CURRICULUM VITAE
for
M. James Hendry

ACADEMIC CREDENTIALS

2008	D.Sc., Earned	University of Saskatchewan
1984	Ph.D., Geochemistry	University of Waterloo
1978	M.Sc., Hydrogeology	University of Waterloo
1975	B.Sc., Earth Sciences	University of Waterloo

AREA OF EXPERTISE

Aqueous and Environmental Geochemistry, Mine Geochemistry, Stable and Radiogenic Isotopes, Hydrogeology, Aquitards

PUBLICATION AND IMPACT SUMMARY

Dr. Hendry has authored/co-authored more than 200 refereed journal publications—most in the world's most respected geological science journals. The following is a summary of Dr. Hendry's publication record and citation indices, as per Google Scholar (does not include conference papers, abstracts and reports):

***h*-index (Google Scholar)**	**48**
Total Citations (Google Scholar)	**7478**
i10 Index (papers cited more than 10 times) (Google Scholar)	**152**

Refereed Journal Publications

200. Bam, E.K.P., A.M. Ireson, G. van der Kamp, and **M.J. Hendry**. 2020. Ephemeral ponds: are they the dominant source of depression-focused groundwater recharge? *Water Resources Research* 56(3), doi: 10.1029/2019WR026640.

199. Das, S., M.J.B. Lindsay, and **M.J. Hendry.** 2019. Selenate removal by zero-valent iron under anoxic conditions: effects of nitrate and sulfate. *Environmental Earth Sciences* 78(16), doi: 10.1007/s12665-019-8538-z

198. Robertson, J., **M.J. Hendry,** T. Kotzer, and K.A. Hughes. 2019. Geochemistry of uranium mill tailings in the Athabasca Basin, Saskatchewan, Canada: a review. *Critical Reviews in Environmental Science and Technology* 49(14): 1237-1239, doi: 10.1080/10643389.2019.1571352

197. Bourke, S.A., M. Iwanyshyn, J. Kohn, and **M.J. Hendry.** 2019. Sources and fate of nitrate in groundwater at agricultural operations overlying glacial sediments. *Hydrology and Earth System Sciences* 23(3): 1355-1373, doi: 10.5194/hess-23-1355-2019

196. McIntosh, J.C., **M.J. Hendry**, C. Ballentine, R.S. Haszeldine, B. Mayer, G. Etiope, M. Elsner, T.H. Darrah, A. Prinzhofer, S. Osborn, L. Stalker, O. Kuloyo, Z.-T. Lu, A. Martini, and B. Sherwood Lollar. 2019. A critical review of state-of-the-art and emerging approaches to identify fracking-derived gases and associated contaminants in aquifers. *Environmental Science and Technology* 53(3): 1063-1077, doi: 10.1021/acs.est.8b05807

195. Deen, S.G., V.F. Bondici, J. Essilfie-Dughan, **M.J. Hendry,** and S.L. Barbour. 2018. Biotic and abiotic sequestration of selenium in anoxic coal waste rock. *Mine Water and the Environment* 37(4): 825-838, doi: 10.1007/s10230-018-0546-9

194. Halder, D., J. Lin, J. Essilfie-Dughan, S. Das, J. Robertson, and **M.J. Hendry**. 2018. Implications of the iron(II/III)-arsenic ratio on the precipitation of iron-arsenic minerals from pH 2.5 to 10.5. *Applied Geochemistry* 98: 367-376, doi: 10.1016/j.apgeochem.2018.10.012

193. Szmigielski, J.T., S.L. Barbour, S.K. Carey, J. Kurylo, A.F. McClymont, and **M.J. Hendry**. 2018. Hydrogeology of a montane headwater groundwater system downgradient of a coal-mine waste rock dump: Elk Valley, British Columbia, Canada, *Hydrogeology Journal* 26(7): 2341-2356, doi: 10.1007/s10040-018-1809-z

192. Dominato, K.R., B.J. Rostron, **M.J. Hendry**, E.E. Schmeling, C.D. Sandau, and S.O.C. Mundle. 2018. Developing deep high-resolution concentration and C-13 isotope profiles for methane, ethane, and propane. *Journal of Petroleum Science and Engineering* 170: 280-290, doi: 10.1016/j.petrol.2018.06.064

