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

Well Name: Horning A #3
Location: Norton County
License Number: API # 15-137-20,680-0000
Spud Date: 1/27/14
Surface Coordinates: Section 30 - Township 3 South - Range 23 West
1,430' FNL & 1,210' FEL
Bottom Hole Coordinates: Vertical well with minimal deviation, same as above
Ground Elevation (ft): 2,408' K.B. Elevation (ft): 2,416'
Logged Interval (ft): 3,200' To: RTD Total Depth (ft): 3,820'
Formation: Lansing, Granite
Type of Drilling Fluid: Chemical (Andy's)

Region: Kansas

Drilling Completed: 1/31/14

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

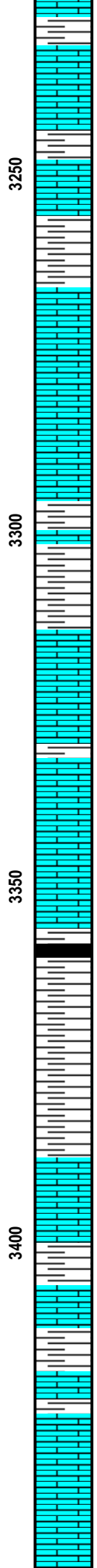
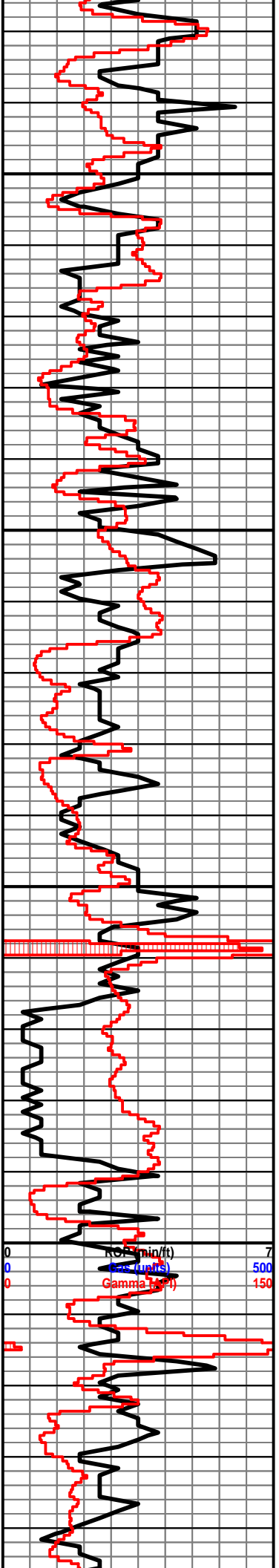
OPERATOR

Company: John O. Farmer, Inc.
Address: P.O. Box 352
Russell, KS 67665

Comments

The Horning A #3 well was drilled by WW Drilling Rig #12 (Tool Pusher: Calvin Pfannenstiel).

The location for the Horning A #3 well was located via 3D seismic survey. Geologic samples were collected and examined from 3,200-3,820'. After all sample and electric log data was gathered and evaluated, the decision was made to run 5 1/2" production casing on 2/1/14 to further evaluate the Horning A #3 well.



Chalky

Ls: ala

Sh: drk gry-brn, scat grn

Ls: off wh-lt gry, fn xln, poor pp vuggy porosity, chalky, sl fossil

Ls: ala

Sh: drk gry-brn-grn

Ls: tan-buff, fn xln, poor int xln porosity, sl chalky, NSFO

Ls: off wh-lt gry, fn xln, poor int xln porosity, chalky, sl fossil

Ls: tan-lt gry, fn-sub xln, vry DNS, chalky

Ls: ala

Sh: drk gry-brn, scat blk

Sh: ala

Ls: tan-lt gry, fn xln, scat int xln porosity, sl chalky, chert-off wh, sl fossil

