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Introduction

In the more prominent inland Jiangnan Bowl of South China, three salt basins are missing exact land times, of which Jiangling Misery is the biggest [1]. Although evaporites are important paleoclimate records, their geological ages are difficult to determine due to the presence of scarce macrofossils and microfossils. China has a lot of mudstone-interbedded nonmarine Cretaceous to Tertiary halite deposits. Paleocene-Eocene Warm Most extreme had exceptionally high temperatures and drawn areas of strength for in of geologists in light of the fact that these times can measure up to future environmental change in view of a dangerous atmospheric deviation [2]. Notwithstanding, past examinations zeroed in on marine silt tracked down that during the Paleocene-Early Eocene, monstrous evaporite stores shaped in the Jiangling sadness of the Jiangnan Bowl. In this paper, the authors show that the Shashi Arrangement halite stores shaped in the Paleocene as per palynology [3]. The massive evaporites in the Jiangling depression may be closely related to the hot Paleocene climate because the majority of these palynology fossils are arid types. Sylvite formed as a result of massive evaporates in the Jiangling Depression being formed by high temperatures during the Paleocene.

The land times of evaporites are challenging to decide in light of the fact that frequently macrofossils and microfossils are missing. In the inland Jiangnan Bowl of South China, there are three basins (the Yunying, Jiangling and Qianjiang basins) that have salt stores. Jiangling Basin is the greatest wretchedness in the Jiangnan Bowl, at 8380 km², and has near 1000 m of exceptionally thick salts interbedded with mudstones. The Shashi Development can be separated from base to top as Sha-1, Sha-2, Sha-3, and Sha-4. In the Sha-4 Segment of the Shashi Arrangement, while there are plentiful halite stores (no less than 14 layers, including a few thin stores). The Paleocene-Eocene was an extremely hot time, and past investigations basically centered around marine [4]. The Paleocene Shashi Development of Jiangling

significant layer of dregs, including dissipates.

Methods and Materials

The Paleocene-Eocene climate in east China was typical of subtropical arid and semi-arid. Sedimentary environment and change in paleoclimate of the Qinghai-Tibet Plateau's uplift is linked to the dry climate. The early Shashi Formation's water slowly evaporated, the lake water became salty, and halite, gypsum, glauberite, and carbonate were deposited against this arid climate and tectonic background [6]. Halite is for the most part appropriated in the center areas of the Jiangling Depression with some saved in the Wancheng Shortcoming footwall toward the northwest. In the center Shashi Arrangement, the Jiangling Sorrow was additionally discouraged and settled, which made the lake extend and its surface to augment. The halite depositional area decreased with anhydrite and glauberite as a result of the moist climate and freshening of the water, while the deposition of terrigenous material and sand-mudstone increased. Due to the persistently dry climate, abundant halites precipitated in the late Shashi Formation as water slowly evaporated. Thick segments of anhydrite and glauberite were kept towards southwest. The large Neijiangkou and Wancheng faults in the Jiangling Depression, which caused lake transgression in the early Xingouzui Formation, were still active. A progression of thin mudstone facies was stored with interbedding of mudstone and gypsum. The thickness of the halite gradually decreased to the southwest. After the testimony of this development, essentially clastic stone is saved.

High-temperature potassium-rich brines are present in the salt-bearing layer of the Paleogene Shashi Formation. In this brackish water was found at 3288 m in the Sha4 well in the Jiangnan oil field in Gong'an Area, Hubei Region. The wellhead temperature can really depend on 99 with brackish water saltiness. In comparative potassium-rich saline solution was found in the Sha15 well, close to the Sha4 well in oil field. According to the saline potassium-rich brine was discovered in the Formation at a depth of 3551 meters in the well near, in the Jiangnan oil field. Sylvite and carnallite have been tracked down in the Wretchedness, demonstrating an incredibly blistering and dry environment.

The dry environment is additionally proven by other geographical proof. As proposed, based on the mineralogical and geochemical characteristics, that the upper portion of the Shashi Formation was deposited in a warm and hot climate [7]. The paleotemperatures got from liquid considerations in halite from the upper segment of Shashi Development are primarily in the scope of 22-38 °C, demonstrating a warm environment. A large portion of these palynological fossils are bountiful mesophytic or dry sorts with normal new green growth yet without marine microfossils. Following the Paleocene-Eocene Thermal Maximum (PETM), the temperature gradually decreased.

Tests and strategies all examples were treated in the Palynological Research center of the Nanjing Organization of Geography and Fossil science, Chinese Foundation of Sciences [8]. Thirty Examples (Around 50 g of each) from three wells in the Jiangling Discouragement were examined. Tests were handled keeping guideline palynological treatment methods, utilizing 37% HCl and 40% HF to eliminate the carbonates and silicates separately, and killing the buildups in reduced water after every corrosive treatment. Tests were not oxidized, and the resultant deposits from each example were sieved through a 15 µm network. Tests were seen under an Olympus BX53 light magnifying lens (Made in Japan), and photomicrographs were taken with an Olympus DP73 computerized camera (Made in Japan). The slides are

housed in the Nanjing Foundation of Topography and Fossil science, Chinese Foundation of Sciences, Nanjing, China.

The more prominent inland Jiangnan Bowl has 11 melancholies and five fundamentally sure areas that shaped during the Late Cretaceous-Early Tertiary. The 11 despondencies are the Yuning, Xiaoban, Mianyang, Qianjiang, Jiangling, Zhijiang, Chentuokou, Yuan'an, Herong, Jingmen, and Jiangshui dejections. The five fundamentally depos,

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Citation:

include lled by a segment of Campanian-Maastrichtian residue from the Urucutuca Development [12]. Accordingly, the outcrops of the Urucutuca Arrangement are viewed as an unearthed piece of