191. **Hendry, M.J**., L.I. Wassenaar, S.L. Barbour, M.S. Schabert, T.K. Birkham, T. Fedec, and E.E. Schmeling. 2018. Assessing the fate of explosives derived nitrate in mine waste rock dumps using the stable isotopes of oxygen and nitrogen. *Science of the Total Environment* 640: 127-137, doi: 10.1016/j.scitotenv.2018.05.275

190. Hendry, M.T., L.A. Smith, and **M.J. Hendry.** 2018. Analysis of measured pore pressure response to atmospheric pressure changes to evaluate small-strain moduli: methodology and case studies. *Canadian Geotechnical Journal* 55(9): 1248-1256, doi: 10.1139/cgj-2016-0584

189. Smith, L., D. Elwood, S.L. Barbour, and **M.J. Hendry.** 2018. Profiling the in situ compressibility of cretaceous shale using grouted-in piezometers and laboratory testing, *Geomechanics for Energy and the Environment* 14: 29-37, doi: 10.1016/j.gete.2018.04.003

188. Ferguson, G., J.C. McIntosh, S.E. Grasby, **M.J. Hendry**, S. Jasechko, M.B.J. Lindsay, and E. Luijendijk. 2018 The persistence of brines in sedimentary basins. *Geophysical Research Letters* 45(10): 4851-4858, doi: 10.1029/2018GL078409

187. Clark, I.D., **M.J. Hendry,** J.-M. Matray, D.K. Solomon, and H.N. Waber. 2018 Aquitard fluids and gases. *Geofluids* 2018: 6283687, doi: 10.1155/2018/6283687

186. Paikaray, S., J. Essilfie-Dughan, and **M.J. Hendry**. 2018. Ionic substitution of Mg^{2+} for Al^{3+} and Fe^{3+} with octahedral coordination in hydroxides facilitate precipitation of layered double hydroxides. *Geochimica Cosmochimica Acta* 220: 217-234, doi: 10.1016/j.gca.2017.10.003

185. Mahmood, F.N., S.L. Barbour, C. Kennedy, and **M.J. Hendry**. 2017. Nitrate release from waste rock dumps in the Elk Valley, British Columbia, Canada. *Science of the Total Environment* 605: 915-928, doi: 10.1016/j.scitotenv.2017.05.253

184. Villeneuve, S.A., S.L. Barbour, **M.J. Hendry**, and S.K. Carey. 2017. Estimates of water and solute release from a coal waste rock dump in the Elk Valley, British Columbia, Canada. *Science of the Total Environment* 601: 543-555, doi: 10.1016/j.scitotenv.2017.05.040

183. Appels, W.M., S.N. Wall, S.L. Barbour, **M.J. Hendry**, C.F. Nichol, and S.R. Chowdhury. 2017. Pyrite weathering in reclaimed shale overburden at an oil sands mine near Fort McMurray, Canada, *Mine Water and the Environment* 36(4): 479-494, doi: 10.1007/s10230-017-0454-4

182. Bourke, S.A., K.J. Hermann, and **M.J. Hendry**. 2017. High-resolution vertical profiles of groundwater electrical conductivity (EC) and chloride from direct-push EC logs, *Hydrogeology Journal* 25(7): 2151-2162, doi: 10.1007/s10040-017-1587-z

181. Szmigielski, J.T., and **M.J. Hendry.** 2017. Secondary rock structures and the regional hydrogeology of claystone-rich cretaceous strata, Williston Basin, Saskatchewan, Canada. *Canadian Journal of Earth Sciences* 54(8): 902-918, doi: 10.1139/cjes-2016-0226

180. **Hendry, M.J**., E.E. Schmeling, S.L. Barbour, M. Huang, and S.O.C. Mundle. 2017. Fate and transport of shale-derived, biogenic methane, *Scientific Reports*, 7: 4881, doi: 10.1038/s41598-017-05103-8

179. Robertson, J., J. Essilfie-Dughan, J. Lin, and **M.J. Hendry**. 2017. Coordination of arsenic and nickel to aluminum and magnesium phases in uranium mill raffinate precipitates, *Applied Geochem*istry 81: 12-22, doi: 10.1016/j.apgeochem.2017.03.015

178. Essilfie-Dughan, J., **M.J. Hendry,** J.J. Dynes, Y. Hu, A. Biswas, S.L. Barbour, and S. Day. 2017. Geochemical and mineralogical characterization of sulfur and iron in coal waste rock, Elk Valley, British Columbia, Canada. *Science of the Total Environment* 586: 753-769, doi: 10.1016/j.scitotenv.2017.02.053

