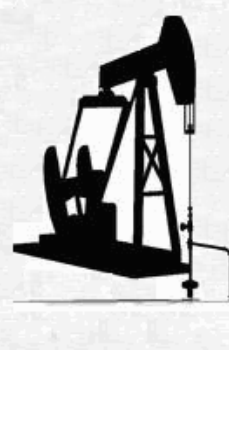




# WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG  
CONSULTANT GEOLOGIST



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

Well Name: Geneva #1-28  
 Location: S2 SE NE NW SEC. 28-18S-28W  
 Licence Number: API: 15-101-22492  
 Spud Date: February 11, 2014  
 Surface Coordinates: 1103' FNL & 2310' FWL (PLAT)  
 Y= 660184, X= 1449739

Region: Lane Co., KS  
 Drilling Completed: February 20, 2014

Bottom Hole Coordinates:  
 Ground Elevation (ft): 2700' K.B. Elevation (ft): 2707'  
 Logged Interval (ft): 3800' To: RTD Total Depth (ft): 4585'  
 Formation: Mississippi  
 Type of Drilling Fluid: Chemical Premix (Displaced)

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### OPERATOR:

Company: Larson Engineering Inc.  
 Address: 562 West State Road 4  
 Olmitz, 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 553' (9 of 19 joints are hardbanded), Kelly 40.30', Tool Joint 5.5" ; Bit: JZ-HA20-Q, 7-7/8", standard jets 15-15-15; downhole rpm 80, WOB 35k; Kelly Bushing 7' above ground level; LeWayne "Lew" Tresner (tool pusher).

### CASING:

Set 8-5/8" casing at 274'  
 Set 5-1/2" production casing

### CIRCULATION SYSTEM:

Continental EMSCO D-300, duplex, 6 x 14, 62 spm adjusted to 56 spm 3889 and below , Chemical, premix, displaced 3389 to 3407'; 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, D. Kerr, Log total depth (4580') was five feet short to rotary total depth (4585').

### DRILL STEM TEST #1:

LKC "H-zone": Interval: 4109-4135 (26'): Blow: weak incr to 2" IFP, no RB, weak incr to 6" FFP, no RB; Times: 5-15-30; Recovery: 120' MW (70%W, 30%M, Rw 0.175 at 41 F, Chlorides 74k); Pressures: HP: 2058-2034, SIP: 1128-1129; FP: 17-35, 39-88; BHT: 111 F; Trilobite Testing, Inc., Scott City, KS, Cornelio "Corndog" Landa III.

### DRILL STEM TEST #2:

LKC: "K-zone": Interval: 4199-4220 (21'): Blow: weak incr to 7" IFP, surf RB ISIP, BOB 9 min FFP, 1" RB FSIP; Times: 5-15-30; Recovery: 70' GIP, 196' TF; Grindouts: 10' CGO (10%G, 90%O, 34 grav), 40' GOCMW (10%G, 10%O, 60%W, 20%M), 146' MW (5%G, 45%W, 50%M, Rw 0.175 at 49 F, chlorides 60k); Pressures: HP: 2121-2118, SIP: 599-592, FP 33-83, 93-148; BHT: 126 F; Trilobite Testing, Inc., Scott City, KS, Cornelio "Corndog" Landa III.

### DRILL STEM TEST #3:

Middle Creek: Interval: 4239-4248 (9'): Blow: BOB 3 min IFP, RB 8" ISIP, BOB 1/2 min FFP, RB BOB 24 min FSIP; Times: 5-15-30; Recovery: 819' GIP & 428' TF; Grindouts: 370' GO (55%G, 45%O, 38 grav), 58' HGOCM (20%G, 30%O, 50%M), no water; Pressures: HP: 2153-2128, SIP: 816-803, FP: 33-69, 86-163; BHT: 126 F; Trilobite Testing, Inc., Scott City, KS, Cornelio "Corndog" Landa III.

### DRILL STEM TEST #4:

Marmaton (Altamont): Interval: 4314-4389 (75'): Blow: weak incr 1/2" IFP, no RB, weak surf blow FFP, no RB; Times: 5-15-30; Recovery: 5' mud w/oil spots (100%M); Pressures: HP: 2238-2218; SIP: 60-38; FP: 23-24, 24-26; BHT: 108 F; Trilobite Testing, Inc., Scott City, KS, Chuck Smith.

