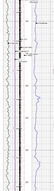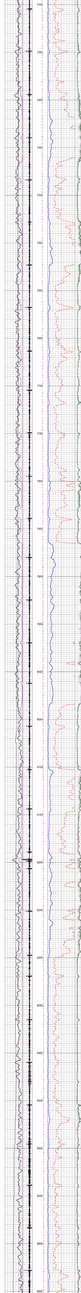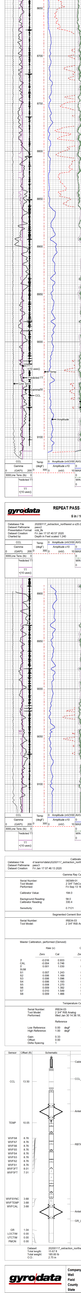Log Variables