177. Das, S., M.B.J. Lindsay, J. Essilfie-Dughan, and **M.J. Hendry.** 2017. Dissolved selenium(VI) removal by zero-valent iron under oxic conditions: Influence of sulfate and nitrate. *ACS OMEGA*, 2(4): 1513-1522, doi: 10.1021/acsomega.6b00382

176. Smith, L., S.L. Barbour, **M.J. Hendry,** and D. Elwood. 2017. Profiling the in situ compressibility of Cretaceous shale using grouted-in piezometers and laboratory testing, In: Advances in Laboratory Testing and Modelling of Soils and Shales (ATMSS), Chapter: Springer Series in Geomechanics and Geoengineering, 296-303, doi: 10.1007/978-3-319-52773-4_34

175. **Hendry, M.J**., S.L. Barbour, E.E. Schmeling, and S.O.C. Mundle. 2017. Measuring concentrations of dissolved methane and ethane and the C-13 of methane in shale and till, *Groundwater*, 55(1): 119-128.

174. **Hendry, M.J**., A.L. Bangsund, E.E. Schmeling, and S.L. Barbour. 2016. Measuring aqueous CH_4 concentrations profiles in shales and tills to define source, transport, and fate of organic gases. *Water Resources Research* 52, 6440–6450, doi:10.1002/2016WR019047.

173. Das, S., J. Essilfie-Dughan, and **M.J. Hendry**. 2016. Sequestration of molybdate during transformation of 2-line ferrihydrite under alkaline conditions. *Applied Geochemistry* 73: 70-80, doi: 10.1016/j.apgeochem.2016.08.003

172. Biswas, A., **M.J. Hendry**, and J. Essilfie-Dughan. 2016. Geochemistry of arsenic in low sulfide-high carbonate coal waste rock, Elk Valley, British Columbia, Canada. *Science of the Total Environment* 579: 396-408, doi: 10.1016/j.scitotenv.2016.11.084

171. Bissonnette, J., J. Essilfie-Dughan, B.J. Moldovan, and **M.J. Hendry**. 2016. Sequestration of As and Mo in uranium mill precipitates (pH 1.5-9.2): an XAS study. *Applied Geochemistry* 72: 20-33, doi: 10.1016/j.apgeochem.2016.06.007

170. **Hendry, M.J.**, S.L. Barbour, E. Schmeling, S. Mundle, and M. Huang. 2016. Fate and transport of dissolved methane and ethane in cretaceous shales of the Williston Basin, Canada. *Water Resources Research* 52, 6440–6450, doi:10.1002/2016WR019047.

169. Robertson, J., **M.J. Hendry**, J. Essilfie-Dughan, and J. Chen. 2016. Precipitation of aluminum and magnesium secondary minerals from uranium mill raffinate (pH 1.0–10.5) and their controls on aqueous contaminants. *Applied Geochemistry* 64: 30-42, doi: 10.1016/j.apgeochem.2015.09.002.

168. Pratt, D.L., M. Lu, S.L. Barbour, and **M.J. Hendry**. 2016. An evaluation of materials and methods for vapour measurement of the isotopic composition of pore water in deep, unsaturated zones. *Isotopes in Environmental and Health Studies* 52(4-5): 529-543, doi: 10.1080/10256016.2016.1151423.

167. Smith, L.A., S.L. Barbour, **M.J. Hendry**, K. Novakowski, and G. van der Kamp. 2016. A multiscale approach to determine hydraulic conductivity in thick claystone aquitards using field, laboratory and numerical modeling methods. *Water Resources Research* 52(7): 5265-5284, doi: 10.1002/2015WR018448.

166. Barbour, S.L., **M.J. Hendry**, and S.K. Carey. 2016. High-resolution profiling of the stable isotopes of water in unsaturated coal waste rock. *Journal of Hydrology* 534: 616-629, doi: 10.1016/j.jhydrol.2016.01.053

165. **Hendry, M.J.**, S.L. Barbour, E. Schmeling, and S.O.C. Mundle. 2016. Measuring concentrations of dissolved methane and ethane and the ^{13}C of methane in shale and till. *Groundwater* 55(1): 119-128, doi: 10.1111/gwat.12445

