**Chemical and physical analysis of representative sample from Water source of Basra governorate**

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The appearance of symptoms of poisoning of a large number of Basra citizens during the summer of 2018 coincided with the scarcity of water and increases the percentage of salinity in the rivers with unknown causes. This study tries to know the causes of this problem. More than fifty representative samples were collected from different water resources of Basra city. Many chemical and physical analysis was done and the results were analyzed. The analyzed result showed the region near and south of Um-alresasa land was very polluted with heavy metal, organic and salinity compare with the other regions. The heavy metal Cadmium concentration in the polluted region was very high and more the fifty five-time than allowed. These results may interpret the poisoning of the Basra citizens especially that the symptoms of cadmium poisoning are similar to the cases