

# GEOFFREY N. DELIN

## Curriculum Vitae

### PROFESSIONAL POSITIONS

Hydrologist and Regional Groundwater Specialist, U.S. Geological Survey, Lakewood, CO 80225 (2008-present)  
Research Hydrologist and Hydrologist, U.S. Geological Survey, Mounds View, MN 55112 (1981-2008)  
Hydrologic Technician, U.S. Geological Survey, St. Paul, MN 55101 (1979-1981)  
Geologist, E.A. Hickok and Associates Consulting, Wayzata, MN (1977-1979)

**EDUCATION:** B.A., University of Minnesota, December 1976. Major- Geology. Post-graduate education, University of Minnesota, 1979-1983.

**PUBLICATIONS:** More than 60 peer reviewed publications. Selected publications listed below:

- Delin, G.N.**, 1995, Aquifer test in a complex drift aquifer system, west-central Minnesota: *Hydrological Science and Technology*, Vol. 11, No. 1-4, pp. 1-13.
- Delin, G.N.**, and Landon, M.K., 1996, Multiport well design for sampling of ground water at closely-spaced vertical intervals: *Ground Water*, Vol. 34, No. 6, pp. 1098-1104.
- Delin, G.N.**, Healy, R.W., Landon, M.K., and Böhlke, J.K., 2000, Effects of topography and soil properties on recharge at two sites in an agricultural field: *Journal of the American Water Resources Association*, v. 36, no. 6, 1401-1416.
- Delin, G.N.**, and Landon, M.K., 2002, Effects of surface run-off on the transport of agricultural chemicals to ground water in a sandplain setting: *Science of the Total Environment*, v. 295, 143-155.
- Delin, G.N.**, and Landon, M.K., 2002, Effects of topography on the transport of agricultural chemicals to ground water in a sandplain setting: *Hydrogeology Journal*, v. 10, 443-454.
- Delin, G.N.**, and Herkelrath, W.N., 2005, Use of soil-moisture probes to estimate ground-water recharge at an oil-spill site: *Journal of American Water Resources Association*, v. 41, no. 6, 1259-1277.
- Delin, G.N.**, Healy, R.W., Lorenz, D.L., and Nimmo, J.R., 2007, Comparison of local- to regional-scale estimates of ground-water recharge in Minnesota, USA: *Journal of Hydrology*, v. 334, no. 1-2, p. 231-249.
- Amos, R.T., Mayer, K.U., Bekins, B.A., **Delin, G.N.**, Williams, R.L., 2005, Use of dissolved and vapor-phase gases to investigate methanogenic degradation of petroleum hydrocarbon contamination in the subsurface, *Water Resources Research*, v. 41, no. 2, W02001.
- Amos, R.T., Bekins, B.A., **Delin, G.N.**, Cozzarelli, I.M., Blowes, D.W., Kirshtein, J.D., 2011, Methane oxidation in a crude oil contaminated aquifer: Delineation of aerobic reactions at the plume fringes, *Journal of Contaminant Hydrology*. doi:10.1016/j.jconhyd.2011.04.003
- Baedecker, M.J., Eganhouse, R.P., Bekins, B.A., **Delin, G.N.**, 2011, Loss of volatile hydrocarbons from and LNAPL oil source, *Journal of Contaminant Hydrology*, 126, 140-152.
- Bekins, B.A., Hostettler, F.D., Herkelrath, W.N., **Delin, G.N.**, Warren, Ean, and Essaid, H.I., 2005, Progression of Methanogenic Degradation of Crude Oil in the Subsurface, *Environmental Geosciences*, v. 12, no. 2, pp. 139-152.
- Böhlke, J.K., Wanty, R., Tuttle, M., **Delin, G.**, and Landon, M., 2002, Denitrification in the recharge area and discharge area of a transient agricultural nitrate plume in a glacial outwash sand aquifer, Minnesota: *Water Resources Research*, v. 38, no. 7, 26 p.
- Chaplin, B. P., **G. N. Delin**, R.J. Baker, M.A. Lahvis. 2002. Long term evolution of biodegradation and volatilization rates in a crude-oil-contaminated aquifer: *Bioremediation Journal*, vol. 6, no. 3, 237-255.
- Essaid, H.I., Cozzarelli, I.M., Eganhouse, R.P., Herkelrath, W.N., Bekins, B.A., and **Delin, G.N.**, 2003, Inverse modeling of BTEX dissolution and biodegradation at the Bemidji, MN crude-oil spill site: *Journal of Contaminant Hydrology*, v. 67, p. 269-299.
- Essaid, H.I., B.A. Bekins, W.N. Herkelrath, **G.N. Delin**. 2011. Crude Oil at the Bemidji Site: 25 Years of Monitoring, Modeling, and Understanding. *Ground Water* 49, no. 5: 706-726.
- Lorenz, D.L., and **Delin, G.N.**, 2007, A regression model to estimate regional ground-water recharge in Minnesota: *Ground Water*, v. 45, no. 2, p. 196-208.
- Capel, P.D., Kruglov, Victoria, Landon, M.K., **Delin, G.N.**, and Certain, H.J, 2002, Variations in the concentrations of atrazine, de-ethylatrazine, and nitrate during well purging in relation to field water-quality parameters: *Hydrological Science and Technology*, Vol. 18, No. 1-4, 217-230.
- Landon, M.K., **Delin, G.N.**, Komor, S.C., and Regan, C.P., 1999, Comparison of the stable-isotopic composition of soil water collected from suction lysimeters, wick samplers, and cores in a sandy unsaturated zone: *Journal of Hydrology*, vol. 224, p. 45-54.
- Landon, M.K., **Delin, G.N.**, Komor, S.C., and Regan, C.P., 2000, Relation of pathways and transit times of recharge water to nitrate concentrations using stable isotopes: *Ground Water*, vol. 38, no. 3, p. 381-395.
- Mewafy, F.M., Atkwana, E.A., Werkema Jr., D.D., Slater, L.D., Ntarlagiannis, Dimitrios, Revil, Andre, Skold, magnus, **Delin, G.N.**, 2011, Magnetic Susceptibility as a Proxy for Investigating Microbially Mediated Iron Reduction, *Geophysical Research Letters*, doi:10.1029/2011GL049271.
- Strobel, M.L., Strobel, C.J., and **Delin, G.N.**, 1998, Design for a packer/vacuum slug test system for estimating hydraulic conductivity in wells with LNAPLs, casing leaks, or water tables intersecting the screens: *Ground Water Monitoring and Remediation*, vol. 18, no. 4, p. 77-80.

