

376

MINERAL WATERS OF COLORADO

NUMBER 145

SPRING NEAR HEYWOOD HOTEL

Location—Mt. Princeton.

Rate of Flow—40 gal. per min.

Temperature—137° to 141° F.

Class of Water—Sodic, potassic, bicarbonated, sulphated, alkaline-saline, (siliceous).

Constituents	Formula	Milligrams per liter Approximately parts per million	Reacting value percentage
Silica	SiO ₂	67.2	.....
Sulphate	SO ₄	58.75	21.20
Bicarbonate	HCO ₃	81.1	23.07
Carbonate	CO ₃	Trace	.....
Phosphate	PO ₄	None	.....
Chloride	Cl	11.78	5.73
Iron	Fe	.....	.....
Aluminum	Al	.....	.....
Iron oxide	Fe ₂ O ₃	} None	.....
Aluminum oxide	Al ₂ O ₃		
Manganese	Mn	None	.....
Calcium	Ca	7.11	6.24
Magnesium	Mg	Trace	.....
Potassium	K	23.2	10.42
Sodium	Na	44.2	33.34
Lithium	Li	Trace	.....
Total		293.34	100.00

Concentration value	5.76	Excess carbon dioxide.....	29.24
Hydrogen sulphide, H ₂ S....	None	Iron precipitated	None
Arsenic, As .....	.....	Evaporation solids	265.0
Strontium, Sr .....	.....	Oxygen consuming capacity	0.7

Hypothetical Combinations

Milligrams per liter, approximately parts per million

Lith. chlor., LiCl.....	Trace	Calc. bicarb., Ca(HCO ₃) ₂ ...	28.74
Pot. chlor., KCl.....	24.77	Iron and aluminum oxides, Fe ₂ O ₃ , Al ₂ O ₃ .....	.....
Sod. chlor., NaCl.....	.....	Calc. silicate, CaSiO ₃.....	.....
Sod. sulph., Na ₂ SO ₄	67.26	Silica, SiO ₂	67.2
Mag. sulph., MgSO ₄.....	.....	Mang. oxide, Mn ₂ O ₃.....	.....
Calc. sulph., CaSO ₄.....	.....	Mag. bicarb., Mg(HCO ₃) ₂ ...	Trace
Calc. carb., CaCO ₃.....	.....	Sod. bicarb., NaHCO ₃	81.89
Ferrous bicarb., Fe(HCO ₃) ₂ .....	.....	Pot. sulph., K ₂ SO ₄	23.52
Total			293.38

Properties of Reaction in Percent

Primary salinity	53.86	Primary alkalinity	33.66
Secondary salinity .....	.....	Secondary alkalinity	12.48
Tertiary salinity .....	.....	Tertiary alkalinity .....	.....

Radioactivity

Curies Ra Emanation per liter x 10⁻¹⁰, Gas, 202.2.
 Mache Units per liter, Gas, 54.6.
 Permanent Activity, Grams Ra per liter, x 10⁻¹⁰, None.

Location—1 mi.
 Rate of Flow—1
 Class of Water—
 water.

Constituents
Silica
Sulphate
Bicarbonate
Carbonate
Phosphate
Chloride
Iron
Aluminum
Iron oxide
Aluminum oxide
Manganese
Calcium
Magnesium
Potassium
Sodium
Lithium

Concentration v
 Hydrogen sulph
 Arsenic, As ...
 Strontium, Sr .

Milligr
Lith. chlor., LiCl
Pot. chlor., KCl
Sod. chlor., NaCl
Sod. sulph., Na ₂ SO ₄
Mag. sulph., MgSO ₄
Calc. sulph., CaSO ₄
Calc. carb., CaCO ₃
Ferrous bicarb., Fe(HCO ₃) ₂
Total

Primary salinity
 Secondary salini
 Tertiary salinity

Temperature
 Curies Ra E.
 Mache Units
 Permanent