

## Reading Guide for September 17

from Cvancara, *Field Manual for the Amateur Geologist*

### Chapter 6. Groundwater-Related Landforms

These aren't particularly common in modern Wyoming, as you might imagine. In fact, there are some fossil groundwater-derived landforms in ancient rock formations exposed in places in the state. What are these landforms? What do they look like? How do they form?

pp. 58–60. *Groundwater*. This section describes how groundwater behaves, so that later how it shapes the land can be explained.

- What is the **water table**?
- In what directions and how fast does groundwater move?
- How does groundwater capacity and mobility in a rock depend on the rock's **porosity** and **permeability**?

p. 60. *Work of Groundwater*. This depends principally on a chemical process, the equation for which (in words) is near the bottom of the page. The equation is in the direction of dissolution, or erosion: the equation in reverse describes the process of precipitation, or deposition.

- What type of rock is principally dissolved and precipitated by groundwater?

pp. 61–65. *Landforms of Erosion*. These landforms are so distinctive that they have the name **karst topography**.

- What is the difference in landforms between karst topography in temperate and tropical regions?
- What difference in conditions or processes is responsible for the difference in landforms?

pp. 65–67. *Landforms of Deposition*. Some of these structures occur below the surface, in caves, but some can be seen at the surface. These landforms are typically small-scale.

### Chapter 7. Landslide-Related Landforms

These processes can be gradual, or sudden and cataclysmic, as the story introducing the chapter shows.

pp. 70–77. *Kinds of Landslides and Related Landforms*. Figure 7-3 classifies land movements by three independent variables: moisture content (vertical axis), particle size (horizontal axis), and speed (front-to-back). The rest of this section describes these in detail, and explains what the resulting landforms look like.