164. Pétre, M.-A., A. Rivera, R. Lefebvre, **M.J. Hendry**, and A.J.B. Folnagy. 2016. A unified hydrogeological conceptual model of the Milk River transboundary aquifer: Alberta, Canada- Montana, USA. *Hydrogeology Journal* 24(7): 1847-1871, doi: 10.1007/s10040-016-1433-8

163. Ledding, J., M. Huang, S.L. Barbour, and **M.J. Hendry**. 2015. Characterization of the gas and liquid hydraulic conductivity of an aboveground, commercial scale-sulphur block. *Vadose Zone Journal* 14(8), doi:10.2136/vzj2015.01.0003

162. Kohn, J., D. Soto, M. Iwanyshyn, B. Olson, A. Kalischuk, K. Lorenz, and **M.J. Hendry**. 2016. Groundwater nitrate and chloride trends in an agriculture-intensive area in southern Alberta, Canada. *Water Quality Research Journal of Canada* 51(1): 47-59, doi: 10.2166/wqrjc.2015.132

161. **Hendry, M.J.**, D.K. Solomon, M. Person, L.I. Wassenaar, W.P. Gardner, I.D. Clark, K.U. Mayer, T. Kunimaru, K. Nakata, and T. Hasegawa. 2015. Can argillaceous formation isolate nuclear waste? Insights from isotopic, noble gas, and geochemical profiles. *Geofluids* 15(3): 381-386, doi: 10.1111/gfl.12132

160. **Hendry, M.J.**, E.E. Schmeling, L.I. Wassenaar, S.L. Barbour, and D.L. Pratt. 2015. Determining the stable isotope composition of pore water from saturated and unsaturated zone core: improvements to the direct vapor equilibration laser spectroscopy method. *Hydrology and Earth System Sciences* 19 (11): 4427-4440, doi: 10.5194/hess-19-4427-2015

159. **Hendry, M.J.**, A. Biswas, J. Essilfie-Dughan, N. Chen, S.J. Day, and S.L. Barbour. 2015. Reservoirs of selenium in coal waste rock: Elk Valley, British Columbia, Canada. *Environmental Science and Technology* 49(13): 8228-8236, doi: 10.1021/acs.est5b01246

158. **Hendry, M.J.**, S.L. Barbour, and E.E. Schmeling. 2015. Defining near-surface groundwater flow regimes in the semi-arid glaciated plains of North America. *Isotopes in Environmental and Health Studies* 5(3): 1–11. doi: 10.1080/10256016.2016.1092966

157. Gomez, M.A., **M.J. Hendry**, J. Koshinsky, J. Essilfie-Dughan, S. Paikaray, and J. Chen. 2014. Correction to mineralogical controls on aluminum and magnesium in uranium mill tailings: Key Lake, Saskatchewan, Canada. *Environmental Science and Technology* 48(20): 12472-12472, doi: 10.1021ées504653d

156. Das S., J. Essilfie-Dughan, and **M.J. Hendry**. 2015. Fate of adsorbed arsenate during phase transformation of ferrihydrite in the presence of gypsum and alkaline conditions. *Chemical Geology* 411: 69-80, doi: 10.1016/j.chemgeo.2015.06.031

155. Bourke, S.A., J. Turchenek, E.E. Schmeling, F.N. Mahmood, B.M. Olson, and **M.J. Hendry**. 2015. Comparison of continuous core profiles and monitoring wells for assessing groundwater contamination by agricultural nitrate. *Ground Water Monitoring and Remediation* 35: 110-117, doi: 10.1111/gwmr.12104

154. Robertson, J., K. Shacklock, R. Frey, M.A. Gomez, J. Essilfie-Dughan, and **M.J. Hendry**. 2014. Modeling the Key Lake uranium mill's bulk neutralization process using a pilot-scale model. *Hydrometallurgy* 149: 210-219.

153. Paikaray, S., M.A. Gomez, **M.J. Hendry,** and J. Essilfie-Dughan. 2014. Formation mechanism of layered double hydroxides in Mg^{2+}-, Al^{3+}-, and Fe^{3+}-rich aqueous media: implications for neutralization in acid leach ore milling. *Applied Clay Science* 101: 579-590.

152. **Hendry, M.J.,** and G. Harrington. 2014. Comparing vertical profiles of natural tracers in the Williston Basin to estimate the onset of deep aquifer activation. *Water Resources Research* 50(8): 6496-6506.

