed and managed a groundwater dewatering and treatment system as part of the construction of the second largest subterranean parking structure west of the Mississippi River and a forty-story tower. The primary goal of the project was to lower the groundwater table 20 feet over approximately ten acres and keep the water level down for a two year period. Located in Los Angeles, the 1.2 million gallons per day Gateway Center Water Treatment Plant consisted of extensive pH adjustment, hydrogen peroxide addition for hydrogen sulfide removal and UV oxidation/activated carbon for trace petroleum hydrocarbons and chlorinated solvent removal. A prototype hydrogen peroxide control system was implemented to minimize the hydrogen peroxide usage. A Catellus Development Corporation and Rapid Transit District of Los Angeles project.
- Directed the Carson Regional Groundwater Group's Groundwater and Hydrocarbon Model (CRGGCAD) calibration (Wilmington-Carson, California). The CRGGCAD

model consisted of a groundwater flow model, a hydrocarbon flow model and a dissolved phase transport model that interfaces with a comprehensive database from four oil refineries and one distribution terminal. The model consists of a 30 square mile regional model that communicates to five smaller scale model domains (1.5 square miles) through boundary conditions. The calibration of CRGGCAD was performed by using data from 1,700 monitoring wells in conjunction with the predictions from the CRGGCAD model. The CRGGCAD model serves two primary purposes: a. The Los Angeles Regional Water Quality Control Board sees CRGGCAD as the result of a unique cooperative effort among five major oil companies and b. The calibrated model is used to investigate a variety of specific remedial alternatives.

- Estimated the diluent (diesel) volume in the subsurface at a site in Guadalupe, Central California. The site is an oil field approximately 3,500 acres in size with 29 known pools of product within its boundaries. The "floating product" spread over an area of approximately 100 acres. The estimated volume was a critical element of the project as it was subject to close scrutiny by the regulatory agencies and the public. The Sacramento Bee covered this story extensively.
- Conducted research in the general area of biodegradation modeling/phenomena in groundwater as part of the United States Department of Energy's Subsurface Science Program. Developing and applying a fate and transport model capable of describing different biodegradation kinetics expanded the research. The developed model was used to examine the interaction of biodegradation, adsorption, advection, and dispersion in stratified porous media at Batelle's Pacific Northwest Laboratory, Richland, Washington.
- Wrote sections of the report entitled *Basinwide Instream Flow Assessment Model to Evaluate Flow Needs*, Bureau of Reclamation, US Department of Interior, Washington, D.C., published in November 1985. A probabilistic model was developed to incorporate hydraulic geometry relationships to average flow parameter values without the necessity of field observations. The results of the model were used to quantify sufficient or minimum flow needed to sustain the aquatic habitat is necessary for satisfactory resolution of water use conflicts and planning of water allocation strategies. Pool and riffle sequences from numerous streams in Central Illinois were correlated to drainage area, slope and other hydrologic variables.
- Wrote sections of the report entitled *Hydraulic Interaction of the Fox River with Shallow Aquifers*, Illinois State Water Survey, published in December 1986. The effect of switching from groundwater to surface water was examined for the community of Elgin by conducting detailed surface water measurements in the Fox River west of Chicago, Illinois. Water withdrawals from the deep sandstone aquifers were reduced because of steeply falling piezometric levels and declining water quality. The results of the analysis were used to properly manage the withdrawals of water from the Fox River and the groundwater aquifer beneath it.
- Supervised data collection and analysis for cost minimization analysis for surface water flow monitoring stations throughout New England for the U.S. Geological Survey, Water Resource Division. Results of the analysis were eventually used to support the

elimination of forty percent of the active stations in the district. Also performed pumping and slug tests and installed groundwater monitoring wells at a peat bog located in the "down east" portion of the State of Maine.

• Directed water quality monitoring program of a sensitive salmon-spawning area in a brook that ran through the middle of a large interstate construction project for the Maine Department of Transportation. Developed a sediment transport model through the highway construction project in Brewer, Maine. Thousands of turbidity measurements were taken in Felt's Brook and dozens of tributaries leading to it during the summer of 1983. Developed a model of the exposed fill erosion potential based upon stream turbidity data, rainfall intensity and duration, land and stream slopes, and other environmental data. The multi-variable nonlinear regression model of the construction area, turbidity measurements and other hydrologic variables proved useful to aid in the placement of erosion control equipment. Field responsibility was to inspect the integrity of various erosion control systems

Awards

Sir Francis T. Crowe Society, Distinguished Member with Medallion, University of Maine at Orono, May 2012 (for recognition of considerable engineering contributions and honor to the profession)

Young Civil Engineering Achievement Award, University of Illinois at Urbana-Champaign Civil Engineering Alumni Association. April 25, 1998.

