

Study And Diagnosis of Some Parasitic Pathogens in Drinking Water and Its Relationship with Some Environmental Factors Al-Najaf Al-Ashraf Province.

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- **Abstract:** The current study was conducted during the period from (from the first of August to the end of January). During which (250) water samples were collected to conduct physical environmental tests (temperature, turbidity, pH, electrical conductivity, salinity, total hardness of suspended solids and total dissolved salts, as well as chemical environmental tests (calcium, magnesium, chlorine, sulfates, sodium, potassium). The temperature values in the drinking water ranged (Najaf center, Kufa center, Abbasiya center, Al-Manathira center (23, 17.2,17.2, 20.1) respectively, as well as the degree of turbidity (3.3,8.3,8.3,5.4) respectively, and the pH (7.8, 7.7, 7.9, 7.8) respectively for the centers of Najaf, Kufa, Abbasiya, and Al-Manathira. The electrical conductivity of the four filter centers was (1295, 1462, 1432, 1432) respectively, as well as the base values in the water sources are (121, 130, 129, 125) Then the base Alk values (121, 130, 129, 125) respectively for the water filtration centers and the total TH hardness values for the four filtration centers were (432, 490, 478, 471), respectively, and the values of the dissolved materials for the four filtration centers were (849, 968, 942,863) respectively. The values of the suspended process were are (7.2, 6.8, 10.5), respectively. As for the values of chemical elements, by studying the water in the refineries of the four centers (Najaf, Kufa, Abbasiya, and Al-Manathira), the values of calcium were (118, 105, 113), respectively, while the values of magnesium were (43.5,43.3, 38.3, 41.3), respectively. We evaluate them, respectively, for chlorine (150, 151, 134, 145), for the filtered water centers (Najaf, Kufa, Abbasiya, and Al-Manathera), respectively, the values of sulfate are (353, 357, 318, 325) respectively, and the values of sodium for the four filtered water centers are (95,107, 98, 103), respectively, and the potassium values in the waters of the purification centers (Najaf, Kufa, Abbasiya, and Al-Manathera) are (5.3,5.9, 5.9,5.5) respectively. As for the values of the numbers of polluted water models that were studied, which started in August and ended in January, the highest percentage in pollution was in September, where the percentage was 75%, then in August, 66%, in October it was 62.2% and in October the second percentage was 50%, and in

December the percentage was 33.3%, and the lowest percentage was in January, which amounted to 12.5%.

- **Keywords:** physical environmental tests, temperature, pollution