

Further Reading List for London Lecture: What Coal Mining Hydrogeology Tells us about the Real Risks of Fracking

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Wednesday 18 May

The reading list can also be found at <http://www.geolsoc.org.uk/CoalHydroFracking16>

Popular Articles and Resources

1. Background Information and Resources
 - a. The Geological Society Online Shale Gas Resource
<https://www.geolsoc.org.uk/shalegas>
 - b. Water Portal – Background to groundwater and aquifers
<http://albertawater.com/groundwater/introduction>
 - c. Underground Coal – Overview of Longwall Mining
http://www.undergroundcoal.com.au/fundamentals/07_overview.aspx
2. Coal Hydrogeology
 - a. Independent expert scientific committee on Coal seam gas and large coal mining development – Fact Sheet: Connectivity between water systems
<http://www.iesc.environment.gov.au/publications/connectivity-between-water-systems>
 - b. Open University: Energy Resources: Coal: The Selby Coalfield
<http://www.open.edu/openlearn/science-maths-technology/science/environmental-science/energy-resources-coal/content-section-2.6>
3. Shale Gas and Water
 - a. ReFINE – Frequently Asked Questions about Fracking
<http://www.refine.org.uk/media/sites/researchwebsites/1refine/factsheets/Fracking%20FAQ.pdf>

- b. ReFINE – Fracking and aquifers: how far up can a frack go?

<http://www.refine.org.uk/media/sites/researchwebsites/1refine/hydraulicfracturesr/b/Hydraulic%20Fractures%20RB%202.0.pdf>

- c. BGS – Aquifers and Shales resource page

<http://www.bgs.ac.uk/aquifers-shales/>

- d. University of Glasgow News – Fracking would pose no danger to water supplies, new research suggests

http://www.gla.ac.uk/news/headline_457573_en.html

- e. Stanford researchers show fracking's impact to drinking water sources

<https://news.stanford.edu/2016/03/29/pavillion-fracking-water-032916/>

Journal Articles and Books

1. Younger, P. L. (2014) Energy: All That Matters. Hodder & Stoughton: London. ISBN 9781473601888
2. Booth, C. J (2002) The effects of longwall coal mining on overlying aquifers. Geological Society, London, Special Publications 2002, v. 198, p. 17-45 (doi: 10.1144/GSL.SP.2002.198.01.02)
3. Younger, P.L. (2012) Water. All that matters. Hodder Education: London, UK. ISBN 9781444156812
4. Younger, P. L. (2016) How can we be sure fracking will not pollute aquifers? Lessons from a major longwall coal mining analogue (Selby, Yorkshire, UK). Earth and Environmental Science Transactions of the Royal Society of Edinburgh, (doi:10.1017/S1755691016000013) (Early Online Publication)
5. Younger, P.L., and Robins, N.S., (eds), 2002, Mine Water Hydrogeology and Geochemistry. Geological Society, London, Special Publications, 198. 396pp. Particularly the first paper in that volume: Younger, P.L., and Robins, N.S., 2002, Challenges in the characterisation and prediction of the hydrogeology and geochemistry of mined ground. In Younger, P.L., and Robins, N.S., (eds) Mine Water Hydrogeology and Geochemistry. Geological Society, London, Special Publications, 198: 1 - 16.
6. Younger P.L., 2004. Environmental impacts of coal mining and associated wastes: a geochemical perspective. In Gieré, R. and Stille, P. (eds), Energy, Waste and the Environment: a Geochemical Perspective. Geological Society, London. Special Publications, 236: 169-209.

7. Westaway, R., and Younger, P. L. (2014) Quantification of potential macroseismic effects of the induced seismicity that might result from hydraulic fracturing for shale gas exploitation in the UK. *Quarterly Journal of Engineering Geology and Hydrogeology*, 47(4), pp. 333-350. (doi:10.1144/qjegh2014-011)
8. Younger, P. L. (2014) Hydrogeological challenges in a low carbon economy. *Quarterly Journal of Engineering Geology and Hydrogeology*, 47(1), pp. 7-27. (doi:10.1144/qjegh2013-063)
9. Younger, P. (2011) Hydrogeological and geomechanical aspects of underground coal gasification and its direct coupling to carbon capture and storage. *Mine Water and the Environment*, 30(2), pp. 127-140. (doi:10.1007/s10230-011-0145-5)
10. Mair, R. et al. (2012) Shale gas extraction in the UK: a review of hydraulic fracturing. Project Report. Royal Society and Royal Academy of Engineering.
11. Masters, C., Shipton, Z., Gatliff, R., Haszeldine, R.S., Sorbie, K., Stuart, F., Waldron, S., Younger, P.L., and Curran, J. (2014) Independent Expert Scientific Panel – Report on Unconventional Oil and Gas. Project Report. The Scottish Government, Edinburgh.