

Formation Pictured Stage No. 1 Date 9/11/81
Cliffs

Operator JACK A. COLE Lease and Well Indian Bend No. 1

Correlation Log Type Gamma Ray From 2600' To 3112'

Temporary Bridge Plug Type NONE Set At _____

Perforations 3068'-3086'; 18 feet, 20 holes

- Per foot type 3-1/8" Bull Jet

FOAM FRAC

Pad - Foam 6,000 gallons. Additives 2% KCL

45,000 gallons. Additives 2% KCL

Sand 84,000 lbs. Size 10-20

Flush - Foam 2,100 gallons. Additives 2% KCL

Breakdown 2500 psig

Ave. Treating Pressure 1600 psig

Max. Treating Pressure 1900 psig Nitrogen - 518,700 SCF

Ave. Injection Rate 20.0 BPM

Hydraulic Horsepower 237 HHP

Instantaneous SIP 1280 psig

5 Minute SIP 1250 psig

10 Minute SIP 1210 psig

15 Minute SIP 1200 psig

Ball Drops: NONE Balls at _____ gallons _____ psig
_____ Balls at _____ gallons _____ psig
_____ Balls at _____ gallons _____ psig

Remarks: Ball off with 30 balls in 1000 gallons acid.

Walsh ENGINEERING & PRODUCTION CORP.

