

2. In class you will see the video “Life on Ice, Antarctica and Mars” which makes a comparison of the Antarctic dry valley lakes to what conditions might have been like on early Mars.

(a) The dry valley lakes have water that is at a temperature just above freezing, yet they are located in regions where the average annual temperature is around -70°F . What physical process keeps the water liquid? [10]

(b) Describe the conditions in the lakes. From your description (and the answer to part a above) – what can you tell me about the spectroscopic properties of water ice? [10]

(c) Why is the study of the dry valley lakes important? [10]