Tim M. Agajanian has substantial experience in all aspects of environmental law which he has practiced since 1988. Mr. Agajanian’s broad range of services to our clients spans specific environmental law areas such as: Superfund (CERCLA); RCRA; California Proposition 65 issues; CEQA; Clean Air Act; Clean Water Act; California Integrated Waste Management Act of 1989; other State and Federal environmental statutes; compliance counseling; remediation; strategic environmental planning; administrative matters; legislative and regulatory matters at all levels of government; contaminated property investigations and remediation; and defense of enforcement actions.

George Alexeeff, Ph.D. is the Director of the Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency. Dr. Alexeeff was appointed by Governor Brown in 2012 and unanimously confirmed by the state Senate in 2013. He oversees a staff that includes 80 scientists in multidisciplinary evaluations of the health impacts of pollutants and toxicants in air, water, soil and other media. Dr. Alexeeff is also an adjunct Professor in the Department of Environmental Toxicology at the University of California, Davis. He earned his Ph.D. in Pharmacology and Toxicology from UC Davis and has been certified as a Diplomat of the American Board of Toxicology, Inc. (DABT) since 1986. He has reviewed more than 140 documents evaluating human epidemiological or animal toxicological evidence for OEHHA or other agencies such as U.S. EPA. Dr. Alexeeff has recently served on three National Academy of Sciences Committees, and is a current member of the U.S. EPA Science Advisory Board's Drinking Water Committee and the U.S. EPA Science Advisory Board's Hydraulic Fracturing Research Plan Panel. His professional activities include: past President of the Northern California Chapter of the Society of Toxicology, past President of the Genetic and Environmental Toxicology Association of Northern California, member of the Society of Toxicology, and charter member of the Society for Risk Analysis.

Abdulaziz Alharbi has a Ph.D. in Environmental Sciences from the University of Reading UK. He also has an M.S. degree in Soil Physics and a B.S. in Soil and Water. He has been an academic member of the Agriculture College at Qassim University since 2011; also he is the Director of The Sustainable Development Center in Qassim University. He has worked on environmental applications, including modeling of the physical changes between land and atmosphere, and has published several scientific papers.

Saud S. Al-Oud is a professor in the Soil Sciences department at King Saud University with a Ph.D. in Soil Environmental Chemistry. His main research interests include: Phases and components of the soil-water-plant stem, behavior of elements added to soils from wastes and contaminants, and treatment techniques for the remediation of heavy metal contaminated soils. He works as an environmental consultant for mining firms in Saudi Arabia, and also as a consultant for the water municipal of the Qassim region of Saudi Arabia.

Ibrahim Al-Sayed is a currently a Senior Environment Engineer in Health, Safety and Environment Group, Kuwait Oil Company focusing on Air Quality management in the company. He has 12 years experience in the company. He is accountable for providing an efficient advisory service to the Company on the requirements of the State Environment Law and ensuring that effective environmental monitoring/reporting is carried out. He also conducts audits on waste handling, gas flaring and effluent water disposal activities of the company and monitor action plans related to environment issues. Eng. Al-Sayed has received several local and International Environmental Awards during his career (i.e. “ESS Excellence Award from IHS – USA” in streamlining Emissions Data Management for Corporate Social Responsibility & Efficiency Gains). He previously worked in "Kuwait Environment Public Authority – KEPA" and a private company in the oil Industry for 4 Years. Eng. Ibrahim has graduated from the University of Detroit, Michigan, U.S.A in 1998 with a bachelor degree in Chemical Engineering.

M.S. Al-Suwaiyan, Ph.D. is a professor of water resources engineering at the civil and environmental engineering department at King Fahd University of Petroleum & Minerals (KFUPM) in Dhahran Saudi Arabia. During the past two decades, Dr. Al-Suwaiyan taught courses in basic level engineering as well as several graduate courses related to groundwater and supervised master and doctoral students. He conducted basic and applied research and published several papers in scientific journals and
international conferences in the field of groundwater and environmental engineering. He obtained his doctoral degree from Colorado State University (CSU) in 1993.

**Nick Amini** is a water resources control engineer with Cal/EPA's Santa Ana Regional Water Quality Control Board. He has over 17 years of combined experience in environmental consulting and regulatory fields and with extensive background in application of various remediation technologies. He has performed site remedial investigation, feasibility study, engineering evaluation/cost analysis, bench/pilot-scale testing, design, costing, scheduling, installation, construction quality control, optimization, and troubleshooting for remedial systems. He has functioned at several levels on both commercial and governmental projects and programs with clients such as NAVFAC, AFCEE, ACE, and NASA. He is currently putting to use the experience gained from the consulting arena in the regulatory world to solve the investigation and cleanup cases that are under the jurisdiction of the Santa Ana Regional Water Quality Control Board. He is a registered professional engineer (P.E.) with the State of California.

**John Anderson** is a graduate of San Diego State University and is a licensed Professional Geologist in the State of California. He is a Senior Engineering Geologist with the San Diego Regional Water Quality Control Board's Cleanup and Land Discharge Branch - Southern Cleanup Unit. John has over 29 years of experience with the San Diego Water Board dealing with sediment, soil, and ground-water remediation projects. The San Diego Water Board is a member agency of Cal/EPA and implements regulatory programs involving protection of surface water and groundwater quality in the San Diego Region. John is the San Diego Water Board’s environmental Program Manager for the Site Cleanup Program and a Brownfield’s coordinator.

**Nicolas Arancibia-Miranda** has a PhD. in Natural Resource Science, Academic Researcher Faculty of Chemistry and Biology, Center for the Development of Nanoscience and Nanotechnology, Universidad de Santiago de Chile. He has experience in the synthesis and characterization of different types of nanoparticles and has carried out research in search of materials and nanomaterials for the removal of contaminants, based on the functionalization of crystalline and amorphous aluminosilicates. Dr. Arancibia-Miranda has interest in structure and reactivity of colloids dynamics (growth, nucleation, aggregation) and the impact of nanoparticles on the soil. He has participated in research projects of applied science.

**Kent Armstrong**: With over 35 years of experience working in the environmental industry, I have been afforded the chance to participate in a wide variety of environmental investigation, remediation and management activities. My beginnings started as a waste water treatment plant chemist for the LA Sanitation District while attending graduate school; Vertebrate Paleontology, Cal State University Long Beach. Transferring within the District to become a plant operator while teaching Human Anatomy at CSULB, I was presented with a chance to incorporate my chemistry and biology backgrounds with facility operations and truly learn the workings of the plant. After 3 years with the District, next were 5 years as a hazardous waste mobile chemist analyzing soil and groundwater samples on-site at remediation projects throughout California, Nevada and Oregon. Next were several years performing RI/FS work for the largest independent landfill company in Southern California, and then a trip east to Connecticut where, for 6 years I worked with the CTDOT designing and managing environmental remediation projects for major highway, railroad and bridge rehabilitation projects throughout the 90’s. Since then my work experiences have included hazardous waste transportation/disposal brokering and 5 years with Lowes Home Improvement providing PCB, PHC and cVOC soil and groundwater management and remediation services at new store construction sites. Most recent was my joining forces in 2008 with Master Plant Products Inc. of Brampton Ontario Canada; where together, we developed BioStryke® Remediation Products LLC and a line of biostimulation additives designed to leverage existing site conditions to realize low-impact and safe, cost-effective and sustainable remediation of groundwater, saturated and vadose soil contaminants. I am extremely appreciative for the opportunity to participate in this AEHS Conference here in San Diego and look forward to introducing BioStryke® while furthering our efforts in additive design, production and sales.

**Ravi Arulanantham** has more than 20 years of experience in developing public policies surrounding environmental compliance for land use and water quality issues. As the first staff toxicologist for the
California Regional Water Quality Control Boards, he provided expertise and leadership in expanding the application of risk assessment and risk management to the areas of policy development, case review, and staff training. From 1993 to present, he has been the principal instructor for Cal-EPA/SWRCB-sponsored training courses on risk-based decision making at petroleum-impacted sites. These courses have attracted more than 2,000 regulators, consultants, and responsible parties throughout the state, significantly affecting the movement of consultants and regulators toward accepting risk based findings as a component of decision making and site closure. Ravi is among the few ASTM-certified national trainers for both the Risk-Based Corrective Action (RBCCA) program and the Remediation by Natural Attenuation (RNA) standard and has trained over 1000 regulators, consultants, and responsible parties in more than 20 states. He has given numerous invited lectures on risk-based decision making to a wide range of audiences and is nationally acknowledged as an expert on this subject. Since joining the private sector in 2002, he has been helping his industry clients find cost-effective business solutions to their environmental liabilities. He is very well known in his field for his abilities to develop and implement investigation, remediation, risk management strategies for contaminated properties and negotiate risk-based closures with regulatory agencies to obtain No Further Action letters for his clients. He has served as an expert witness for numerous litigation matters ranging from chlorinated solvent releases and indoor air impacts, human exposure to petroleum releases, adequacy of site investigation and remediation conducted to protect human health, classification and disposal of hazardous waste, proper application of cleanup levels and achieving cleanup levels at contaminated sites. In late 2010 Cal-EPA appointed him to a committee tasked with developing a low-threat petroleum case closure policy. The low-threat policy after going through University of California peer review was adopted and became effective in August 2012. Ravi was primarily responsible for developing the technical justification documents that provided the basis for the low-threat criteria’s adopted by the state. Ravi Arulanantham was a Fulbright scholar at the University of California at Berkeley where he received his masters and doctorate in physiology and biochemistry in 1988.

**Nagaraju Arveti** has worked in the field of Environmental Geochemistry involving soils, plants and groundwater in the mica and bante mining areas with a main focus on biogeochemistry. Biogeochemical cycling of elements in fluorine-affected areas of Andhra Pradesh, India has also been undertaken. Further, biogeochemical characteristics, primarily involving the interaction of uranium, and certain other associated trace elements, in banana (Musa sapientum), are compared between the uranium mineralized Tummalapalle area in the Cuddapah District and non-mineralized Tirupati area in Andhra Pradesh. He has visited Japan and attended IHP Training Course on Limnology in 1999 at the Institute for Hydrospheric-Atmospheric Sciences, Nagoya University, Japan. He has received a Commonwealth Fellowship during Sep. 2003 – Mar. 2004 and a Royal Society Visiting Fellowship during Oct 2004 – Jan 2005, and visited University of Aberdeen and University of London, United Kingdom. Nagaraju has visited Hungary under Indo-Hungarian Cultural and Educational Program during Oct – Nov 2008. He has also worked on Bioremediation with Prof. Ken Killham who is a leader in this field of science in United Kingdom. Further, he has visited Germany, USA and China with regard to various academic assignments. Nagaraju has received Research Grants from University Grants Commission, Council of Scientific and Industrial Research, and Department of Science and Technology, New Delhi to conduct research at the Sree Venkateswara University, Tirupati, India. The Indo - Italian Project has been completed in collaboration with Department of Soil Science, University of Florence, Italy under the bilateral program of DST, India and Italian Ministry, Italy. He has received a second time Commonwealth Fellowship during Oct. 2012 – Jan. 2013 and worked in the School of Geography, Earth and Environmental Sciences, University of Birmingham, Birmingham, United Kingdom.

**Harrison Atagana** is a Professor at the Institute for Science and Technology Education, University of South Africa. He has BSc (Hons) Botany, MSc and PhD Microbiology. He is a rated scientist of the South African National Research Foundation (NRF). He is a registered Professional Natural Scientist with the South African Council for Natural Scientific Profession and a Fellow of the Society of Biology. He is actively involved in postgraduate training and research in Environmental Biotechnology and has been lecturing in higher education institutions for 26 years. He is currently involved in a research project on the use of *Chromolaena odorata*, an invasive weed of tropical and subtropical Africa in phytoremediation of soil polluted with organics and metals. His other projects include compost bioremediation of oil sludge from petroleum refineries, microbial fuel cells in harnessing energy during waste degradation and
biological treatment of wastewaters from the mining and petrochemical industries. He has published most of his research in peer-reviewed international journals and conference proceeding. He has three PhD and five MSc students working on these research projects.


Babatunde Saheed Bada (PhD) was born in Ile – Ife, Osun State, Nigeria on the 13th March, 1971. He attended Obafemi Awolowo University, Ile – Ife, Nigeria where he obtained B. Agric (Soil Science) and M.Sc. (Environmental Control and Management) in 1997 and year 2000 respectively. He also had certificates in Environmental Change: Managing Risk and Governance of Emerging Global Issues from United Nations University, Tokyo, Japan in the year 2008. He had PhD Agronomy (Soil fertility) from University of Ibadan, Ibadan, Nigeria in the year 2011. He is currently a lecturer in the Department of Environmental Management and Toxicology, Federal University of Agriculture, Abeokuta, Nigeria. His research interest is Environmental Soil Science.

Mary Baker oversees Natural Resource Damage Assessment cases in Alaska, the Pacific Northwest, and the Great Lakes region for NOAA. She is currently coordinating the assessment of injury to nearshore habitats and species from the BP Deepwater Horizon Oil Spill. She is an Affiliate Professor in the School of Marine and Environmental Affairs at the University of Washington, where she teaches and advises graduate students. Her expertise is in the toxic effects of mercury and PCBs to fish reproduction. She holds a PhD in Fisheries and a BS in Oceanography. Mary has been with NOAA for more than 30 years and also worked for the State of Washington.

David Bardsley has over thirty years of environmental drilling experience working in a variety of settings across the United States. He started his career as a drill rig helper advancing through various technical and managerial positions in both small and large companies. He is familiar with all of the drilling techniques utilized in the environmental industry including; auger, air/mud rotary, casing advance, sonic, dual tube, direct push and wireline coring. He was an early leader in the use of horizontal drilling to solve environmental challenges and has authored/co-authored over twenty papers on horizontal environmental drilling methodology. David has been directly involved in the design and installation oversight of over 100,000’ of horizontal environmental wells including seventy-six blind well completions. Mr. Bardsley has a Bachelor of Science degree in Geology & Geophysics along with a Communications Minor (1984) from the University of Missouri-Rolla. He is a licensed well driller in Texas, Arizona and Louisiana and holds RG/PG certifications in Texas, Missouri, Louisiana and Tennessee. Mr. Bardsley is a strong proponent of education and has served as a short course instructor at Battelle environmental conferences and University of Wisconsin Madison along with presenting environmental drilling training to students at University of Arizona and University of Louisiana Lafayette.

Isam Bashour is a Professor of soil science and plant nutrition at the Faculty of Agricultural and Food Sciences (FAFS) American university of Beirut, Lebanon. In addition to his responsibilities at FAFS, he provides technical consultancies to national organizations, international establishments and large farming projects in Saudi Arabia, North Africa and several Middle Eastern countries. Primary areas of research are: soil fertility, fertilizer technology and use and conservation agriculture. He has a long list of publications including two chapters in Encyclopedia of Life Support system (EOLSS) developed under the auspices of UNESCO, UN http://www.eolss.net and co-authored two manuals published by FAO and
now used as references in Lebanon and other neighboring countries (*Methods of Soil Analysis in Arid and Semi-Arid Regions and Near East Fertilizer Use Manual*). Isam received his Ph.D. from the University of California-Davis in 1977.

**Ann Bernhardt** is a Certified Manager of Quality and Organizational Excellence with Amec Foster Wheeler Environment & Infrastructure. Ms. Bernhardt has over 24 years of experience in quality systems, data quality, data management, and environmental consulting. With a background in environmental laboratories, Ms. Bernhardt takes a special interest in emerging contaminants and how to resolve analytical challenges with new compound classes.

**Clint Bickmore** is Senior Vice-President at B Street Technology and has 15 years’ experience designing and implementing in-situ remediation strategies. His focus is implementing cost-effective approaches to site restoration using evidence based practices. Clint earned his PhD in Materials Science and Engineering at The University of Michigan and his BS in Ceramic Engineering at the University of Washington. His background in materials science guides him in many design aspects. Many of his publications and patents are focused on nanoparticle synthesis and application.

