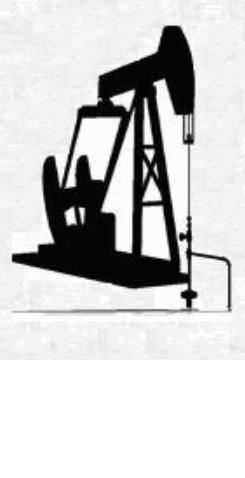


WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG
CONSULTANT GEOLOGIST



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

Well Name: Phyllis B #1-4
 Location: SW SE SE NE SEC. 04-19s-29w
 Licence Number: API: 15-101-22466
 Spud Date: October 8, 2013
 Surface Coordinates: 2550' FNL & 340' FEL

Region: Lane Co., KS
 Drilling Completed: October 16, 2013

Bottom Hole Coordinates:
 Ground Elevation (ft): 2834' K.B. Elevation (ft): 2841'
 Logged Interval (ft): 3800' To: RTD Total Depth (ft): 4670'
 Formation: Mississippian
 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
 Olathe, KS 67564-8561

DRILLING CONTRACTOR:

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

DP 4.5" XH (16.6#); DC 6.25" x 2.25" x 560', Kelly 40.30', Tool Joint 5.5" ; Bit: JZ-HA20-Q, 7-7/8", extended jets 14-14-15; rpm 80, WOB 35k; Kelly Bushing 7' above ground level; LeWayne "Lew" Tresner (tool pusher).

CASING:

Set 8-5/8" casing at 276'
 Set 4-1/2" production casing

CIRCULATION SYSTEM:

Continental EMSCO D-300, duplex, 6 x 14, 60 spm, Chemical, premix, displaced 3420 to 3440'; earth pits, Morgan Mud, Inc., Cade Lines, David 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, Daylon Kerr, Log total depth (4670') was equal to rotary total depth (4670').

DRILL STEM TEST #1:

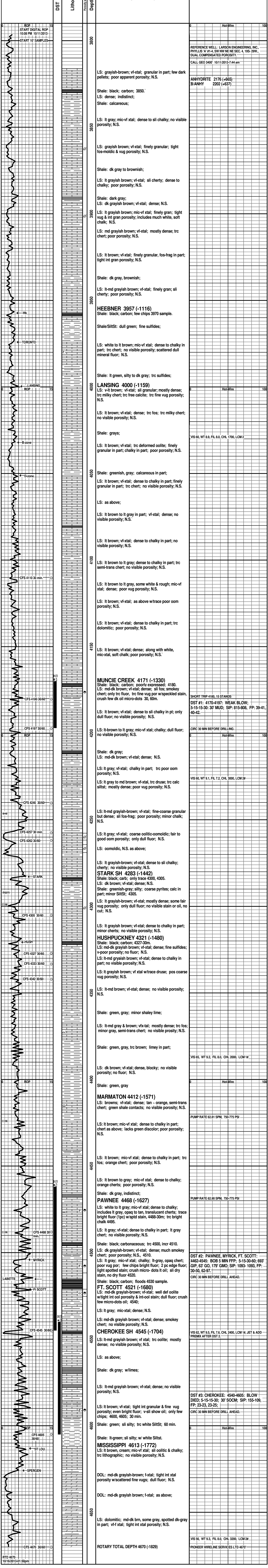
LKC "H-zone": Interval: 4170-4197 (27'); Blow: weak incr to 1/2" IFP, no RB, very weak surf blow, no RB; BHT: 5-15-15-30; Recovery: 30' mud (100%M); Pressures: HP: 2091-2087, SIP: 815-808, FP: 39-41, 40-42; GO (10%G, 90%O), 179' GMO (40%G, 30%O, 95%M); Pressures: HP: 2293-2192, SIP: 1091-1091, FP: 30-50, 62-97; BHT: 123 F; Trilobite Testing, Inc., Scott City, KS, Cornelio "Corndog" Landa III.

DRILL STEM TEST #2:

Pawnee, Myrick Station, Ft. Scott: Interval: 4462-4545 (83'); Blow: weak incr 7" IFP, surf RB ISIP, BOB 5 min. FFP, surf RB built to 1/8" FSIP; Times: 5-15-30-60; Recovery: 242' TF, 693' GIP; 5' CO (100%O, 41 grav.), 58' GO (10%G, 90%O), 179' GMO (40%G, 30%O, 95%M); Pressures: HP: 2293-2192, SIP: 1091-1091, FP: 30-50, 62-97; BHT: 123 F; Trilobite Testing, Inc., Scott City, KS, Cornelio "Corndog" Landa III.

DRILL STEM TEST #3:

Cherokee Lime: Interval: 4540-4605 (65'); Blow: weak incr 1/2" IFP; weak surf RB ISIP, weak surf died 8 min FFP; no RB; Times: 5-15-15-30; Recovery: 30' SOCM (5%O, 95%M); Pressures: HP: 2228-2214, SIP: 155-109, FP: 23-23, 23-25; BHT: 113 F; Trilobite Testing, Inc., Scott City, KS, Cornelio "Corndog" Landa III.



Total Gas	
TG (units)	
Fifty	_____
One	_____
0	Hot-Wire 100
REFERENCE WELL: LARSON ENGINEERING, INC., PHYLLIS #1-4, SW 1/4 NE SEC. 4, 19S-29W, DUAL COMPENSATED POROSITY.	
CALL GEO 3400' 10/11/2013-7:44 am	
ANHYDRITE 2176 (+665)	
B/ANHY 2202 (+637)	
0	Hot-Wire 100
VIS 60, WT 8.9, FIL 8.0, CHL 1700, LCM 2	
0	Hot-Wire 100
SHORT TRIP 4180, 15 STANDS	
DST #1: 4170-4197: WEAK BLOW; 5-15-15-30: 30' MUD; SIP: 815-808, FP: 39-41, 40-42.	
CIRC 30 MIN BEFORE DRILLING.	
0	Hot-Wire 100
VIS 60, WT 9.1, FIL 7.2, CHL 3000, LCM 2#	
0	Hot-Wire 100
VIS 65, WT 9.5, FIL 8.0, CHL 2000, LCM 1#	
0	Hot-Wire 100
PUMP RATE 62.81 SPM, 750-775 PSI	
0	Hot-Wire 100
PUMP RATE 62.90 SPM, 750-775 PSI	
0	Hot-Wire 100
DST #2: PAWNEE, MYRICK, FT. SCOTT: 4462-4545: BOB 5 MIN FFP; 5-15-30-60; 693' GIP, 63' GO, 179' GMO; SIP: 1093-1093, FP: 30-50, 62-97.	
CIRC 30 MIN BEFORE DRILL AHEAD.	
0	Hot-Wire 100
DST #3: CHEROKEE: 4540-4605: BLOW DIED; 5-15-15-30; 30' SOCM; SIP: 155-109, FP: 23-23, 23-25;	
CIRC 30 MIN BEFORE DRILL AHEAD.	
0	Hot-Wire 100
VIS 56, WT 9.3, FIL 8.0, CHL 3200, LCM 2#	
PIONEER WIRELINE SERVICES LTD 4670'	