<u>Certificate of Excellence</u>, City of Costa Mesa, California for Outstanding Performance and lasting Contribution to Stormwater Pollution Prevention, Presented by Mayor Gary Monahan, January 5, 2004.

Honors and Invited Speaking Engagements

- Invited Speaker, <u>An Evaluation of Indoor Air Sampling Procedures: Short Duration vs. Long Duration Sampling</u>, U.S.E.P.A Engineering Forum, February 3, 2010, Nationwide-All Regions Teleconference.
- Invited Speaker, <u>An Evaluation of Indoor Air Sampling Procedures: Short Duration vs. Long Duration Sampling</u>, U.S.E.P.A Region III Corrective Action Conference, Bedford, Pennsylvania, April 2, 2009.
- Invited Speaker, <u>An Evaluation of Indoor Air Sampling Procedures: Short Duration vs. Long Duration Sampling</u>, U.S.E.P.A Region IX, San Francisco, California, March 5, 2009.
- Invited Speaker, <u>Vapor Intrusion Evaluation and Sorbent Technologies: Soil Gas, Indoor Air and Passive/Active Approaches</u>, Environmental Engineering Seminar Series, Arizona State University, November 18, 2008.
- Guest Lecturer, Joint CEE 595W and CEE 595AG, <u>Environmental Impacts from the Largest Gasoline Spill in U.S.A. History on the City of Dallas Water Supply-Lake</u>

- <u>Tawakoni</u>, University of Illinois at Urbana-Champaign, Department of Civil and Environmental Engineering, October 19, 2007.
- Invited Speaker, Environmental Impacts from the Largest Gasoline Spill in U.S.A.

 History on the City of Dallas Water Supply-Lake Tawakoni, Center for Environmental Biotechnology, Biodesign Institute, Arizona State University, July 6, 2007.
- Invited Speaker, Osaka University, Japan, Department of Sustainable Energy and Environmental Engineering, <u>History of Risk-Based Corrective Action (RBCA)</u> development in the United States and Implications for Remediation, Cleanup Levels and Risk Assessment, May 31, 2007.
- Invited Speaker, Hokkaido University, Japan, Department of SocioEnvironmental Engineering, *Environmental Remediation and Risk Assessment*, May 22, 2007.
- Invited Speaker, CEE259A, <u>Environmental Impacts from the Largest MTBE Release</u> <u>in History</u>, University of California at Los Angeles, Environmental and Water Resources Engineering, May 2, 2006.
- Elected Councilor, Southern California Society for Risk Analysis, 2001-2003
- Invited Speaker, National Research Council (National Academy of Science and National Academy of Engineering), Water Science and Technology Board, Committee on Intrinsic Remediation. Title of Presentation "Implications of MTBE for Intrinsic Remediation of Underground Fuel Tank Sites", March 12, 1998.
- Invited Speaker, Joint CEE 495W, <u>Gateway Center Groundwater Treatment and Dewatering Facility, Los Angeles.</u> University of Illinois at Urbana-Champaign, Department of Civil and Environmental Engineering, October 1997.
- Invited Speaker, <u>Gateway Center Groundwater Treatment and Dewatering Facility</u>, <u>Los Angeles</u>. Northwestern University, Department of Civil and Environmental Engineering, October 1997.
- Invited Speaker, Metz University, France and Virje University, Belgium, 1988.
- National Civil Engineering Honor Society (CHI EPSILON), 1984 present.

University Teaching and Courses

- Spring 2007, <u>Research Center for Environmental Quality Management, Kyoto University</u>, <u>Japan</u>. Air Testing, Water Supply and Natural Attenuation Lectures.
- Spring 1995, <u>University of California at Irvine</u>, Department of Civil and Environmental Engineering, CE280, Computational Methods and Software.
- Fall 1988, <u>University of Illinois at Urbana-Champaign</u>, Department of Civil and Environmental Engineering, CE357, Groundwater Hydrology and Hydraulics.
- Fall 1987, <u>University of Illinois at Urbana-Champaign</u>, Department of Civil and Environmental Engineering, CE343L, Water Chemistry Laboratory.

