

WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG
CONSULTANT GEOLOGIST



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

Well Name: Buena Vista #1-18
Location: C S/2 SEC. 18-17S-29 (Irregular Section)
Licence Number: API: 15-101-22553
Spud Date: February 10, 2015
Surface Coordinates: 1220' FSL & 2532' FWL
Region: Lane Co., KS
Drilling Completed: February 21, 2015

Bottom Hole Coordinates:
Ground Elevation (ft): 2828' K.B. Elevation (ft): 2837'
Logged Interval (ft): 3800' To: RTD Total Depth (ft): 4560'
Formation: Post Mississippi Conglomerate
Type of Drilling Fluid: Chemical Premix (Displaced)
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR:

Company: Larson Engineering Inc.
Address: 562 West State Road 4
Olmits, KS 67564-8561

DRILLING CONTRACTOR:

H. D. Drilling, LLC, Rig #3 (Co. Tools)

DP 4.5" XH (16.6#); DC 6-1/4" x 2-3/8" x 556', Kelly 40.30', Tool Joint 5.5"; Bit: JZ-HA20Q, 7-7/8", standard jets 15-15-15; rpm 80, WOB 35k; Kelly Bushing 9' above ground level; LeWayne "Lew" Tresner (tool pusher).

CASING:

Set 8-5/8" casing at 264'
Set 4-1/2" production casing 4559'

CIRCULATION SYSTEM:

Continental EMSCO D-300, duplex, 6 x 14, 60-62 spm, Chemical, premix, earth pits, Morgan Mud, Inc., Cade Lines.

OPEN HOLE LOGS:

DN, DI (SP) (Run-1); ML (Run-2); No Sonic; 5" detail LTD-3600; 2" DI to surface casing; LogTech-Pioneer Wireline, Hays, KS, Chris Desaire, Log total depth (4556') was four feet short to rotary total depth (4560').

DRILL STEM TEST #1:

LKC (J-zone): Interval: 4189-4210 (21'): Blow: surf blow IFF, no RB, surf blow FFP, no RB; Times: 5-15-15-30; Recovery: 3' mud w/oil spots; Pressures: HP: 2055-1958, SIP: 986-985, FP: 18-19, 22-29; BHT: 114 F; Trilobite Testing, Inc., Scott City, KS, Shane McBride.

DRILL STEM TEST #2:

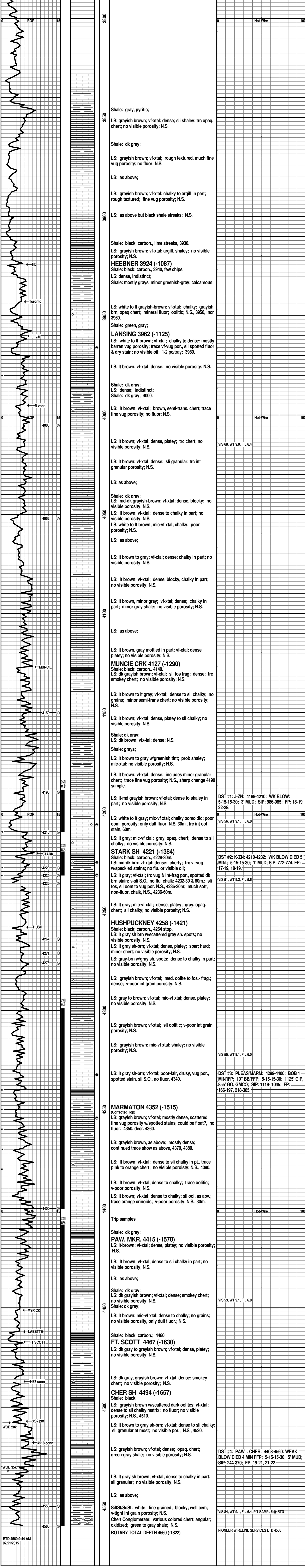
LKC (K-zone): Interval: 4210-4232 (12'): Blow: weak blow died 5 min IFF; Times: 5-15-15-30; Recovery: 1' mud; Pressures: HP: 2094-1992, SIP: 772-774, FP: 17-19, 18-19; BHT: 109 F; Trilobite Testing, Inc., Scott City, KS, Shane McBride.

DRILL STEM TEST #3:

Pleasanton, Marmaton: Interval: 4299-4400 (101'): Blow: BOB in 2 min. IFF, 3" RB ISIP, BOB in 1 min FFP, 10" RB FSIP; Times: 5-15-15-30; Recovery: 1125' GIP, 855' TF; Grindouts: 615' CGO (25%G, 75%O, 30 grav.), 120' GMCO (30%G, 60%O, 10%M), 120' GMCO (30%G, 40%O, 30%M); Pressures: HP: 2154-2073, SIP: 1119-1045, FP: 166-197, 218-365; BHT: 128 F; Trilobite Testing, Inc., Scott City, KS, Shane McBride.

DRILL STEM TEST #4:

Pawnee thru Cherokee: Interval: 4408-4560 (152'): Blow: 3/4" decr 1/4" IFF, no RB, weak surf died 4 min FFP, no RB; Times: 5-15-15-30; Recovery: 5' mud (100%M); Pressures: HP: 2161-2109, SIP: 244-370, FP: 19-21, 21-22; BHT: 112 F; Trilobite Testing, Inc., Scott City, KS, Shane McBride.



RTD 4560 9:44 AM
02/21/2015

PIONEER WIRELINE SERVICES LTD 4556