Ls: off wh, fn xln, fossil, poor int fossil porosity, sl chalky, NSFO

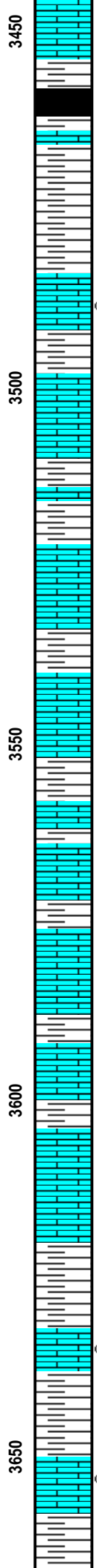
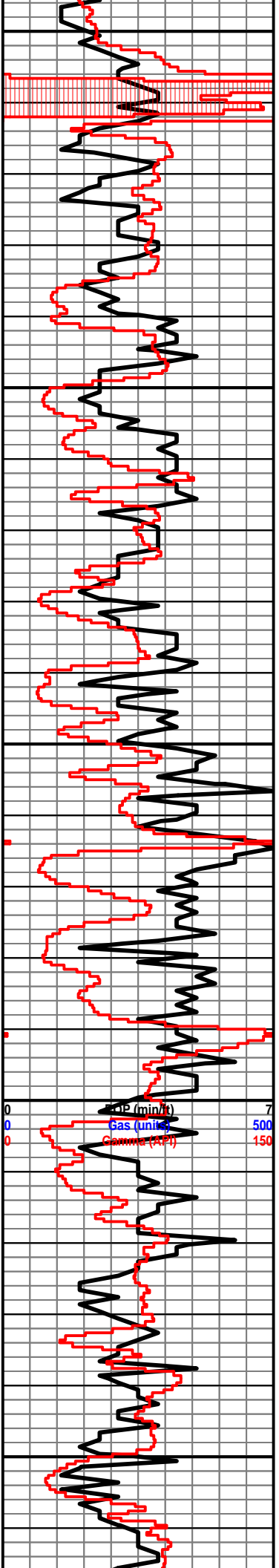
Sh: drk gry-brn-rd, soft

Ls: off wh-tan, fn-sub xln, DNS, sl chalky, NSFO

Ls: tan-lt gry, fn xln, scat int xln porosity, scat chert-off wh, sl chalky

Ls: ala, scat sh: gry-grn, soft

ROF (min/ft) 7
 Gamma (API) 500
 Gamma (API) 150



Ls: off wh-tan, fn xln, poor int xln porosity, chalky

Heebner 3462' (-1046)

Sh: drk gry-blk, carb, fissile

Sh: gry-grn, vry soft

Ls: off wh, fn xln, poor int xln porosity, scat chert-off wh, sl chalky

Toronto 3490' (-1074)

Ls: off wh-lt gry, fn xln, poor int xln porosity, lt oil sat, VSSFO, lt odor, scat chert-off wh

Lansing 3503' (-1087)

Ls: off wh, fn xln, poor int xln porosity, mostly barren, scat chert-off wh

Ls: ala, hvy chert-off wh

Sh: drk gry-brn

Ls: off wh-lt gry, fn-sub xln, vry DNS, hvy chert-off wh, sl chalky

Ls: off wh, fn xln, fossil, poor int fossil porosity, scat lt oil sat, NSFO, no odor, sl chalky

Sh: drk gry

Ls: off wh-tan, fn xln, fossil, poor int xln & int fossil porosity, mostly barren, vry lt scat oil st, NSFO, no odor, hvy chert-off wh

Sh: gry

Ls: tan-lt gry, fn-sub xln, vry poor int xln porosity, mostly DNS, scat chert-off wh, scat fossil

Ls: off wh-lt gry, fn xln, fossil, poor int fossil porosity, lt oil st, NSFO, no odor, sl chalky

Sh: drk gry-brn

Ls: off wh, fn xln, fossil, fair int fossil porosity, fair-lt oil st, SSFO, sl odor, chert-off wh

Ls: tan-gry, fn xln, vry poor int xln porosity, DNS, mostly barren, scat chert-off wh, scat pyrite

