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Electrical geophysics

Lab No. (2)

Problem(2)

Geometrical Factors of Vertical Electrical Sounding (VES)

A- What are advantages of plotting the (VES) data on the logarithmic paper?

B- What are advantages of using the Schlumberger array in the (VES) in comparison with others arrays?

C- From the following table:-

1- Calculated Practical ($K_{pr.}$) and Theoretical ($K_{th.}$) Geometrical factor values.

2- Plot ($K_{pr.}$) and ($K_{th.}$) on log - log paper.

3- Discuss the difference between ($K_{pr.}$) and ($K_{th.}$) after related them with the ratio (MN/AB).

4- Which is Geometrical factor preferable in the field survey?

5- Calculated ($e\%$) = **Percentage different** =
$$\frac{K_{th.} - K_{pr.}}{K_{th.}} \times 100$$

Where Maximum (MN) < 0.435 (AB/2) for (MN/AB) = 1/4.6

6- Draw and Discuss the relation between the percentage (e %) and the ratio (MN/AB).