

### Questions 30-39

Line

5

The Comstock Lode in Nevada was the scene of one of the biggest silver mining booms in the history of the opening up of the North American West. It was discovered in 1859, but productivity did not reach its peak until the 1870's when many large silver deposits were discovered. A large number of mines are scattered along the five-kilometer length of the lode, which is basically a mineralized fault zone, separating geologically young andesite and dacite lavas from older rocks. The lode forms a flattish sheet, inclined at about 40 degrees to the horizontal, and reaches a maximum thickness of 120 meters and a depth of 1,000 meters, although most of the richest ore was found well above this level.

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As in so many of the world's mines, the mining operations on the Comstock Lode were severely hampered by water flooding into the workings. At Comstock, though, the problems were particularly acute, since the water was extremely hot, reaching 64 degrees Celsius in some places. Geologically, the presence of such large volumes of hot water was immensely significant, since it implied that beneath the Comstock Lode there was still a large mass of hot igneous rock that might be producing more mineralization. For a long while this near-scalding water made it impossible to mine much below the 1,000-meter level, and many miners were killed by it, either directly by falling into the water or indirectly through the effects of overexertion in the very high temperatures of the mine galleries.

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No fewer than 53 miners died in one period of 22 months ending in May 1877. To combat this it was decided to dig a six-kilometer-long tunnel to drain and ventilate the upper parts of the mine workings. This tunnel, which became known as the Sutro Tunnel, took many years of extremely hard work to complete, and the succession of physical obstacles and financial crises that were successfully overcome in its construction have become legendary, comparable in some ways with the heroic engineering involved in the laying of the first transcontinental railway across the United States.

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30. The word "it" in line 2 refers to

- (A) Comstock Lode
- (B) history
- (C) productivity
- (D) peak

31. The word "scattered" in line 4 is

- closest in meaning to
- (A) combined
- (B) spread out
- (C) easily identified
- (D) preserved

32. Where in the passage does the author describe a lode?

- (A) Lines 4-6
- (B) Lines 10-11
- (C) Lines 13-16
- (D) Lines 21-22

33. What is the main idea of the second paragraph?

- (A) The Comstock Lode mines were the most successful in North American history.
- (B) The Comstock Lode mines had severe problems affecting their operation.
- (C) The transcontinental railroad made mines profitable.
- (D) Thousands of workers were employed in the Comstock Lode mines.

34. The word "hampered" in line 11 is closest in meaning to

- (A) overwhelmed
- (B) deepened
- (C) prolonged
- (D) disrupted

35. The word "acute" in line 12 is closest in meaning to

- (A) fiery
- (B) unsolvable
- (C) serious
- (D) sensitive

36. According to the passage, what can be signaled by the presence of hot igneous rock?

- (A) Flooding
- (B) Uneven deposits of ore
- (C) Low water levels
- (D) Continuing mineralization

37. What was the purpose of the Sutro Tunnel?

- (A) To relieve flooding and bring air into the mine
- (B) To get miners to the Comstock Lode quickly
- (C) To pump the hot water out of the mine and bring cold water in to cool it
- (D) To transport ore to the surface