



# Musgrove

**PETROLEUM CORPORATION**  
Clafin, Kansas

Geologist's Report

Company: H&D Exploration

Lease: Doonan A #3

Field: Lake Barton

Location: NE-SW-SE-NE

Sec: 28 Twsp: 18S Rge: 13W

*Bartm* County: ~~Shawnee~~ State: Kansas

GL: 1806 KB: 1814

Contractor: Southwind Drilling Co., Rig #

Spud: 4/15/13 Comp: 4/22/13

RTD: 3500' LTD: 3502

Mud Up: 2500' Type Mud: Chemical/Displaced

Samples Saved From: 2800'to RTD

Drilling Time Kept From: 2800' To RTD

Samples Examined From: 2800' To RTD

Geological Supervision From: 3100' to RTD

Geologist on Well: K. Talbott

Surface Casing: 8 5/8" @ 450'







Production: 5 1/2" @

Logs: CNL/CDL, MEL, DIL

	H&D Exploration				H&D Exploration	
	Doonan 'A' #3				Doonan 'A' #1	
	NE-SW-SE-SE Sec28-T18S-R13W				NE-NW-SE-SE Sec.28-T18S-R13W	
KB	1814				1812	
Formation	Sample	Sub-sea	E-Log	Sub-Sea	Log	Sub-sea
Anhydrite			708	1106	705	1107
Base Anhy.			729	1085	731	1081
Heebner	2964	-1150	2966	-1152	2960	-1148
Toronto	2977	-1163	2976	-1162	2969	-1157
Brown Lime	3053	-1239	3056		3048	-1236
Lansing	3065	-1251	3068	-1254	3060	-1248



Arbuckle	3309	-1495	3313	1499	3301	-1489
TD	3500	-1686	3503	-1689	3375	-1563

**ROCK TYPES**

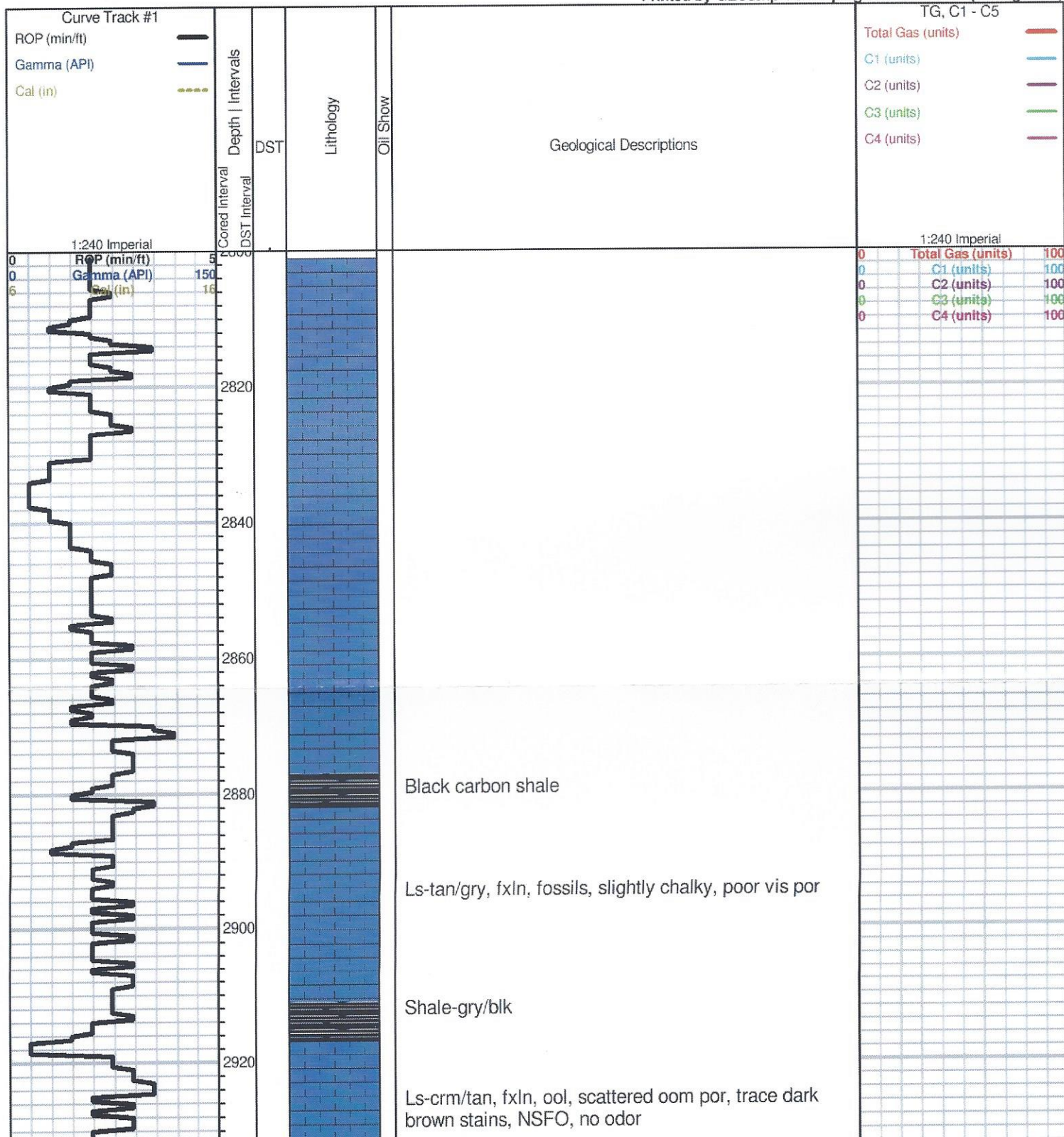
 Dolprim	 shale, gry	 Shcol
 Lmst fw<7	 Carbon Sh	 Ss