Public and Corporate Workshops

- Lorman Training Webinar. <u>Groundwater Contamination Principles and Remedies</u>. July 22, 2015. Attorney (CLE Credit 1.5 hr), Architect and Engineer Continuing Education.
- Lorman Training Webinar. <u>Avoiding the Pitfalls Around Vapor Intrusion and Site Liabilities</u>. April 22, 2015. Architect and Engineer Continuing Education.

- April 17-18, 2000. <u>Fossil Fuels</u>, <u>Diesel and MTBE</u>. Mealy's Toxic Torts Conference: Plaintiffs, Defense and Expert Perspectives. West Palm Beach, Florida.
- November 15-16, 1999. <u>Bioremediation and MTBE</u>. Mealy's UST and MTBE Litigation Conference. Amelia Island, Florida.
- December 9, 1998. <u>Applying Enhanced Natural Attenuation to Petroleum</u>. Workshop entitled "Enhancing the Natural Attenuation Process", Third Day of Conference Sponsored by International Business Communications. Pasadena, California.
- Spring 1994, Levine-Fricke: Engineers, Hydrogeologists & Applied Scientists,
 Evening Training Sessions on the topics of <u>Soil and Groundwater Transport Processes</u>
 and <u>Site-Specific Cleanup Level Determination</u>. ASTM ES-38 RBCA, API's Decision
 Support Software (DSS) and the CalTOX models were covered.

Published Interviews

- <u>Environmental Solutions</u>. December 2006, American Chamber of Commerce Japan, Volume 43, Issue 12, authored by Nicole Fall.
- RBCA: Boon to Brownfields, But No Magic Bullet. March 27, 1997. The Brownfields Report, BFR Volume 2, Number 6, authored by Debra A. Schwartz.
- MTBE Case Casts Doubt On Letting LUST Sites Be. March 1, 1997. The Bio-Cleanup Report, authored by Debra A. Schwartz.

Large Equipment-Based Loan -Basis for Decision

Odencrantz, J.E. and K.M Carroll. <u>Spansion Japan, Ltd., Environmental Review</u> (Silicon Wafer Manufacturing Facility: 30-acre site), Prepared for GE Capital Solutions dated April 27, 2007. Loan amount: ~\$700 million.

Publications

- 1. Odencrantz, J. 2015. <u>Property Line Contamination Issues and Associated Risks to Buildings plus Cross-Contamination Issues & Water Supply Protection</u>. *Keynote Address*. Proceedings of the 3rd International Symposium on Advances in Civil and Environmental Engineering Practices for Sustainable Development-ACEPS 2015, held on March 9, 2015. Galle, Sri Lanka. Pages 2-9.
- McHugh, T., K. Gorder, T. Kuder, R. Philp, S. Fiorenza, H. O'Neill and J.Odencrantz. 2010. <u>Use of CSIA to Distinguish Between Vapor Intrusion and Indoor Sources of VOCs</u>. Air & Waste Management Association Vapor Intrusion 2010 Conference, September 29-30, Chicago, Illinois.
- 3. Odencrantz, J.E. and H. O'Neill. 2010. <u>Sustainable, Low-Profile Investigation Technique Finds Numerous Contaminant Sources: Bronx Borough, New York City Example.</u> Proceedings of the Battelle Seventh International Conference on Remediation of Chlorinated and Recalcitrant Compounds---2010, Monterey, CA, May 24-27, Battelle Memorial Institute.
- 4. McHugh, T., K. Gorder, R. Philip, T. Kuder, J. Odencrantz, and H. O'Neill.Odencrantz. 2010. <u>Use of Compound-Specific Isotope Analysis to Distinguish between Vapor Intrusion and Indoor Sources.</u> Proceedings of the Battelle Seventh

