

Geophysics  
International

## CASE HISTORY - LIGNITE SEAMS

Petro-Sonde Survey - Coal Division

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**LOCATION.** Henderson County, Malakoff; Texas.

**TOPOGRAPHIC CONTROL.** U.S.G.S. Topographic map.

**OBJECTIVE OF THE PETRO-SONDE SURVEY.** To determine the depth and thickness of the lignite seams within the Wilcox formation.

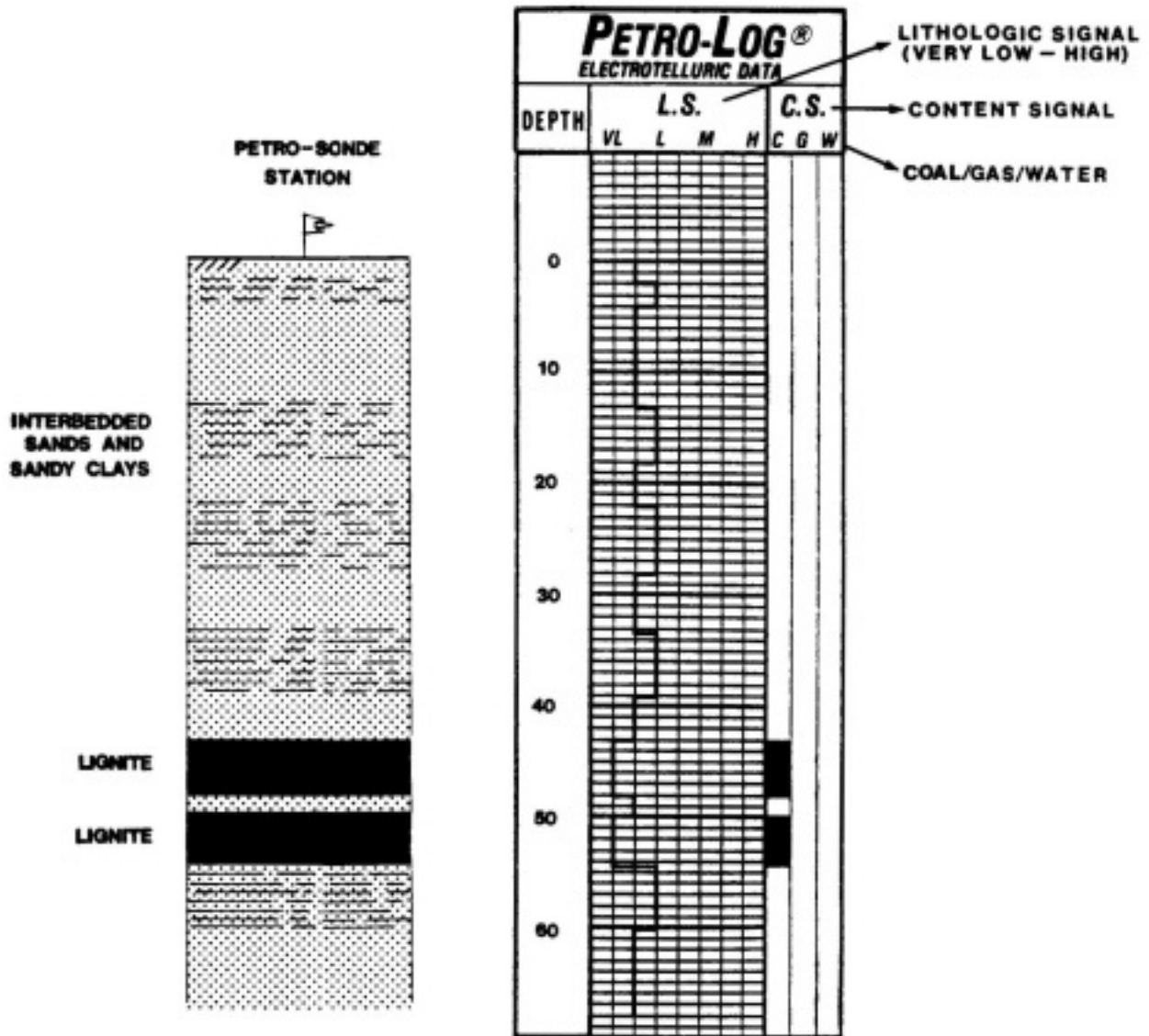
**GEOLOGY.** Eocene lignite seams, interbedded with sand and clays or the Wilcox formation. The seams are thought to have originated from non marine crevasse splays.

**INFORMATION AVAILABLE.** Driller's log for calibration.

**PETRO-SONDE SURVEY STRATEGY.** To record Petro-Log Graph patterns associated with the depth and thickness of the lignite seams. Only twenty-five minutes were required to record this data.

**CONCLUSIONS AND COMMENTS.** The Petro-Log Graph accurately delineated the depths and thicknesses of the lignite seams to within 1 foot (See figure).

## COMPARISON OF GEOLOGIC SECTION AND PETRO-LOG OBTAINED FROM THE SURFACE.



LITHOLOGIC SIGNAL DETERMINES THE DEPTH AND THICKNESS OF FORMATIONS.

CONTENT SIGNAL INDICATES THE PRESENCE, DEPTH, AND THICKNESS OF  
COAL DEPOSITS AND OTHER RESOURCES.