

## **DIAGENESIS AFFECTIONS ON SANDSTONE OF ZUBAIR FORMATION IN LUHAIS OIL FIELD SOUTHERN IRAQ**

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### **ABSTRACT**

*Cretaceous is very important period in the Middle East because most petroleum reservoir returns to this period, Zubair Formation is the most important Formation of the lower Cretaceous depositional cycle in Iraq. The importance of studying diagenesis processes in the oil bearing formations increased because they can affect porosity and permeability thereby can affect hydrocarbon flow and accumulations. 73 samples from six wells of Zubair Formation in Luhaish oil field selected and prepared for petrography inspection to detect mineral compositions, sandstone and carbonate ranks, as well as diagenesis processes and its affections on the rocks.*

*Petrographic inspection show many diagenesis processes affected Zubair Formation some of which destructive lead to decay mineral composition (such as alteration of feldspar) whereas others constructive lead to form new mineral (such as authigenesis), these processes affected porosity by different ways some of which lead to increase porosity and others lead to destruct porosity.*

**Keywords:** *diagenesis, sandstone, cement, zubair, luhaish.*