- International Conference on Remediation of Chlorinated and Recalcitrant Compounds--2010, Monterey, CA, May 24-27, Battelle Memorial Institute.
- O'Neill, H. and J. Odencrantz. 2010. <u>Wide-Area, Nonintrusive Characterization</u>
 <u>Technique at Munitions Disposal Site</u>. Proceedings of the Battelle Seventh
 International Conference on Remediation of Chlorinated and Recalcitrant Compounds --2010, Monterey, CA, May 24-27, Battelle Memorial Institute.
- O'Neill, H.S., J.E. Odencrantz, W. Bratton and K. Moser. 2010. <u>Innovative, Non-Intrusive Passive Soil Gas Collection Device Maps Large Carbon Tetrachloride Plume at the DOE Hanford Site, Washington</u>. Proceedings of the 36th Annual Waste Management Conference, WM2010, presented by WM Symposia, Session 72. Phoenix Convention Center, March 7-11.
- 7. Odencrantz, J.E., S. C. Thornley and H. O'Neill. 2009. <u>An Evaluation of the Performance of Multiple Passive Diffusion Devices for Indoor Air Sampling of VOCs</u>, The Journal of REMEDIATION, Wiley Periodicals, Vol. 19, No. 4, Inc., pp. 63-72.
- 8. Odencrantz, J.E., and H. O'Neill. 2009. <u>New Technique for Passive Soil Gas Surveys:</u>
 <u>Advanced Analytical Procedures and Mass to Concentration Tie-In Approach</u>, EPA
 Region 6, 19th Annual Quality Assurance Conference, Dallas, Texas, Oct. 19- 23.
- 9. Odencrantz, J.E., and H. O'Neill. 2009. <u>Passive Soil Gas Survey Mass to Concentration Tie-In Procedure: Improved Technique For A New Realm Of Interpretive Power</u>, Proceedings: Annual Water Symposium (Joint Arizona Hydrological Society & American Institute of Hydrology), Scottsdale, Aug. 30-Sept. 2.
- 10. Odencrantz, J.E., and H. O'Neill. 2009. <u>Passive to Active Tie-In for Soil Gas Surveys:</u>
 <u>Improved Technique for Source-Area, Spatial Variability, Remediation-Monitoring, and Vapor-Intrusion Assessment</u>, The Journal of REMEDIATION, Wiley Periodicals, Inc., Vol. 19., No. 2, Spring Issue, pp. 71-83.
- 11. Odencrantz, J.E., H. O'Neill, and P.C. Johnson. 2009. <u>Mass to Concentration Tie-Infor Passive Soil Gas Surveys: Improved Technique for Source Area, Spatial Variability and Vapor Intrusion Assessment</u>, Proceedings of the Air and Waste Management Association Vapor Intrusion 2009 Specialty Conference, San Diego, CA, January 27-30.
- 12. Odencrantz, J.E., S. C. Thornley and H. O'Neill. 2009. <u>An Evaluation of Indoor Air Sampling Procedures: Short Duration vs. Long Duration Sampling</u>. The U.S.E.P.A. National Forum on Vapor Intrusion, January 12-13, Philadelphia, PA.
- 13. Byrnes, M.E with J.E. Odencrantz, Contributor. 2008. <u>Field Sampling Methods for Remedial Investigations</u>, CRC Press, New York, 344 pages.
- 14. Clarke, J.N., D. Goodwin, H.O'Neill and Odencrantz, J.E.. 2008. <u>Application of Passive Soil Gas Technology to Determine the Source and Extent of a PCE Groundwater Plume in an Urban Environment</u>, The Journal of REMEDIATION, Wiley Periodicals, Inc., Vol. 18., No. 4, pp. 55-62.
- 15. Odencrantz, J.E., S.J. Steinmacher, H. O'Neill, J.D. Case and P.C. Johnson. 2008 <u>Residential Vapor Intrusion Evaluation: Long Duration Passive Sampling v. Short</u> <u>Duration Active Sampling</u>, The Journal of REMEDIATION, Wiley Periodicals, Inc., Vol. 18., No. 4, pp. 49-54.
- 16. Odencrantz, J.E., P.C. Johnson and H.O'Neill. 2008 <u>Mass to Concentration Tie-In for Passive Soil Gas Surveys: Improved Technique for Source Area, Spatial Variability and Vapor Intrusion Assessment</u>. Presented at Petroleum Hydrocarbons and Organic

- Chemicals in Ground Water: Prevention, Detection, and Remediation Conference, November 3-4 with 9-page paper in Proceedings.
- 17. Odencrantz, J.E., S.J. Steinmacher, H. O'Neill, J.D. Case and P.C. Johnson. 2008.

