We Claim:

1. A method of determining vapor pressure of a fluid, comprising the steps of:

providing a meter having meter electronics, wherein the meter comprises at least one of a flowmeter and a densitometer;

flowing a process fluid through the meter;

providing a low-pressure location ~~associated with~~ defined by a geometry of the meter;

measuring a temperature of the process fluid at the low-pressure location;

adjusting the static pressure of the process fluid until flashing is detectable at the low-pressure location; and

determining the true vapor pressure of the process fluid at an instance where flashing is detectable.

2. The method of determining vapor pressure of a fluid of Claim 1, wherein measuring the temperature comprises IR thermography.

3. The method of determining vapor pressure of a fluid of Claim 1, wherein detecting the flashing comprises optical analysis.

4. The method of determining vapor pressure of a fluid of Claim 1, wherein the low-pressure location comprises a flowmeter manifold.

5. The method of determining vapor pressure of a fluid of Claim 1, wherein the low-pressure location comprises a differential pressure element.

6. The method of determining vapor pressure of a fluid of Claim 1, comprising the steps of:

measuring the temperature of the process fluid; and

calculating the Reid Vapor Pressure from the temperature and the true vapor pressure.

7. The method of determining vapor pressure of a fluid of Claim 1, comprising the step of measuring a vapor:liquid ratio at a time point where the Reid vapor pressure is measured; and

associating the vapor:liquid ratio with the Reid vapor pressure at the time point the Reid vapor pressure is measured.

8. A system (300) for determining true vapor pressure of a process fluid comprising:

a meter (5) comprising at least one of a flowmeter and a densitometer;

a low-pressure location ~~associated with~~ defined by a geometry of the meter;

a pressure regulator (308) in fluid communication with the meter (5);

a pressure sensor (312) in fluid communication with the process fluid;

a temperature sensor configured to measure a temperature at the low-pressure location;

meter electronics (20) in communication with the meter (5) and the pressure sensor (312), wherein the meter electronics (20) is configured to:

control the pressure regulator (308) to adjust the static pressure of the process fluid until flashing at the low-pressure location is detected; and

calculate a true vapor pressure of the process fluid at an instance where flashing is detectable.

9. The system (300) of Claim 8, wherein the temperature sensor comprises an IR thermograph.

10. The system (300) of Claim 8, wherein an optical sensor is configured to detect flashing.

11. The system (300) of Claim 8, wherein the low-pressure location comprises a flowmeter manifold.

12. The system (300) of Claim 8, wherein the low-pressure location comprises a differential pressure element.

13. The system (300) of Claim 8, wherein the meter electronics (20) is configured to:

measure a vapor:liquid ratio at a time point where the Reid vapor pressure is measured; and

associating the vapor:liquid ratio with the Reid vapor pressure at the time point where the Reid vapor pressure is measured.

14. The system (300) of Claim 8, wherein the meter (5) comprises:

one or more conduits (103, 103');

at least one driver (104) attached to the one or more conduits (103, 103') configured to generate a vibratory signal to the one or more conduits (103, 103'); and

at least one pickoff (105, 105') attached to the one or more conduits (103, 103') configured to receive a vibratory signal from the one or more conduits (103, 103').