ABSTRACT OF THE DISCLOSURE

A rotary cone rock bit for use in earthen formations with drilling fluid hydraulics wherein diffusion type nozzles are utilized in the outer diameters of a dome portion of the rock bit resulting in fluid, as it leaves the exit end of the nozzle, continues to diffuse outboard creating a larger surface area to entrain fluid. The diffused spray of fluid at a lesser velocity will better clean the rotary cones by moving the fluid closer to the cones without erosive damage to the cones or loss of cutter inserts or milled teeth. The diffused spray will additionally cover a larger area of a borehole bottom resulting in better bottom hole cleaning.

FIGURE 4