MINERAL RESOURCES OF JEFFERSON COUNTY, FLORIDA

INTRODUCTION

In 1965, Florida's geologic and mineral resources were summarized in the first edition of the "Florida Mine Map," a comprehensive survey of Florida's mineral resources. The purpose of this report is to provide an update and expansion of the information contained in that report, focusing on the mineral resources of Jefferson County, Florida. This area is located in the northeastern part of the state, with Jefferson County being the northernmost county in Florida. The county is known for its diverse topography, ranging from coastal plains to the Appalachian foothills. Jefferson County is valuable for its mineral resources, which include a variety of economic deposits.

METROLOGY FACTORS

In order to present the mineral potential of the entire state in this report, the following are the key factors:

- **Geology:** The geology of a region plays a critical role in determining the presence of mineral resources. Jefferson County's geology is characterized by a mix of sedimentary, metamorphic, and igneous rocks, which contribute to the diversity of its mineral resources.
- **Economic Potential:** The economic potential of a mineral deposit is determined by its size, quality, and market demand. Jefferson County's mineral deposits have economic potential, making them attractive for mining activities.
- **Environmental Impact:** Minimizing the environmental impact of mining is crucial. Jefferson County's mining activities are governed by environmental regulations to ensure minimal disturbance to the natural environment.

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- **Production:** The production of minerals is a key indicator of their economic importance. Jefferson County has a history of mineral production, with significant outputs in specific mineral types.
- **Prospects:** The prospects of mineral resources in Jefferson County are evaluated to identify areas with potential for future mining activities.

Geological Map

Jefferson County is geographically diverse, with a mix of coastal plains and mountainous terrain. The county is bordered by the Gulf of Mexico to the west and the Georgia-Florida state line to the east. The landscape is characterized by coastal dunes, lowlands, and uplands.

The geology of Jefferson County is complex, with a variety of rock types present, including sandstone, shale, and granite. The county is part of the Coastal Plain Province, which extends from the Atlantic Coast to the Mississippi River. The geologic formations in Jefferson County are ancient, dating back millions of years, and have been shaped by erosion and deposition processes.

Mineralization

Jefferson County is known for its mineral resources, which include:

- **Crude Petroleum:** Jefferson County has a history of petroleum production, with significant deposits located in the eastern part of the county.
- **Natural Gas:** The county has natural gas deposits, which are vital for energy production.
- **Coal:** Although not extensively mined, Jefferson County has small coal deposits.
- **Magnesium Oxide:** This mineral is found in the county and is used in various industrial applications.

The mineral resources of Jefferson County contribute significantly to the county's economy and provide valuable resources for industrial and commercial use. The county's mineral deposits have economic potential, making them attractive for mining activities. However, the environmental impact of mining must be carefully managed to ensure sustainable development.