**Jeremy Birnstingl**, Ph.D. directs technology commercialization and acquisition efforts for REGENESIS, worldwide. He oversees new product commercialization efforts and operates as a senior technical director on key remediation projects involving advanced *in situ* technologies. Dr. Birnstingl previously served as the founding Managing Director of REGENESIS in Europe, responsible for establishing technical and administrative teams across the continent within multiple legislative regimes and operating currencies. Prior to joining REGENESIS he served as Principal Environmental Scientist with URS Corporation. He has given numerous national and international seminars, university lectures and conference presentations in his technical area, and has published articles and papers in academic journals, conference proceedings and in the wider environmental subject literature. Dr. Birnstingl received a B.Sc. (Hons.) Environmental Biology from the University of Essex and a Ph.D. in Environmental Chemistry from the University of Lancaster.

**Thomas F. Booze** is a Staff Toxicologist with the California Environmental Protection Agency’s Department of Toxic Substances Control (DTSC) in Sacramento, California. Dr. Booze is a toxicologist with a B.S., M.S. and Ph.D. in toxicology who has over 36 years’ experience in evaluating the potential for adverse health effects associated with exposure to a wide range of chemicals either as environmental contaminants or as products. He has worked in the petroleum industry, environmental consulting, and for the past 15 years has been with DTSC working on a variety of issues including petroleum contamination. Currently he is developing guidance for evaluating the potential risk and hazard associated with petroleum hydrocarbons at contaminated sites.

**John Borkovich** came to the State Water Board in 2001 to work for the Division of Water Quality. He is a California Professional Geologist and earned his Bachelor’s in geology from UC Santa Barbara. From 1986 to 2000, he worked in the private sector for geotechnical engineering and groundwater cleanup consultants. John managed the brownfields and Department of Defense site cleanup program in 2005 and the Groundwater Ambient Monitoring & Assessment (GAMA) Unit Chief from 2006 to 2014. In 2014, John became Chief of the new Groundwater Monitoring and Assessment Section that oversees the GAMA and the Oil and Gas Monitoring Units.

**Tom Bourque**, P.E. is Vice President at GeoTek, an environmental and geotechnical engineering firm with offices throughout the West. He is the Principal leading the environmental engineering practice with over 25 years of experience with RCRA and CERCLA waste site investigation, design, and construction oversight. His projects have included mine and industrial sites, heavy metals contaminated properties, solid waste landfills, and river restoration. He has managed large-scale flood control and community reconstruction with Superfund sites to address human health and environmental risk, remedy protection, and integration of remedies with economic recovery. Mr. Bourque also leads storm water collection and treatment projects within ecologically sensitive watersheds.
**Sandy Britt** is President and Principal Hydrogeologist at ProHydro, Inc. Mr. Britt has 25 years experience in varied aspects of the environmental field, including time spent as a consultant, teacher, researcher, regulator, and as a sampling product developer. Mr. Britt has led and worked on Department of Defense SERDP and ESTCP projects, including one that is the subject of this abstract. His current primary role with ProHydro is facilitation of passive sampling techniques through education venues and organizations such as ITRC and ASTM.

**Samuel L. Brock**, DVM, MPH is the Air Force Subject Matter Expert for environmental risk assessment and toxicology. In this capacity, Dr. Brock is responsible for providing technical consultation to the field, determining functional requirements for risk reduction, authoring articles and technical reports and assisting in developing educational and training programs. He has represented the Air Force on working groups developing National and DOD guidance on remediation risk management, remediation of complex groundwater sites, vapor intrusion and bioavailability of contaminants in soil and sediments. Dr. Brock participated in development of the Air Force Center for Environmental Excellence Guidance for Contract Deliverables for Risk Assessment as well as guidance for determining requirements for small arms firing ranges. Dr. Brock currently provides technical leadership on a number of Environmental Security Technology Certification Program projects developing electronic sensors for vapor measurement in air, passive soil vapor sampling devices and biological treatment of N-Nitrosodimethylamine. He serves as a subject matter expert to DoD Materials of Emerging Regulatory Interest (MERIT) working groups and Military Family Housing Privatization Initiative activities addressing pesticides in soil. He developed a new approach to treat chlorinated pesticides using biological materials to destroy highly persistent contaminants in place. Dr. Brock is responsible for developing Air Force criteria and implementing guidance for a wide range of technical development, implementation, interpretation and problem resolution concerning environmental risk assessment.

**Scott Burge** is the President of Burge Environmental a firm that specializes in the development and deployment of automated field instrumentation. He received a Ph.D. in analytical chemistry and J.D. Law from Arizona State University. He has served as an environmental consultant since 1984 with various environmental firms including Dames and Moore and Geraghty and Miller. Since 1989, he has been President of Burge & Associates an environmental consulting company. During this time he has performed over 1,000 site assessments and remedial action for RCRA and TSCA sites in Arizona. He has ten publications and seven patents in the field of automated field monitoring.

**Chris Carey**, P.G. is the Remedial Section Chief for the Kansas Department of Health and Environment (KDHE) Bureau of Environmental Remediation and is responsible for overseeing environmental cleanups at federal facilities and PRP-lead sites in Kansas and for implementation of Kansas’ institutional control program. Prior to his current position, Chris served as the Site Restoration Unit Chief for KDHE and prior to that as a remedial project manager. Chris is a Licensed Professional Geologist with a B.S in Geology and a B.S.B. in Business Administration, both from the University of Kansas.

**Jeffrey L. Caufield** is a partner in the firm’s San Diego office, where he specializes in general civil litigation, environmental law and complex environmental litigation. Jeff has broad litigation experience in the areas of business litigation, collections, personal injury, probate, employment, wrongful termination, municipal law, real property, contracts, construction defect and product defect. Jeff also has broad experience in environmental counseling and in environmental and toxic tort litigation. He has advised major oil companies and various businesses in environmental regulatory matters, and he regularly counsels clients on the environmental implications of the purchase or sale of real property. He has litigated and tried numerous environmental cases, and he has extensive experience in managing large, complex environmental cases and conducting depositions and discovery. He has conducted settlements with the United States Environmental Protection Agency, and has been engaged in complex Superfund litigation and private cost recovery actions under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), the Resource Conservation and Recovery Act ("RCRA") and various state and environmental laws. He has also appeared before numerous state and local environmental agencies. Jeff's legal experience includes working for the State of California, Department of Fish and Game Legal Advisors Office and the United States Department of Interior, Regional Solicitors Office where he
provided legal advice on numerous land use and property contamination matters. He has also advised numerous public entities on a variety of land use and environmental matters, including the following: Mojave Water Agency, Three Valleys Water District, San Bernardino County Superintendent of Schools, Joshua Tree Water District, Chino Basin Water Conservation District; City of Colton, Highland, Yucaipa, Del Mar, Encintas, El Cajon, Imperial Beach, La Mesa, and Coronado.

Jeff received his undergraduate degree from the University of California at Santa Barbara in 1990, and earned his law degree from the University of the Pacific, McGeorge School of Law in 1993. He has conducted research on the movement of contaminants in the subsurface at the University of California, Santa Barbara, Institute of Crustal Studies, Vadose Zone Monitoring Laboratory and was an environmental consultant for several years. Jeff has also taught environmental law courses at several junior colleges.

Jeff has represented hundreds of clients in a wide variety of litigation matters, many of which have drawn local, regional, and/or national attention. These matters include the Mojave Water Adjudication, Brown & Bryant Superfund Site Litigation, the California Chromium 6 Litigation (made famous by the Erin Brockovich movie), the Iron mountain Mine Superfund Site, Association for a Cleaner Environment v. Modesto Junior College CEQA litigation, Friends of Colorado Lagoon (FOCL) CEQA litigation, Santa Barbara Pipeline Break Oil Spill Litigation, Redlands TCE Groundwater Litigation, Berrenda Mesa Water Transfer litigation and Techte Pipe Litigation.

Charles Correll, Jr. is a litigation partner in King & Spalding’s San Francisco office. He has twenty years of experience representing clients in environmental litigation. He typically defends companies against substantial damages claims by plaintiffs asserting aggressive and novel applications of both common law theories (such as product liability, nuisance, and trespass) and environmental statutes (including CERLA, the Clean Air Act, the Clean Water Act, the Polanco Act, the OCWD Act, spill and pollution acts in various states, and other statutes). These cases often require complex expert analysis of source, fate and transport, air modeling, groundwater modeling, injury, natural resource damages, and other types of damages. Mr. Correll has defended cases brought by state attorney generals, state environmental agencies, trustees, municipalities, district attorneys, other governmental organizations, and individuals related to alleged air, soil, and groundwater pollution. Current matters include serving as national counsel for a major oil company in the MTBE groundwater litigation, representing a major oil company in numerous lawsuits resulting from a refinery fire, and representing a company in claims arising out of the remediation and development of a Brownfields project. Mr. Correll holds a JD from Yale University and a BS (with honors) from the United States Military Academy at West Point. He is a United States Army Veteran.

Kylie Couch is a fourth year undergraduate student at California State University Long Beach. She is currently pursuing degrees in Chemical Engineering and Chemistry. Upon graduating Kylie wants to attend graduate school and subsequently work in the water treatment industry. At CSULB she is an undergraduate research assistant working with Dr. Stephen Mezyk on alternative contaminated water remediation strategies. Additionally, she works as a Supplemental Instructor and tutor for calculus and chemistry.

Edward Council is an environmental scientist/professional geologist with more than 30 years of environmental assessment and remediation experience. He is the founder of Advanced Geologic Sciences, LLC, (AGS-LLC) a company dedicated to managing contaminant issues associated with chemical/petroleum releases. Prior to founding AGS-LLC Dr. Council worked for a wide range of large environmental consulting groups such as Rollins Environmental, DOE at Oak Ridge TN, and the Waste Management Inc.’s environmental firm - Rust E&I. Dr. Council specializes in geologic studies, inhalation assessments, managing OHSA health and safety issues and treatment of a wide range of contaminants. Dr. Council is well versed in various federal and state environmental laws such as OSHA, Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund). Dr. Council has also created various proprietary techniques to define/mitigate contaminate sources, identify/predict their migration pathways and is the patent holder of “Green” extraction methods to mitigate soil and groundwater contaminates associated with various sources impacting commercial and residential properties.
**Eric Crockett** has almost twenty years of experience working in local government in redevelopment, Brownfield property transactions, affordable housing, planning, engineering, building, code enforcement and most recently was appointed as the interim Director of Economic Development for the City of Chula Vista. He is co-chair of the San Diego/Tijuana Urban Land Institute Revitalization and Reuse District Council, he is a member of the CALED Brownfield Committee and sits on the board of the Third Avenue Business Improvement District. He currently focuses on the redevelopment of the Chula Vista Bayfront to develop 3,500 new hotel rooms with a 400,000 square foot convention center, 1,500 new residential condominiums and 500,000 square feet of new commercial/retail space.

**Gary Cronk** is the President of JAG Consulting Group, Inc., a consulting and remediation firm based in Santa Ana, CA that specializes in providing services for the design and implementation of in-situ chemical oxidation, enhanced bioremediation, chemical reduction, and other in-situ technologies. Mr. Cronk has experience in the design and implementation of over 75 injection projects in California and the Western U.S. To date, Mr. Cronk has been successful in attaining No Further Action requirements from regulatory agencies for 10 sites using in-situ injection technology. Mr. Cronk is a California Registered Professional Engineer, a California Certified Hazardous Substances Removal and Remedial Actions Contractor (A-HAZ), a Class A General Engineering Contractor, and a Certified Hazardous Materials Manager (CHMM). He is a frequent speaker at conferences and seminars on in-situ injection technologies.

**Jane Curren** is a Human Health Risk Assessor at AECOM in Los Angeles. She performs risk assessment studies that address multimedia human and ecological exposures to chemical agents in undeveloped, community, and occupational settings. Prior to working at AECOM she received her doctorate in Environmental Science and Engineering from the University of California, Los Angeles.

**Donald Davies** is currently a Principal and Chairman of the Board of Intrinsik Environmental Sciences Inc., a Canadian-based consultancy specializing in the areas of toxicology and health risk assessment. Dr. Davies brings more than 35 years working experience to the business, having held technical and management positions in government, industry and consulting, including Health Canada, Dow Chemical Canada and Intrinsik. Based in Calgary, Alberta, Canada, much of Dr. Davies’ time is spent identifying and understanding the potential health and environment risks presented by oil and gas development, both conventional and non-conventional. He is well-versed in the health and environmental issues surrounding shale gas and oil development, including the issues related to hydraulic fracturing. Under the sponsorship of the Canadian Association of Petroleum Producers (CAPP), he was one of the lead scientists involved in the development of a hazard-based screening system to classify hydraulic fracturing fluid additives on the basis of their potential health and environmental hazards. Dr. Davies holds a BSc., MSc and PhD from the University of Guelph. He is a Diplomate of the American Board of Toxicology (DABT) and a full member of the Society of Toxicology.

**Andrew Davis** is a partner and leads the national environmental practice at Shipman & Goodwin LLP. He counsels clients in transactional, permitting, compliance, and enforcement matters under health and safety, hazardous waste, air and water pollution, site development, and property transfer laws. He provides due diligence in domestic and cross-border energy, corporate and real estate transactions, and assists clients with the development and performance of environmental insurance policies, site assessments, and engineering contracts related to the investigation and remediation of "brownfield" properties. He also assists clients with environmental auditing, reporting, record keeping, and other compliance obligations with respect to asbestos, lead, PCBs, mold, and other indoor air issues. With his advanced degrees in marine science, he has also developed an international reputation in the area of oil and chemical spills and natural resource damages, representing some of the world's largest shipping companies and their insurers in several marine casualty events throughout the United States, including most recently in the Gulf of Mexico, northern Atlantic (Buzzards Bay) and Pacific (Puget Sound) Oceans. Andrew is a member of several national and international environmental organizations and a frequent speaker on a variety of environmental/health and safety topics. He is the author of several articles and chapters on environmental issues and has written two books: The Home Environmental Sourcebook: 50 Environmental Hazards to Avoid When Buying, Selling or Maintaining a Home (Owl Books/Henry Holt & Co.,1996) and ISO 14001 - Meeting Business Goals Through an Effective Environmental Management System (Simon & Schuster/Bureau of Business Practice, 1998). Andrew is also an adjunct professor of
environmental studies, law and policy at Connecticut College and a Fellow at the Goodwin-Niering Center for the Environment. He earned his J.D. from George Washington University, his M.S. and Ph.D. from the University of Massachusetts at Amherst, and his B.S. from Trinity College. He is admitted to practice in Connecticut and Massachusetts.

**Greg Davis** is a Research Director in CSIRO’s Land and Water Flagship based in Perth Western Australia. He has over 30 years research and consulting experience on contaminants in groundwater and soils. He has worked with industry and regulators to develop knowledge, technologies, modelling and monitoring tools, and remediation and management options for contaminated sites, and has published over 300 papers and reports. He has a particular interest in vapour intrusion science, and has assisted in development of national guidance in Australia. He is Adjunct Professor at the University of Western Australia and was Chief Editor of the Journal of Contaminant Hydrology.

**Robin Davis** has a Bachelor of Science in Geology from Sonoma State University, and is a Licensed Professional Geologist and Project Manager with the State of Utah DEQ. Robin has over 35 years of professional experience in fate and transport of petroleum hydrocarbons, natural attenuation, risk assessments, and vapor intrusion. Robin served on the EPA OUST Petroleum Vapor Intrusion (PVI) Work Group and ITRC PVI Team to develop national guidance documents, and is a frequent speaker on PVI for various webinars and conferences sponsored by various agencies and groups.

**Brittany Daws** is currently a senior at California State University, Long Beach working towards completing her bachelor’s degree in Biochemistry. In addition to her academic studies, Brittany dedicates her time as an undergraduate research assistant under the supervision of her advisor, Dr. Stephen Mezyk. In addition, she is a supplemental instruction leader for organic chemistry and is also involved in volunteer work in the Long Beach community. After she graduates from CSULB her goal is to attend her top choice medical school and earn her M.D./Ph.D. degrees.

**Helen Dawson**, Ph.D., is a senior consultant with Geosyntec Consultants and has more than 30 years of experience in private practice, academia, and public service. She is often sought out for her skill with regulatory analysis and forensic evaluation of complex environmental systems. Her practice spans a wide range of technical disciplines including vapor intrusion, groundwater characterization, and contaminant fate and transport modeling related to the spread of dense non-aqueous phase liquids, chlorinated solvents, and metals in the environment. Dr. Dawson is among the nation’s practice leaders in the field of vapor intrusion. She was the primary author of the U.S. EPA’s Office of Solid Waste Emergency Response (OSWER) Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils in 2002. She also was the primary investigator and author on two key technical documents that support vapor intrusion assessment: one on background indoor air concentrations in residences and another on the subsurface-to-indoor air attenuation at vapor intrusion sites. Since joining Geosyntec she has successfully derived defensible site-specific vapor intrusion attenuation factors to support risk assessment and development of subsurface media cleanup levels.

