



PETERRA ENERGY SERVICES

Scale 1:240 (5"=100') Imperial Measured Depth Log

Well Name: Cliffhanger #8-1
API #: 15-063-22282-00
Location: N2 SE SW of Sec. 8-14s-31w - Gove County, KS
License Number: KCC Licenses#: 34917
Spud Date: 3/23/2016
Surface Coordinates: 990° FSL & 1980° FWL of Section 8-14s-31w
Bottom Hole: Same as Surface Coordinates
Coordinates: 2874' K.B. Elevation (ft): 2884'
Logged Interval (ft): 3400' To: RTD' Total Depth (ft): 4640'
Formation: Mississippian @ Total Depth
Type of Drilling Fluid: Kansas Drilling Technologies (Chemical Drisps)
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Bickie Energies, LLC
Address: Matt Bickie, P.O. BOX #816, HAYS, KS 67601

GEOLOGIST

Name: Eil J. Felts & Garet Dinkel, Consulting Petroleum Geologists
Company: PETERRA Energy Services
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Phone: (316) 204-5059

MORNING DRILLING REPORT table with columns for 7:00 A.M. Depth, 7:00 A.M. Current Operation, and various well parameters like depth, pressure, and flow.

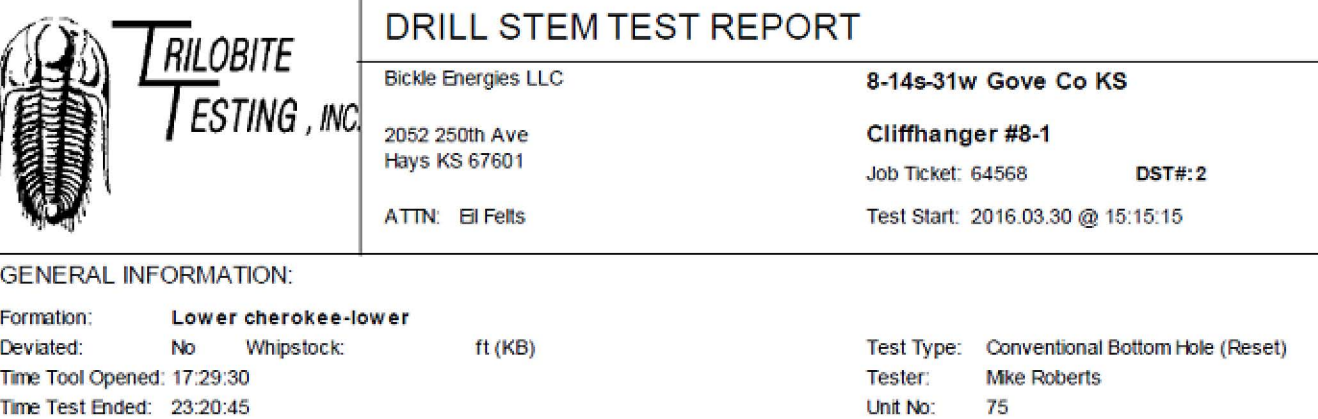
Table with columns for Formation, Depth, and Datum, listing geological layers and their elevations.

REFERENCE WELLS E-LOG TOPS table comparing well depths for various formations across different well names.

COMMENTS: Due to favorable results in DST #2, it was decided to further evaluate the well through production casing.

DRILL STEM TEST REPORT

General Information: Formation: Ft. Scott Cherokee, Deviated: No, Whpstock: ft (KB), Interval: 4460.00 ft (KB) To 4640.00 ft (KB) (TVD), Hole Diameter: 7.86 inches-Hole Condition: Fair

