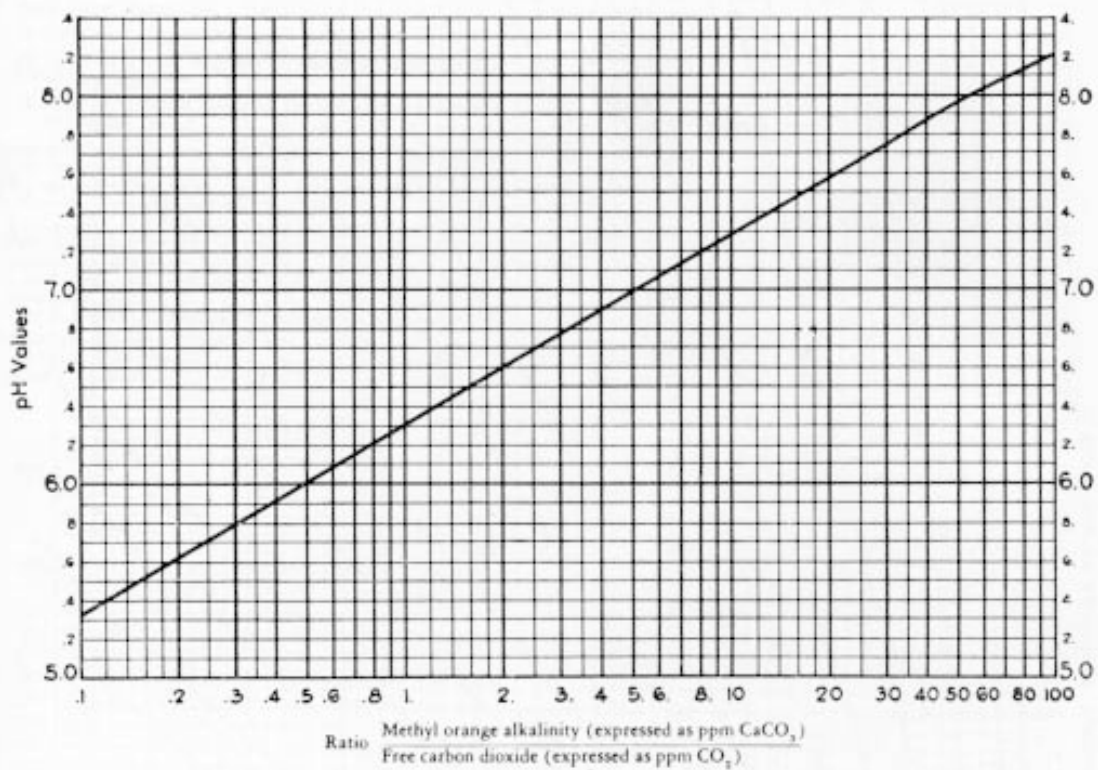


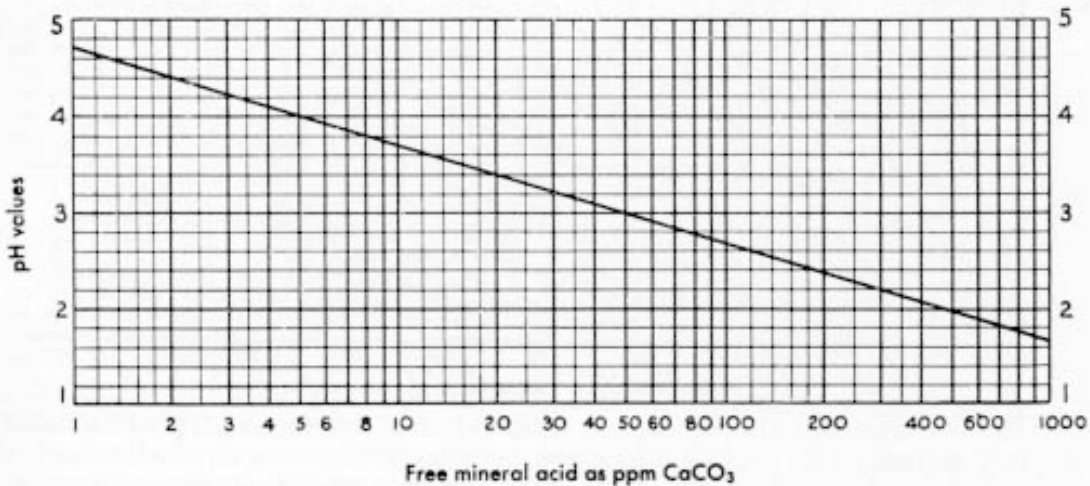
Project:
Location:
Client:
Date: 30-Jul-01
Author: H. Corbin horace@uswca.com
Subject: Example Water Data

