



## **Avoiding The Water Donut Effect**

### **Application Note #1**

Xitech has observed a hydrology phenomenon called the "Water Donut Effect" (see Figures 1 & 2 below) that can dramatically reduce LNAPL recovery on sites where there is NO groundwater depression. Traditional skimming systems using pump-on-demand skimmers or continuous skimmers operating continuously will create a "Water Donut Effect". When the Water Donut effect is present, the recovery well becomes completely separated from the product plume in the formation. Intermittent operation of the oil skimmer using the Xitech 1/2 Rule will prevent the Water Donut Effect from occurring. Following are two drawings depicting the Water Donut Effect.



# BEFORE LNAPL IS REMOVED FROM THE WELL

GROUND SURFACE

**XITECH**  
Instruments, Inc.

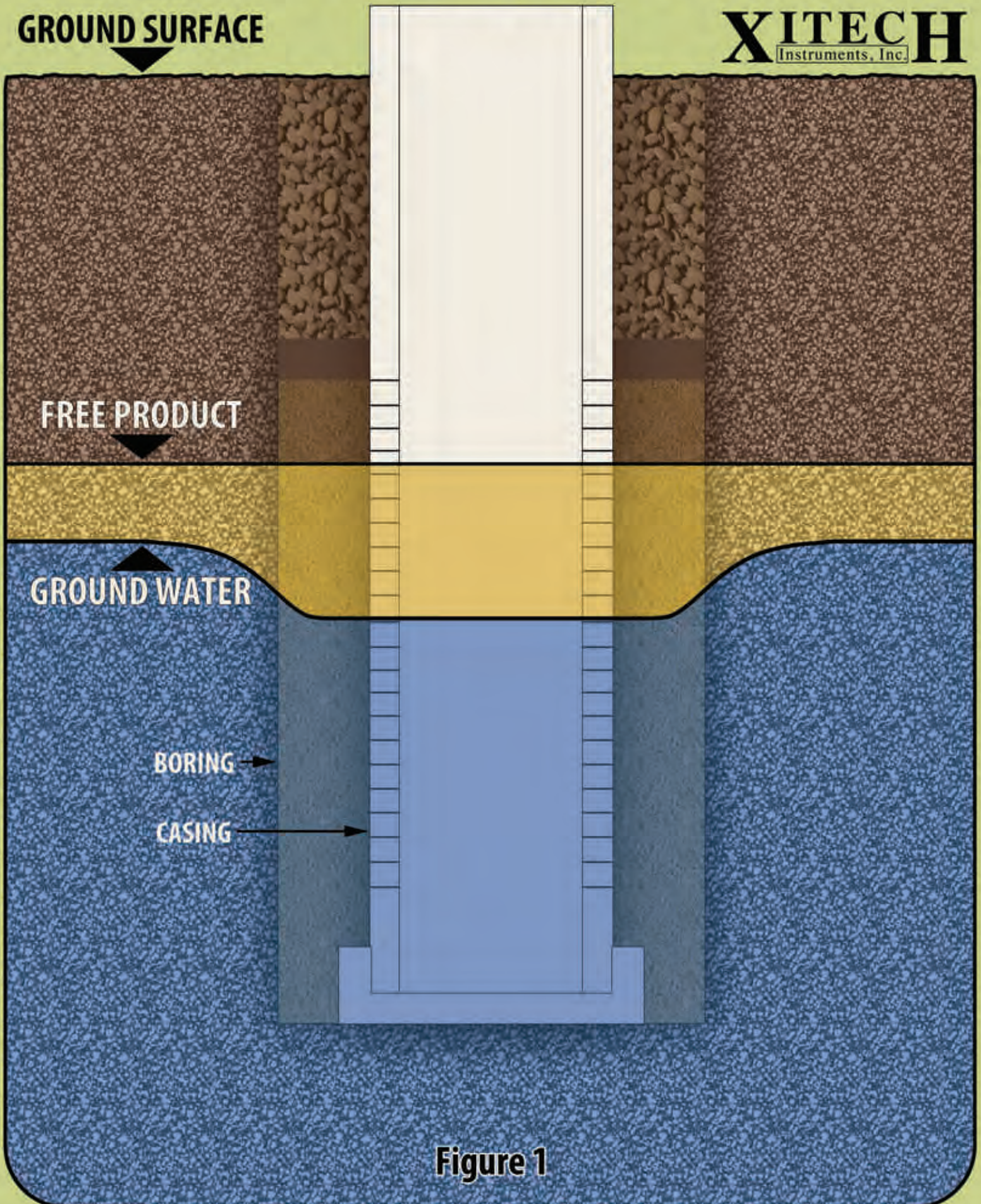


Figure 1



# AFTER ALL LNAPL IS REMOVED FROM THE WELL!

GROUND SURFACE

**XITECH**  
Instruments, Inc.

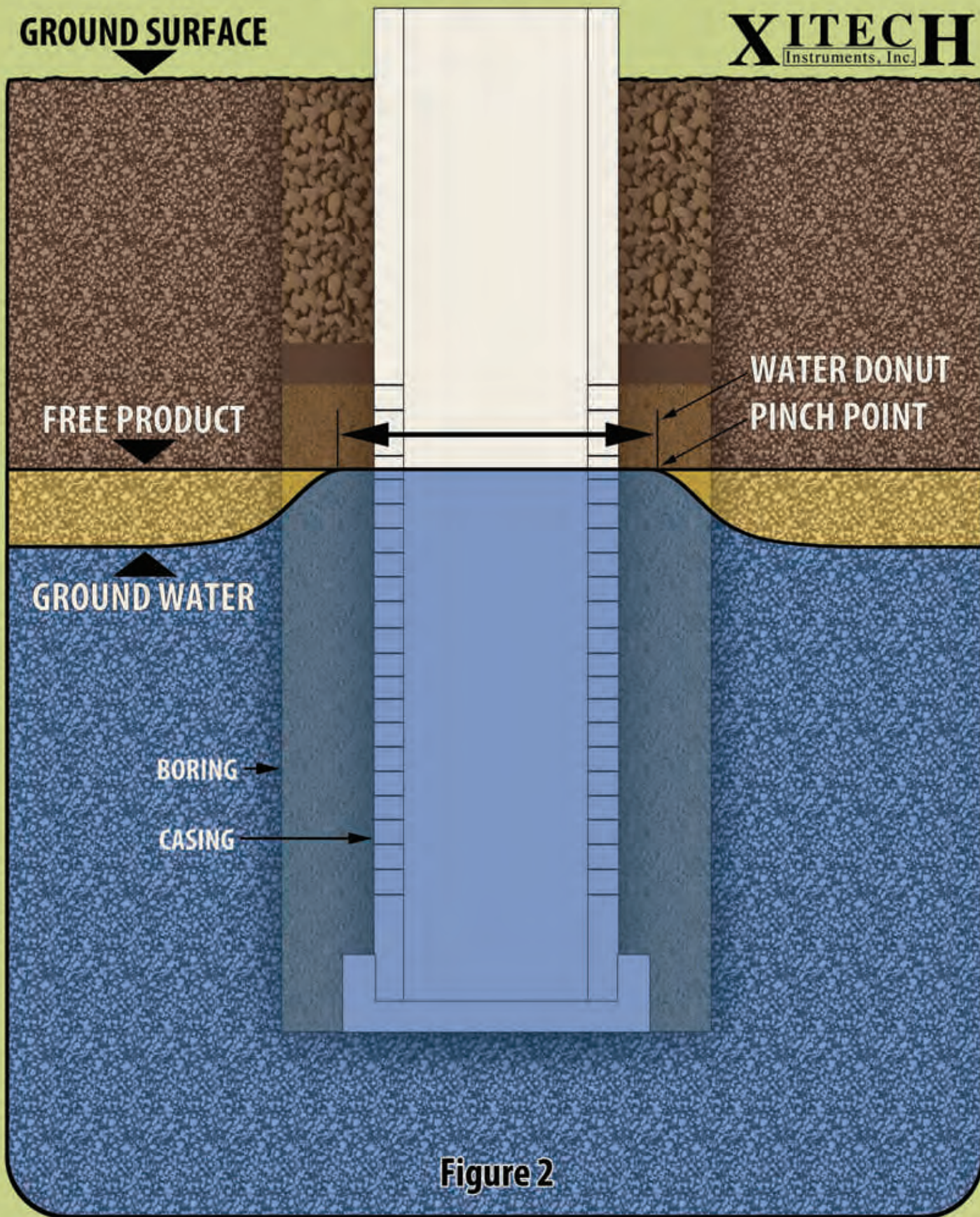


Figure 2