

Comparison of various mineral analysis methods for Green River Formation oil shale

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Several methods for determining mineralogy are compared for a suite of samples from a corehole on AMSO's Bureau of Land Management RD&D Lease Tract. X-ray diffraction (XRD) and Dual Range Fourier Transform Infrared (FTIR) spectroscopy agree well for major carbonate and silicate minerals. Dawsonite analyses from both methods agree well with concentrations determined by wet chemistry and differential scanning calorimetry for a smaller number of samples. The most challenging mineral analysis aspect is understanding the distribution of iron in various carbonate minerals.