 Residential Vapor Intrusion to Indoor Air Comparative Study: Canisters vs. Sorbent

 Tubes vs. Passive Diffusion Samplers. Presented at the 24th Annual International
 Conference on Soils, Sediments and Water, at the University of Massachusetts at
 Amherst, October 20-23 with 6-page paper in Proceedings.
- 18. O'Neill. H. and J.E. Odencrantz. 2008. <u>Use of Advanced Passive Soil Gas Technology for Site Conceptualization and Closure Strategies</u>. Presented at the 24th Annual International Conference on Soils, Sediments and Water, at the University of Massachusetts at Amherst, October 20-23 with 10-page paper in Proceedings.
- 19. Odencrantz, J.E., S.J. Steinmacher, H. O'Neill, J.D. Case and P.C. Johnson. 2008. <u>EPA Method TO-15, EPA Method TO-17 and British MDHS 80 Comparisons: DoD Regional Groundwater Plume and Residential Vapor Intrusion Measurements</u>. The 24th Annual National Environmental Monitoring Conference, August 11-15, Washington, D.C with 7-page paper in Proceedings.
- 20. Dayanthi, W.K.C.N., T. Shigematsu, H. Tanaka, N. Yamashita, and J. E. Odencrantz, (2008), <u>Modeling Nitrogen Dynamics in a Soil Column with Reclaimed Water:</u>
 <u>Okinawa, Japan Application</u>, Advances in Asian Environmental Engineering Journal, Vol. 7, No. 1, 61-70.
- 21. Odencrantz, J.E., S.J. Steinmacher, H. O'Neill, J.D. Case and P.C. Johnson. 2008.

 <u>Residential Vapor Intrusion to Indoor Air Comparative Study: Canisters vs. Sorbent Tubes vs. Passive Diffusion Samplers</u>, Proceedings of the Air and Waste Management Association Annual Meeting, Portland, OR, June 23-26.
- 22. Odencrantz, J.E., H. O'Neill and J.T. Kirkland. 2008. <u>Canisters v. Sorbent Tubes:</u>
 <u>Vapor Intrusion Test Method Comparison</u>, Proceedings of the Battelle Sixth
 International Conference on Remediation of Chlorinated and Recalcitrant Compounds--2008, Monterey, CA, May 19-22, Paper A-013, Battelle Memorial Institute, 7 pp.
- 23. Odencrantz, J.E. and H. O'Neill. 2008. <u>Groundwater Plume</u>, <u>Source and Risk Identification Using Passive Soil Gas</u>, Proceedings of the Battelle Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds---2008, Monterey, CA, May 19-22, Paper F-014, Battelle Memorial Institute, 5 pp.
- 24. Clarke, J.N., D. Goodwin, H. O'Neill and J.E. Odencrantz. 2008. <u>Preliminary Investigation of a Perchloroethylene (PCE) Plume Using a Passive Soil Gas Survey.</u> Proceedings of the Battelle Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds---2008, Monterey, CA, May 19-22, Paper Q-022, Battelle Memorial Institute, 5 pp.
- 25. Clarke, J.N., H. O'Neill and J.E. Odencrantz. 2008. <u>Assessment of Vapor Intrusion to Indoor Air, South Mesa State Superfund Site, Gilbert, Arizona</u>. Proceedings of the Battelle Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds---2008, Monterey, CA, May 19-22, Paper Q-023, Battelle Memorial Institute, 7 pp.
- 26. Odencrantz, J.E. 2007. <u>Report on Visiting Professorship at Research Center for Environmental Quality Management, Kyoto University</u>, Environmental & Sanitary Engineering Research-Japan, The Association of Environmental & Sanitary Engineering Research, Volume 21, No. 4, pp. 49-53.

