

An Overview of the Reclamation Program at the Big Brown Lignite Mine¹

by

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Abstract. Texas Utilities Mining Company operates the Big Brown lignite surface mine to fuel the Big Brown Steam Electric Station located approximately 5 miles northeast of Fairfield, Texas in Freestone County. Approximately 12,251 acres in Permit 3C and 1,206 acres in Permit 44 are currently permitted for surface mining activities through the Railroad Commission of Texas (RCT). To date at the Big Brown Mine, 11,499 acres have been mined, leveled, and reclaimed to permanent vegetation. Since the inception of mining, selected overburden materials have been used as a topsoil substitute providing two important benefits to TUMCO and the Freestone County area. First, the use of mixed overburden materials in the top four feet of postmine soils as compared to moving and placing the native soils back into postmine areas has saved Texas Utilities' customers approximately \$60 million since 1971. The second benefit was the creation of a postmine prime farmland soil that exceeds the productivity potential of the native soils. Approximately 400 acres are mined and reclaimed annually at the Big Brown Mine which produces over 5 million tons of lignite per year. Overburden is removed using three electric powered draglines and one across-the-pit-excavator. Once mining activities are complete, the area is leveled to approximate original contours and revegetated to the approved postmine land uses consisting of 75% pastureland, 21% commercial forestland, and 4% developed water resources. To date, 2,026 acres have met the requirements for reclamation success and released from bond by the Railroad Commission of Texas.

Additional Key Words: selected overburden materials, topsoil substitute, postmine land uses.

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