BS Geokinetics ApS

Specialized Company for electro chemical remediation of soil, ground - and wastewater.

Test with dewatering of sediment.



Material: Sediment from oil and gas separating

Place: Greentech ApS facility in Esbjerg, DK.

Method: Elektro chemical Osmosis.

Start up: 17.11.2020.

Duration: 5 days.

Abstract:

Electrochemical Geo Oxidation combined with elektro osmosis are in wide range used for remediation of soil and groundwater for the most organic kontamination komponents. Additional the method is highly effective by dewatering and stabilization of sediments, dikes, levees, slopes ect. Ect.



The test:

The test was performed on sediment from the Nordsea, after oil and gas separating. The sediment cotained a large amount of oil and did not submit liquid by normal storage. The test was made in an ICB plastic container, with the top cover cut off. As electrodes was used 2 st.37 hole plates. The cathode was placed near the outlet of the container. Both electrodes was via cable connected to an ac/dc converter. The space between the electrodes became filled with approx. 0,43 m³ sediment. The Water content in the sediment was estimated to be 35%. By start up was a DC power put to the electrodes, equal to 250 Watt/hour.

Results:

After 5 days the sediment did not submit more liquid to the collecting container, whereafter the power was disconnected. The volume in the ICB container was visible less and the sediment was fest and stabile. Measurement of the content in the collecting container, showed that there was taken 72 liter water/liquid from the sediment during the 5 days. This is equal to approx. the half of the expected total amount of liquid in the sediment and estimated 20% weight korrection. The total use of power was 30 kW.

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