**Robin DeHate** is the Corporate Health and Safety Officer and Vice President at GEI Consultants, Inc. with over thirty years of experience in the occupational and environmental health and safety field. She is responsible for promoting awareness of health and safety issues and an atmosphere of cooperation between GEI management and employees, vendors, and clients. She is also responsible for identifying problems, formulating policy and procedures, monitoring and improving workplace health and safety; identifying and implementing required health and safety training, and for developing policy and procedures to minimize or eliminate accidents and injuries to GEI staff, client staff and sub-contractor staff. Prior to joining GEI she was the president of a company specializing in the development of occupational and environmental training programs for private industry and government agencies. With her diverse background in the environmental and occupational fields, she has the inherent ability to identify exposure pathways, evaluate and communicate the potential risks, and develop control methodologies. In addition, she assists private industry in the planning and preparation for chemical and biological emergencies, including bioterrorism. As a former vice president of another consulting firm, she was a key figure in the development of that company’s risk assessment, contamination assessment, property acquisition assessment, and waste management programs.
Lisa Dernbach is a Senior Engineering Geologist (Specialist) working for the California Regional Water Quality Control Board, Lahontan Region, in the South Lake Tahoe office. Her specialty is contaminant hydrogeology. She has worked for the State for the past 25 years overseeing cases in underground storage tanks, dry cleaners with PCE, dairies with nitrates, landfills, and surface spills. For the past 12 years, she has overseen the “Erin Brockovich” chromium 6 contamination in the Mojave Desert, involving significant public outreach, enforcement actions, wellhead treatment, environmental justice, and endangered species habitat. Lisa has a Bachelor of Science in Earth Sciences from U.C. Santa Cruz and a Master of Science from Cal State Long Beach. She is a California Professional Geologist, Certified Hydrogeologist, and Certified Engineering Geologist.

Bridgette DeShields has over 28 years of experience and is a specialist in regulatory strategy, site investigation, risk assessment, site remediation, sediment and water quality management, and environmental toxicology. She has managed programs ranging from large site investigations to screening and quantitative ecological and human health risk assessments. Ms. DeShields has worked on both State and Federal led sites in California and elsewhere. She has participated in efforts to develop screening levels for petroleum hydrocarbons, and other constituents, protective of both human and ecological receptors. Her expertise includes exposure and bioaccumulation/bioavailability studies, toxicity value development, and developing site closure strategies. Ms. DeShields has a B.S. in Biochemistry from UC Davis and an M.S. in Environmental Management for the University of San Francisco.

George DeVauill, PhD is a Principal Technical Expert at Shell Global Solutions in Houston. His work includes development and application of risk assessment and chemical fate and transport methods applicable in site assessment and remediation.

Craig Divine, PhD, PG, is a Principal Hydrogeologist and Vice President at ARCADIS US, Inc. with 19 years of experience in hydrogeology, geochemistry, subsurface characterization, and groundwater remediation. He has particular expertise in the design and application of multi-component groundwater remediation systems for very large groundwater plumes. His specific project experience includes work for public and private clients at military bases, aerospace facilities, chemical plants, landfills, steel mills, oil refineries, mines and smelters, natural gas production facilities, and power generation and transmission facilities. Dr. Divine is also the Operations Resource Manager for ARCADIS’ Remediation teams Southern California and Hawaii.

Kenneth Dixon joined USEPA Region 9's UST Program in October 2013, and he splits his time between California UST/LUST initiatives and overseeing individual UST cleanups in Indian Country. In nine years with EPA, he has worked as an environmental engineer with the RCRA Corrective Action program, written regulations for waste combustion facilities, and served as state and tribal coordinator for the EPA Brownfields Program in Washington, DC. He holds a B.S. in Earth Systems from Stanford University and an M.S. in Environmental Engineering from the University of California at Berkeley.

John J. Dodge is an Associate at Daniel B. Stephens and Associates, Inc. (DBS&A) and a Professional Geologist in California with 24 years of experience in the environmental and water resources industries managing large, complex contaminant investigation, remediation and liability management projects as a consultant to private industrial clients, national law firms, and local, state and federal government.

Adam Domanski is an environmental economist with NOAA's Office of Response and Restoration and has worked on many Natural Resource Damage Assessment (NRDA) cases on behalf of federal Trustees. He has extensive experience with NRDA cases, particularly oil-spills and chronic hazardous waste contamination at the assessment and restoration planning stages. His primary expertise is in the use of non-market valuation techniques to estimate changes in consumer surplus resulting from marginal quality changes to public and environmental goods. He holds a PhD in economics from North Carolina State University.

John Donatucci P.E. is a Senior Remediation Engineer for Kleinfelder. He is a registered professional engineer in California with 25 years of experience in environmental engineering and remediation of soil
and groundwater at private sector sites, municipal and state-funded sites, as well as RCRA and CERCLA sites. Mr. Donatucci has been with Kleinfelder for 8 years, during which time he has led the investigation and remediation of many diverse project sites for a broad range of contaminants. He provides special expertise in bench-scale and pilot testing, remedial system design and installation; operations and maintenance; and permitting for industrial/commercial, oil/gas, federal, state, and local agency clients.

Andrew Eddy is a project manager with the Minnesota Pollution Control Agency (MPCA) in St. Paul, MN. He has been with the MPCA for the past 8 years working in the Petroleum Remediation Program. Prior to working at the MPCA, Andy worked in the environmental consulting field. Andy graduated from the University of Wisconsin – Eau Claire with a degree in Geography and Geology.

Nour Sh El-Gendy who is an Assistant Professor in the field of Environmental Biotechnology and head manager of Petroleum Biotechnology Lab, Egyptian Petroleum Research Institute, Cairo, Egypt is an author for three books in the fields of biofuels and petroleum refinery and biotechnology and seventy eight research papers in the fields of oil pollution, bioremediation, biosorption, biofuels, macro- and micro-corrosion, green chemistry, wastewater treatment and nano-bio-technology and its applications in petroleum industry and biofuels. Nour is also an editor in thirteen international journals in the field of environmental biotechnology and microbiology, supervised twenty MSc and PhD thesis in the field of biofuels, micro-macro-fouling, bioremediation, wastewater treatment, biodenitrogenation and biodesulfurization. Nour is a member in many international associations concerned with environmental health and sciences. She is also lecturer and supervisor for undergraduates' research projects at "The British University in Egypt BUE" and "Faculty of Chemical Engineering, Cairo University, Egypt" and also teaches Environmental Biotechnology course for post graduates at “Faculty of Science, Monufia University, Egypt”. Her biography is recorded in Who's Who in Science and Engineering ninth edition 2006-2007.

Brad Elkins leads the technical support department at EOS Remediation based in Raleigh NC. He specializes in the application of bioremediation strategies to treat hazardous compounds in soil and groundwater. He earned a Master's degree in Geology from East Carolina University and is a registered professional geologist in NC.

Muhammed Emin Tolu received the B.E degree from the mechanical engineering department of Selcuk University, Konya, Turkey in 2012 where he is currently pursuing MSc degree. He is working as a research assistant at Karamanoglu Mehmetbey University in the department of Mechanical Engineering in the division of thermodynamics. His study field includes air conditioning, cooling, thermodynamic effects of various flows and combined heating, cooling and power plants in general.

Mauricio Escudey is the former Vice Rector of Research and Development at the Universidad de Santiago de Chile (USACH), and former President of the Science, Technology and Innovation Committee at the Rectors Council of Chilean Universities (2011). He is a well published international scientist with a Ph.D. in chemistry, with specialization in soil chemistry. He held a postdoctoral position at University of California Riverside being frequently visiting professor at the Department of Soil and Environmental Sciences. He is an expert in environmental impacts and has worked extensively on issues related to copper mining.

Patrick Evans is a Vice President with CDM Smith in Bellevue, Washington and has 30 years of research and development experience in the areas of hazardous waste remediation, energy, drinking water treatment, and waste water treatment. He received his B.S. and Ph.D. degrees in chemical engineering from the University of Michigan and his M.S. degree in chemical engineering from Rutgers, The State University of New Jersey. He also completed postdoctoral research in environmental microbiology at New York University Medical Center. Dr. Evans has been a Principal Investigator on numerous research projects including ones funded by the Department of Defense Environmental Security Technology Certification Program (ESTCP) and the Water Research Foundation. He is the recipient of the Water Environment Federation McKee Award, and two Research Grand Awards and one Superior Achievement Award from the American Academy of Environmental Engineers and Scientists. He is the author of over 40 publications and holds 4 patents.
Jude Francis has over 21 years of experience in environmental consulting with emphasis in the field of soil and groundwater remediation. His core experience is in complex site feasibility studies and remedy implementation but also well versed in remedial investigations and risk assessments to enable cost-effective remedial solutions. Implementation experience includes managing, designing, planning of soil and groundwater remediation projects for a wide range of industrial and municipal sectors with greater emphasis on the petroleum industry. Remediation technology experience includes conventional technologies such as soil vapor extraction, bioventing, air sparging and innovative technologies such as in-situ chemical oxidation, in-situ chemical reduction, in-situ bioremediation and in-situ thermal technologies. Innovative investigation technology experience includes CPT/ROST, UVOST, molecular biological tools, etc. Contaminant experience includes petroleum hydrocarbons (LNAPL), BTEX, VOCs (TCE, PCE), Cr(VI), DNAPL, PCBs, PAHs, phthalate, etc. He has significant amount of experience with Superfund and negotiating cleanup with US EPA, DTSC and RWQCB to provide cost effective remedial solutions.

Avram Frankel is an environmental professional with 25 years of experience in remediation, engineering, and risk management. A licensed California civil engineer, Mr. Frankel has proven experience in strategic planning, program development, and project delivery, and a strong record in supporting organizational goals and meeting client needs including development of liability transfer, asset evaluation and performance-based contracting solutions. His experience includes work on a wide range of commercial/industrial and federal sites regulated under CERCLA, RCRA, TSCA, and numerous state programs. As a principal engineer, he has overseen the design and installation of numerous ex situ and in situ remediation systems and serves as technical lead for select client projects. Mr. Frankel also serves as a regulatory strategist on many projects having negotiated numerous closure frameworks in a variety of states on large remediation projects. As a program manager, Mr. Frankel’s experience on large and performance-based projects is extensive, many completed in support of large brownfield redevelopment programs. Mr. Frankel has considerable expertise in the preparation of complex deliverables, from technical studies to performance-based contracts and insurance packages, with specialization in the generation of risk-reducing strategic plans and contracting strategies to minimize lifecycle costs and achieve performance endpoints for large environmental liabilities and real estate assets.

Aaron Friedrich has over 12 years of experience with environmental programs, project management, and technical expertise with a strong emphasis in due diligence, soil and groundwater investigations and remediation, vapor intrusion (VI) pathway assessments and mitigation approaches, and health-based risk evaluations. He has extensive experience with complex site investigation and remediation including the evaluation of soil and groundwater contamination at industrial and commercial properties impacted by both chlorinated and petroleum hydrocarbons, and metals. A key focus in these investigations is the development of dynamic conceptual site models (CSMs) to facilitate investigation activities, remediation decisions, and data gap analyses. Mr. Friedrich is a VI technical resource within Environmental Resources Management (ERM) for assessing and managing residential and industrial VI investigation and mitigation activities. Mr. Friedrich has extensive experience using the recommended multiple lines of evidence (MLOE) approach including the collection and interpretation of exterior soil gas, sub-slab soil gas and indoor air sampling analytical data. He has designed residential vapor mitigation systems as well as multiple commercial vapor sub-slab depressurization (SSD) systems. He has been involved in high profile VI cases including projects involving daycare facilities, neighborhood community organizations, and senior living communities. Currently, Mr. Friedrich serves as a Director on the Board of Directors for the Midwestern States Environmental Consultants Association (MSECA). He also participates in the Interstate Technology & Regulatory Council (ITRC) teams developing guidance on petroleum VI as well as complex site investigation and remediation.

Steven Gaito is a Senior Environmental Specialist with ARCADIS US. He joined ARCADIS in 2007 and has 14 years of environmental consulting experience and specializes in developing LNAPL management strategies. He is contributing to the update of ASTM LNAPL Guide E 2531-06. His current work focuses on developing LNAPL site conceptual models, mobility and recovery, and the evaluation and application of natural source zone depletion.
Christopher Gale, PG is a Senior Geologist with Geosyntec Consultants in San Diego, California. Mr. Gale has over 10 years of experience conducting, overseeing, and managing site characterization and remediation projects at a wide variety of sites throughout Southern California. Mr. Gale earned a MS in Geological Sciences from San Diego State University in San Diego, California and a BA in Geology from Colorado College in Colorado Springs, Colorado.

Grant Geckeler is Executive Vice President of GEO Remediation Company. He oversees in situ thermal remediation, ex situ thermal desorption, and advanced off-gas treatment projects. Mr. Geckeler is a primary inventor of the patented GTR (gas-thermal-remediation) technologies. He holds advanced degrees from Leiden University and Pepperdine University, and a Bachelors degree from the University of California, San Diego.

Gerald George practices environmental law and litigation at Davis Wright Tremaine LLP, which he joined in 2013, after eight years with Pillsbury Winthrop Shaw Pittman LLP. He was with the U.S. Department of Justice in Washington, DC and San Francisco for twenty-five years, serving as head of the Environmental Enforcement Section field office in San Francisco from 1989 until 1995, when he left to enter private practice. He has a national environmental practice, advising clients on compliance and development issues and handling oil spill, environmental cleanup and litigation for petroleum, mining and other natural resource and industrial clients, as well as local government agencies. He is currently representing clients on CERCLA response cost and Natural Resource Damage matters at both closed and operating facilities in Washington, Oregon, Montana, and South Dakota, as well as California.

Lawrence Gibbs is Associate Vice-Provost for Environmental Health and Safety at Stanford University where he is responsible for health, safety, and environmental risk management programs in addition to oversight of institutional emergency planning and risk communication. Stanford has over 2500 laboratories involved annually in over one billion dollars of research activity ranging from basic sciences, particle physics and engineering to biomedical and human subjects clinical research. His purview includes EH&S oversight of nanomaterials research conducted in materials science, engineering, medicine, chemistry and other research areas on campus. Larry is a lecturer at the Woods Institute for the Environment at Stanford and a member of the Stanford Board of Overseers for the SLAC National Accelerator Laboratory. He has graduate degrees from Boston University in science education and from the University of Michigan in industrial hygiene and public health. In addition to over 25 years of experience in academic, research and clinical institutions, he serves as a consultant for a variety of organizations and currently serves on the scientific advisory board for nanoTox, Inc., a nanomaterials safety, testing and consulting firm. He has authored numerous publications and served as officer and board member in a number of international professional associations, including as 2008 Chair of the ACGIH, and is a Fellow of the American Industrial Hygiene Association. He currently Co-chairs the Risk Management and Control of Nanotechnology Community of Research, part of a joint US NNI-EU Commission project that provides a platform for scientists to address environmental, health, and safety questions about nanomaterials by developing a shared repertoire of protocols and methods to overcome research gaps and barriers.

David Gillay is a partner in the Indianapolis office of Barnes & Thornburg. He heads the Remediation, Brownfields, and Environmental Transactional Practice Groups and provides environmental counseling in connection with assessing environmentally challenged properties. Over the last decade, David has focused on the legal, regulatory, and technical impact and implications related to the vapor intrusion pathway. He also represents an influential multi-state environmental consultants’ association and works closely with leading technical experts on a wide array of environmental matters, including rapidly evolving vapor intrusion guidance. Prior to joining Barnes & Thornburg, he obtained an advanced environmental engineering degree and practiced as an environmental consultant on various projects across the country. David can be reached at (317) 231-7474 or dgilay@btlaw.com.

Kevin Gomes has worked in the remediation industry for over 7 years assisting environmental consultants with the strategy, design and technology selection for over 300 sites nationwide. Kevin's focus has largely been working with in-situ chemical oxidation using ozone. He works directly with clients to select and size the proper equipment to meet their clean up goals. With more than 20 years of project
management and sales experience, Kevin has a business-minded approach arriving at innovative solutions to technical problems.

