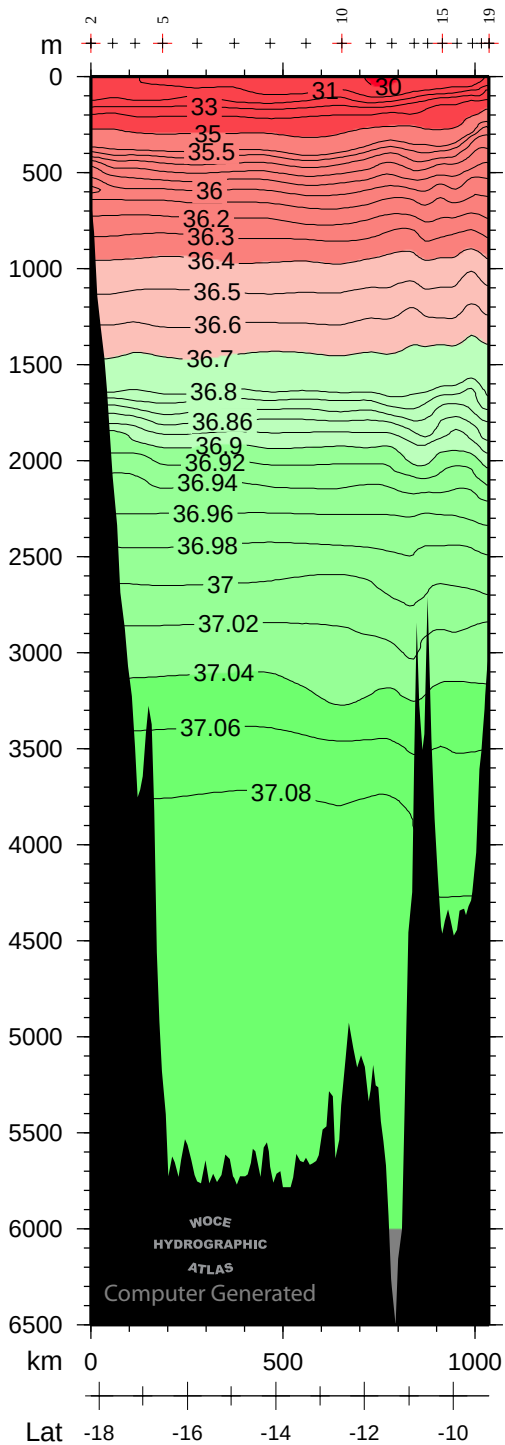σ_2 (kg/m^3) for IR06_89 116˚E (500:1)