



# Musgrove

**PETROLEUM  
CORPORATION**  
Clifton, Kansas

## Geologist's Report

Company: Pauley Oil

Lease: Spare #1

Field: Brock

Location: SE-NW-NW-SW (2180' FSL & 620' FL)

Sec: 7 Twsp: 23S Rge: 11W

County: Stafford State: Kansas

GL: 1827' KB: 1834'

Contractor: Southwind Drilling Company Rig #4

Spud: 4-25-13 Comp: 5-1-13

RTD: 3684' LTD: none

Mud Up: 2800' Type Mud: Chemical/Displaced

Samples Saved From: 2900 to RTD

Drilling Time Kept From: 2900 to RTD

Samples Examined From: 2900 to RTD

Geological Supervision From: 3150 to RTD

Geologist on Well: K. Talbott

Surface Casing: 8 5/8" @ 351'

Production Casing: 5 1/2" set and cemented

	Pauley Oil				Paulery Oil	
	FSI #5				Spare	
	SE-SE-NW-NW Sec. 7-T23S-11W				SE-NW-NW-SW Sec. 7-T23S-R11W	
KB	1835				1834	
Formation	Sample	Sub-sea	E-Log	Sub-Sea	Sample	Sub-sea
Anhydrite			708	1127		1834
Base Anhy.			729	1106		1834
Heebner	3130	-1295	3132	-1297	3133	-1299
Toronto	3150	-1315	3147	-1312	3153	-1319
Brown Lime	3271	-1436	3270	-1435	3278	-1444
Lansing	3298	-1463	3285	-1450	3302	-1468
Viola	3592	-1757	3591	-1756	3595	-1761
Simpson	3625	-1790	3624	-1789	3628	-1794

Simpson	3625	-1790	3624	1789	3624	-1790	
Arbuckle	3678	-1843	3680	-1845	3679	-1845	