Kevin Graves is currently the Chief of the UST and Site Cleanup Section at the California State Water Resources Control Board, and has over 20 years of experience with groundwater investigation and remediation. He received a Bachelors degree from UC Santa Barbara in mechanical engineering and a Masters degree from California State University Sacramento in civil engineering and is a registered Professional Engineer in both civil and mechanical engineering. Mr. Graves received a superior accomplishment award from the State Water Resources Control Board in 2013 for his work in the preparation of the “Low-Threat UST Case Closure Policy” that was adopted in 2012. In addition to his work in the UST program, he is currently focusing on sources of chlorinated solvent contamination in public water supply wells.

Hari Gupta is Principal and Owner of Coriolis Enterprises and an environmental engineer with over 22 years of consulting experience in the industry. He has managed, directed, and completed numerous projects on sustainability for major corporations, including those on water reuse, energy conservation, toxics elimination and green chemistry, and building sustainable supply chains. He is a professional engineer in the state of California.

Megan Hamilton is the lead Risk Assessor and Vapor Intrusion Specialist for the Environmental Forensic Investigations, Inc. (EnviroForensics) team and has over 15 years of experience in environmental regulatory oversight and consulting. She develops, helps implement, and oversees the VI investigations and mitigation for all of EnviroForensic’s projects. She is also the main contact for risk communication issues and community outreach development. Her diversified professional experience includes research, policy development, technical writing, public outreach, vapor intrusion investigation and remediation, data analysis and interpretation, human health risk assessment, and conceptual site model analysis. Ms. Hamilton served as the coordinator and team leader for the Indiana Department of Environmental Management’s (IDEM) Vapor Intrusion Workgroup for six years and is the principal author of the current Indiana Vapor Intrusion Guidance. Ms. Hamilton has presented at several National Conferences, is a member of the National VI Science Advisory Committee, and currently serves on the Board of Directors for the Midwestern States Environmental Consultants Association (MSECA). Ms. Hamilton can be reached at (317) 972-7870 or mhamilton@enviroforensics.com.

Blayne Hartman received his Ph.D. in geochemistry from the University of Southern California. He co-founded & operated H&P Mobile Geochemistry for twenty years, a business partnership offering on-site laboratory analysis, direct push environmental sampling, soil vapor surveys, and vapor intrusion services. He sold H&P in 2008 and is currently an independent consultant offering vapor intrusion and soil gas support. Dr. Hartman is a nationally recognized expert on soil vapor sampling, soil vapor analysis, and vapor intrusion. He has provided training on soil gas methods and vapor intrusion to County and State regulatory agencies in over 35 states, many of the EPA regions, several foreign countries, and numerous stakeholder groups and consultants as well as being a trainer in the EPA- OUST, ITRC, ASTM and API vapor intrusion courses. He has written numerous articles on the collection, analysis, and interpretation of soil vapor data, including chapters in four textbooks. He has participated in technical workgroups on soil vapor methods and vapor intrusion for EPA, CA-EPA, CA Regional Water Boards, County of San Diego, ITRC & ASTM. Over the past ten years, Dr. Hartman has been a contributing author/editor to vapor intrusion and soil gas guidance documents to more than 25 individual State documents. He is currently assisting with the preparation of Australia’s vapor intrusion guidance.

Heidi Hayes is the Technical Director at Eurofins Air Toxics. Ms. Hayes has a MS in Chemistry from the Colorado School of Mines in Golden, CO, and over 20 years in the environmental laboratory industry with experience in designing and testing new analytical methods. She has spent the last 18 years at Eurofins Air Toxics and currently oversees the testing of new media, protocols, and technology related to air phase analysis. Her recent research activities have been focused on meeting the challenges of the vapor intrusion investigations from soil gas collection and analysis to trace level indoor air VOC methods.
**Kim Heinze** is a Project Hydrogeologist with ARCADIS in Highlands Ranch, CO. She holds a degree in Earth Science from the University of Waterloo and has 12 years of experience. Ms. Heinze's experience is focused in site characterization and in situ remediation, with particular expertise in tracer investigations, conceptual site models and enhanced reductive dechlorination.

**Ian Hers** is a senior consultant and Principal of Golder Associates located in Vancouver, B.C., Canada with 25 years professional experience, and is the vapour practice leader for Golder Associates. Much of his work over the past decade has focused on the evaluation of soil vapor fate and transport, vadose zone processes, and the prediction, measurement and mitigation of soil vapour intrusion into buildings. He is highly familiar with soil gas and indoor air characterization techniques, appropriate methods to obtain high quality, defensible data, and regulatory guidance and analytical and numerical models for this pathway. He has developed guidance for numerous regulatory agencies including U.S. EPA, Health Canada, UK Environmental Agency, and several provinces and states in Canada and the U.S. Most recently, Ian co-authored a review of empirical data and models on petroleum vapor intrusion for U.S. EPA OUST. He is the principal investigator for several current or recently completed applied research projects for the American Petroleum Institute, Shell Global and Electric Power Research Institute. Dr. Hers holds a Ph.D. in Civil Engineering (University of British Columbia), is on the Board of Directors of the Science Advisory Board for Contaminated Sites, and is a member of the Contaminated Sites Approved Professionals in British Columbia.

**John Hinz**'s thirty-six year professional career combined applied inhalation, general, industrial toxicology and laboratory management with risk assessment and guideline development. Beginning with tours of duty at three contract laboratories, he apprenticed in inhalation toxicology at the Huntingdon Research Center in New York, then became Study Director for inhalation toxicology responsible for the design of inhalation systems and execution studies at Food & Drug Research Laboratories in New York. Recruited by BioDynamics and Exxon Biomedical Sciences, he built, staffed, and managed the Inhalation Toxicology Department at Exxon Biomedical Sciences' new laboratory in New Jersey. Applying a practical grounding in toxicology, Mr. Hinz wrote and reviewed RfC- and RfD-based risk assessments at EPA's Hazardous Pollutant Assessment Branch (RTP, NC) before joining the Air Force’s Institute for Operational Health, now part of the USAF School of Aerospace Medicine, as one of its senior environment, safety and operational health consultants on toxicology and risk assessment issues. For the last 16 years of his career, he served as the Air Force’s representative and as one of the inhalation toxicologists on the National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances (NAC-AEGL). The Committee’s work earned recognition with the Hammer Award from Vice President Albert Gore and the National Partnership for Reinventing Government. His work for the Air Force included a comparative characterization of the potential of various fuels to cause respiratory irritation, advice on the design, execution and interpretation of key inhalation studies to better characterize the health-related issues associated with exposure to naphthalene, 1,4-dioxane as well as natural and synthetic jet fuels. Mr. Hinz also served as one of DoD’s subject matter experts on the developing risk assessments for naphthalene and 1,4-dioxane. Retired from federal service, he continues to work on these and related issues.

**James Jacobs** has 30+ years of experience as a geologist focusing on resource evaluation, soil and groundwater assessment, remediation and cost allocation. He has been with Clearwater Group since 1990 and is a Fulbright Senior Scholar. He has written over 100 technical articles and given 50 presentations. He is an author of two books (CRC), and two will be published in 2014: one on acid rock drainage (Wiley) and one on oil spills and gas leaks (McGraw-Hill). He is licensed as a Professional Geologist and Hydrogeologist in several states, including California.

**Ted Johnson** is the Chief Hydrogeologist at the Water Replenishment District of Southern California, managing projects related to the artificial replenishment of overdrafted basins at spreading grounds and injection wells, groundwater quality investigations and protection, seawater intrusion prevention, and modeling. He works in the Central Basin and West Coast Basin of southern Los Angeles County and has published or presented over 60 technical papers on the hydrogeology of this area. Mr. Johnson is concurrently president of the Groundwater Resources Association of California, a statewide non-profit organization dedicated to groundwater education, protection, and preservation. He is a California
licensed Professional Geologist and Certified Hydrogeologist with nearly 30 years of experience as a groundwater professional, and has his B.S. and M.S. degrees from California State University Fullerton.

Steve Jones is an Analytical Chemist with over 40 years experience. Since 1984, he has been active in the environmental chemistry field. Over the past 40 years he has testified several hundred times in court and given depositions as an Expert in several states. Because of his forensic background, his expertise is widely used by environmental consultants, attorneys and engineering firms. Throughout his career, Dr. Jones has been active both in the laboratory and in laboratory management. He has spent several years as the Manager/Technical Director of several large and small environmental testing laboratories and does extensive data auditing and review of other laboratory’s reports. He is well versed and specializes in oil field operations, fuel hydrocarbon identification and the associated testing procedures that accompany these activities. He has spent more than 35 years as a bench chemist and is well versed in GC/MS, GC, IR, AA, ICP, wet chemistry methods, as well as extraction techniques. Currently, Dr. Jones manages his own analytical testing firm which provides consultation, lectures, fuel fingerprinting, simulated distillation, fuel aging and many other chemistry-related services. He has also headed the building, setup, and operation of four analytical testing laboratories. For the past 28 years he has served as a reference for lab personnel and clients who have questions about testing procedures related to environmental and analytical chemistry areas. Aside from managing his analytical testing firm, Dr. Jones has taught "Sampling and Analytical Methods for the Characterization of Hazardous Waste" and "Organic Chemistry of Hazardous Waste" at the University of California's Extension Service in Irvine, California. Dr. Jones has given numerous presentations related to the environmental testing field and has expertise with most EPA methods including soil gas methodologies and applications.

Arturo Keller is currently Co-Director of the UC Center for the Environmental Implications of Nanotechnology and a leading faculty in the new Chemical Life Cycle Collaborative. He has been a Professor at the Bren School of Environmental Science and Management, University of California, Santa Barbara for 18 years. His research addresses the fate and transport of pollutants in the environment, remediation approaches, and watershed scale management of water quality. Keller’s recent work has focused on the nanoscale, both in terms of the implications and the applications of these novel materials. He received his PhD from Stanford University in Civil and Environmental Engineering; he has a previous MS from Stanford and a BS in Chemical Engineering and BA in Chemistry from Cornell University. He also worked in industry for 11 years.

Kathleen Kerigan is an Environmental Engineer in GZA’s Remediation division and holds a Master of Engineering from MIT. Her experience at GZA includes environmental assessment and remediation involving fate and transport and multi-phase fluid flow modeling, vapor intrusion evaluation and data management. Prior to joining GZA, she worked for Exxon Mobil and in the defense industry. She currently serves as a member of ASTM and the Massachusetts Department of Environmental Protection's Working Groups for LNAPL and Vapor Intrusion.

Lowell Kessel is a Registered Professional Geologist in the U.S. and has specialized in the development and application of environmental investigation and remediation technologies working for environmental engineering and consulting firms and technology developers on five continents since 1998. He has been involved in gas powered thermal remediation design and management for G.E.O. Inc. since 2012 for projects around the world and electrical powered thermal remediation since 2008. Mr. Kessel has organized and lead thermal remediation workshops and presentations annually at conferences and privately for engineering firms and professional organizations since 2011. He is currently focused on the latest research and development on thermal remediation for U.S. and foreign markets. Mr. Kessel holds a BS and MS in Geological Sciences and a Masters in Business, all from the University of California.

Michael T. Kleinman is an Adjunct Professor of Occupational and Environmental Medicine in the Department of Medicine at the University of California, Irvine (UCI), with a joint appointment in the Program in Public Health. He has been studying the health effects of exposures to environmental contaminants for about 40 years. He holds a M.S. in Chemistry (Biochemistry) from the Polytechnic Institute of Brooklyn and a Ph.D. in Environmental Health Sciences from New York University. He is the Co-Director of the Air Pollution Health Effects Laboratory at UCI. He has published 115 articles in peer-
reviewed journals dealing with environmental contaminants and their effects on cardiopulmonary and immunological systems and on global and regional distribution of environmental contaminants including heavy metals and radioactive contaminants from nuclear weapons testing. Dr. Kleinman’s current research focuses on neurological and cardiopulmonary effects of inhaled particles, including nanomaterials and ultrafine, fine and coarse ambient particles in humans and laboratory animals.

**Stephen Koenigsberg** brings more than three decades of environmental experience to his role as Vice President and Director of Advanced Technologies for Brown and Caldwell in Irvine, CA. Steve is known for his work in the development and application of innovative in-situ and on site treatment protocols and has authored or co-authored more than 175 technical articles, four books and four international patents focusing on remediation and environmental biotechnology. In 1994 he co-founded Regenesis where he was involved in the formulation and development of products like ORC®, HRC®, MRC® and Regenox® which have been broadly applied worldwide. Dr. Koenigsberg was the co-recipient of a Wall Street Journal Technology Innovation Award in 2006 and in 2010 received a Lifetime Achievement Award from the Association for Environmental Health and Sciences Foundation (AEHS). Steve is an Adjunct Professor at the California State University at Fullerton and serves on the Dean’s Advisory Council. He received a B.A. from the City College of New York (CCNY) and an M.S. and Ph.D. from Cornell University.

**Brad Koons** is a technical expert on petroleum site assessment and remediation for ARCADIS. In this role he provides technical guidance on national and international light nonaqueous phase (LNAPL) projects related to site strategy development, site investigation and assessment, and remediation technology screening and implementation. He has an extensive background in LNAPL-impacted site characterization, LNAPL conceptual site model development, and pilot testing, design, and operation of soil and groundwater remediation systems. He has authored numerous technical articles on enhanced petroleum and chlorinated hydrocarbon remediation processes and actively participates in an ASTM committee that is revising the 2006 ASTM Standard Guide on LNAPL conceptual site development. Mr. Koons has conducted technical trainings on NAPL site characterization and assessment for a number of regulatory agencies in the United States. He has provided technical leadership on LNAPL projects in 30 US states, Canada, Europe, and South America.

**Mark Koplitz** is a Senior Project Leader with the Minnesota Pollution Control Agency in St. Paul, Minnesota. Mark has been with the MPCA for 25 years and has 15 years’ experience in brownfield redevelopment. Mark has played an active role in developing Minnesota’s brownfield guidance.

**Mark Kram** is a Chief Scientist for Groundswell Technologies, Inc., a group specializing in automated monitoring and modeling of sensor networks. Dr. Kram earned his Ph.D. in Environmental Science and Management from the University of California at Santa Barbara, an M.S. degree in Geology from San Diego State University, and his B.S. degree in Chemistry from the University of California at Santa Barbara. He has over 30 years of experience using and developing innovative environmental assessment techniques, has authored articles, national standards and book chapters on the subject, and has taught graduate level courses on related topics. Dr. Kram is an active member of NGWA and ASTM, and is currently preparing national guidance for environmental characterization applications. Dr. Kram is the recipient of NGWA’s prestigious Technology Award, and received the 2014 ASTM Committee D18 Technical Editors Award.

**Jeff Kurtz** is the indoor air testing task manager for one of the largest vapor intrusion sites in the country, with responsibilities that include evaluating the extent of vapor intrusion impacts and the performance of vapor intrusion controls, and evaluating the contributions of indoor sources and background to indoor air levels of VOCs. He has worked on a number of other vapor intrusion sites in Colorado, California, Kansas, New Jersey, New York, Utah and Wyoming, and is well known for his research and publications on indoor sources of VOCs, including the use of COC ratios in groundwater and indoor air to separate vapor intrusion from background sources. Dr. Kurtz has worked closely with Dr. Paul Johnson and Robbie Ettinger to publish the first study providing validation of the JE Model from empirical data. He also worked with Helen Dawson, under EPA contract, on development of the EPA residential background
indoor air paper and on revising the EPA spreadsheet version of the JE Model. Dr. Kurtz has been an active participant in the EPA vapor intrusion work group for many years.

John LaChance is a Global Expert in Thermal Remediation and an Associate Vice President for ARCADIS U.S. Formerly with TerraTherm, Inc. for 11 years, he offers over 28 years of experience in characterizing and remediating contaminated sites with a focus on the design, implementation and assessment of in situ thermal remediation (ISTR) systems and the management of ISTR projects and research efforts at numerous sites both in the U.S. and overseas. Mr. LaChance has worked with all of the primary thermal remediation technologies: Thermal Conduction Heating (TCH), Steam Enhanced Extraction (SEE), and Electric Resistance Heating (ERH) or Electro-Thermal Dynamic Stripping Process (ET-DSP). His work has also included combining ISTR technologies (e.g., TCH and SEE) to better address challenging site hydrogeologic and contaminant conditions to ensure achievement of the desired remedial outcome. John has also evaluated and worked with newer thermal technologies such as STAR (Self-Sustaining Treatment for Active Remediation or smoldering combustion) and Gas Thermal Remediation (GTR) and is currently leading research efforts on how to use sustainable energy and geothermal techniques to gently heat sites to speed up biological and abiotic reaction rates. Additionally, he has authored many papers and presentations on ISTR and the hydrogeology of DNAPL sites and is a co-founder and presenter of the ISTR workshop that has been presented at the Conference on Soils, Sediments and Water held annually at the University of Massachusetts, Amherst for the past twelve years.

