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Monitoring and evaluation the environmental impact in badra oil field south of Baghdad-Iraq

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Different samples of water, soil and drilling were collected from Badra oil site (Lat. & long. 33.08198, 45.96993) around 205km south of Baghdad. Water, soil and drilling samples were collected through January to December in 2019. The presented results revealed different values for physical, and chemical parameters for both water and soil samples studied. The chromatographic results for evaluation of polyaromatic hydrocarbons (PAHs) using HPLC, elements using atomic absorption spectrophotometer, physical parameters and bacteriology picture. The results revealed high values in some station in the range between 0.22-35.45 ng/ml for water and 0.25-30.1 ng/ml for soil, which indicated that predominate PAH were Fluoranthene, Pyrene, naphthalene, Benzo (b) fluranthene and Benzo (k) fluranthene derivative in these samples, which were may be diffused from neighboring oil resources. In some polluted soil samples there is a highly elevated in heavy metals and the concentration of nitrate and nitrates ions which might be came from the residue of explosive material during the last war (2003) in Iraq. Soil and drilling samples were investigated for its heavy metals content. Samples of soil and cutting were analyzed for their content after digestion with nitric acid using atomic absorption spectrometers AAS. The results refer to increase in most of these elements.

Biography

Abd Jawad Kadhim currently works at Al-Nisour University College. Abed does research in Organic Chemistry. Their current project is 'Adsorption of pesticides onto a banana leaf activated carbon: Optimization study using response surface methodology.

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