| <u>Parameter</u> | <u>Units</u> | <u>Adjusted</u> | | <u>Adjusted</u> as CaCO3 | <u>Raw Data</u> | |
|------------------|--------------|-----------------|--------|-----------------------------|-----------------|--------|
| | | as Ion | Factor | | | |
| Turbidity | NTU | 0.5 | | | 0.5 | |
| pH | S.U. | 9.2 | | | 9.2 | |
| Cond | mmhos | 331 | | | 331 | |
| TDS | mg/l | 280 | | | 283 | |
| Ca | mg/l | 2 | 2.5 | 4 | 4.425 | CaCO3 |
| Mg | mg/l | 0 | 4.12 | 0 | 0.412 | CaCO3 |
| Na | mg/l | 70.2 | 2.18 | 153 | 70.2 | as ion |
| K | mg/l | 8.6 | 1.28 | 11 | 8.6 | as ion |
| Cl | mg/l | 20.1 | 1.41 | 28 | 20.1 | as ion |
| SO4 | mg/l | 24 | 1.04 | 25 | 0.8 | as ion |
| HCO3 | mg/l | 77 | 0.82 | 63 | 77 | CaCO3 |
| CO3 | mg/l | 31 | 1.67 | 52 | 31 | as ion |
| F | mg/l | 3.5 | 2.66 | 9 | 3.5 | as ion |
| PO4 | mg/l | 0.03 | 1.53 | 0 | 0.03 | as ion |
| Mn | mg/l | 0 | 1.82 | 0 | 0 | as ion |
| HSiO2 | mg/l | 43.6 | n/a | | 43.6 | as ion |
| As | mg/l | 0 | n/a | | 0 | as ion |
| Fe | mg/l | 0 | n/a | | 0 | as ion |
| NH3-N | mg/l | 0 | 2.78 | 0 | 0 | as ion |
| NO2/NO3 | mg/l | 0.1 | 0.81 | 0 | 0.1 | as ion |
| OH | mg/l | 0 | 2.94 | 0 | n/r | as ion |
| CO2 | mg/l | 0 | 1.14 | 0 | n/r | as ion |
| Ion Bal. | %Err | 0% | n/a | 0% | | |
| SDI | index | low | | | low | |
| Cations | CaCO3 | 169 | | 169 | | |
| Anions | CaCO3 | 169 | | 169 | | |
| TSS | mg/l | 0 | n/a | | 0 | |
| BOD5 | mg/l | 12 | n/a | | 12 | |
| TOC | mg/l | 0 | n/a | | 0 | |
| Cu | mg/l | 0 | 1.57 | 0.00 | 0 | as ion |
| Zn | mg/l | 0 | 1.54 | 0.00 | 0 | as ion |
| Ba | mg/l | 0.1 | | | 0.1 | |
| Cd | mg/l | 0 | | | 0 | |
| Cr | mg/l | 0 | | | 0 | |
| Cyanide | mg/l | 0 | | | 0 | |
| Pb | mg/l | 0 | | | 0 | |
| Hg | mg/l | 0 | | | 0 | |
| Ni | mg/l | 0 | | | 0 | |
| Phenols | mg/l | 0 | | | 0 | |
| Selenium | mg/l | 0 | | | 0 | |
| Silver | mg/l | 0 | | | 0 | |

