



Avoiding The Water Donut Effect with Groundwater Depression

Application Note #12

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 groundwater depression. Traditional pump-and-treat systems 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 with the Xitech 1/2 Rule and water depression 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.

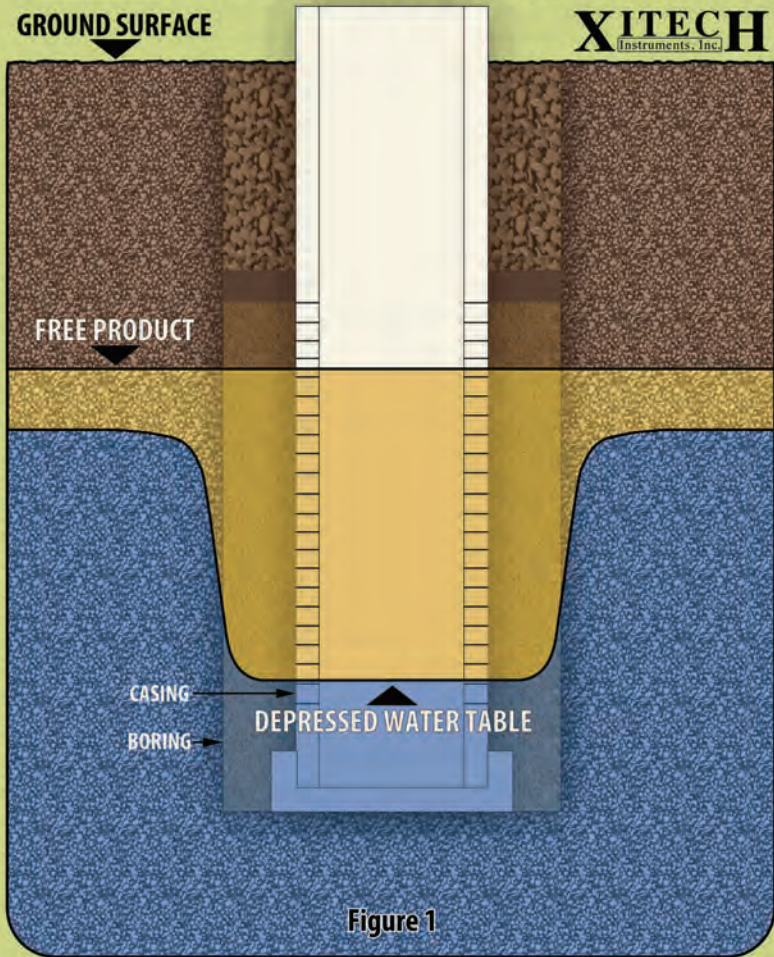
FREE PRODUCT

CASING

BORING

DEPRESSED WATER TABLE

Figure 1



AFTER ALL LNAPL IS REMOVED FROM THE WELL!

GROUND SURFACE

XITECH
Instruments, Inc.

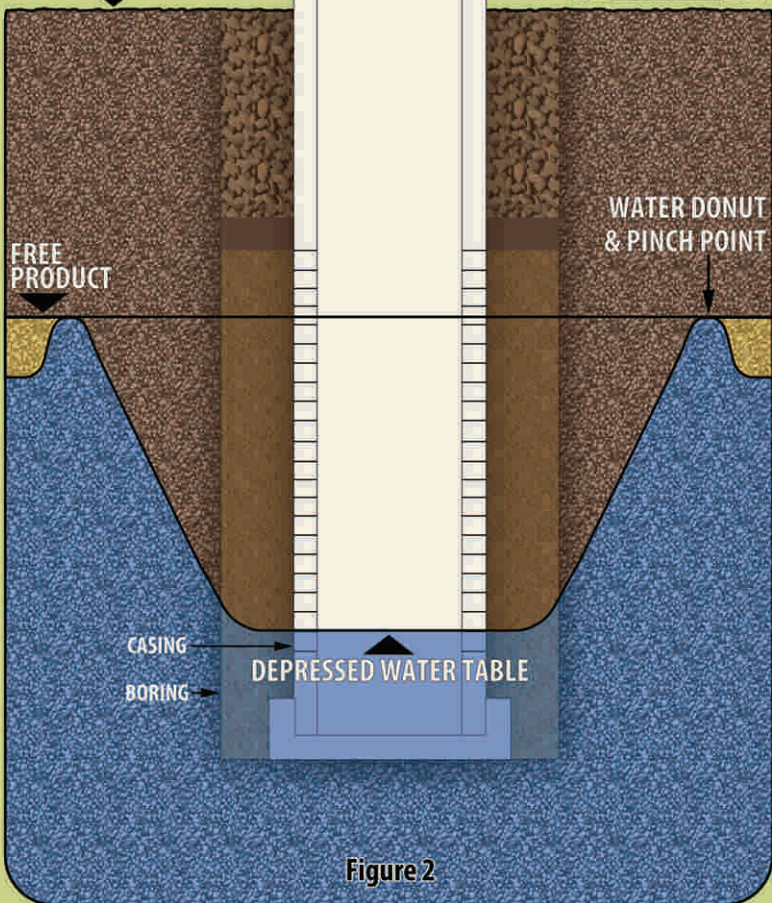


Figure 2