Miller, R.T., and **Delin, G.N.**, 1993, Field observations, preliminary model analysis, and aquifer thermal efficiency: U.S. Geological Survey *Professional Paper* 1530, 55 p.

Miller, R. T., and **Delin, G. N.**, 2002, Cyclic injection, storage, and withdrawal of heated water in a sandstone aquifer at St. Paul, Minnesota--Thermal data analysis and nonisothermal modeling of short-term test cycles: U.S. Geological Survey *Professional Paper* 1530-B, 66 p.

**Delin, G. N.**, Hoyer, M. C., Winterstein, T. C., and Miller, R.T., 2002, Cyclic injection, storage, and withdrawal of heated water in a sandstone aquifer at St. Paul, Minnesota--Thermal data analysis and nonisothermal modeling of long-term test cycles: U.S. Geological Survey *Professional Paper* 1530-C, 81 p.

**Delin, G.N.**, and Woodward, D.G., 1984, Hydrogeologic setting and the potentiometric surfaces of regional aquifers in the Hollandale Embayment, southeastern Minnesota: U.S. Geological Survey *Water-Supply Paper* 2219, 56 p.

**Delin, G.N.**, and Almendinger, J.E., 1993, Delineation of recharge areas for selected wells in the St. Peter-Prairie du Chien-Jordan aquifer, Rochester, Minnesota: U.S. Geological Survey *Water-Supply Paper* 2397, 39 p.