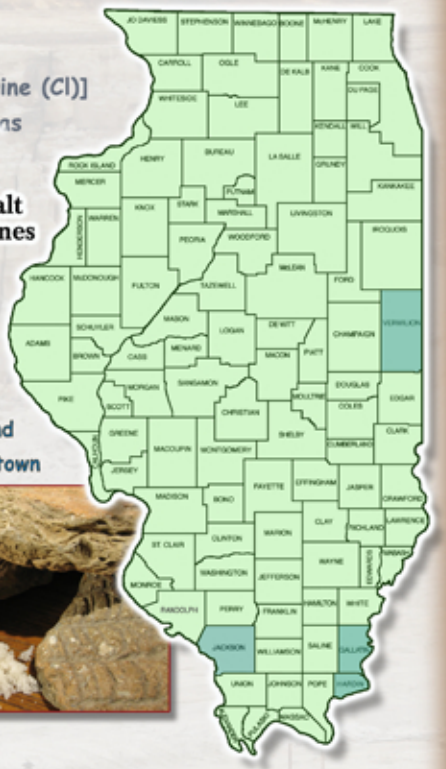
ILLINOIS' mining... Salt & Iron Ore

Salt, the mineral, HALITE, [Sodium (Na) and Chlorine (Cl)] has been an important mineral in human history. It has influenced trade, warfare, population migration and religions throughout the world. Although today it is usually considered a flavor for food it has been used historically as a preservative and a preferred location to hunt as animals were attracted to salt licks.



Salt Springs

Mining (evaporating brine) for salt has been documented in Vermilion and Jackson Counties, with the largest operations in Gallatin County near the town of Equality. The Great Salt Springs site exists because geological faults allowed ground water to reach deep, salty bedrock deposits which then seeped to the ground surface. This site was used by people for thousands of years with the main documented periods from the 10th to the 16th centuries using salt pans. Salt pans were made by a process of gathering freshwater mussels from the Saline River and local clay. The shell was burnt, crushed, and mixed with clay in the shape of a pottery pan. The pan was then baked in an open kiln.

In the early 19th Century, salt was evaporated in iron kettles in fire pit hearths dug in the ground. In 1803, as a result of a treaty with nine Indian tribes, the United States government obtained the Gallatin County land containing these springs. When Illinois became a state, the federal government deeded the area to the state with the provision that they be leased for salt production. Later production utilized large iron kettles, some up to six feet in diameter. Wood and later coal found in local outcrops were used for fuel. Salt brine was transported to the boiling area for miles via hollowed out logs used for pipes.

Salt production continued until 1875 when cheaper production in eastern states made it uneconomical. Halite is broken down to its two elements which are used as a raw material in the manufacturing process of over 50% of all chemical products including rubber, glass, paper and textiles. It is also used in road deicing and water softening.

Iron Ore, The first iron production in Illinois started about 1837 from local LIMONITE ($FeO(OH) \cdot (H_2O)$) deposits in Hardin County.

The iron mineral was found in faults in the local bedrock. Locally mined limestone and charcoal or coke, were also used. Two iron furnaces, one of which remains today, were constructed from limestone mined near Cave-In- Rock for the outer portion of the furnace. Continuous iron production occurred until 1861 when lack of men during the Civil War limited activity. Production occurred periodically into the 1880's. Competition for higher grade iron ores in other parts of the country caused production to cease in 1887.

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