151. Cheng, G., and **M.J. Hendry.** 2014. Chemico-osmosis in geologic membranes: role of membrane potential gradient. *Geochimica et Cosmochimica Acta* 141: 270-280, doi: 0.1016/j.gca.2014.06.017

150. Das, S., J. Essilfie-Dughan, and **M.J. Hendry**. 2014. Arsenate adsorption onto hematite nanoparticles under alkaline conditions: effects of aging. *Journal of Nanoparticle Research* 16: 2490.

149. Das, S. and **M.J. Hendry**. 2014. Characterization of hematite nanoparticles synthesized via two different pathways. *Journal of Nanoparticle Research* 16(8), doi: 10.1007/s11051-014-2535-7

148. Gomez, M.A., **M.J. Hendry**, H. Alauddin, S. Das, and S. Eluatick. 2013. Abiotic reduction of 2-line ferrihydrite: effects on adsorbed arsenate, molybdate and nickel. *RSC Chemical Science* 3: 25812-25822, doi: 10.1039/C3RA44769C

147. Koehler, G., L.I. Wassenaar, and **M.J. Hendry.** 2013. Measurement of the isotopic salt effect using optical spectroscopy methods. *Isotopes in Environmental & Health Studies* 49(3): 378-386.

146. Das, S., J. Essilfie-Dughan, and **M.J. Hendry**. 2014. Arsenate partitioning from ferrihydrite to hematite: spectroscopic evidence. *American Mineralogist* 99: 749-754, doi: 10.2138/am.2014.4657

145. Paikaray, S., and **M.J. Hendry**. 2014. Formation and crystallization of Mg^{2+}-Fe^{3+}-SO_4^{2-}-CO_3^{2-}-type anionic clays. *Applied Clay Science* 88-89: 111-122. doi: 10.1016/j.clay.2013.11.034

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143. Harrington, G.A., W.P. Gardner, B.D. Smerdon, and **M.J. Hendry**. 2013. Palaeo-hydrogeological insights from natural tracer profiles in a confining shale aquitard, Great Artesian Basin, Australia. *Water Resources Research* 49(7): 4054-4070, doi: 10.1002/wrcr.20327.

142. Gomez M.A., **M.J. Hendry**, J. Kochinsky, J. Essilfie-Dughan, and S. Paikaray. 2013. Mineralogical controls of Mg and Al in uranium mill and tailings facilities: Key Lake, Saskatchewan, Canada. *Environmental Science and Technology* 47(14): 7883-7891, doi: 10.1021/es400658f

141. Paikaray, S., and **M.J. Hendry**. 2013. Interaction of magnesium-iron-carbonic layered double hydroxides with As(III). *Water, Air, and Soil Pollution* 224(5): 156, doi: 10.1007/s11270-013-1560-y

140. Paikaray, S., and **M.J. Hendry**. 2013. In situ incorporation of arsenic, molybdenum, and selenium during precipitation of hydrotalcite-like layered double hydroxides. *Applied Clay Science* 77/78: 33-39, doi: 10.1016/j.day.2013.03.016

139. Das, S., and **M.J. Hendry**. 2013. Adsorption of molybdate by synthetic hematite under alkaline conditions: effects of aging. *Applied Geochemistry* 28: 194-201.

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137. Essilfie-Dughan, J., **M.J. Hendry**, J. Warner, and T. Kotzer. 2013. Arsenic and iron speciation in uranium mine tailings using X-ray absorption spectroscopy. *Applied Geochemistry* 28: 11-18. doi: 10.1016/j.apgeochem.2012.10.022

136. Paikaray, S., **M.J. Hendry**, and J. Essilfie-Dughan. 2013. Controls on arsenate, molybdate, and selenate uptake by hydrotalcite-like layered double hydroxides. *Chemical Geology* 345: 130-138, doi: 10.1016/j.chemgeo.2013.02.015

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134. Smith, L.A., G. van der Kamp, and **M.J. Hendry**. 2013. Technique for obtaining high-resolution pore pressure records in thick claystone aquitards and its use to determine in situ compressibility. *Water Resources Research* 49: 1-12, doi: 10.102/wrer.20084

133. Barbour, S.L., **M.J. Hendry**, and L.I. Wassenaar. 2012. In situ experiment to determine advective-diffusive controls on solute transport in a clay-rich aquitard. *Journal of Contaminant Hydrology* 131(1-4): 79-88, doi: 10.1016/j.jconhyd.2011.12.002

