Stars form in dense cores inside molecular clouds. Over time, gravity causes the cloud to collapse and a protostar is formed. As the cloud collapses it produces heat, and when the core becomes hot enough it generates energy via thermonuclear fusion. Magnetic fields can slow the collapse through a process called ambipolar diffusion. Magnetic fields prevent ionized particles from free-fall collapse, however magnetic fields do not directly affect neutral particles. As the neutral particles continue to collapse they collide into the ionized particles, slowing the neutral particles. Since magnetic fields are “frozen into” the ionized gas, magnetic field lines move with the ionized particles, therefore changes in the magnetic field can be a sign of compression in molecular clouds. A method to estimate magnetic fields during the process of star formation is to detect Zeeman splitting of molecular spectral lines. Out of a sample of 27 sources observed with the 305 m Arecibo Telescope in Puerto Rico, we identified four 6.035 GHz hydroxyl (OH) Zeeman pair candidates. In this work, we investigate whether variability in the magnitude of the Zeeman splitting (magnetic field strength) is detected during flux density changes of the OH lines. None of our candidates were found to have significant changes in the magnetic field as a function of time, therefore, we found no evidence for compression of the molecular gas.