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EPA Report Finds Link Between Hydraulic Fracturing and Groundwater Contamination in Wyoming Town

On Thursday, December 8, 2011, the United States Environmental Protection Agency (EPA or Agency) released a report linking hydraulic fracturing in gas production wells near Pavillion, Wyoming to area groundwater contamination. After monitoring for two years, the Agency concluded that both shallow and deep groundwater showed evidence of petroleum compound contamination from hydraulic fracturing practices.

Hydraulic fracturing or "fracking" is a process that involves pumping pressurized water, sand, and chemicals underground to open cracks in a geologic formation to improve the collection of oil or gas.

Specifically, in Pavillion, EPA found that surface storage pits, used to retain water associated with fracking, contaminated nearby shallow groundwater with various petroleum constituents.

In addition, EPA linked the fracking process itself to the contamination of domestic water sources with methane, petroleum compounds, synthetic organic constituents, and other "markers" associated with fracking chemicals. EPA's report suggests these chemicals escaped from the underlying geologic formation during the fracking process.

In some ways, conditions in Pavillion may not be representative of fracking practices or circumstances around the United States. For example, in Pavillion, the geologic formation subject to fracturing was relatively shallow; water consumption wells were screened relatively close to the formation, and no intervening shale or other confining geologic layer was present that would have prevented the migration of any contamination.

EPA's findings are likely to draw considerable attention from regulators, environmental groups, and the plaintiffs' bar at a time when several states, including Colorado, New York, Pennsylvania, Wyoming, and others are devoting substantial efforts to developing regulations governing hydraulic fracturing. Some states, for example, have recently passed regulations requiring the disclosure of chemicals used in the hydraulic fracturing process.

In addition, EPA's findings also raise the possibility that the Agency will seek to use the Clean Water Act, the Oil Pollution Act of 1990, or the Comprehensive Environmental

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Response, Compensation, and Liability Act (CERCLA) (depending on the nature of the contamination) to address the investigation or cleanup of contaminated groundwater that may be associated with hydraulic fracturing operations. The extent to which these existing statutes govern (and the circumstances under which each may apply) are relatively new legal issues which have not been fully resolved.

For more information about any of the topics discussed in this Advisory, please feel free to contact your Arnold & Porter attorney or any of the following attorneys:

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