

Woolsey Operating Company, LLC

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

Well Name: Achenbach 1
 License Number: API 15-007-23938-00-00
 Spud Date: September 15, 2012
 Surface Coordinates: 66°0' FNL, 44°0' FWL Section 14-Twp 35 South - Rge 12 West
 Bottom Hole Coordinates: Vertical Hole

Ground Elevation (ft): 1374
 Logged Interval (ft): 4000
 Formation: McLish Shale
 Type of Drilling Fluid: Chemical Mud

Region: Barber County, Kansas
 Drilling Completed: September 27, 2012
 K.B. Elevation (ft): 1382
 Total Depth (ft): 5485

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

OPERATOR

Company: Woolsey Operating Company, LLC
 Address: 125 N. Market, Suite 1000
 Wichita, KS 67202

GEOLOGIST

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

FORMATION TOPS

SAMPLE TOPS	LOG TOPS	
STARK	4548(3166)	4530(3148)
HUSHPUCKNEY SHALE	4548(3166)	4544(3162)
BVC	4628(3247)	4612(3230)
PAWNEE	4730(3348)	4720(3338)
CHEROKEE GROUP	4780(3398)	4764(3382)
MISSISSIPPIAN	4850(3468)	4820(3430)
KINDERHOOK SHALE	5194(3722)	5287(3701)
WOODFORD SHALE	5181(3709)	5183(3781)
VIOLA	5228(3846)	5214(3828)
SIMPSON GROUP	5355(3973)	5330(3956)
SIMPSON WILCOX	5378(3996)	5358(3976)
MCLISH SHALE	5455(4072)	5438(4046)
RTD	5485(4103)	5488(4086)
LTD		

NOTE: ALL SAMPLE TOPS WERE APPROXIMATELY 17' LOW TO LOG TOPS.
 LTD WAS 17' HIGH TO RTD.

COMMENTS

Surface Casing: Set 8 joints 13 3/8" at 239'(tally 229.28') with 300 sxs Class A, 2% gel, 3% cc, plug down at 4:00 am, September 16, 2012. Cement dtd Circulate.
 Production Casing: 5 1/2" Casing Run
 Deviation Surveys: 1/4 - 239', 1/2 - 947', 1/4 - 1547', 1/4 = 2049', 3/4 - 2549', 3/4 - 3054', 1/4 - 3560', 3/4 - 4095', 1 1/4 - 4598', 1 3/4 - 4887', 1 - 5485'.
 Contractor Bit Record: 1 - 17 1/2" out at 245'
 2 - 7 7/8" out at 5180'.
 3 - 7 7/8" out at 5485'.

Pipe Strap Board 4911.78'
 Strap 4902.89'
 Strap 8.89' Short to Board.

Gas Detector: Woolsey Operating Company, Trailer #1
 Mud System: Mud Co, Brad Boltz, Eng
 DSTs: Triolite Testing, Two DST's Ran. Logged by Superior Well Services, Inc LTD 5468'.

DSTs

DST #1 4740 to 4887' Times 30-60-60-120 Cherokee-Mississippi
 1st Opening - Strong Blow, BOB 5 Min, no blow back
 2nd Opening - Strong Blow, BOB 2 seconds, CTS 5 min, 1/4" blow back
 Recovery: GTS 5 Min
 10 min - 28.4 MCF 40 min - 26 MCF
 20 min - 27.6 MCF 50 min - 26 MCF
 30 min - 27.6 MCF 60 min - 26 MCF

Fluid Recovery: 110' Drilling Mud, Temp 127 degrees.

IFP 49-59#
 FFP 54-56#
 ISIP 1390#
 FSP 1545#
 IHP 2424#
 FHP 2354#

DST #2 4488-4922 Times 45-60-60-60 Mississippi
 1st Opening - Weak Blow, 1-2 inches, tool slipping to bottom, no blow back.
 2nd Opening - Weak Blow, built to 6", tool sld for first 10 minutes, no blow back.
 Recovery:
 103' Heavy Gritty Mud w/ few oil specs.
 62' GOCWM (23% g, 3% O, 13% W, 61% M)
 120' GOCWM (34% g, 3% O, 20% W, 43% M)
 Temp 129 degrees. Chlorides 24,000 ppm
 IFP - Not Valid
 FFP - 154-184#
 ISIP - Not Valid
 FSP 1832#
 IHP - 2441#
 FHP - 2422#

NOTE: Test Tool started hitting fill approximately 34' off bottom. Final flow and final shut in approximately 1-2' off bottom. Test tool had a large amount of cuttings in tool.

CREWS

Fossil Drilling Rig #2
 Tool Pusher - Bob Sanders
 Drillers - Days Kerry Clark
 Evening Jeffrey Kramer
 Morning Jeff Logue
 Relief Mike Gilmore

ROCK TYPES

Anhy	Congl	Sdy dolo	Shy dolo	Dol	Dyp	Sdy lmst	Lmst	Mrlst	Salt	Shale	Slst	Ss	Black sh	Gry sh	Shale	Shstst	Stysh
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ACCESSORIES

MINERAL	Chlorite	Pelec	Grysl
Anhy	Dol	Pellet	Grysl
Arg	Sand	Pisolite	Lms
Bent	Sily	Plant	Sandylms
Bit		Strom	Sh
Brcfrag		Fuss	Ststn
Calc	FOSSIL	Oomoldic	
Carb	Algae		TEXTURE
Chdk	Amph	STRINGER	Boundst
Chit	Belm	Anhy	Chalky
Dol	Bioclst	Arg	Cryxln
Ferrpel	Brach	Bent	Earthy
Ferr	Bryoza	Coal	Finexln
Glau	Cephal	Dol	Lithgrn
Gyp	Coral	LS	Microxln
Matnt	Crin	LS	Mudst
Nodule	Echin	Mrlst	Packst
Phos	Fish	Ststrg	Wackest
Pyr	Foram	Ssstrg	
Salt	Fossil	Carbsh	
Sandy	Gastro	Dol	
Silt	Oolite		