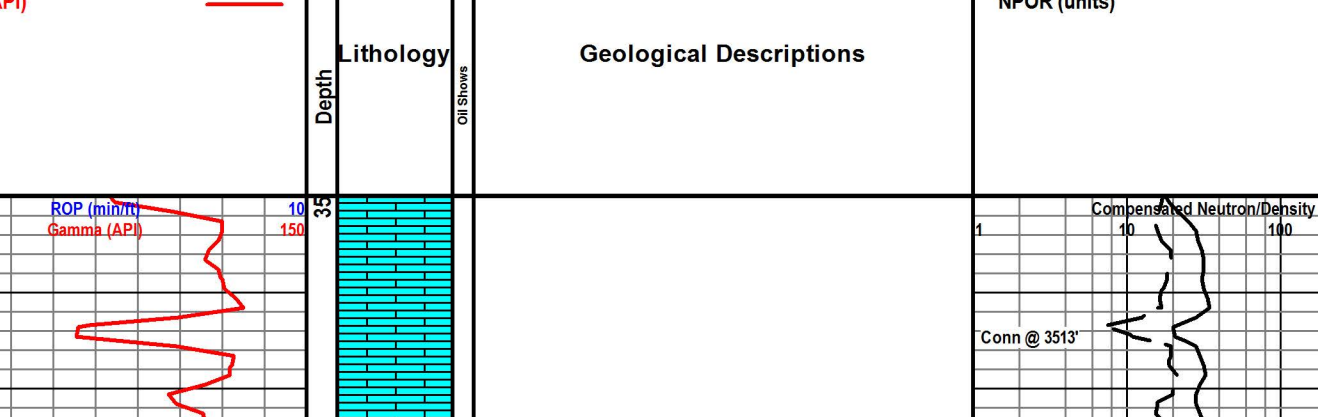


Recovery and Gas Rates tables showing well performance metrics.

TEST COMMENT: IFB to 10' below FS Built to 12' below FS No return blow

DRILL STEM TEST REPORT

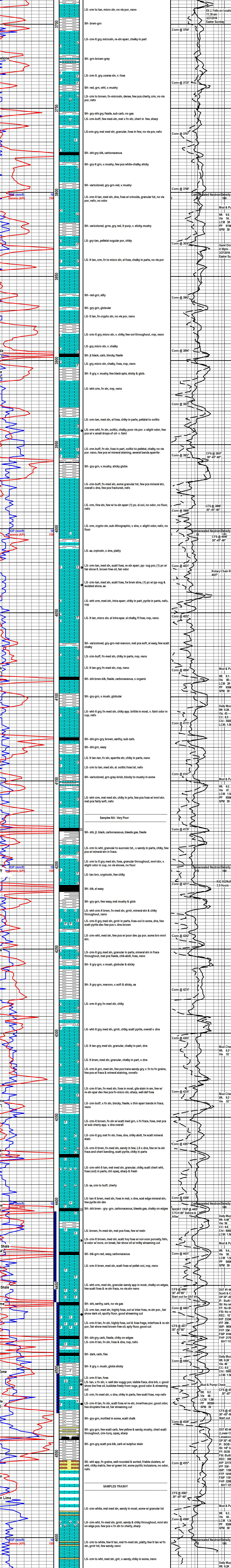
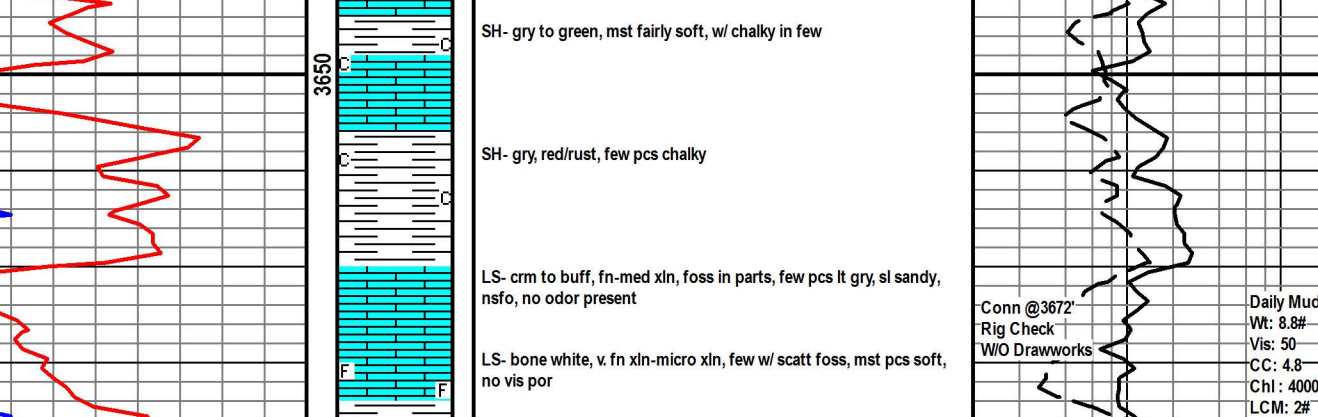
General Information: Formation: Lower Cherokee-lower, Deviated: No, Whpstock: ft (KB), Interval: 4460.00 ft (KB) To 4525.00 ft (KB) (TVD), Hole Diameter: 7.86 inches-Hole Condition: Fair



Recovery and Gas Rates tables showing well performance metrics.

TEST COMMENT: IFB to 10 minutes below FS Built to 12 minutes below FS No return blow

ROCK TYPES



SAMPLES TRASH table listing sample locations and descriptions.