- 27. Dayanthi, W.K.C.N., T. Shigematsu, H. Tanaka, N. Yamashita, and J. E. Odencrantz, (2007), <u>Comparison of nitrogen dynamics in soil due to continuous and intermittent irrigation of reclaimed water: an application to Okinawa Island, Japan, 6th IWA Specialty Conference on Wastewater Reclamation & Reuse for Sustainability, Antwerp, Belgium, October 9-12, 12 pages.</u>
- 28. Dayanthi, W.K.C.N., T. Shigematsu, H. Tanaka, N. Yamashita, and J. E. Odencrantz, (2007), Estimation of Rate Constants for Nitrification and Denitrification in a Soil Column Irrigated with Reclaimed Water, Proceedings of the 16th Joint KKKN (KAIST-KYOTO-NTU-NUS) Symposium on Environmental Engineering, National Taiwan University, Penghu, Taiwan, pp. 241-253.
- 29. Odencrantz, J.E., M. Nishimura and H. Yamauchi. 2006. <u>Natural Attenuation Rate Quantification: Dispersion, Decay, Biodegradation and Half-Lives Summary,</u>
 Proceedings of Japanese Association of Groundwater Hydrology Conference,
 Kurashiki, Japan, October 26-27, pp. 171-177.
- 30. Odencrantz, J.E. 2006. <u>Tracking of Release and Remediation Progress from Large Pipeline Break East of Dallas, Texas: Protection of Lake Tawakoni Water Supply, The Journal of REMEDIATION, John Wiley & Sons, Inc., Vol. 16., No. 4, pp. 57-70.</u>
- 31. Odencrantz, J.E. 2006. <u>Environmental Impacts from Largest Gasoline Spill in U.S.A.</u>
 <u>History on the City of Dallas Water Supply-Lake Tawakoni</u>, Environmental & Sanitary Engineering Research-Japan, The Association of Environmental & Sanitary Engineering Research, Volume 20, No. 3, pp. 1-3.
- 32. Odencrantz, J.E. 2006. <u>Environmental Impacts from Largest Gasoline Spill in U.S.A.</u>
 <u>History on the City of Dallas Water Supply-Lake Tawakoni</u>, Invited International Speaker, 28th Annual Kyoto University Environmental Engineering Symposium, Kyoto University Clock Tower, Japan, July 18-19.
- 33. Odencrantz, J.E. and A. Silva. 2006. <u>Response to Reviewer Comments and Republication of "Natural Attenuation Rate Clarifications: The Devil's in the Details," UTTU, Vol. 17, No. 2, March/April 2003.</u> Underground Tank Technology Update, University of Wisconsin, Department of Engineering Professional Development & The U.S. Environmental Protection Agency, pp. 1-8, http://epdfiles.engr.wisc.edu/pdf web files/uttu/UT17n2response.pdf.
- 34. Odencrantz, J.E. 2005. <u>Environmental Impacts from Largest MTBE Release in History</u>, Invited Keynote Speaker, National Ground Water Association Conference on MTBE and Perchlorate: Assessment, Remediate, and Public Policy. San Francisco, California, May 26-27.
- 35. Odencrantz, J.E. 2005. <u>Environmental Impacts from Largest MTBE Release in History</u>, National Ground Water Association Water and Environmental Law Conference. Baltimore, Maryland, July 21-22, pp. 373-386.
- 36. Werner, P, W. Bae and J. E. Odencrantz. 2004. <u>Natural Attenuation Special Issue</u>, Journal of Biodegradation. Springer Science+Business Media B.V., Formerly Kluwer Academic Publishers B.V., Volume 15, No. 6, pp. 387-485.
- 37. Daugherty, S.J., P. Ellis, T. Evanson, J.E. Haas, A.C. Marinucci, R. Spiece, J.E. Odencrantz, and J.A. Simon. 2004. <u>Monitored Natural Attenuation Forum: A Panel Discussion</u>. The Journal of REMEDIATION, John Wiley & Sons, Inc., Vol. 15., No. 1, pp. 113-131.

- 38. Odencrantz, J.E., R. A. Vogl, and M.D. Varljen. 2003. <u>Natural Attenuation Rate Clarifications: The True Picture is in the Details</u>. Soil and Sediment Contamination Journal, Amherst Scientific Publications, Volume 12, pp. 663-672.
- 39. Odencrantz, J.E., R. A. Vogl, and M.D. Varljen. 2003. <u>Natural Attenuation Rate Clarifications: The True Picture is in the Details</u>. Contaminated Soils, Amherst Scientific Publications, Volume 8, pp. 429-439
- 40. Odencrantz, J.E., R. A. Vogl and A. Silva. 2003. <u>Detailed Examination of Governing Processes in a Natural Attenuation Setting: Zones of Enlightenment</u>, The 13th Annual West Coast Conference on Contaminated Soils, Sediments and Water: Analysis, Site Assessment, Fate, Environmental and Public Health Effects, and Remediation. San Diego, California, March 17-20.
- 41. Odencrantz, J.E., R. A. Vogl and A. Silva. 2003. <u>Detailed Examination of Governing Processes in a Natural Attenuation Setting: Zones of Enlightenment</u>, National Ground Water Association Mid-South Focus Conference, Nashville, Tennessee, September 18-19, pp. 79-91.
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