

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## Ancient Shorelines

During the ice ages, the wetter and colder climate caused the formation of large lakes in areas of North America that are currently arid or semiarid. The largest of these lakes is called Lake Bonneville. It covered much of western Utah from 32 to 14 thousand years ago. Lake Bonneville’s size fluctuated during this time, with its area expanding and contracting as its water level rose and lowered. The lake’s shoreline left terraces at different elevations when the lake’s level was stable for an extended period of time.

This image shows two of Lake Bonneville’s ancient shorelines. The “Provo” shoreline is at an elevation of about 1450 meters (4800 feet) above sea level and produced the terrace at Q11 which is used by a National Guard academy and a second terrace across the Jordan River at N13. The “Bonneville” shoreline is at an elevation of about 1590 meters (5200 feet) and produced the terrace called Point of the Mountain (H18).

The Great Salt Lake now occupies a small portion of the basin that once contained Lake Bonneville.

1. What processes caused the formation of terraces at the edges of Lake Bonneville?

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2. Point of the Mountain (H18) is the site of a large gravel pit. Why is gravel found here? \_\_\_\_\_

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3. There are a few canals which branch off from the Jordan River. One of them separates from the river at Jordan Narrows (O11) and runs just west of the river until leaving the image at A6. Why did people build canals here?

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(Continued...)

4. A canal enters the image at T35 and disappears at L17. Why might the path of the canal be a good approximation of a contour line? \_\_\_\_\_

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5. In which direction is the Jordan River flowing? Two small dams on the Jordan River can help you determine the direction of flow. \_\_\_\_\_

6. What caused the formation of the small lake at O16? \_\_\_\_\_

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