

Dale Werkema, Research Geophysicist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division

[Mailing Address](#)

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Area of Expertise: Dale Werkema has expertise in environmental geophysics.

Select Publications:

Briggs, M.A., Buckley, S.F., Bagtzoglou, A.C., Werkema, D.D., and Lane Jr., J.W., Actively heated high-resolution fiber-optic distributed temperature sensing to quantify vertical and horizontal flow in streambeds, *Water Resources Research*, In Review.

Day-Lewis, F.D., Johnson, C.D., Slater, L.D., Robinson, J.D., Williams, J.H., Boyden, C.L., Werkema, D., and Lane Jr., J.W., The fractured rock geophysical toolbox method selection tool, *Groundwater*, In press.

Koch, F.W., Voytek, E.B., Day-Lewis, F.D., Healy, R., Briggs, M.A., Werkema, D.D., Lane Jr., J.W., 1DTempPro V.2: New features for parameter estimation, heterogeneity, and time-varying exchange, *Groundwater*, Sept 2015, doi:10.1111/gwat.12369.

Werkema, D. and Lane Jr., J.W., Introduction to the Near Surface Special Issue, *The Leading Edge: Near Surface Special Issue*, Feb 2015. Guest Editor (me) Introduction to the Special Issue.

Karaoulis, M., Revil, Werkema Jr., D.D., 2-D Time-lapse seismic tomography using an active time constrain (ATC) approach, *The Leading Edge: Near Surface Special Issue*, Feb 2015.

Heenan, J., Slater, L.D., Ntarlagiannis, D., Atekwana, E.A., Fathepure, B.Z., Dalvai, S., Ross, C., Werkema, D.D., and Atekwana, E.A., Electrical resistivity imaging for long term autonomous monitoring of hydrocarbon degradation: lessons from the Deepwater Horizon Oil Spill, *Geophysics*, 2015, doi: 10.1190/geo2013-0468.1

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Education:

- Ph.D. in Geology, emphasis Geophysics, 2002, Western Michigan University (WMU)
Dissertation Title: Goelectrical Response During Microbial LNAPL Degradation: Implications for Monitoring Bioremediation.
- M.S. in Geology, emphasis Geophysics, 1998, WMU
Thesis Title: A Generic Automated / Semi-Automated DC Resistivity Field Data Acquisition System

- B.S. in Geology, 1995, Wayne State University
Undergraduate research project investigated the microscopy of heavy minerals as related to source rocks

Professional Experience:

- Research Geophysicist, U.S. EPA, ORD, NERL, 2005 – Present
- Adjunct Professor, Western Michigan University (WMU), 2013 – Present
- Characterization and Monitoring Branch (CMB), Acting Branch Chief, NERL, ORD, ESD-LV, Jul. 2008 - Mar. 2010
- Post-Doctoral Research Scientist, U.S. EPA, NERL, ORD, ESD-LV. 2002 – 2005
- Visiting Assistant Professor of Geologic and Environmental Sciences, Hope College 2001 – 2002
- Principal Geophysicist, Geophysical Services International, L.L.C., December 1998 – August 2002
- Research Assistant/Instructor, Department of Geosciences, Western Michigan University, 1997– 2000

Honors and Awards:

- EPA Honor Awards: a few for technical assistance to the Regions
- EPA Superior Accomplishment Awards: several since 2003
- SAGEEP Best Paper Awards in 2013 and 2000