



Horizontal scale is 20.11 pixels per unit spacing
 Vertical exaggeration in model section display = 0.74
 First electrode is located at 0.0 m.
 Last electrode is located at 235.0 m.

History: Well A has been notoriously underproductive for residential usage. Further, water quality is unsatisfactory for direct consumption.
 Well B has always been productive to support residential usage and water quality is considerably better in comparison to Well A.

Objective: Determine causation of water quality and quantity issue at Well A using 2D electrical resistivity imaging methods.

Survey: Data collection was acquired over a 235 meter survey line using the most advanced and efficient meter on the market. Depth penetration was approximately 60 meters (180 feet) below ground surface. Dipole-dipole electrode configuration employed with accuracy per measurement less than 1%.

Findings: Well A was drilled in an approximate 30 meter zone (stations 120 to 150) where resistivity values were consistently below 15 ohm-m. Lower resistivity values are reflective of higher salinity free water zones and/or higher clay content, both of which can adversely affect well performance and water quality. Well B was drilled at the west end of a comparatively higher resistivity zone. Groundwater flow is likely west to east directional based on topographic relief; hence, better water quality from the west likely contribute to the supply (and success) of this well. Proposed well A location would be best suited in a deeper, higher resistivity zone approximately 185 to 195 feet below existing grade level at or around station 80.