Leif Law is the Business Development Manager for Willowstick Technologies covering both the environmental and oil and gas sectors. Mr. Law has over 15 years of sales and business development experience. Mr. Law has extensive experience with all levels of environmental remediation, subsurface groundwater surveying and modeling, hydraulic fracturing, and upstream oil and gas logistics and supply chain. Mr. Law is part of a team at Willowstick Technologies that are leaders in geophysics, data analysis, modeling, interpretation, as well as Research and Development. Mr. Law holds a B.S from Brigham Young University.

Dan Leigh is a Technology Applications Manager for PeroxyChem located in Walnut Creek, CA. In this role he provides technical support for application of remedial approaches for treatment of organic and inorganic contaminants. Mr. Leigh is a California licensed geologist and hydrogeologist with over 30 years of professional experience. He has over 100 publications and presentations on a variety of subjects including atoll island, coastal and karst hydrogeology, contaminant fate and transport modeling, aquifer geochemistry, mechanochemical degradation, phytoremediation, bioaugmentation, site characterization, natural attenuation, and in situ biotic, abiotic and biogeochemical remediation of organic and inorganic contaminants. He has conducted site investigations at facilities across the United States and Internationally. His primary technical focus is on the application of combined remedial approaches for treating contaminants in situ.

Herb Levine has a BS and MS in Geology from the University of Illinois. For the past 28 years he has worked on RCRA and Superfund sites in EPA Region 9 as a consultant to project managers. Mr. Levine provides technical and regulatory support on a wide range of topics and participates on various workgroups within EPA that develop guidance and policy.

Frank Lindh is former General Counsel of the California Public Utilities Commission and Partner in the San Francisco office of Crowell & Moring, LLP. Frank was an attorney in the Office of the Solicitor of the Federal Energy Regulatory Commission, and law clerk to the Solicitor General of the United States. Frank was an in house attorney at Pacific Gas & Electric Company, and General Counsel of Pacific Gas Transmission Company. Frank is an honors graduate of Georgetown University Law Center. He is an adjunct law professor at U.C. Hastings College of the Law and the University of San Francisco.

Adam Love is a Principal Scientist at Roux Associates in the Oakland, CA office. His expertise brings state-of-the-art techniques to transport, chemical fingerprinting and environmental forensics. He has been utilized as a testifying expert in traditional environmental contamination litigation, but also supports clients in water resource matters where the source, quantity, and impact of potential withdrawals are unclear.
While the bulk of Dr. Love’s consulting experience has included traditional “dirty water” issues, he is seeing a growing need in California for forensics assessments regarding limited clean water resources.

William Luksemburg is a founding partner of Vista Analytical Laboratory. Vista specializes in the analysis of dioxins and furans, PCBs, PAHs using high resolution mass spectrometry and pharmaceuticals and personal care products using LC/MS/MS in environmental matrices.

Paul R. MacGregor is the Managing Director of Green Harbor Energy, a subsidiary of Geosyntec Consultants. Green Harbor Energy provides engineering and marketing services for the development, financing and operation of distributed clean energy. Green Harbor specializes in the monetization of energy efficiency savings (EECs) and renewable energy production (RECs) through the environmental credit markets. Dr. MacGregor has more than 25 years of experience in clean energy markets, energy management, energy trading and risk management, and the optimization of electric power systems. He is a pioneer in the development of the financial credits market for energy efficiency and was named a 2013 Platts Global Energy Award Finalist in the Rising Star category for his professional achievements. Dr. MacGregor has authored over 40 technical papers in four languages in the areas of mathematical modeling and optimization of electric power systems and instructed a master’s level course in electric machinery. He holds two US patents on the application of neural network (artificial intelligence) algorithms to the calculation of building energy utilization. Dr. MacGregor graduated with the Bachelor, Master of Science, and Doctor of Philosophy degrees in electrical engineering as well as a Master of Science in Technology and Science Policy – all from the Georgia Institute of Technology.

Bruce Macler has provided toxicology and risk assessment expertise on environmental water issues for the US Environmental Protection Agency since 1989. He manages regulatory workgroups and an extensive research program on drinking water treatment, and is involved in public outreach and communications. Prior to joining the EPA, he held academic and research positions at NASA, UC Berkeley and SUNY Stonybrook. Macler has authored more than 90 articles and research publications on biotechnology, microbial risk assessment and drinking water regulations, and teaches and lectures widely. He received both a bachelors and PhD in biochemistry from UC Berkeley.

Diana Marquez is an Associate Toxicologist with Burns & McDonnell and serves as the company’s National Practice Leader for Risk Assessment Services. She has over twenty years of risk assessment experience and has worked with a wide variety of sites under CERCLA, RCRA, and state-led programs. She has successfully completed work nationwide for both human health risk assessments and the determination of site-specific cleanup levels. She has direct experience working with large PRP groups on complex sites that require careful negotiations with regulators. Through this experience, she has gained in-depth knowledge of state and federal regulations. Ms. Marquez has a bachelor’s degree in biology and a master’s degree in toxicology; and has authored 15+ publications on risk assessment, risk-based corrective actions, and vapor intrusion.

Kevin Mayer is a partner and civil trial attorney in the Los Angeles and San Francisco offices of Crowell & Moring LLP. He has deep experience litigating on behalf of clients in a wide variety of complex commercial, environmental, and mass tort actions. He counsels clients facing regulatory enforcement at both the state and federal level. Kevin has particular expertise in addressing complex scientific, medical, and technical issues, and preparing and examining expert witnesses in both deposition and trial settings for personal injury, wrongful death, and regulatory litigation. Kevin represents land owners and operators in federal CERCLA and RCRA and state statutory and common law administrative proceedings, litigation and trials involving environmental contamination, cost-allocation, leaking underground storage tanks, waste disposal practices, and commercial development. Kevin is a Fellow of The Litigation Counsel of America, the Trial Lawyers’ Honor Society, and is annually designated in Best Lawyers in America. He is a much-sought speaker and author on litigation and trial practice.

Thomas McHugh, Ph.D.: Dr. McHugh is a toxicologist with GSI Environmental Inc., in Houston, Texas. He is a Diplomate of the American Board of Toxicology and has over 20 years of experience in the environmental industry. He received a B.A. in Biochemistry and Environmental Science from Rice University (1990), an M.S. in Environmental Engineering from Stanford University (1993), and a Ph.D. in
Toxicology from the University of Washington (1997). Dr. McHugh has conducted and managed a variety of projects related to vapor intrusion including large field investigations and model development. Dr. McHugh has extensive project experience in environmental site investigation, site restoration, human health and ecological risk assessment, data mining, and statistical analysis. He has developed training classes on a number of topics including the Texas Risk Reduction Program (TRRP) and was a member of the government/industry workgroup that developed the Ecological Risk Assessment Guidance for Remediation Sites in Texas.

Pat McLoughlin was born on Long Island in New York. He earned his B.S. in Chemistry from the University of Notre Dame and his M.S. and Ph.D. in Physical Chemistry from Cornell University. He has been at Microseeps (now a division of Pace Analytical) since 1996 and now serves as a Technical Director working on CSIA method development, geochemical and isotopic interpretation and instituting a QAQC program for CSIA of VOC's and concentration analyses of dissolved gases and "volatile" fatty acids.

Edmund Merem completed his B.A. and M.E.S. at York University, Toronto and then his M.A. at Pontificale Lateran University, Vatican City. He graduated with a Ph.D. from Jackson State University, Mississippi. Dr. Merem has many years of experience in Global environmental planning and environmental accounting for oil and gas in Canada and the US, and hydro-politics of the Middle East and Africa. Edmund has written several research monographs and papers that have been published in academic journals and major conference proceedings. He worked as an Environmental Analyst in the Environment Bureau of Agriculture and Agric-Food Canada and he also worked briefly as an accounts clerk in the Federal Ministry of National Planning in Lagos, Nigeria. He is very fluent in Italian and a number of European and African languages. While Dr. Merem is currently a full Professor of Environment and Land Use, for years he worked as the PhD Program Coordinator in the Urban and Regional Planning Department at Jackson State University.

Claudia Michel Lopez is a Ph.D. candidate in the Doctorate of Agricultural Sciences at the Autonomous University of Baja California (UABC). Ms. Lopez has a Degree in Biology and a Master of Experimental Biology where she currently works as a teacher. Her works are linked to studies of plants exposed to various metals in order to implement mechanisms (gene amplification, physiological, and biochemical tests) employed by these plants for phytoremediation of soils contaminated with heavy metals.

Tyler Miller is a technician/scientist at CDM Smith in the Denver, Colorado office. He graduated at Colorado State University in 2012, earning a Bachelor of Science degree in Chemistry. He was also a chemistry intern in the R&D department at Hach for 2 years while finishing his degree. His focus at Hach involved the development and validation of emerging instrumental technologies for analytical water quality testing. Of his wide range of interests, he is establishing a foundation in environmental topics such as sustainable energy and water resources. Since joining CDM Smith in July 2013, Tyler has concentrated on methane recovery from biogas produced by a pilot scale, solid waste anaerobic digestion system. He does well balancing hands-on and technical aspects of projects exemplified by his roles in the digestion project; including pilot operation and maintenance, developing experimental methods and standard operating procedures, sample collection, and data and sample analysis.

Thomas Mohr works at the Santa Clara Valley Water District where he is a Senior Hydrogeologist managing groundwater monitoring programs and salt and nutrient management planning. His independent study of 1,4-dioxane began after the publication of the District’s Solvent Stabilizers White Paper, which generated many inquiries and dialogos and ultimately led to his six year personal quest to prepare his book, “Environmental Investigation and Remediation: 1,4-Dioxane and Other Solvent Stabilizes” (CRC Press, 2010). Mohr has published on 1,4-dioxane remediation technologies, the application of solid phase extraction for 1,4-dioxane analysis (now used in EPA Method 522), on perchlorate isotope forensic investigations, on an algorithm for prioritizing investigation of past dry cleaner operations, on differentiating sources of nitrate using stable isotopes of water, and on anaerobic bioremediation of gasoline compounds. He previously worked as Environmental Engineering Coordinator for the City of Sunnyvale, and Senior Hydrogeologist for the County of Yolo. Mohr was the President of
Robert Moncrief has an Environmental Engineering B.S. from California State University, San Luis Obispo. Founded in 2000, H2O Engineering is recognized industry wide as a leader in water treatment system manufacturing and integration. As Founder, President and CEO of H2O Engineering, Robert’s team has deployed over 400 sparge systems internationally and nationally, received two process patents utilized in many of their water treatment systems, and has manufactured Title 22 validated ozone equipment for tertiary water treatment in the State of California. Robert has fostered a sense of sustainable growth by developing long term relationships with many of the nation’s leading water treatment and environmental engineering firms and partnering with key industry leaders who manufacture cutting edge, robust and reputable products.

Ben Mork has over ten years of experience in chemical research, intellectual property management, and product development in the environmental, chemical, and petrochemical industries. He joined Regenesis in 2006, where he currently serves as Vice President of Research and Development. Dr. Mork leads Regenesis’ research and product development programs for the environmental remediation market and related green technology sectors. Prior to joining Regenesis, Dr. Mork was a Staff Scientist at Symyx Technologies, Inc., developing selective heterogeneous oxidation catalysts using high-throughput experimentation (HTE) platforms. He graduated from the University of California, Davis with a B.S. in chemistry, and earned his Ph.D. in organometallic chemistry at the University of California, Berkeley. He is a member of the American Chemical Society and serves on the scientific advisory board for the AEHS Foundation West Coast Conference.

Jim Mueller received a Bachelor of Science Degree in Plant & Soil Science, and a Master of Science Degree in Agronomy/Soil Microbiology from Southern Illinois University-Carbondale, in 1983 and 1985, respectively. He received his Doctor of Philosophy Degree in Soil Microbiology & Biochemistry / Microbial Genetics from Clemson University in 1988. His Post-Doctoral training (1988-1990) in the Microbial Ecology & Biotechnology Branch at the U.S. EPA Environmental Research Laboratory in Gulf Breeze, Florida. In February 1990, Dr. Mueller formed SBP Technologies, Inc. (SBP) and joined the Research Staff as a Sr. Environmental Microbiologist and Chief Scientist to develop and commercialize bioremediation technologies and strategies focused on PAHs and CHCs. SBP was sold to The EICON Group, Inc. / Roy F. Weston, Inc. and in June 1997 Dr. Mueller joined the staff of URS Corporation (DAMES & MOORE) as a Sr. Environmental Scientist and Coordinator of the international Advanced Remediation Technologies Program which he created. He joined the staff of Malcolm Pirnie, Inc. in 2002 for a one-year assignment to enhance their Industrial Remediation Services Program and establish the newly formed office in Chicago, IL. In 2003, he created Adventus Americas Inc. in collaboration with the Canadian parent (Adventus Remediation Technologies, Inc., W.R. Grace & Co) and established offices in the USA and Europe to facilitate the implementation of various environmental biotechnologies. Adventus sold to FMC in November 2011 and Dr. Mueller became the Senior Technology Applications Manager for their newly formed Environmental Solutions Division. FMC combined their Environmental Services Division along with other assets and sold the businesses as PeroxyChem, LLC to One Equity Partners / JP Morgan Chase in March 2014. Dr. Mueller formed Proventus Environmental Products, Inc. in May 2014 to commercialize internationally advances in ISCO and ISCR technologies with a focus on environmental applications of antimethanogens.

Jonathan Myers has a Ph.D. in Geochmistry plus over 30 years of environmental consulting experience. His specialties include environmental forensics, geochemical modeling, natural attenuation investigations, and the use of geochemical evaluations to distinguish between contamination versus naturally high background concentrations of elements in groundwater, surface water, sediment, and soil. Dr. Myers has authored over 30 peer-reviewed research papers and book chapters, and has taught short courses on geochemical and environmental forensic techniques.

April Nabors has worked as an Environmental Engineer for the Birmingham Water Works Board in Birmingham, Alabama for the last seven years while pursuing a PhD in Interdisciplinary Engineering, with a focus on Environmental Health, from the University of Alabama at Birmingham. She has a Bachelor of
Science in Biology and a Master of Science in Environmental Management from Samford University. In the summer of 2009, she earned a Certificate in Sustainable Engineering through UAB while studying abroad in Cairo, Egypt. Later that year she earned a Certificate in Environmental Engineering, also from UAB. In 2010, she was inducted into the Golden Key International Honor Society and presented with an Invitation to participate in the 2011 International Scholar Laureate Program (ISLP) Delegation on Engineering in China based on her exemplary academic performance and leadership skills. Her ongoing research primarily involves drinking water treatment optimization testing with a current focus on EPA Stage 2 Disinfection by-product regulations. She has received a State license to operate a Grade IV drinking water treatment plant in Alabama and is an instructor for CE classes at the BWWB. She is also a member of the Women’s Pipe Tapping team that competes nationally at the AWWA ACE Conference. Other areas of research include source water monitoring and emerging contaminants in our drinking water. She has authored or coauthored approximately forty academic presentations at conferences across the nation, including three Journal publications as primary author and one as coauthor.

Jordan Nakayama is a Remedial Project Manager with the State of Hawaii Department of Health Hazard Evaluation and Emergency Response (HEER) Office. Prior to being employed with the Department of Health, Mr. Nakayama graduated from Pacific University, Oregon with a degree in Environmental Science in 2010. He spent the next two years working for a environmental non-profit and later a Hawaii-based environmental consulting firm. As a consultant Mr. Nakayama worked on several high-profile environmental projects; including one he will be using as a case study. In 2012, Mr. Nakayama joined the HEER office and has since been in charge of regulating the investigation, remediation and redevelopment of projects throughout the State along with sampling former plantations for historic contamination.

