**Safety:** Safety Glasses

**Purpose or Objective:** Steps in testing liquid loads..

**Procedure:**

**1).** All liquid loads are to be tested for specific gravity, pH, and color.
**2).** Liquid Loads must be heated to the temperature which it was loaded. This is provided by the material Handler.

## A). pH-

**To determine the pH and temperature of liquid sample:**

a. Place liquid sample in 500ml beaker with stir bar.
b. Heat sample to temperature (loading temperature) with microwave (designated for lab samples)
c. Remove the protective cap from the probe tip
b. Rinse the tip with de-ionized water and wipe with Kleenex or paper towel.
c. Place the probe in the sample and turn on the pH meter.
d. Stir the sample with the pH probe to ensure and accurate reading
e. Record the pH value and temperature when pH meter reads ready.
f. Record pH and temperature on liquid product lab sheet.
g. Remove probe, rinse with de-ionized water, dry the probe and replace the protective cap.

**The instrument can be turned on and off with out losing its calibration. The meter should be calibrated regularly (once / twice a week) and anytime the meter shows an obviously erroneous reading.**

## B). Specific Gravity-

**Procedure:**

1 A dry 25 - mL volumetric flask is placed on the weighing balance and tarred to zero
2 Approximately 25 mL of subject sample is added to the graduate and the weight recorded.
3. The temperature of the sample is taken and recorded
4. Specific gravity is determined using the following formula

$$\frac{\text{Weight of sample (g)}}{\text{Volume of sample (mL)}} = \text{Specific Gravity (g / mL)}$$

5. % MgSO4 is determined by using the Percent MgSO4 chart.(Chart is located on cabinet door in lab above pH meter) .
6. Record result on liquid product lab sheet.

## C. Color Test

1) Fill one of the tubes in the aqua tester comparator to the mark with sample.
2) Place the glass cap piece on the top of the tube
3) Place the tube in the right hand side of the comparator tube holder
4) Fill the other tube to the mark with de-ionized water.
5) Place the glass cap piece on the top of the tube
6) Place the tube in the left hand side of the comparator tube holder
7) Record result on liquid product lab sheet.

| Revision Number | Revision Date | Effective Date | Revision Author | Quality Approval | Production Approval | Revision Description |
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| 00 | 09/13/07 | 09/13/07 | Stacy Lindsey | | | New Document |
| 01 | 8/16/12 | 8/16/12 | Stephen Ballew | Deborah Durbin | Jason Bumgarner | -3 year revision<br>-Placed on new form |
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