

LABORATORY No. 36770—Salt-sulfur water sent by G. W. Evans, Oakville, Logan County, Ky. The well is on Mr. Evans' farm, six miles south of Russellville. It is 132 feet deep. A strong flow of fresh water was struck at 80 feet. At 90 feet strong sulfur water was struck and at 116 feet a pretty strong flow of natural gas which burned 8 or 10 feet high when ignited. Sample gave strong test for metallic sulfids. Received about November 1st, 1912.

ANALYSIS—One gallon contains 172. grains of mineral matter (2.95 grams per liter) composed of sodium chlorid, calcium sulfate, calcium carbonate, magnesium carbonate, magnesium sulfate, a little potassium sulfate and considerable sodium sulfid. The water contains, also, some free hydrogen sulfid, the total present, both free and combined, being 8.4 grains to the gallon (0.144 gram per liter).

It is a good salt sulfur water.

Two well waters sent by J. H. Follin, Oakville, Logan County, Ky. The wells are about fifty feet apart and each is about 80 feet deep. Both recently bored. Samples received December 12, 1912.

LABORATORY No. 36811—Sulfur water labeled No. 1.

ANALYSIS—One gallon contains 29.8 grains of solid matter (.51 gram per liter) composed of sodium chlorid, calcium carbonate, magnesium carbonate and magnesium sulfate. There are traces of iron, silica, potassium sulfate, strontium sulfate and zinc carbonate. There is a trace of nitrite but no nitrate present and a trace of phosphate. There is also a little hydrogen sulfid present.

It would be classed as a weak alkaline sulfur water.

LABORATORY No. 36812—Sulfur water, labeled No. 2. Gives a strong test for metallic sulfid.

ANALYSIS—	Grams per liter.	Grains per gallon.
Ferrous carbonate ( $\text{FeCO}_3$ )	.0109	0.63
Calcium carbonate ( $\text{CaCO}_3$ )	.2178	12.70
Magnesium carbonate ( $\text{MgCO}_3$ )	.0972	6.67