## Investigation of the deflection in the borehole path in the Waterproof curtain and solving this parameter using the Diversion device

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## **Abstract**

Each borehole starts from a point with specified coordinates and should be defined according to its slope and azimuth and its purpose reaches a point with specified coordinates. But for the various reasons that will be outlined below, the speculation is diverted from its course and departs from its purpose in this article. The origin of deflection in boreholes varies but the factors that commonly cause deflection in boreholes include: alteration of the soil layers, presence of borehole paths, sand masses, excessive drilling speed, improper drilling arrangement,, High drilling speed, borehole diameter change, etc. An example of borehole deflection information performed in the dam curtain at a depth of 145 m is provided in the Excel file on how to calculate the displacement and three-dimensional coordinates for display in 3D software such as AutoCAD and used as a template. Deviation results are used to provide the results.

**Keywords**: Waterproof curtain, diversion meter, gradient gauge