Alkalinity Data Sheet

Station Name _____ Station Number _____

River/Stream _____ Date of sample ___/___/___

Volunteer Group _____ Time of sample ___ : ___

PART I - Phenolphthalein Alkalinity

1. Amount of sample used (should be 50 ml): _____**mL**

2. pH value _____ S.U. Is pH greater than 8.3? ☐**Yes** ☐**No**
(if pH is less than 8.3, phenolphthalein alkalinity should be 0 mg/L– check your results! Do you need to clean your flask? Clean flask and try again.)

3. Add phenolphthalein indicator. Did solution turn pink? ☐**Yes** ☐**No**
If **YES** → continue with step 4.
If **NO** → record phenolphthalein alkalinity as 0.0 mg/L, and then go to part II.

Make sure your burette is zeroed and there is H_2SO_4 in tip of burette, but there are no air bubbles in tip of burette. Your starting point on the burette should be 0.0.

4. Titrate from a pink to a clear, record mL of H_2SO_4 you added. _____ **ml H_2SO_4 used**

5. Multiply mL of H_2SO_4 used by 40. Record this as the phenolphthalein alkalinity.
Example: 0.2 ml H_2SO_4 titrant used x 40 = 8.0 mg/L $CaCo_3$

Phenolphthalein Alkalinity Result _____ **mg/L $CaCo_3$**
(Phenolphthalein values should be equal to or less than 60 mg/L.)

(Note: If you have phenolphthalein alkalinity, DO NOT rezero the burette before continuing.)

PART II - Total Alkalinity

6. Add BGMR indicator. Did solution turn blue? ☐**Yes** ☐**No**

7. Titrate from turquoise to pink-gray. Record mL of H_2SO_4 added. _____ **ml H_2SO_4**

8. Multiply ml of H_2SO_4 used by 20. This is the total alkalinity.

Example: 2.5 ml H_2SO_4 titrant used x 20 = 50.0 mg/L

Total Alkalinity result _____ **mg/L $CaCo_3$**

(Total alkalinity includes phenolphthalein value. Do not zero burette if you have phenolphthalein alkalinity.)
Your alkalinity SHOULD be lower than hardness. Do your results make sense?

Comments: _____

_____

Data Recorded by: _____ Date: _____