Ion Study. Chemistry of the Ziqlab Dam (Jordan) and Weathering Processes, a Case

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The area included in the present investigation is Ziqlab dam located in the Jordan Valley. The water chemistry shows that it's dominated by Mg, Ca, Na , and HCO3. The water chemistry for the Ziqlab dam reflects the dominance of carbonate weathering with some contribution of silicates. Weathering. Mg + Ca + Na and HCO3 + Cl account for about 90% of the total cations and anions. X-Ray analysis shows that,kaolinte and illite are the dominant clay minerals in Ziqlab dam sediments. Anthropogenic activities within the Ziqlab catchment area contribute in the increase of the ionic concentration such as various development activities in the catchment area, waste disposal specially the untreated municipal and domestic sewage into the Ziqlab river, and the agricultural activities. The Ziqlab dam water chemistry is in the range of stability field of kaolinite.

Key words: Ziqlab dam - Jordan, Ionic chemistry, Rock weathering