

COMPARATIVE AUTO-OXIDATION STUDIES OF RAW AND RETORTED OIL SHALE AND WESTERN COALS
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The imminent commercial scale production of shale oil from the Green River Oil Shale Formation may apply some retorting processes which will produce large quantities of carbonaceous retorted shale and will also require large stockpiles of crushed raw shale for a continuous operation. From experiences in ongoing commercial shale oil production (e.g. Estonia) and previous commercial or pilot plant operations it is known that both the raw shale and the retorted carbonaceous shale are liable to auto-oxidation (similar to that of coals) which in some cases leads to self-ignition. In order to evaluate the self-heating liability of Green River Oil Shale and carbonaceous retorted shale therefrom, a comparative study between retorted oil shale from various above ground retorting operations, non-retorted oil shale and various Western coals was conducted utilizing some methods used in determining self-heating liabilities of coals. The results of this study will be presented and possible approaches for the prevention of self-heating will be discussed.