Wt: 8.9
Vis: 61

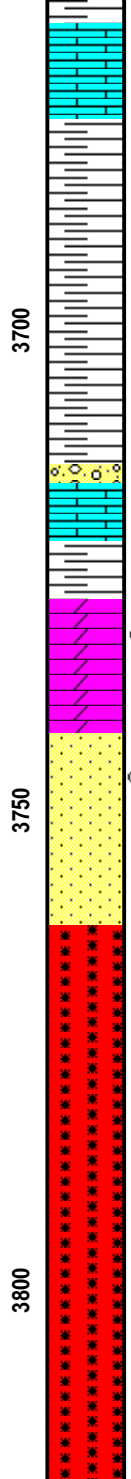
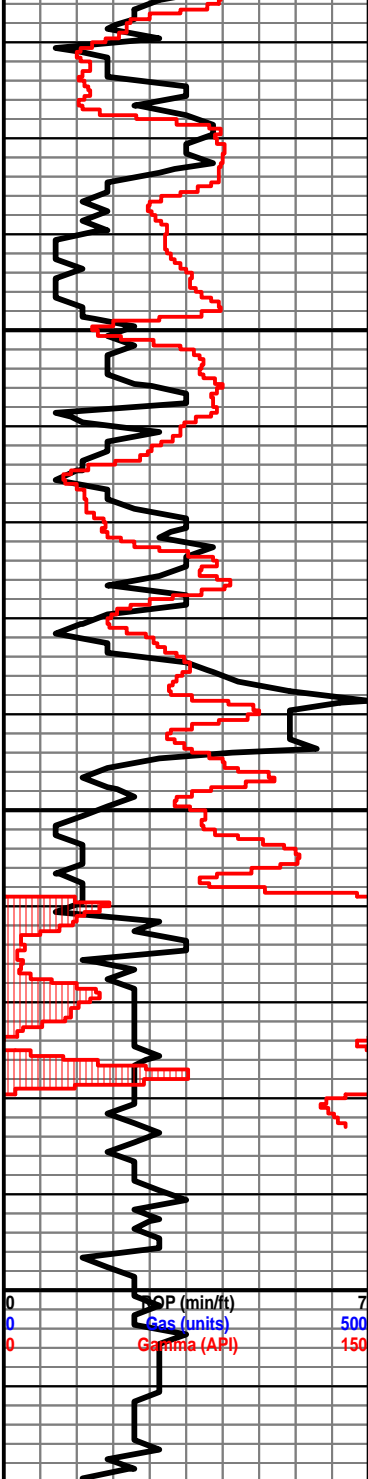
Sh: drk gry-brn-rd

Ls: off wh, fn xln, fossil, fair int fossil porosity, fair oil sat, SSFO, sl odor, scat chalky, sl chert-off wh

Sh: drk gry-brn

Ls: off wh-crm, fn xln, fossil, poor-fair int fossil porosity, fair-good oil st, SSFO, fair odor, chalky

Sh: drk gry



Ls: off wh-lt gry, fn xln, poor int xln porosity, barren, chalky

B/KC 3683' (-1267)

Sh: drk gry-brn

Sh: lt gry-brn, vry soft

Sh: drk gry-drk brn, scat ls: tan-lt gry, vry DNS,

Congl: chert-off wh-drk brn, sh: drk gry-grn

Ls: off wh-lt gry, fn xln, scat qtz: fn-md grn, subrnd, poor-fair int grn porosity, SSFO, sl odor

Arbuckle 3728' (-1312)

Dolo: off wh-lt gry, fn-md sucrosic xln, fair int xln porosity, fair-good oil sat, FSFO, fair-good odor, fair yel fluor

Reagan Sand 3741' (-1325)

Ss: Qtz, fn-vry fn grn, fairly well rnd, poorly cemented, fair int grn porosity, good oil sat, SSFO, fair odor, dull yel fluor

Granite Wash 3762' (-1346)

Qtz: clr-pink, sub rnd-ang, poorly sorted, poor int grn porosity, vry DNS

Qtz: ala

Qtz: clr-pink, fn-md grn, sub rnd-ang, poorly sorted, poor int grn porosity, vry DNS, scat sh: drk gry-drk brn

0	SP (min/ft)	7
0	Gas (units)	500
0	Gamma (API)	150