132. Essilfie-Dughan, J., **M.J. Hendry**, J. Warner, and T. Kotzer. 2012. Microscale mineralogical characterization of As, Fe, and Ni in uranium mine tailings. *Geochimica et Cosmochimica Acta* 96: 336-352, doi: 10.1016/j.gca.2012.08.005

131. Paikaray, S., and **M.J. Hendry**. 2012. The role of trivalent cations and interlayer anions on the formation of hydrotalcite like layered double hydroxides in an oxic-CO_2 medium. *Applied Surface Science* 263: 633-639, doi: 10.1016/j.apsusc.2012.09.125

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129. Smith, L.A., **M.J. Hendry**, L.I. Wassenaar, and J.R. Lawrence. 2012. Rates of microbial elemental sulfur oxidation and ^{18}O and ^{34}S isotopic fractionation under varied nutrient and temperature regimes. *Applied Geochemistry* 27(1): 186-196.

128. Stumpp, C., and **M.J. Hendry**. 2012. Spatial and temporal dynamics of water flow and solute transport in a heterogeneous glacial till: the application of high-resolution profiles of $\delta^{18}O$ and $\delta^{2}H$ in pore waters. *Journal of Hydrology* 438: 203-214.

127 Wassenaar, L.I., P. Athanasopoulos, and **M.J. Hendry**. 2012. Isotope hydrology of precipitation, surface and ground waters in the Okanagan Valley, British Columbia, Canada. *Journal of Hydrology* 411: 2044-2056.

126. Das, S., and **M.J. Hendry**. 2011. Application of Raman spectroscopy to identify iron minerals commonly found in mine wastes. *Chemical Geology* 290(3-4): 101-108.

125. Das, S., and **M.J. Hendry**. 2011. Changes of crystal morphology of aged goethite over a range of pH (2-13) at 100 degrees C. *Applied Clay Science* 51(1-2): 192-197.

124. Das, S., **M.J. Hendry**, and J. Essilfie-Dughan. 2011. Transformation of two-line ferrihydrite to goethite and hematite as a function of pH and temperature. *Environmental Science and Technology* 45(1): 268-275.

123. Das, S., **M.J. Hendry**, and J. Essilfie-Dughan. 2011. Effects of adsorbed arsenate on the rate of transformation of 2-line ferrihydrite at pH 10. *Environmental Science and Technology* 45(13): 5557-5563.

122. Essilfie-Dughan, J., I.J. Pickering, **M.J. Hendry**, G.N. George, and T. Kotzer. 2011. Molybdenum speciation in uranium mine tailings using X-ray absorption spectroscopy. *Environmental Science and Technology* 45(2): 455-460.

121. **Hendry, M.J.**, S.L. Barbour, J. Zettl, V. Chostner, and L.I. Wassanaar. 2011. Controls on the long-term downward transport of $\delta^{2}H$ of water in a regionally extensive, two-layered aquitard system. *Water Resources Research* 4(6): W06505, doi: 10.1029/2010WR010044.

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119. Liu, D.-J., and **M.J. Hendry**. 2011. Controls on ^{226}Ra during raffinate neutralization at the Key Lake Uranium Mill, Saskatchewan, Canada. *Applied Geochemistry* 26(12): 2113-2120.

118. Stumpp, C., J.R. Lawrence, **M.J. Hendry**, and P. Maloszewski. 2011. Transport and bacterial interactions of three bacterial strains in saturated column experiments. *Environmental Science and Technology* 45(6): 2116-2123.

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116. Birkham, T.K., **M.J. Hendry**, and S.L. Barbour. 2010. Advective and diffusive gas transport through fractured sulfur blocks. *Vadose Zone Journal* 9: 451-461.

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114. Bonstrom, K., S.L. Barbour, and **M.J. Hendry**. 2010. Erratum: Physical controls on water migration in fractured, hydrophobic sulphur blocks. *Canadian Geotechnical Journal* 47(3): 375-375.

113. **Hendry, M.J.**, and L.I. Wassenaar. 2010. Millenial-scale diffusive migration of tracers in thick clay-rich aquitards: evidence from multiple environmental tracers. *Hydrogeology Journal* 19(1): 259-270.

112. Bonstrom, K., S.L. Barbour, and **M.J. Hendry**. 2009. Physical and hydraulic characterization of fractured, hydrophobic sulphur within above ground sulphur blocks. *Canadian Geotechnical Journal* 46(12): 1461-1472.