Suzie Nawikas graduated with Geology and Journalism degrees from the University of Wisconsin Eau Claire in 2004, and has worked with H&P Mobile Geochemistry, Inc since moving to California in 2005. As a leader in the industry for soil vapor sampling and analysis, the H&P team is continually updating and improving techniques for proper sample collection of over 500 samples per month, nationwide. The practical experience gained as the lead project manager for H&P, combined with an understanding of federal and state regulations nationwide, has provided Suzie with a distinct perspective on soil vapor sampling and analytical techniques.

Eric M. Nichols, PE, is an independent consultant and groundwater hydrologist with 27 years of experience interpreting subsurface conditions for groundwater supply, remedial design, upstream water strategy, risk assessment, regulatory compliance, and litigation support. Nichols provides senior technical direction for subsurface remediation and water resource projects. Nichols is an active educator and has served on several panels and committees related to vapor intrusion, fuel oxygenates, LNAPL management, state cleanup policies, risk-based corrective action, and natural attenuation.

Markus Niebanck is Vice President of Environmental Management at EnviroFinance Group, LLC, a company specializing in the acquisition and repositioning of post-industrial Brownfield property. Investing over 25 years of Brownfield transaction, management and redevelopment expertise in the identification and delivery of project opportunities across the continental United States, Mr. Niebanck’s expertise centers on urban infill and community benefit projects. Personal priorities include the delivery of economic and aesthetic value through the protective and expedient redevelopment of abandoned or underutilized industrial land. Prior to joining EFG, Markus managed a private practice, serving California Redevelopment Agencies and urban transaction and development companies by providing strategic solutions to complications presented by real or perceived environmental risk.

Linda Akosua Nuamah, originally from Ghana and currently doing a masters in Environmental Science and Engineering at Hohai University, China. Linda has a BSc in Fisheries and Aquatic Science from University of Cape Coast (2009), Ghana. She has had one year national service at Water Research Institute, Ghana where she worked in the Fisheries division and gained experience in aquaculture. She has been working with the Water Research Institute, Ghana since 2011 and is currently on study leave. She worked in the hydrobiology division where her job included testing water quality using macroinvertebrate. Her field of study is generally into hydro biology, evaluating the impact of a particular source of pollution or disturbance of a water body. Other tasks include: supervising students on
internship; teaching them how to assess the quality of the water using water monitoring equipment; and conducting research to determine health of rivers. Her research area at Hohai University is the use of stable isotope techniques to solve environmental problems. She has published a paper titled “Variability in δ13C and δ15N stable isotope signatures in Mangrove Ecosystem of Hainan, China”.

Mehmet Numan Kaya received the B.E and MSc degrees in mechanical engineering from the Selcuk University, Konya, Turkey in 2010 and 2012, respectively where he is currently pursing the Ph.D degree. He is working as a research assistant at Karamanoglu Mehmetbey University in the department of mechanical engineering since 2011. His research interest includes renewable energy sources, optimization of energy systems and wind energy and he has published about ten international scientific papers.

Kenneth G. Oertel is a 1966 graduate of New York University School of Law, and has an undergraduate degree in biology, also from New York University. His experience includes several years as Assistant U.S. Attorney in the Southern District of Florida, General Counsel for the Florida Board of Trustees of the Internal Improvement Trust Fund, General Counsel for the Department of Professional Regulation, and first Director of the Florida Division of Administrative Hearings. He is the author of a book on the Administrative Procedure Act: Florida Administrative Practice Forms. Much of his practice is in the areas of local government representation, regulatory, administrative, growth management, land use and environmental law. Mr. Oertel is rated “AV” by Martindale-Hubbell. Areas of Experience: Governmental and Administrative Law Environmental and Land Use Law Complex Civil and Administrative Litigation Practice Areas: Representation of counties, cities, and water supply entities in water resource development, permitting, and regulation before FDEP and the various Water Management Districts. Environmental practice representing clients at the federal, state and local levels in virtually all areas of environmental law. Represents clients from both the public and private sectors including environmental counseling, permitting and litigation under the Clean Water Act, the Clean Air Act, Resource Conservation and Recovery Act, Comprehensive Environmental Response, Compensation and Liability Act, as well as under state and local environmental programs. Administrative law practice includes matters on state, local and federal levels. Representation encompasses regulatory matters including rulemaking, permitting, negotiations, administrative litigation, compliance and enforcement proceedings. Education: Post Graduate Studies in Ocean Law, University of Miami School of Law New York University, Juris Doctor, 1966 New York University, B.A., 1963

Dora Ogles is the President at Microbial Insights, Inc. in Knoxville, Tennessee. She received a Biomedical Engineering degree from Vanderbilt University and has focused on the optimization and implementation of molecular tools for environmental remediation, microbiologically influenced corrosion and microbial source tracking. Since joining MI in 2001, she has developed and commercialized over 40 different nucleic acid based analyses. Under her direction, Microbial Insights, Inc. has become a worldwide provider of molecular tools for leading consulting firms, government agencies and academia. Ms. Ogles runs national and international workshops on molecular biological tools and was a contributing member of the Interstate Technology & Regulatory Council (ITRC) team for Environmental Molecular Diagnostics. She has more than 20 peer reviewed co-authored publications and is often invited to speak at conferences around the world.

Jim Okun is a Principal at the environmental consulting firm of O'Reilly, Talbot & Okun Associates, Inc. He has a BS degree in Chemistry and an MS degree in Toxicology from MIT and has conducted post-graduate research on the environmental fate of PCBs and pesticides at the University of Hawaii. While at USEPA Region 1, he was the PCB coordinator and the agency’s first project manager on the New Bedford Harbor PCB Superfund Site. He serves as the Chairman of the Connecticut River Watershed Council and is a past elected member of the Ellington, Connecticut Board of Education and a past legislatively appointed member of the Connecticut Low-Level Radioactive Waste Advisory Committee.

Christopher Ollson is a senior Environmental Health Scientist at Intrinsik Environmental Science in Toronto, Canada. He is considered an expert in environmental health issues related to the energy sector. Over the past 15 years he has led risk assessments and provided risk communication support for wind
Richard G. Opper is a founding partner of the law firm of Opper & Varco LLP, in San Diego, California. Prior to starting this firm he was a partner in some nationally prominent firms, where he headed those firm’s environmental practice groups on the west coast. Before entering private practice, Mr. Opper served as the Attorney General for the Territory of Guam (1983-1986), where he represented Guam EPA, among other agencies, in civil and criminal environmental enforcement matters. Currently, Mr. Opper’s practice emphasizes representing private interests and public entities in various brownfield redevelopment matters. In addition, his significant trial work has involved environmental cost recovery, as well as issues regarding redevelopment, municipal finance and condemnation. Mr. Opper served as the strategic planner for environmental issues at Petco Park, ultimately a billion dollar project, and later served as trial counsel and appellate counsel for that project, resulting in new law in California. Mr. Opper received his undergraduate degree from the University of California, Santa Cruz, his law degree from the University of California, Los Angeles, (in 1976) and a Master's in Public Administration from the Kennedy School at Harvard University.

Tony Palagyi has over 22 years on experience in environmental project management and Natural Resource Damage Assessment (NRDA). Tony has worked extensively on site assessments and remediation activities at retail, bulk distribution, and refining facilities. He has participated in numerous spill events as the NRDA Coordinator on regional, national and international response teams. Tony was a member of the west coast Joint Assessment Team (JAT) for NRDA for 12 years. Mr. Palagyi has provided litigation support as a consulting, fact and expert witness on several NRDA and CERCLA cases. He has managed restoration projects in beach, wetland and aquatic habitats. He has served as a technical Working Group Lead for Marine Mammal and Turtle issues. His field experience includes studies on marine mammals, sea turtles, salmonids and avian species.

Mike Palmer is a Professional Geologist and Certified Hydrogeologist in the State of California and Certified Environmental Manager in the State of Nevada who has performed project coordination, project management and has professional experience in the environmental field and geology since 1982. More than 25 of years of professional experience have been associated with the investigation, remediation and operation/maintenance of Superfund projects as well as sediment cleanups. His experience includes project coordination, third party oversight, project management for remedial investigation/feasibility studies; implementation of soil and groundwater contamination studies; remediation; sediment cleanup, environmental site assessments; groundwater supply and development; groundwater modeling and GIS; and technical support for expert witness testimony and litigation.

Nidhi Patel is a hydrogeologist who works as a part of the LNAPL team at AECOM. Ms. Patel focuses on the development of LNAPL site conceptual models, analysis of LNAPL transmissivity mobility testing and modeling, mass flux analysis, and optimization of hydraulic recovery systems. She is also focused on the optimization of a large hydraulic recovery system in the Midwestern United States, developing calibration models and tools for determining LNAPL endpoints. Ms. Patel also works on the remediation of DNAPL sites including a former Manufactured Gas Plant in the New York area and rail sites impacted with creosote.

Kanan Patel-Coleman is Manager of Risk/Health Assessment Services, leading a talented team of human and ecological risk assessors that address multimedia environmental exposures from chemical, radiological, and munitions/ordnance contamination. She has nearly 30 years’ experience in performing human exposure and risk assessments, ecological/environmental assessments, health impact assessments, laboratory analyses, and project/program management. Dr. Patel-Coleman has successfully worked with a wide range of clients, including industrial facilities, commercial enterprises, military installations, government clients, school districts, regulatory agencies, and academic institutions. She holds a doctorate in Environmental Science and Engineering and a master's in public health from UCLA.
Mehmet Pehlivan is a Licensed Professional Geologist (PG) in California and Arizona, Certified Hydrogeologist (CHG) in California, Qualified SWPPP Developer and practitioner (QSD/QSP) in California. He has designed, installed and operated numerous extraction systems using SVE, TPE, DPE, MPE and pump and treat. He is an inventor of patented two-phase extraction system and a patent pending in-well stripping and recirculation system (VacCirc). He has over 30 years of experience as a remediation hydrogeologist and petroleum reservoir geologist performing and managing environmental remediation and oil exploration/development projects.

Paul Philp: I received my Ph.D. in organic chemistry from the University of Sydney (Australia) in 1972 and my D.Sc. degree from the same University in 1998. I then spent one and a half years as a post-doctoral fellow with Professor G. Eglinton at the University of Bristol (England) undertaking research in various aspects of organic geochemistry and the application of analytical techniques such as gas chromatography-mass spectrometry to this area of research. Following this, I spent four years at the University of California, Berkeley, as a research associate, directing the organic geochemistry research group of Professor Melvin Calvin. I returned to Sydney in 1977 to join the CSIRO, Fuel Geoscience Unit, now part of the Division of Fossil Fuels, where I was a principal research scientist studying various aspects of petroleum geochemistry. In June 1984, I joined the faculty at the University of Oklahoma. Recently a large amount of my research has been concerned with environmental studies and particularly investigating the use of stable carbon isotopes as a means of monitoring and tracking pollutants in the environment. Professional activities: associate editor of I. Environmental Forensics, and Chairman of the Geochemistry Division of the American Chemical Society, 1993-1995.

Daniel Pierre is at the head of the Scientific and Technical Center of Antea Group in France. This international engineering and consulting firm is providing solutions in the fields of environment, infrastructures, urban planning and water. Associate Professor at the University of Orleans in France since 2010 and founder of a company dedicated to the setting-up of decision support tools for water issues in 1998, he has almost 20 years of experience in the domains of Integrated Water Resource Management and Information System in France and in Africa. He has authored or co-authored almost 50 scientific publications on these issues.

Chris Plaisted, National Oceanic and Atmospheric Administration. Chris Plaisted has been an attorney in NOAA’s Office of General Counsel, Natural Resources Section, specializing in natural resource damage assessment (NRDA) matters, since 2005. In that time, he has represented NOAA in a number of significant NRDA’s, including the M/V Cosco Busan and Deepwater Horizon oil spills. Prior to working for NOAA, Chris was an attorney in the U.S. Army’s Judge Advocate General’s Corps, including a tour of duty as the environmental counsel for Fort Hood, Texas.

Barry Pulver earned a Bachelor of Science in geology from Sonoma State College in 1977 and is a licensed Professional Geologist, Certified Hydrogeologist, and Certified Engineering Geologist in the State of California. After spending 30 years cleaning up contaminated sites and conducting groundwater studies as a consultant, he changed careers and currently works for the California Regional Water Quality Control Board – San Diego Region where he has worked on site cleanups, development of Total Maximum Daily Loads, and currently the lead Engineering Geologist for the San Diego Water Board’s Irrigated Lands Regulatory Program.

Catherine Regan is a Senior Engineer with Environmental Resources Management, located in Boston, Massachusetts, and has worked at ERM since 2002. Catherine has thirteen years of professional experience working with industrial clients and regulators in the management of contaminated sites. Her areas of expertise include assessment and management of residential and industrial vapor intrusion investigations, management of chlorinated and petroleum site investigations and design and execution of remediation activities. Catherine leads ERM’s vapor intrusion technical working group and is responsible for facilitating collaboration and disseminating technology updates regarding vapor intrusion across ERM globally. Since 2012, Catherine has participated as an ITRC team member to prepare ITRC’s Petroleum Vapor Intrusion Guidance and is currently working with the team to roll out a 2-day classroom training course to accompany the guidance document. Catherine received a Bachelor of Science degree in Environmental Engineering from Cornell University in 2000 and a Master of Science degree in
Fred Reitman is a Senior Toxicologist with Shell. Dr. Reitman brings over 25 years of toxicology and risk assessment experience with Shell and Texaco, preceded by two years as a toxicologist with EPAs Region 6 office focused on Superfund site risk assessments. His career in the petroleum industry has provided experience in hazard determination and communication for a broad series of petroleum process streams and products, as well as chemical and site risk assessment and regulatory compliance. He currently is Chairman of the ACC ethylene oxide and ethylene glycol Toxicology Research Task Groups, and co-chairs the Science Team of the Naphthalene Research Committee. Fred earned his B.S in Biology from the University of Illinois in 1978 and his Ph.D in toxicology from the Kettering Laboratory at the University of Cincinnati, Dept. of Environmental Health in 1987. He became a board-certified toxicologist in 1991.

Thomas Rejzek is the Professional Geologist and Certified Hydrogeologist for the Santa Barbara County’s Leaking Underground Fuel Tank and Site Mitigation Unit Programs. In this position, Mr. Rejzek has performed regulatory oversight for the investigation and remediation of sites contaminated with Petroleum Hydrocarbons, Chlorinated Solvents, Metals, Pesticides, PCBs, and PAHs. Prior to joining Santa Barbara County in 1999, Mr. Rejzek worked for 11 years in environmental consulting, primarily focusing on the investigation and remediation of contaminated sites. He also performed hydrogeologic studies and water production well installation. During this time, he worked on sites in California, Nevada, Arizona, Utah, Florida, Minnesota, Guam, and the Gaza Strip. Prior to environmental consulting, Mr. Rejzek briefly worked as a Geologist in the oil exploration field. Mr. Rejzek earned B.A.s in Geological Sciences and Geography from the University of California, Santa Barbara in 1987.

Greg Reub has 30 years of experience related to impact assessment, mitigation, and restoration of natural resources. His expertise is currently focused on integration of science- based strategies to expedite resolution of complex natural resource issues. He has been involved in numerous large and small environmental assessments that encompass aquatic, estuarine, marine, riparian, and terrestrial environments as project manager, lead and contributing scientist, technical negotiator, and expert witness. Mr. Reub has extensive experience related to Natural Resource Damage Assessments (NRDA), ecosystem services analysis, habitat restoration, landscape-level conservation planning, Endangered Species Act (ESA) compliance and environmental assessment and permitting.

Stephen Richardson, Ph.D., P.E. is an Environmental Engineer with GSI with over twelve years of experience in soil and groundwater remediation, environmental site investigation, engineering design, and research and development. Dr. Richardson is a Licensed Professional Engineer in Texas, Louisiana, North Carolina, and Alberta, Canada. He holds a doctoral degree in environmental engineering from the University of North Carolina at Chapel Hill, an M.S. degree from Louisiana State University, and a B.A.Sc. degree from the University of Waterloo, Canada. Currently, Dr. Richardson serves as the technical lead for a DOE-funded research project examining the environmental effects of shale gas operations, specifically air emissions, stray gas events, and flowback/produced water.