SECTION 72. EFFECT OF BICARBONATE ALKALINITY AND CO₂ ON pH

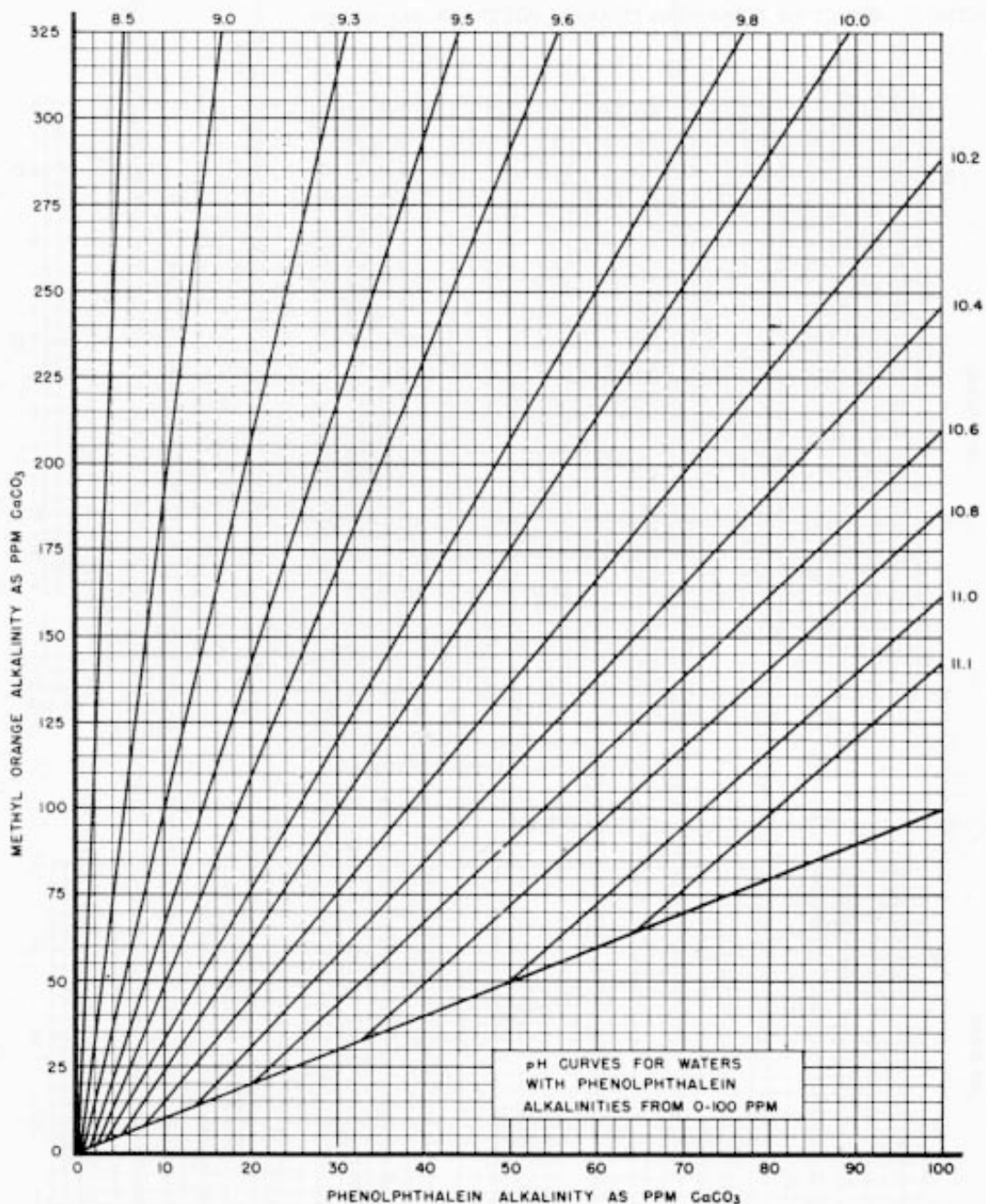


SECTION 73. EFFECT OF MINERAL ACIDITY ON pH



* Data from Permutit Handbook

SECTION 74. EFFECT OF CARBONATE AND BICARBONATE ALKALINITY ON pH



NOTE: pH value will also depend on temperature of water. Chart above is based on temperature of 20 to 25°C. As water temperature decreases, the pH value for any given combination of alkalinity forms will increase slightly above the value indicated on the chart. For example, at 5°C, actual pH will be about 0.2 units higher in 8.5 to 9.0 pH range; about 0.3 units higher in 9.0 to 10.0 pH range; and above pH 10 actual pH will be 0.4 to 0.6 pH units higher than indicated by chart.

* Data from Permutit Handbook