

Investigation and interpretation of diagenetic processes of carbonate rocks of the Bagh- e Vang Formation in north Tabas (East Central Iran)

S. Yasbolaghi Sharahi¹, B. Yousefi Yegane*², S. Arefifard³ and M. M. Farahpor⁴

1- Ph. D. student, Dept., of Geology, University of Lorestan, Khorram Abad

2, 3, 4- Assist. Prof., Dept., of Geology, Faculty of Sciences, University of Lorestan , Khorram Abad

** Bizhan-yegane@gmail.com*

Recieved: 2019/8/5 Accepted: 2020/1/7

Abstract

In order to identify and understand the post-depositional history of carbonate rocks in Bagh-e Vang Formation, tow stratigraphy sections of Bagh-e Vang and Shesh Angosht have been selected in north Tabas (East Central Iran). Bagh-e Vang Formation in the Bagh-e Vang section is 58/5 m thick, its lower boundry with the Sardar Formation is disconformity and the upper boundry with the Jamal Formation is gradual. This formation in the Shesh Angosht section is 62 m thick, it overlies on Sardar Formation with disconformity and its boundry with Jamal Formation is gradual. Diagenetic investigation leads to the identification of several diagenesis processes such as micritization, neomorphism (aggrading and degrading), cementation (syntaxial, epitaxial, drusy, poikilotopic, meniscus, pendant, equant and blocky), compaction (mechanical and chemical), dissolution (fabric selective and non fabric selective), replacment (pyritization, silicification, and dolomitization). Based on the evidence of petrography, the paragenetic sequence of the Lower Permian deposits in these two sections are interpreted in four environments, marine, metoric, burial, and uplift, and into three stages including: early diagenetic (eogenetic) and middle diagenetic (mesogenetic) and late diagenetic (telogenetic).

Keywords: *diagenetic processes, Bagh- e Vang Formation, north Tabas*