LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Blackstock #1
Location: S2 SW NW NW
License Number: API: 15-007-23991-00-00
Region: Barber County, Kansas
Spud Date: March 6, 2013
Drilling Completed: March 13, 2013
Surface Coordinates: 1155' FNL, 330' FWL Section 12-Twp 35 South - Rge 12 West
Stranathan Pool
Bottom Hole Coordinates: Vertical Hole
Ground Elevation (ft): 1395
K.B. Elevation (ft): 1406
Logged Interval (ft): 4300 To: 5275
Total Depth (ft): 5080
Formation: Viola
Type of Drilling Fluid: Chemical Mud, Displace at 3253'.

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

OPERATOR

Company: Indian Oil Company
Address: PO Box 209
2507 SE US 160 Hwy
Medicine Lodge, Kansas 67104-0209

GEOLOGIST

Name: W. Scott Alberg
Company: Alberg Petroleum, LLC
Address: 609 Meadowlark Lane
Pratt, Kansas 67124

FORMATION TOPS

	SAMPLE TOPS	LOG TOPS
HUSHPUCKNEY SHALE	4560(-3154)	4560(-3154)
B/KC	4611(-3205)	4610(-3204)
PAWNEE	4714(-3308)	4713(-3307)
CHEROKEE GROUP	4762(-3356)	4762(-3356)
MISSISSIPPIAN	4816(-3410)	4816(-3410)
KINDERHOOK	5069(-3653)	5067(-3651)
MISENER	5168(-3762)	5166(-3760)
VIOLA	5176(-3770)	5172(-3766)
RTD	5275(-3869)	
LTD		5277(-3871)

COMMENTS

Surface Casing: Set 18 joints 8 5/8" casing at 764' with 225 sxs 6% gel 3% cc,225 sxs 3% cc, 2% gel, cement to surface. Plug down at 9:00 pm on 3-7-2013.
Production Casing: Ran 5 1/2".
Deviation Surveys: 770' - 1, 3379' - 1 1/4, 3693' - 1, 4011' - 1, 4295' - 1 1/4, 4611' - 3/4, 4896'- 1, 5275' - 1 1/4.
Contractor Bit Record: 1- 12 1/4" out at 770'.
2- 7 7/8" PDC out at 5275'.

Gas Detector: DMT Company, Trailer #1
Mud System: Mud Co, Brad Bortz, Engineer
DSTs: None
Logged By Pioneer Logging, Inc (Log Tech)
LTD - 5277'.

DSTs

NONE TAKEN

CREWS

Val Drilling Rig #5
Tool Pusher - Randy Smith
Drillers - Days - Andy Brown
Evening - Jeff Hood
Morning - Robert Cunningham II

ROCK TYPES

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Sdy dolo
- Shy dolo
- Dol
- Gyp
- Sdy lmst
- Lmst
- Mrlst
- Salt
- Shale
- Sltst
- Ss
- Black sh
- Gry sh
- Shale
- Shyslstst
- Sltysh

ACCESSORIES

MINERAL
- Anhy
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Ferrpel
- Ferr
- Glau
- Gyp
- Marl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Chlorite
- Dol
- Sand
- Slty

FOSSIL
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomoldic

STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE
- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

March 6, 2013 MIRT
March 7, 2013' 100' @ 7:00 am
March 8, 2013 770' WOC @ 7:00 am
March 9, 2013 1840' @ 7:00 am
March 10, 2013 3195' @ 7:00 am
March 11, 2013 4255' @ 7:00 am
March 12, 2013 4959' @ 7:00 am
March 13, 2013 5275' @ 7:00 am - Logging

Limestone, tan-white, buff, grey-white, xln, dense, chalky in part, trace fossils, no visible shows.

Shale, grey-black, carb., trace gas bubbles.

Limestone, tan, cream-white, xln, dense, foss porosity, slightly chalky, no visible shows.

Shale, grey-black, slightly carb, trace of gas bubbles.

Limestone, grey-white, xln, dense, chalky, slightly foss, no visible shows.

Shale, light grey, grey.

Limestone, grey-white, xln, partly dense, trace fossils, chalky in part, no visible shows.

Shale, light grey, light green, calcitic in part.

Limestone, tan, pale gren, xln, dense, trace chert, slightly foss.

Shale, light grey-green.

Limestone, tan, pale green, grey, xln, dense, trace foss, chalky.

Shale, light grey-green.

Limestone,cream, tan, buff. xln, dense, slightly foss, chaky in part.

Shale, grey.

Limestone, tan, buff, xln, dense, slightly chaky, traces of tan chert.

Shale, Grey-black, carb, trace gas bubbles.

Limestone, cream-white, xln, dense, foss in part, trace micro oolites, trace porosity, no visible shows, dull mineral fluor, no odor.

Shale, Grey-black, trace gas bubbles.

Limestone, cream, xln, dense, slightly foss., trace chalky.

Shale, grey-black, slightly carb.

Limestone, cream, buff, partly dense, slightly chalky, shaley in part, slightly sandy towards base.

Shale, light grey, some green, few sand stringers.

Sandstone, grey-tan, fine grained, well cemented, dark asphaltic staining, no show fee oil, no odor.

Shale, grey, silty to sandy, few sand clusters, some vari-colored shales, few cherts.

Chert, tan, off-white, some bone white fresh chert, very few small pin point porosity, slight show oil, fair odor, light show oil and bleeding gas.

Chert, buff, some vari-colored, fresh to sharp, poor shows, no visible free oil in tray, faint odor, spotty dull fluor.

Chert, tan, buff-white, some bone white, pin point porosity,few scattered small vugs, show of bleeding oil and gas, light, fair odor, dull spotted fluor, scattered light brown staining.

Chert, tan-white, some sharp, fresh chert, pin point porosity, light show oil and gas, poor to fair odor, light brown scattered staining.

Dolo, grey-white, xln, partly dense, cherty in part, fine grained, no shows.

Dolo, grey-white, fine grained, scattered chert, trace shales, no visible shows.

Dolo, light grey-white, fine grained, dense, trace glauc, trace scattered fresh sharp chert, trace shale.

Dolo, grey, dark grey, xln, dense, shaley in part, some scattered chert.

Dolo, grey, dark grey, dense, scattered cherts, some grey splintery shales.

Dolo, dark grey, dense, scattered grey cherts, shales, no shows.

Dolo, dark grey, grey, dense,few ls frags, shaley in part.

Limstone, buff-white, xln, dense, chalky, trace glauc, slightly foss.

Shale, grey, dark grey, pyrite stringers.

Shale, grey, dark grey, silty, traces pyrite.

Shale, light grey, grey, silty.

Shale, grey-black, carb in part.

Shale, grey-black, carb.

Sandstone, clear to grey frosted grains, SA to SR, friable in part, some well cemented, light show of oil, no gas kick, faint odor.

Dolo, grey-white, some reddish brown, fine grained, soft in part, trace show gas bubbles in reddish dolo, slightly laminated, no fluor, no visible shows of oil.

Dolo, as above, more reddish-brown, trace gas bubbles, no shows, free oil, no fluor.

Dolo, grey-white, xln, dense, fine grained, slightly chalky.

Limestone, grey-white, fxln, partly dense, chalky, no visible shows.

Limestone, cream, grey-white, xln, dense, chalky in part, trace tan chert.

Limestone, tan-white, xln, fin grained, granular, trace chalky, trace tan chert, no visible shows.