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108. Shaw, S.A., and **M.J. Hendry**. 2009. The impact of sulfuric acid on element migration and mineralogy of compacted clays: pH 1.0 to −3.0. *Applied Geochemistry* 24(10): 1978-1989.

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Books and Book Chapters

5. Harrington, G.A., Smerdon, B.D., Gardner, W.P., Taylor, A.R., and **Hendry, M.J.** (2012). Chapter 8: Diffuse Discharge. In: Love, A., Shand, P., Crossey, L., Harrington, G.A., and Rousseau-Gueutin, P. (Eds.), Allocating water and maintaining springs in the Great Artesian Basin, Volume III: Groundwater discharge of the western Great Artesian Basin, National Water Commission, Canberra.
4. Moldovan, B.J. and **M.J. Hendry**. 2008. Fate and transport of arsenic in uranium mine tailings: Rabbit Lake mine. VDM Verlag Dr. Muller. ISBN 978-3-639-00524-0, 181 pp.
3. Dating Very Old Groundwater, Milk River Aquifer, Alberta, Canada. M. Ivanovich, K. Frohlich, and **M.J. Hendry** (Editors of Special Edition), J. Applied Geochemistry, Volume 6 (4).
2. National Conference on Chlorinated Volatile Organic Compounds in Ground Water. **M.J. Hendry** (Editor). Association of Ground Water Scientists and Engineers, Kansas City, MS, 17–20 October 1993.
1. Sulphur Transformations in Soil Ecosystems. **M.J. Hendry** and H.R. Krouse (Editors). Joint National Hydrology Research Institute and Canada / Germany Science and Technology Cooperation Symposium, 5–7 November 1992, 353 pp.

PATENTS

Lawrence, J.R., **M.J. Hendry** and G.M. Wolfaardt. Method for the Isolation of Degradative Microbial Consortia and Apparatus Therefore. Canadian patent # 2,098,331; issued August 21, 2001. This apparatus permits an infinite range of concentrations of a test compound (including organic contaminants) to be produced.

HONOURS

Farvolden Award, International Associatin of Hydrogeologists (Canada) for outstanding contributions to the disciplines of earth science and engineering that emphasize the role or importance of groundwater. (2019)

Alumni of Honour Award, University of Waterloo, Faculty of Science for outstanding vision, professional dedication, and commitment to excellence (2017)

NSERC-Industrial Senior Research Chair in Aqueous and Environmental Geochemistry (fourth 5-year term) (2011–2018)

Fellow, Geological Society of America (2012)

Synergy Award, Natural Sciences and Engineering Council of Canada (NSERC) / Conference Board of Canada (for large companies) (2008)

NSERC-Industrial Senior Research Chair in Aqueous and Environmental Geochemistry (third term) (2006–2011)

Distinguished Researcher Award, University of Saskatchewan (2006)

*John Hem Award, A*ssociation of Ground Water Scientists and Engineers for international excellence in hydrogeology during the previous five years (2003)

Fellow, Geological Association of Canada (2003)

Distinguished Darcy Lecturer, Association of Ground Water Scientists and Engineers (2000)

NSERC-Industrial Research Chair in Aqueous and Environmental Geochemistry (second term) (2001–2006)

Canadian Institute of Mining Lecturer (Saskatoon) (1998–1999)

NSERC-Industrial Research Chair in Aqueous and Environmental Geochemistry (first term) (1995–2001)

Endowed Cameco Research Chair, University of Saskatchewan (January 1995–present)

PROFESSIONAL CONTRIBUTIONS

Positions on Professional Organizations, Boards & Committees (selected)

Director, Board of Directors for Pacific Institute for the Mathematical Sciences in Western Canada and Washington State (2009–2016)

Member, International Atomic Energy Agency (United Nations) working group on Impacts of hydraulic fracturing on groundwaters identified using geochemical and isotopic tracers (2016)

Chair, International Atomic Energy Agency (United Nations) working group on Argillaceous Aquitards for Radioactive Waste Disposal (2013–2015)

Member, Geochemical Society Program committee (2012–present)

Scientific reviewer for Nuclear Waste Management Organization (NWMO) base case for nuclear disposal in crystalline rock, low and intermediate level waste program (2012)

Co-Chair, technical session on the role of ferrihydrite on the attenuation of contaminants at the 22nd Goldschmidt Geochemistry Conference, Montreal, QC (June 24-29, 2012)