G. Todd Ririe has a BA degree in geology from Cornell College, and a PhD degree in geology from the University of Iowa. Todd has over 25 years of experience in applied geology, geologic instruction, and environmental applications of geology. Since 1990, his primary responsibility has been to provide technical support on environmental projects primarily focused on petroleum hydrocarbon site assessment, vapor intrusion, and application of effective remedial approaches to reach closure. He is located in BP’s La Palma, CA office.

Yue Rong (a.k.a. “Y.R.”) is currently the Environmental Program Manager for the Underground Storage Tank Program at the California Regional Water Quality Control Board, Los Angeles Region. He has more than 25 years experience with the Agency in dealing with groundwater contamination problems in the Los Angeles area of California, U.S.A. He is an Associate Editor for the peer-reviewed journal of Soil and Sediment Contamination and an Associate Editor for the Journal of Environmental Forensics. Dr. Rong was elected in 2006 and re-elected in 2008 as the president on the board of directors for the Southern
California Chinese American Environmental Protection Association (SCCAEPA), serving the local minority community. He was the recipient of the California Regional Water Quality Control Board Outstanding Achievement Award and Supervisory Performance Award. He also received 2011 AEHS Foundation Achievement Award. Dr. Rong is the editor of the book entitled “Practical Environmental Statistics and Data Analysis (2011).” Dr. Yue Rong has his Ph.D. in Environmental Health Sciences from the University of California at Los Angeles (UCLA), and M.S. in Environmental Sciences from the University of Wisconsin.

Michael Ruby is an environmental chemist with over 25 years of experience in site investigation and remediation, environmental chemistry, exposure analysis, and regulatory affairs. Mr. Ruby is recognized as a leading scientist working on issues related human exposure evaluation and risk assessment for organic and inorganic compounds. He has worked extensively on the development and evaluation of water quality criteria, and assisting clients with permitting and compliance with such criteria.

Ahmed Rushdi has been an Associate Professor at King Saud University in Riyadh since 2008. After graduating from Sana’a University in Yemen, he obtained a Ph.D. in 1989 from the College of Oceanography at Oregon State University. From 1989 to 1997 he was with Sana’a University, where he became Head of the Department of Oceanography in 1991. During this time he was involved with several projects to establish research in oceanography and studied the marine environment in Yemen. From 1995 he also held research positions at the University of Michigan and Scripps Institution of Oceanography in San Diego. Since 1998 he has also been an Associate Professor (Senior Research and courtesy positions) at Oregon State University. He has received several awards, including USAID (1983–1989), UNDP (1994–1995) and Fullbright (1995–1996) Scholarships. His research of interest includes:

- Application of organic biogeochemistry to identify the sources and behavior of organic compounds in the environment; diagenetic, catagenetic and alteration processes of organic matter in various environmental settings.
- Application of thermodynamic equilibrium models to study the chemical behavior of inorganic species in natural waters such as seawater, with emphasis on CO2 system and solubility of minerals.

Jennifer Sampson is a Senior Managing Scientist and aquatic ecologist at Integral Consulting with many years of experience performing ecological risk assessments and conducting related studies of lotic, riparian, wetland, and estuarine ecosystems at contaminated sites. In her practice as an environmental consultant, Ms. Sampson provides technical leadership of multidisciplinary environmental investigations to inform risk management. She has project experience in sediment toxicity studies; bioaccumulation modeling; development of remediation goals; quantitative source evaluation; fisheries ecology; and hydropower project relicensing.

Brenda Sanders has more than 30 years of experience in ecotoxicology, sediment management, and stress biology. Her technical expertise focuses on the mechanisms of toxicity, trace metals, and xenobiotics on wildlife, including benthic invertebrates, fishes, birds, and mammals. She has worked in riverine, estuarine, and fresh water and coastal ecosystems throughout the country. Dr. Sanders has been involved in numerous natural resource damage assessments, ecological risk assessments and sediment evaluations. She has served on numerous federal and state panels and committees, was a delegate appointed by the US Department of State to the North Pacific Marine Science Organization, served as the North American Editor of the Ecotoxicology Series published by Chapman and Hall, and was on the editorial board for CRC’s Reviews in Aquatic Sciences. Dr. Sanders also served on the Board of Directors for the Society of Environmental Toxicology and Chemistry (SETAC) where she also has chaired numerous sessions and symposia, including a session on NRD Assessments at Hazardous Waste Sites.

John Sankey, P.Eng., is an engineer for True Blue Technologies. He holds a degree in Mechanical Engineering from Queen’s University in Kingston, Ontario. He sits on the steering committee for several groundwater Sampling & Monitoring Symposia, which focuses on monitoring groundwater so that in situ remediation is planned well. He has been in the groundwater industry for more than 16 years and in
2003 started True Blue Technologies, a business dedicated to providing engineering, technical support and business development for technologies in groundwater remediation and characterization.

**Gregory E. Schilz** is a Managing Director in Aon Risk Solutions’ Environmental practice. Aon's Environmental practice is responsible for working with Aon offices around the world to assist clients in managing their environmental exposure. In July 2006, Aon acquired Breitstone & Co. Ltd., where Mr. Schilz was a partner in the west coast office since 2002. Prior to joining Breitstone, he was responsible for the West Region Environmental Practice for Marsh, Inc., and was the Global Broking Team Leader for the Environmental Specialty Group since 1993. Over the past twenty-five years Mr. Schilz has worked in a number of specialty areas including environmental, healthcare, directors and officers, hospital malpractice, architects and engineers errors and omissions, and lawyer's professional liability coverages. He has expertise in designing and building environmental insurance programs, analyzing environmental loss exposures, evaluating existing insurance programs to determine coverage adequacy, and monitoring market conditions to provide new coverage enhancements. Mr. Schilz has been instrumental in structuring innovative solutions using environmental insurance for property transactions, litigation and many other niche transactional areas, including:

- Base Reuse Authorization and Closure (BRAC) facilities at The Port of Oakland, Presidio, Treasure Island, Mare Island, Alameda Naval Air Station and Ft. Ord (which will include the first blended finite risk program for a MEC cleanup)
- Superfund sites such as Iron Mountain, Milltown Dam and Fox River;
- Mergers and Acquisitions where indemnities, hold backs or escrow accounts were replaced with environmental insurance
- Military GFPRI (Guaranteed Fixed Priced Remediation Insured Projects) fixed priced remediation contracts at active military sites
- Real Estate Portfolios for both domestic and multinational clients

Mr. Schilz is also a pioneer in utilizing the cost cap and blended finite insurance structure for environmental applications.

**Brian Schumacher** is the Acting Division Director for the Environmental Sciences Division of the United States Environmental Protection Agency’s Office of Research and Development in Las Vegas, NV. Brian was hired by the U.S. EPA in 1991 to take the lead and address ways to improve the sampling and analysis of soils contaminated with volatile organic compounds. This research has led to his natural progression into the arena of vapor intrusion. Dr. Schumacher is currently conducting research in numerous areas related to vapor intrusion including: the improvement/standardization of soil gas sampling methodologies; the spatial and temporal variability of VOCs in the environment (in both subslab and uncovered areas), and passive vapor intrusion sampling. His recent research efforts have been focused on looking at the long-term temporal and spatial variability of VOC and radon concentrations in and around a home in Indianapolis, Indiana; examining the influence of an installed mitigation system on the fluctuation of VOC and radon concentrations into the home; and looking for simple, efficient, and rapid methods to determine the potential for vapor intrusion into the home.

Henry Schuver holds a Doctor of Public Health (DrPH) in Environmental Epidemiology from Johns Hopkins School of Public Health and a Master of Science in Geology from Arizona State University. He has been an Environmental Scientist with the USEPA’s Office of Resource Conservation and Recovery (ORCR), Cleanup Programs Branch since 1997. In 1999, to help meet the Government Performance and Results Act (GPRA) of 1993, he authored the national RCRA Corrective Action Environmental Indicator (EI) guidance for both Groundwater Migration and for Human Exposures. The Human Exposures EI guidance-forms required a review of all plausible exposure pathways from subsurface contamination including impacts to indoor air. He subsequently led the development of the 2001 Supplemental Guidance for Vapor Intrusion (VI) for RCRA EI Determinations (at all High-Priority RCRA sites) which raised the awareness of VI exposures nationally and led to the development of the 2002 OSWER draft VI guidance. Since 1999 has been leading annual national workshops with national and international experts in VI to improve the scientific understanding of vapor intrusion and VI risk-management decision making. He is currently leading the development of a technical document on ‘Radon Lessons’ based on the scientific observations from decades of Radon intrusion studies. His life goal is to find cost-effective responses to VI risks/potential that benefit all stakeholders including public health and welfare, such as ‘Soil-Gas Safe Communities.’ Prior to coming to USEPA headquarters in Washington, he worked in the USEPA Regional
Alan G. Seech is a soil chemist with 21 years experience in environmental remediation. His focus has been on treatment of soil, sediment, and groundwater containing hard to degrade organics, including pesticides and organic explosive compounds, and heavy metals. He earned M.Sc. and Ph.D. degrees in Soil Chemistry and Environmental Microbiology at the University of Guelph. He conducted research on soil remediation using amendments composed of metallic reducing agents and biodegradable organic matter and found that this approach sharply increased degradation of chlorinated pesticides. The discovery yielded several US patents and resulted in the start of a soil remediation business in 2002, known as Adventus Remediation Technologies (Canada), Adventus Americas (USA), and Adventus Europe (Europe). He served as Chief Executive Officer for these companies until 2011, when the Adventus business became part of FMC Corporation and later PeroxyChem. The two main commercial developments from his work, DARAMEND® reagents for soil remediation and the EHC® family of products for groundwater applications, have been successfully applied at hundreds of sites worldwide. Based in Southern California, Dr. Seech has published numerous articles on bioremediation of soil and groundwater, presented more than fifty papers at international conferences, and now serves as the Senior Technology Applications Manager for PeroxyChem.

Rufus Sha’Ato is a Professor of Environmental/Analytical Chemistry and Dean, College of Science in the University of Agriculture, Makurdi, Benue State in Central Nigeria. His research has been in the area of chemical fate processes (dissipation, transformation, transport) and also remediation technologies in especially soil and water. In particular, he has worked on ion-exchange and metal adsorption reactions in soil and pesticide behaviour in soil-water systems. Trained at the University of Ibadan in South Western Nigeria, Dr. Sha’Ato has also worked as a Research Associate in the Department of Chemistry at Queen’s University, Ontario, Canada under the auspices of a CIDA-sponsored project to establish a Center for Agrochemical Technology (CAT) at his University; he collaborates at the Centre as a research associate in search of biopesticides and other environment-friendly agrochemical technologies like slow-release pesticide and fertilizer formulations. A recent research focus is on the biogeochemistry of selenium (Se) in Central Nigeria, an issue-based effort to develop an understanding of the relation between human Se nutrition and HIV/AIDS prevalence.

Jack Sheldon is a Senior Remediation Specialist with Antea Group located in West Des Moines, Iowa. He has over 32 years of experience in the fields of environmental microbiology and remediation. Jack has a BS in Bacteriology & Public Health and an MS in Environmental/Industrial Microbiology from Wagner College in Staten Island, NY. In his current role, he advises on remediation technology selection, performance, and optimization. His key technology areas are bioremediation and chemical oxidation. Jack has authored numerous papers and posters, and co-authored two best-selling books on bioremediation.

Michael Sieczkowski currently serves as JRW Bioremediation L.L.C.’s Technical Sales Director and has been an environmental manager and technical resource since 1977. His specialties include aerobic and anaerobic enhanced bioremediation of chlorinated solvent and petroleum product sites, remediation of mine impacted water, site assessments, and remedial project management. Mr. Sieczkowski has published a number of professional papers and has presented at over 50 conferences and seminars. He is also the primary inventor for a US patented process related to the bioremediation of mine influenced water. Mr. Sieczkowski has been responsible for the management of a number of complex programs involving RCRA closures, chlorinated solvent site research and remediation projects, PCB cleanups, UST assessment and removals, real estate assessments, and compliance and guarantee testing. Mr. Sieczkowski has been involved in Federal, State, and private cleanup and research programs including projects at Rocky Mountain Arsenal, Rocky Flats, Whiteman AFB, Offutt AFB, and numerous investigation and remediation programs for CERCLA and petroleum sites and retail, energy, and manufacturing companies. He is the lead technical resource for JRW for several current Mine Influenced Water research projects being conducted by the USEPA Office of Research and Development and is responsible for the technical aspects of the development of new products for chlorinated solvent remediation and Mine Influenced Water remediation.
**Len Sinfield**, P.G. is a Water Compliance Supervisor with the US Navy, Naval Facilities Engineering Command in San Diego, California and oversees a staff dedicated to drinking water, storm water, and industrial wastewater compliance at Navy bases in California and Nevada. He has been with the Navy for 20 years and his group is highly involved with Navy drinking water water quality and operational issues.

**Dan Socci**, CEO, manages all aspects of VeruTEK’s operations to generate customer satisfaction and revenue growth from the company’s expanding, innovative product portfolio. Prior to joining VeruTEK, Mr. Socci gained many years of experience in industry, most recently in Vice President level general management positions at Hewlett Packard. He was successful in introducing many new products to market and implementing new go-to-market approaches worldwide, working from several U.S. and European locations.

**Kent S. Sorenson** is a Senior Vice President at CDM Smith with over 20 years of experience developing and applying innovative technologies for remediation of contaminants in soil and groundwater, including aspects of microbiology, hydrogeology, geochemistry, and subsurface delivery. He has been involved in implementation of bioremediation, chemical oxidation, chemical reduction, thermal remediation, and monitored natural attenuation at well over 160 government, private, and international sites, including pioneering applications of innovative technologies in North America, Europe, and Asia. His projects have won an American Academy of Environmental Engineering Excellence in Environmental Engineering Grand Award and a National Ground Water Association Outstanding Remediation Project Award. He has six U.S. patents related to in situ remediation, and has coauthored more than 40 scientific publications and more than 100 conference presentations.

**Kathleen Souweine** is an epidemiologist with an interdisciplinary background in environmental sciences and epidemiology. She is also a data enthusiast with advanced skills in data management and analysis using tools such as SAS, R, Microsoft Access, and Excel. Ms. Souweine manages and provides key technical direction on a variety of health assessment projects, including survey design, developing community health profiles, and the statistical analysis of health data. At Intrinsik, Ms. Souweine has conducted a number of systematic reviews and meta-analyses on environmental health issues. Meta-analysis projects include a meta-analysis to determine whether employment as a firefighter is associated with an increased risk of chronic obstructive pulmonary disease, and a meta-analysis of nitrogen dioxide inhalation studies to determine a NO2 exposure that causes health impacts in a healthy worker population. With previous experience as a program analyst at the U.S. Environmental Protection Agency, Ms. Souweine’s epidemiology experience also includes conducting several cross-sectional analyses utilizing data on the occurrence of drinking water contaminants, including: studying the association between fluoride in drinking water and the prevalence of dental fluorosis, and examining the association between exposure to lead in drinking water and measures of environmental justice. Ms. Souweine earned a MPH in epidemiology from George Washington University.

**Melissa Spitzmiller** has worked at ARCADIS as an Environmental Engineer since 2012. She obtained her bachelor's degree in environmental engineering from the Georgia Institute of Technology and her master's degree in civil engineering from the University of California, Los Angeles. Currently, she manages groundwater monitoring programs and the operations and maintenance at several remediation sites in Southern California. She is experienced with a variety of remediation methods including soil vapor extraction, pump and treat, air sparge, monitored natural attenuation, and in-situ chemical oxidation. Previously, Melissa has conducted research in the areas of biological dechlorination, biological metals reduction, and the ecotoxicology of metallic nanomaterials.

**Ben Stanphill**, P.E., is a Staff Civil Engineer at ARCADIS U.S. Inc., located in Irvine, California with 6 years of experience in soil and groundwater remediation, regulatory compliance, and environmental treatment system construction. His primary responsibilities include engineering support for remediation projects, preparing technical reports, permitting and regulatory compliance, preparation of as-built specifications, data management and evaluation, and design, installation and operation of engineered treatment systems. Mr. Stanphill serves as the Irvine Office Location Leader, and participated in the 2013 Global Shapers Program in Hong Kong where we helped develop The ARCADIS Journey: A Practical
Mr. Stanphill graduated with distinction from Harvey Mudd College with a Bachelor’s of Engineering (2008). Additional information can be found on his LinkedIn profile at http://www.linkedin.com/in/benjaminstanphill.

