In 1988 Frederick Larson filed a patent application for 156 oil shale claims found on federal lands in the Uintah Basin. His attempts to secure these patents would eventually culminate in Orion v. Salazar in 2008, which resulted in the establishment of precedent holding private leasers accountable not only for present and future regulations, but also in some instances holding them retroactively accountable for past regulations. Through the story of Frederick Larson, this chapter explores the political and economic context surrounding the development of oil shale as a potential source of alternative energy in the years to come. Although the potential of oil shale is great, the technology remains economically infeasible and politically controversial.

Oil shale refers to a sedimentary rock formed millions of years ago from organic matter that was then subjected to intense heat and pressure. This process is similar to that which formed other fossil fuels, however, in the case of oil shale it occurred incompletely resulting in a precursor petroleum-like substance. Pockets of oil shale can be found around the world, but the largest known deposit is the Green River deposit, located in eastern Utah, southwestern Wyoming, and western Colorado. Estimates suggest this deposit contains more oil than the entire Saudi Arabian deposit.

When Frederick Larson filed for 156 oil shale claims in 1988, the Mining Law of 1872 (ML) allowed for extraction and mining of minerals on federal lands as long as $100 worth of assessment work was completed annually. A resumption clause allowed claimants to maintain land rights if they resumed assessment work before another claimant staked a competing claim. The Mineral Leasing Act of 1920 (MLA) made regulations under the previous law void, except those that qualified under the savings clause. Although Larson asserted that his patents were valid under the savings clause of the MLA, and the resumption clause of the ML, the U.S. District of Columbia Court
of Appeals nullified the claims based on the Hickel Test, established in 1970 in Hickel v. Oil Shale Corporation. In Orion v. Salazar, a more stringent standard was applied retroactively, and the validity of Larson’s claims under existing laws denied. The federal government was eager to regain control of vast oil shale reserves in the Uintah Basin, and selective legal precedent was used for achieving this goal. This case is just one example of how political barriers prevent the development of oil shale as a potential energy source across the U.S. today.

In addition to political barriers, the technology required to extract oil shale remains economically infeasible. Once extracted, oil shale must undergo processing to transform it into useable oil. Oil shale also comes with a laundry list of environmental problems stemming from its extraction, processing, and use. Despite these environmental issues, we classify oil shale as an alternative energy because it serves as a replacement for traditional petrochemicals. Oil shale is currently recognized as an energy source with a promising future, but before that future can be realized numerous technological advances must be made, and political impediments to development must be reduced.

Policy Recommendations:
• Continue research focused on ways to make extraction of energy from oil shale economically feasible and environmentally friendly.
• Discontinue application of environmental law retroactively to encourage private development of oil shale and technological innovation.

References

