Post Lab Questions

1. What was your average percent recovery? Explain what steps you could have improved?

My average percent recovery I calculate is 90.5%. Some steps that could have been improved would be when we were transferring the sample into the different dissolving methods.

3. How does your average percent error compare to the class?

Our first attempt of the experiment was tainted because we did not measure the sample correctly from the beginning. We assumed the sample was already 3 (g). Our average percent error was similar to the groups that did to the experiment correctly.

4. Which component was the easiest to isolate? Which component was the most difficult?

I would say the SiO2 and the CaCO3 were the easiest component to isolate. The NaCl will dissolve whereas both the SiO2 and CaCO3 will not dissolve in the water. The most difficult to separate would be the NaCl.

5. If the mixture contained CaCl2 instead of NaCl would you have been able to recover each component (CaCl2, CaCO3, SiO2) following the same procedure.

If the sample contained CaCl2 instead of NaCl, it would have the same reaction as the NaCl in the water, it would dissolve. It would dissolve because it is still an ionic compound like salt and it is soluble in water.

6. If the mixture contained Na2CO3 instead of NaCl, would you have been able to recover each component following the same procedure?

If the mixture contained Na2CO3 instead of NaCl it would have the same reaction. It is also soluble in water because it is an ionic compound.

7. If the mixture contained Na2CO3 instead of CaCO3, would you have been able to recover each component following the same procedure?

If the mixture contained Na2CO3 instead of CaCO3 we would have not been able to recover each component because in Part 1 of the experiment the distilled water would dissolve the Na in the NaCO3.

8. If a 1M solution of K2SO4 was used in lieu of the K2CO3 solution in Part 3, would the calcium be recovered? If so, would the mass of calcium recovered be the same? If so, would the total mass of the calcium salt recovered be the same?

If the 1M solution of K2SO4 was used in lieu of the K2CO3 tthe calcium can still be recovered. It will recover because it still forms a precipitate. The mass would most likely be different due to the difference in mass in the K2SO4.