

Philo Ridge Farm Well Analysis

Brick House Well

Storage Requirements

Instantaneous Peak Yield

12 GPM - Well Driller's Yield estimate - 3 Hr Test
 yes Is this a qualified Test conforming to 11.8.2.2 of the WSR?
 12 GPM - Instantaneous Peak Yield (Long Term yield)
 1 Number of Residential Units
 10 GPM - Estimated Instantaneous Peak Demand

820 GPD - Average Day Demand (Design Flow)
 1.14 GPM - Maximum Day Demand (ADD/720)

Is 2/3's of the Maximum Day Demand greater than the Long Term Yield?
 No
 If Yes, then Storage (S) is equal to the Average Day Demand
 NA = S (Gallons)

Yes Does the Long Term Yield exceed the Maximum Day Demand?
 If, yes, then Storage = lessor of 55% of Average Day Demand
 451 = S (Gallons)
 or
 Yes Does Long Term Yield Exceed the Maximum Day Demand
 If, yes, then Storage = The following equation $S = D(1-Y/P)$
 820 = D (Project Average Day Demand (gallons))
 10 = P (Project Instantaneous Peak Demand, GPM)
 12 = Y (Water Source Yield, GPM)
 -164 = S (Gallons)

-164 Min. Required Storage (Gallons)

Casing Storage

300 Depth of Well (FT)
 50 Static Water Level (FT)

DD = Predicted Draw-down (FT)
 73.7 DD = SE + (TAH (MDD/Y))
 50 SE = Depth to Static water Level (FT)
 250 TAH = Total Available Head (well Depth - Minus Static level)
 1.14 MDD = Maximum Day Demand (GPM)
 12 Y = Long Term Yield (GPM)

20 Depth of Well above bottom of Well (FT)
 280 Lowest Pump Installation Depth (FT)

206.3 Available Storage (Pump Elev - DD)(VLF)
 6 Diameter of Well (Inches)
 0.196 Volume of water per VLF (CF)
 1.47 Volume of water per VLF (gal)
303 Available Storage Volume (Gal)

Yes Is well Casing Storage > Storage Requirement?