Scientific advisor to Cenovus Energy, Calgary, AB, on CO_2 gas migration though caprock (2011–present)

Invited Panel Member, Discussion of Canada's high-level nuclear disposal options, 2nd Canadian Symposium on Aquitard Hydrogeology, Ottawa, ON (June 21-23, 2011)

Member, Teck Coal Ltd. technical review committee on source, characterization and mitigation of Se contamination from coal mining activities (2010-present)

Scientific reviewer for aspects of the Nuclear Waste Management Organization – Canada High Level Site Selection Program (2010-present)

Member, technical advisory committee for Institute of Geology, Technical University Bergakademie Freiberg, Germany (2010–present)

Scientific reviewer for aspects of Canada's nuclear waste program (2010–present)

Member, Environmental Sciences Joint Technical Program Committee for Geological Society of America (2010-2012)

Member, Cameco Corporation's Engineered Tailings Advisory Committee (CETAC) (2009-present)

Member, Board of Directors for Pacific Institute for the Mathematical Sciences in Western Canada and Washington State (2009–2013)

Member, expert review panel on radionuclide transport through clay host rock, SCK-CEN, Belgium (2008–present)

President, Canadian Chapter of the International Association of Hydrogeologists (1995)

Member, Strategic Planning Committee, National Ground Water Association (1994–1997)

Member, Provincial Review Panel for the Assessment of the Five-Year Plan (1993–1997) of the Waterloo Centre for Groundwater Research, University of Waterloo, Waterloo, ON

Chair, Association of Ground Water Scientists and Engineers National Conference (1993)

Member, UNESCO Working Group Developing Guidelines on Soil-Water Monitoring Systems (1992–1998)

Member, Groundwater Committee of the International Association of Hydrologic Sciences; Canadian representative (1991–1998)

Director, Association of Ground Water Scientists and Engineers (two terms: 1991–1995)

Member, Certification Committee for Ground Water Scientists and Engineers (1991–1995)

Member, Applications of Environmental Isotopes in Contaminated Groundwaters Committee, International Atomic Energy Agency, United Nations, Vienna, Austria (1990)

Member, Groundwater Hydrology Committee, American Geophysical Union (1988–1991)

Member, EPA-U.S.A. Well Head Protection Research Review Committee (1988 and 1990)
Lecturer, Canadian Institute of Mining (1998–1999)

Member, National Salinity Task Force, Government of Canada (1987)

Member, Age Dating of Old Groundwaters Committee, International Atomic Energy Agency, United Nations, Vienna, Austria (1985–1989)

Conference and Workshop Organization and Participation (selected)

Session chair/organizer, Goldschmidt Conference, Vancouver (2008)

Organizer, 1-day in workshop on impacts of elemental sulphur for industry, University of Calgary, AB (January 2007)

Organizer, all Hydrogeology Division Sessions at the Geological Society of America Annual Meeting (2006)

Chair, technical review committee for the Hydrology Division of the Geological Society of America's annual meeting in Denver, CO (2004)

Facilitator, workshop on the National groundwater strategy, Calgary (September 20–21, 2001)

Invited Participant, Groundwater in Canada Strategy Meeting for the CCME (March 21–22, 2002)

Invited participant, National Academy of Sciences Workshop on Assessing the Performance of Engineered Containment Systems for Waste Disposal, (July 19–20, 2001)

Chair (and Organizer), National Conference on Chlorinated Volatile Organic Compounds in Ground Water, Association of Ground Water Scientists and Engineers, Kansas City, MO (October 17–20, 1993)

Chaired (and organized), First USA/USSR Conference on Hydrogeology, Moscow, USSR (July 1989)

Editorial and Review Work

Associate Editor, Canadian Geotechnical Journal (January 2001–2003)

Associate Editor, Journal of Ground Water (1998–2003)

Member, Editorial Board, Journal of Ground Water (1988–1992, 1999–2001)

Member, Editorial Board, Journal of Contaminant Hydrology (1993–1998)

Journal reviews (among others): Ground Water, Geochimica et Cosmochimica Acta, Water Resources Research, Journal of Hydrology, Environmental Science and Technology, and Journal of Contaminant Hydrology

Science reviews (among others): Australia's National Water Research Program (2011), Water Research Commission of South Africa's National Groundwater Quality and Protection Program (2000–2010), the USGS National Competitive Grants Program (2002), NSERC-CRCs (2001–2013), and NSERC-IRCs (2008–2014).