Austin Edwards 837-331 Cloud Report 1

The cloud in this image shows impact of the atmospheric elements against the surface. The cloud is taking over the space against the mountain. On a non-windy day in the mountains, this image has a resting cloud near ground level.

The location of this image is in Frisco, CO right off of I-70. It was taken in the morning around 8 am after a night of snowfall facing the southern direction. The elevation of this picture was taken at 9040 ft. The cloud is to be around 10,000 ft judging on the size of the mountain and the location of the cloud to the mountain.

The cloud in this image is a nimbostratus being broken from the heat from the rising sun. Fresh snow has just been laid on the ground from series of these clouds. This cloud can be considered a powerless wall cloud because it has touched the side of the mountain. Wall clouds are typically powerful and can cause tornadoes but are forms of cumulus clouds. It is the heat and not so much the wind that is breaking up the cloud because this day was not a

windy day. It was a day after high precipitation. The skew-T plot shows the high difference of temperature difference between the dew point and the temperature at the





lowest elevation in the Denver area. This opening has a large gap around 1430m condensing vapor at much lower levels than the air temperature. The point where the temperature and dew point becomes closer is about 3000m, which is 10000 ft where the cloud is located.

The photographic techniques were limited in this photo. This image was taken early in the morning and before the thought of taken cloud pictures for this assignment was known. It was taken with the Cannon T1i at the lower image quality on auto. The focus was more on taken the image before the leaving for the rest of the day. Unfortunately more time to take more pictures was not given, but the outcome was greater than satisfactory.

This image was based on personal enjoyment. The foreground was included to show the level of the mountain related to the person observing this cloud. Comments from the class included that trees and other street objects cloud have been cropped out or the picture taken in front of them, but they include the impact of size of the cloud compared surround elements and the area the photographer is viewing this cloud. Even with the object in front of the cloud, the eye leads right to the cloud because it takes up most of the frame in the picture.

## Reference:

- Skew-T plot. University of Wyoming. Department of Atmospheric Science.
  Online. <u>http://weather.uwyo.edu/upperair/sounding.html</u>
- 2. High Colorado City Elevations. Maps n' Stats. Online. http://www.maps-n-stats.com/us\_co\_elevation.html
- Wall Clouds. University of Illinois. The Weather of World Project 2010. Online. http://ww2010.atmos.uiuc.edu/%28Gh%29/guides/mtr/svr/comp/wall/dvlp.rxml