True-Jenn Sun, PhD, DABT, is a staff toxicologist with Chevron Energy Technology Company, Safety, Environment & Health Department, and has 24 years of experience in supporting hazard evaluation and risk assessment for petroleum refining/chemical products and release sites.

Robert E. Sweeney obtained his PhD from UCLA in geology/geochemistry in 1972. He spent several years in academia before joining the Petroleum Geochemistry group at Unocal. In 1998, Bob became a licensed Geologist in California and became a member of the Unocal Environmental Group. He now works as an independent consultant for Environmental & Petroleum Geochemistry. His recent work has been mainly dealing with identifying and quantifying biodegradation processes at petroleum release sites.

Shalene Thomas is an Associate Risk Assessor and Business Unit Manager of AMEC's Minneapolis, MN office. She has more than 15 years of experience in environmental consulting that includes human health risk assessment, data management, GIS and 3D visualization and animation, and site investigation. She has supported State clients with poly- and perfluoroalkyl substance (PFAS) evaluations including leading the development of an information clearinghouse on the emerging contaminant class. She currently serves as the Technical Lead for a PFAS research and site investigations conducted at nearly forty former Air Force bases that used Aqueous Film Forming Foams (AFFF). She also serves as the Emerging Contaminants Discipline Lead for AMEC and has spoken on the topic of emerging contaminants and PFAS to stakeholders in various sectors.

Karen Thorbjornsen holds Bachelor of Science and Master of Science degrees in Geology and is a registered Professional Geologist with licenses in Alabama, Georgia, South Carolina, and Tennessee. She has 18 years of environmental consulting experience with CB&I Federal Services in Knoxville, Tennessee. She performs background studies for metals and PAHs in environmental media and statistical analyses of environmental data at numerous sites across the United States. She specializes in geochemical evaluations of metals — a forensic technique to distinguish natural concentrations from site-related contamination in soil, groundwater, sediment, and surface water. Ms. Thorbjornsen performs geochemical evaluations to delineate the extent of contamination, refine lists of chemicals of concern, optimize long-term monitoring programs, confirm the success of soil-removal actions, and characterize background distributions. She has authored several papers on geochemical evaluations of metals and teaches short courses on the technique. Her papers have been published in Environmental Forensics Journal, Journal of Structural Geology, Remediation, and Soil & Sediment Contamination.

Asheesh Tiwary is a Toxicologist for Chevron Energy Technology Company. He is a diplomat of the American Board of Toxicology and the American Board of Veterinary Toxicology. After graduating from Veterinary School in India, he moved to the United States to pursue a Masters in Toxicology at Utah State. In 2003, Dr. Tiwary joined the Residency program in Clinical Veterinary Toxicology, followed by a PhD in Pharmacology and Toxicology at University of California, Davis. He joined Chevron in 2008 and supports projects involving Human Health and Ecological Risk Assessment.

Ted Tomasi has over 30 years of experience as a professional economist, specializing in natural resource and environmental matters. He has focused on the development and application of methods for valuing natural resources, environmental quality change, and ecosystem services, and on assessing and managing risk in natural resource and environmental decisions. His research and consulting activities have focused on water-related issues, including ground and surface water management, valuing water quality impacts, water-related recreation, community values for water, and benefit-cost analysis. He holds a B.A. in Environment and Public Policy and M.A. in Economics from the University of Colorado, and Ph.D. in Natural Resource Economics from the University of Michigan. He has served on the faculties of the Universities of Minnesota, Michigan and Delaware, and at Michigan State University. For the past 20 years he has been a consultant to governments and private industry on environmental matters, directed several large-scale consulting engagements, managed a multi-disciplinary scientific staff of approximately
400 environmental consultants, and provided expert testimony and litigation support in several significant environmental cases.

Robert Uppencamp is a Senior Scientist in the ARCADIS U.S., Inc. Indianapolis office with over 19 years of experience. Mr. Uppencamp specializes in vapor intrusion and human health risk assessments.

Usha Vedagiri is a principal risk assessor with AECOM. She has more than 20 years of experience in human health and ecological risk assessment experience for a variety of chemicals, including petroleum hydrocarbons. She has worked with investigation and evaluation of PFCs using guidance from USEPA and other international guidance documents and approaches.

Anja Verce is an Environmental Engineer and Project Manager at Weiss Associates with more than ten years of experience in soil and groundwater investigations and site remediation. Current project activities include in-situ bioremediation, in-situ chemical reduction, in-situ pneumatic fracturing, tracer and bench test studies, and vapor intrusion investigations. Anja has a Master's of Science (M.S.) degree in Environmental Engineering from the University of Applied Sciences, Trier, Germany (Master thesis: Bench-scale Studies using Zero-Valent Iron for the Removal of TCE and Technetium-99 from Groundwater Using at the DOE Paducah, Kentucky Site). She also has an M.S. Environmental Engineering and Science degree from Clemson University, Clemson, SC (Master thesis: Mobility of arsenic in a shallow aquifer at the DOE Savannah River Site, SC).

Michael J. Wade is Principal Scientist of Wade Research, Inc., a small business that provides geochemical consulting services to a variety of government agencies, industrial clients, and law firms. Dr. Wade is an organic geochemist with over 34 years post-doctoral experience with an overall total of 41 years of strong technical and project management experience in a variety of research programs with special emphasis on study of organic pollution in the environment. He regularly provides expert forensic services both through deposition process as well as court testimony in the areas of environmental contamination, including contamination source assessment, petroleum product type identification and age-dating of petroleum product releases. As part of the current assignment mix, Dr. Wade is engaged in the conduct of multiple projects dealing with the various aspects of environmental assessment, including assessment of the degradation of petroleum hydrocarbons in underground soils, development of quantitative hydrocarbon fingerprinting techniques that identify sources of subsurface petroleum contamination, and quantitative assessment of fluxes of petroleum hydrocarbons to the coastal marine environment. Over the past 25 years working through Wade Research, Inc., he has refined quantitative field and laboratory investigation approaches that are designed to establish time frames for the release of gasoline, kerosene, diesel fuel and heavier fuel oils in subsurface petroleum contamination cases. His approaches currently measure geochemical differences in petroleum contamination originating from sudden releases of petroleum products in the environment and compares the result to releases occurring over a number of years. The overall approach includes the estimation of time horizons for the release of a variety of petroleum products to the environment. Annually, through Wade Research, Inc., Dr. Wade conducts approximately 20 to 30 such programs for clients throughout North America.

Robert F. Wagner has over 25 years of field experience working with private parties conducting cleanup activities; overseeing publically funded response actions to address environmental contamination and returning brownfield properties to productive reuse in Michigan. Bob has held positions of leadership; serving as a Regional Director for the Department of Natural Resources and Environment, Assistant Division Chief of the Remediation and Redevelopment, and the Assistant Director for the Northeast Michigan Council of Governments. Prior to entering state service, Bob spent almost nine years serving the needs of local units of government throughout northern lower Michigan by assisting communities with matters concerning water quality, water supply, wastewater, storm water management, solid waste management, planning, zoning, and the development of recreation facilities. Bob is a graduate of Western Michigan University with a B.S. in Environmental Science. Married with five children, he resides in Gaylord and helps manage the family u-pick blueberry farm.

Jeffrey Wakefield is formally trained in Economics, Marine Biology, and Biochemistry. He has fifteen years of experience managing and performing intergovernmental and private sector projects related to
natural resource damage assessment and the valuation of natural resources. Formerly adjunct faculty at the University of Delaware, he has published in biological, coastal erosion, and oil spill related journals. Dr. Wakefield has conducted cost benefit analyses of beach nourishment projects and in support of Environmental Protection Agency (EPA) permitting activities and of alternative 316(b) regulatory regimes on behalf of Electric Power Research Institute (EPRI). He performed numerous analyses relating to natural resource damage assessments (NRDAs) including both habitat and resource equivalency analysis, environmental impact statements (EIS), power plant 316(a) & (b) resource assessments, regulatory impact analysis related to pending EPA regulation, habitat restoration projects, and population viability assessments. In addition, he has modeled the response of habitats, wildlife populations, and recreational users to environmental change. His experience also includes designing analyses which identify cost-effective restoration projects for a variety of natural resources and recreational uses. Dr. Wakefield has developed statistical and modeling approaches that integrate hydrodynamic modeling, physical modeling, and population dynamics to quantify and value natural resource impacts.

Stephen Wall is the Chief of the Outdoor Air Quality Research Program for the California Department of Public Health, which is located on the Marina Bay Richmond Laboratory Campus. The OAQ Research Program has a staff of nine research scientists, which conduct ground breaking investigations to elucidate the sources and environmental fate of toxic particles, in order to assess the potential for human exposure. These environment forensics investigations employ state-of-the-art sampling devices and analytical instrumentation, including micro-scale spectroscopy and electron microscopy. Dr. Wall received his B.S. in Physical Chemistry from the University of California at Davis, and his Ph.D. in Engineering Physics from the University of California at Berkeley. He is the author of more than 65 scientific publications, and has presented over 45 research papers at international conferences on aerosol chemistry and physics.

Yi Wang is the Director of Pace’s CSIA Center of Excellence, an environmental isotope forensic laboratory serving clients in all 50 states as well as numerous international locations for decades. He received his training on the state-of-art technology Compound Specific Isotope Analysis (CSIA) at Brown University and Princeton University. Dr. Wang is a Senior Environmental Geochemist applying isotopes such as carbon, hydrogen, chlorine, nitrogen, oxygen, sulfur, boron, chromium, and strontium, etc. He has over twenty years of experience in environmental studies on issues related to air, soil, and water contamination. Authored over 50 peer-reviewed articles and books, shared this information via invited lectures throughout the world, and peer-reviewed manuscripts to be published in the Journals.

Nadine Weinberg is a Principal Scientist at ARCADIS with more than 20 years of experience working on projects involving the evaluation of human health risks including the vapor intrusion pathway. Currently Ms. Weinberg serves as ARCADIS’ National Technical Lead for vapor intrusion. In this role she provides technical review and oversight on vapor intrusion projects nationwide. Ms. Weinberg has a BS from Cornell University and a Masters in Environmental Management from Duke University.

Dan Weis earned a Master of Science in Public Health from San Diego State University and is a Registered Environmental Health Specialist in the State of California with 18 years of experience in the environmental sciences and consulting fields. He has completed over 1,000 environmental due diligence related projects and is also very proficient in conducting and managing other project types including human health risk assessments, subsurface investigation of soil, soil gas and groundwater, feasibility studies and remedial design and implementation. He has completed such projects for numerous organizations including local government entities, successor agencies to former redevelopment agencies, affordable housing developers, the Federal government, environmental and land use attorneys, architectural and engineering firms, commercial lending institutions, conservancies, commercial/industrial real estate owners/managers, insurance companies, wireless telecommunication carriers and real estate developers. He is also very experienced in the completion of assessment, construction and remediation cost estimation and quality assurance during the completion of urban redevelopment/brownfields projects, over 100 of which have been located in downtown San Diego, Los Angeles and San Francisco.

Alan Weston is Director of Remedial Technology for the Innovative Technology Group at CRA. He has many years’ experiences in hazardous waste site remediation. Dr. Weston’s experience includes the
identification, evaluation, and application of innovative approaches for the remediation of chemical contamination. Dr. Weston performs remedial technology assessments including preliminary cost estimates for technologies such as enhanced aerobic and anaerobic biodegradation, chemical oxidation, permeable reactive barriers, phytoremediation, and engineered wetlands. Dr. Weston provides expert opinions to client legal teams on issues related to insurance litigation, forensics, chemistry, analysis, QA/QC and statistical analysis of chemicals including dioxins, PCBs, PAH, and mercury in water, soil, sediment, plastic materials, and food ingredients.

Chuck Whisman, PE leads global energy market initiatives at CH2M HILL, including services related to permitting, compliance, engineering design/build, soil & groundwater remediation, and construction management. He has worked very closely with leading oil and gas, midstream, processing, and power companies for more than 21 years, helping to develop strategies and programs for project planning & permitting, risk reduction, best practice development, and information & operations management. Chuck is heavily involved in shale-related exploration and production research and development initiatives with oil and gas companies, universities, and research groups. Some of his work has been related to risk and integrity management, remote monitoring, information management, shallow subsurface monitoring, and other permitting, compliance, and remediation issues. He is very involved in advocacy initiatives and organizations such as the Marcellus Shale Coalition and the Shale Alliance for Energy Research, where he sits on the board of directors. Some of his recent shale-related research projects have included topics on naturally-occurring methane in shallow groundwater, life-cycle water and waste management, induced seismicity risks from reinjection wells, pre-drilling water sampling analysis, NORM management, and automating field data collection and analysis.

Meredith Williams joined DTSC in December 2013. She has expertise in research and development, product management, and operations for Fortune 500 technology, consumer product, and chemical companies including Applied Materials and 3M, as well as for a leading environmental institute. After nearly 20 years of corporate work she applied her skills in several positions over seven years at the San Francisco Estuary Institute (SFEI), a nationally-recognized center in support of aquatic resource management. Among other duties, she directed the Environmental Data, Information, and Technology team in developing systems and online tools to facilitate effective, data-driven decision making. In 2013, she served as SFEI's interim Executive Director with responsibilities for strategy implementation, financial planning and reporting, internal communications and overall Institute best practices. Meredith strives for collaborative solutions to complex problems and has a track record of championing interdisciplinary project management approaches. She holds B.S. from Yale University and a Ph.D. in physics from North Carolina State University.

Steve Woodard is the President and co-founder of ECT (Emerging Compounds Treatment Technologies). ECT is an equipment company focused on developing and commercializing treatment technologies for emerging, difficult-to-treat compounds. Steve’s responsibilities include: leading research and new product development; providing technical leadership on all projects; proposal development; intellectual property; and communication with the engineering/remediation community. Steve is also the inventor of BioMag, a biological treatment process that was purchased by Evoqua Water Technologies. He has 25 years of experience in water and wastewater treatment, 15 of which were in consulting. Steve’s focus is currently on bringing Synthetic Media technology to the marketplace for the treatment of 1,4-dioxane, perfluorinated compounds, and other emerging compounds. He received his Ph.D. in Environmental Engineering from Purdue University in 1992.

Jackie Wright is a Principal/Director of Environmental Risk Sciences, Fellow of the Australasian College of Toxicology and Risk Assessment and a PhD Research student at Flinders University in Australia. She has over 25 years’ experience in vapour intrusion and human health and environmental risk assessment in Australia. She has been involved in the development of national guidelines on risk assessment for contaminated land, vapour intrusion and clandestine drug laboratories. Jackie has a wide range of experience in the assessment of public health and environmental exposure and risk including vapour sampling and assessment of vapour intrusion for petroleum, chlorinated and mercury contaminated sites.
Ryan A. Wymore, P.E. is a senior environmental engineer with Geosyntec based in Centennial, CO with more than 16 years of experience in environmental consulting. He has spent the past 15 years specializing in innovative in situ remediation technologies - bioremediation, monitored natural attenuation, thermal remediation, chemical oxidation/reduction, and biogeochemical transformation. Ryan has extensive experience with characterization and remediation of sites contaminated with chlorinated solvents, including DNAPLS, and has implemented multi-component remedies for large, complex sites. He has been involved with the ITRC for twelve years and has contributed to more than twenty ITRC guidance documents and trainings. He recently completed a three-year term on the ITRC Board of Advisors as the industry representative. He holds a B.S. in Biological Systems Engineering from the University of Nebraska-Lincoln, and an M.S. in Civil/Environmental Engineering from the University of Idaho. He is a registered professional engineer in Colorado and Idaho.

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Rick Zimmer is a Senior Account Manager at Eurofins Eaton Analytical, Inc., the largest potable water testing laboratory in the United States. Mr. Zimmer holds both Bachelor’s and Master’s degrees and has over 25 years of experience working in the water industry as a Project Manager, Account Manager, Customer Service Manager and Regulatory Specialist. Mr. Zimmer presently manages projects for Eurofins’ customers in California, Hawaii, American Samoa, Guam, the CNMI and Japan. Mr. Zimmer also serves as Safe Drinking Water Committee Vice Chairman for the California-Nevada Section of the AWWA, Regulatory Committee Chair for the Sacramento Area Waterworks Association and Water Quality Committee Member for the Association of California Water Agencies. He presently resides in Orange County, CA with his wife and 4 children.