**OTHER SYMBOLS**

**DST**

 DST Int
 DST alt

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)



Brown stains, NSFO, no odor

Ls-crm/tan/lt gry, fxln, chalky, poor vi spor, Chert-gry/boney wht

**Heebner 2964.0 (-1150.0) 0.0**

Black carbon shale

**Toronto 2977.0 (-1163.0) 0.0**

Ls-gry, fxln, scatted poor por, trace brwn stains, NSFO, no odor

**Douglas 2992.0 (-1178.0) 0.0**

Gry/grn shale- slightly silty

A/A trace sand- vfg, sub round friable, poor iner gran por

A/A

**Brown Lime 3053.0 (-1239.0) 0.0**

Ls-tan/buff, fxln, dense, poor vis por

**Lansing 3065.0 (-1251.0) 0.0**

Ls-crm/tan, fxln, poor ppt to iner xln por, golden to dark brown stains, Faint odor, NSFO

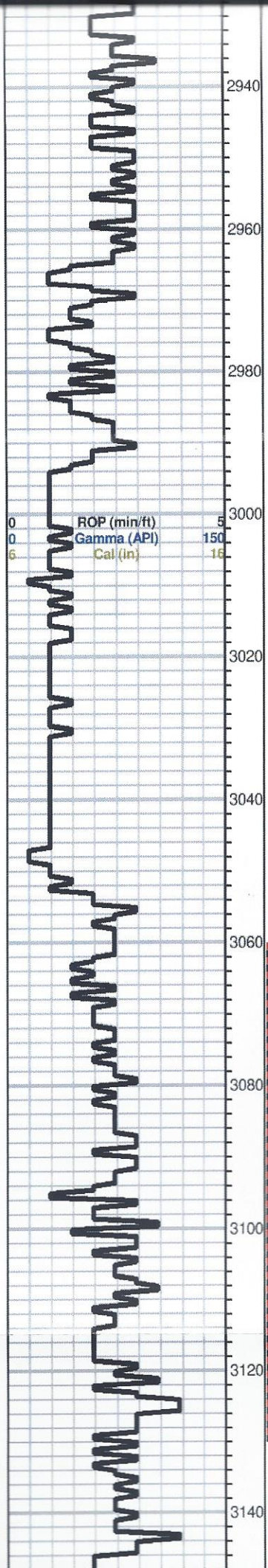
Ls-crm/tan, fxln, ool/fossils, poor ppt to iner xln pro, golden brwn stains SFO, faint odor

Ls-wht/lt gry, fxln, chalky, trace stains, NSFO, no odor  
Shale-gry

Ls-gry/tan, fxln, few fossils/ool, scattered iner xln to iner ool por, golden brown stains, TrSFO, faint odor

Ls-crm/tan, flxn, ool, scattered sub oom por, trace stains, NSFO, no odor, slightly chalky

A/A



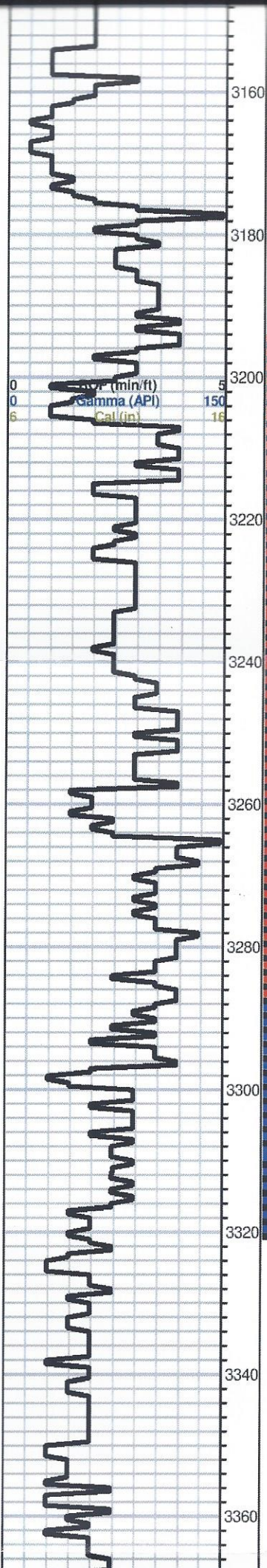
0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