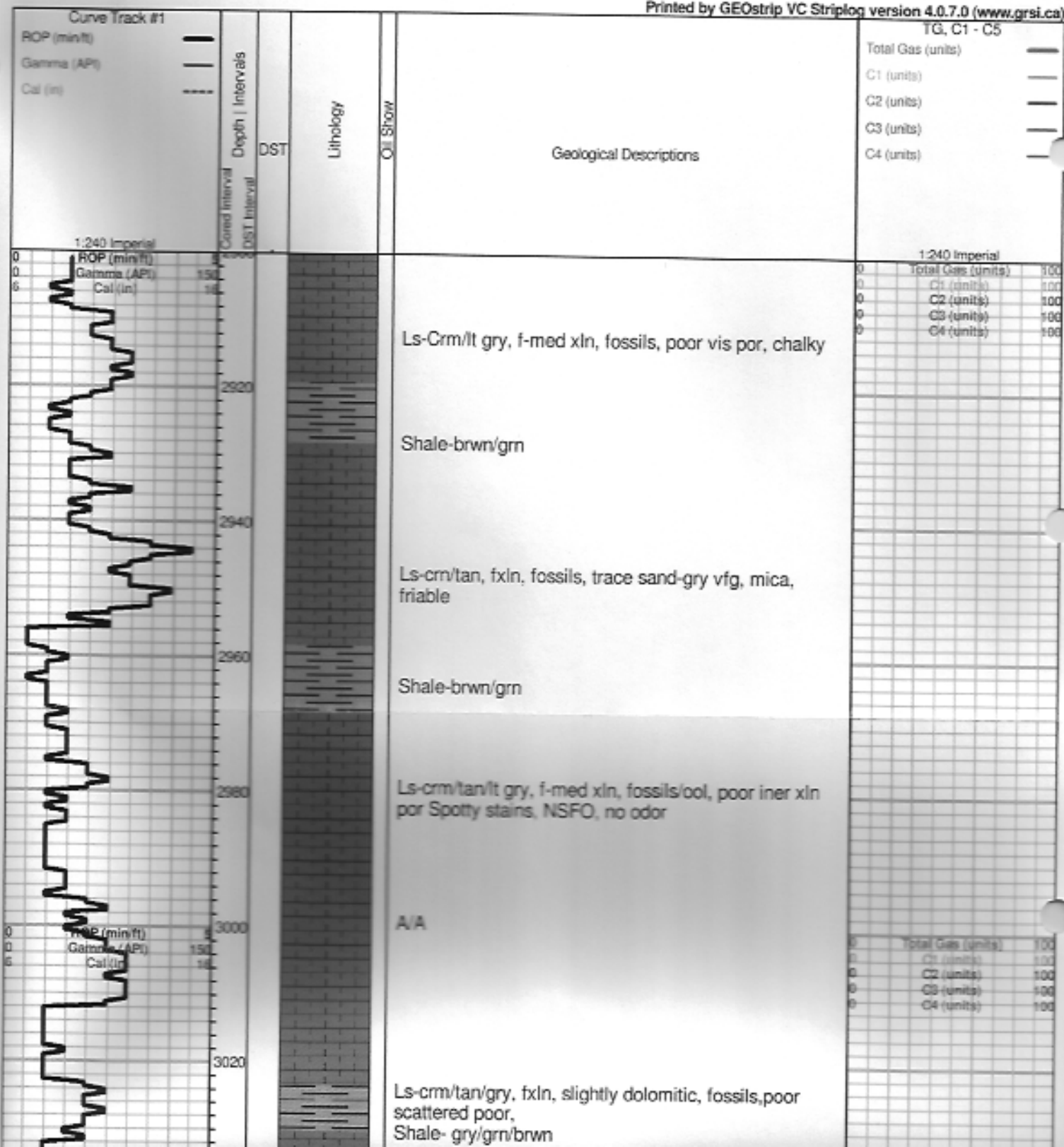
**ROCK TYPES**

Cht	Lmst fwc7	shale, gry	Shool
Dolprim	shale, grn	Carbon Sh	Ss

**OTHER SYMBOLS**

- DST  
 DST Int  
 DST alt

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



Ls-orm/tan/gry, fxln, slightly dolomitic, fossils, poor scattered poor,  
Shale- gry/grn/brwn

3040

Ls-orm/lt gry, f-med xln, poor iner xln to finely vug por, fossils/ool, chalky

3060

A/A

3080

A/A Dense, Cherty

3100

Ls-gry/tan, f-med xln, slightly dolomitic, por iner xln por, chalky, cherty,  
Shale-grn/brwn

3120

**Heebner 3133.0 (-1299.0) 0.0**

Black Carbon Shale

3140

Shale-brn/gry

3160

**Toronto 3153.0 (-1319.0) 0.0**

Ls-orm/tan, fxln, ool/fossils, poor iner part. por, chalky, dense

3180

**Douglas 3168.0 (-1334.0) 0.0**

Shale-brwn/gry/grn, slightly silty

3180

A/A

3200

Trace Sand-Fine to vf grained, friable, mica, glauc, poor iner gran por,

3220

Shale- Brown/gry/grn

3240

Total Gas Limit	100
Cl (units)	100
Cl (units)	100
Cl (units)	100
Cl (units)	100

3240  
3260  
3280  
3300  
3320  
3340  
3360  
3380  
3400  
3420  
3440

Shale- Brown/gry/grn

A/A slightly silty, pyrite

**Brown Lime 3278.0 (-1444.0) 0.0**

Ls-tan/buff/brwn, fxln, dense, few fossils, poor vis por, cherty

Shale-gry/grn

**Lansing 3302.0 (-1468.0) 0.0**

Ls-crm/tan/lt gry, fxln, ool/fossils, poor iner xln por, Trace brown stains, broken open SFO, fair dor

Ls-tan/lt gry, fxln, fossils, por ppt to iner xln por, trace brown stains, Broken open TrSFO, Faint odor, cherty

Ls-gry/tan, fxln, fossils, dense, poor vis por, Chert-wht-ool

Ls-gry/tan, fxln, fossils, poor iner xln por, trace dark brwn to blk stains, NSFO, No odor

