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**ABSTRACTS**

**THE HISTORY OF CRUDE OIL EARTHEN STORAGE  
IN SOUTHEAST TEXAS, 1901-1930s.**

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Earthen oil storage was a common method of short-term lease and longer-term regional oil storage in the first decades of the 20<sup>th</sup> century. Most earthen storage use was for heavy oil storage and was common in areas of important heavy oil production—California, Arkansas, and the Gulf Coast of Texas and Louisiana. The best records and archival descriptions of U.S. earthen storage methods and procedures exist for southeast Texas. Here, earthen tanks or pits were used to store heavy crude oil (18° to 22° API) from 1901 until the mid-1930s. Most pits ranged in capacity from 25,000 to 350,000 barrels. Stored oil loss was from evaporation, pit seepage, and non-recoverable stable emulsion/tank bottoms. Typical losses by all means ranged from 8-10 % during the first year of storage, followed by longer-term losses of 3-5 %. Methods to reduce loss included trenches around pits to gather seepage oil, wooden roof construction over tanks, and improved emulsion treatment methods. By 1904, the Batson, Saratoga, Sour Lake and Spindletop field areas had about 18.8 million barrels of earthen storage capacity. The discovery of Humble Field in 1905 resulted in Humble becoming the largest earthen storage center with over 6 million barrels of oil stored here by early 1906. Some large oil field earthen storage facilities became longer-term tank farm storage for regional heavy crude production. Tank farm earthen storage gradually decreased during the 1920s and was abandoned by the mid-1930s. The post-1930s storage abandonment history varied from removing oil and wooden roofs only to various cleanup procedures and infilling of the pits. Regulatory cleanups, modern urban development and litigation have brought some of this history to the forefront.