DST #1 3060-3130  
30-30-30-30  
IF: Weak 1 1/2" blow

Recovery:  
20' Watery mud (45w  
55m)

Pressures:

ISIP	561	psi
FSIP	461	psi
IFP	22-35	psi
FFP	24-28	psi
HSH	1476-1440	psi



Ls-crm/tan, fxln, ool, poor to fair oom por, barren, slightly chalky

Ls-crm/tan, fxln, ool, dense, poor vis por

Shale-blk/gry

Ls-crm/tan, ool, poor-fair oom por, golden brwn to dark brwn stains, TrSFO, faint odor

Ls-crm/tan.wht, fxln, ool, fair scatteredpor, brwn stains, SFO, faint odor

Ls-crm/tan/lt gry, fxln, ool, poor scattered iner xln and ppt por, dark brwn to blk stains, NSFO, faint odor

A/A

Shale-gry/grn/blk chert- crm

Ls-wht/gry, fxln, ool, scattered stains, TrSFO, no odor

A/A

**Base Kansas City 3289.0 (-1475.0) 0.0**

Shale-mar/grn/grn

**Arbuckle 3309.0 (-1495.0) 0.0**

Dol-wht/tan, f-med xln, few rhomb, poor to faint iner xln por, golden brwn stains, slightly sat, SFO, good odor

Dol-wht/crm/tan, fxln, poor to fair iner xln por with scattered finely vug por, goldne brwn stains, SFO, odor

Dol-wht/tam. fxln, poor iner xln, por, trace brwn stains, faint odor, NSFO

Dol-wht/crm, fxln, poor iner xln por, NSFO, no odor, cherty

DST #2 3195-3290  
30-30-30-30

IF: Weak 2" blow

Recovery:  
30' mud

Pressures:  
ISIP 715 psi  
FSIP 715 psi  
IFP 19-40 psi  
FFP 26-36 psi  
HSH 1561-1540 psi

DST #3 3290-3319  
30-30-45-45

IF: Weak 1" blow

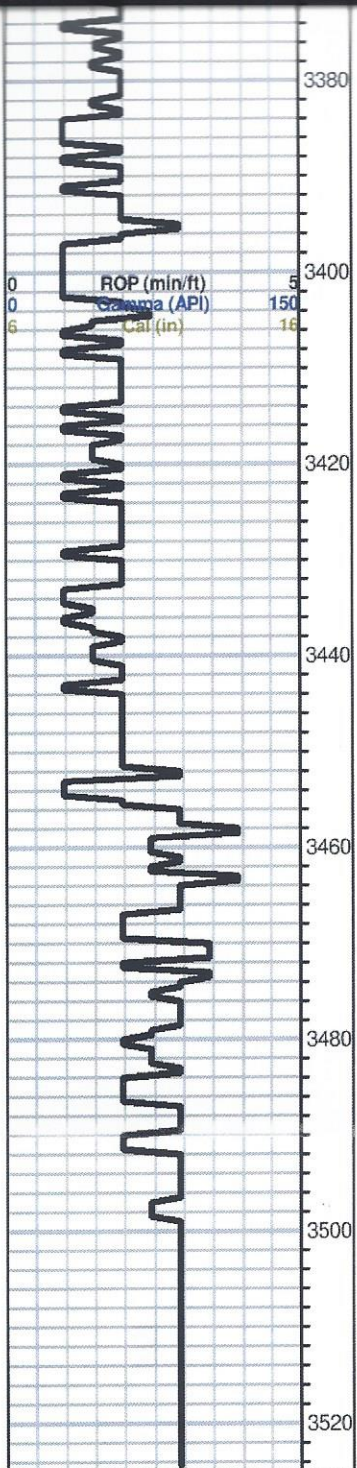
Recovery:  
2' Oil  
18' OCM (5%o 95%o)

Pressures:  
ISIP 526 psi  
FSIP 656 psi  
IFP 17-26 psi  
FFP 21-31 psi  
HSH 1584-1584 psi

DST #4 3284-3327  
30-45-45-60

IF: Built to 3 1/2"

Recovery:  
2' oil  
3' Muddy Oil  
(40%o 60%o)  
30' OCM  
(5%o 95%o)



Dol-wht/crm, fxln, chery, dense, poor vis por, NSFO, no odor,

Dol-wht/crm, fxln, dense, poor iner xln, por, trace qtz grains

Dol-wht/, fxln, poor to fair iner xln, por, No visible shows, no odor, dnese

A/A

A/A Trace pyrite

Dol-wht, fxln, dense, trace qtz, poor to fair iner xln por, no vis shows

A/A

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100