Ls-wht/lt gry, f-med xln, fossils, poor iner xln poor, chalky, cherty

A/A

Ls-crm/tan, fxln, ool, poor/fair oom por, dark brwn to blk scattered stains, NSFO, no odor, chalky, cherty

Ls-crm/tan, fxln, ool, scattered poor oom por, chalky, cherty

Ls-crm/wht, fxln, ool, scattered oom por, chalky, cherty

**DST #1 3281-3338**  
**30-45-45-60**  
IF: BOB in 12 min  
No return

Recovery:  
1450' Gas In Pipe  
35' Drilling Mud

Pressures:  
ISIP 551 psi  
FSIP 559 psi  
IFP 18-15 psi  
FFP 13-15 psi  
HSH 1599-1581 psi

Res (in)(1)  
Gas (API)  
Cal (in)

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



Ls-crm/wht, fxln, ool, scattered oom por, chalky, cherty

Ls-crm/tan, fxln, ool, poor iner ool to iner xln por, trace dark brwn stains, NSFO, no odor

A/A- Poor iner ool to finely vug por, Trace brwn stains, NSFO

Ls-wht/crm/tan, fxln, ool, poor iner xln to iner ool por, brown stains, NSFO, no odor, chalky,

Ls-crm/wht, fxln, scattered poor, scattered blk asphaltic stains, NSFO, no odor, chalky

A/A

Ls-crmwht/lt gry, fxln, poor vis por, chalky, dense

Ls-crm/wht, fxln, slightly ool, poor ppt to finely vug por, scattered brown stains, TrSFO, No odor, slightly chalky,

Ls-crm/tan, fxln, poor iner xln por, slightly sucrosic, trae dark brown stains, NSFO, no odor

**Viola 3595.0 (-1761.0) 0.0**

Ls-crm/tan/wht, f-med xln, fossils, poor to fair ppt to iner xln por, golden brown to dark brown stains, SFO, gas bubbles, faint odor

A/A Chert-wht/crm, semi-trip, golden to dark brown stians, SFO, odor,

**Simpson Shale 3624.0 (-1790.0) 0.0**

Shale-brown/gry/grn, firm

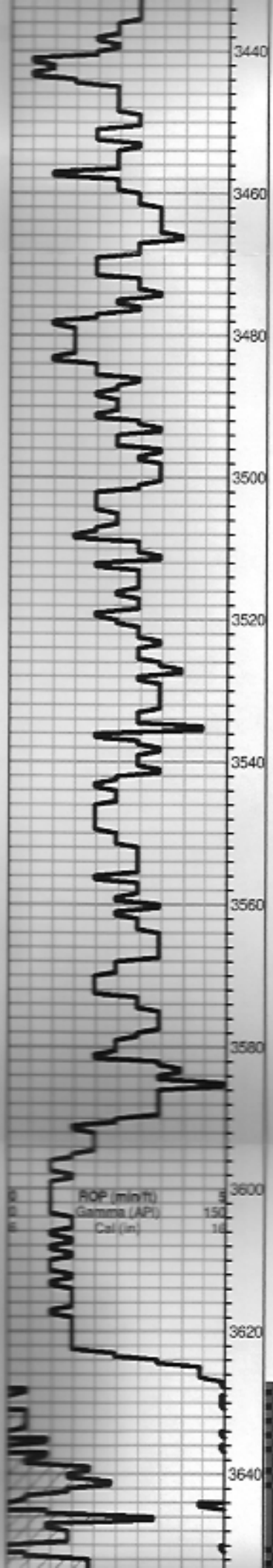
Sand- gry/greenish, very fine to fin grained, sub round, iner gran por, dark brwon to black asphaltic stains.

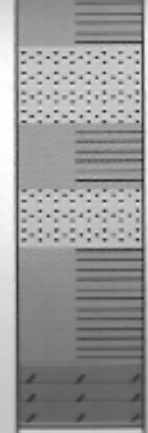
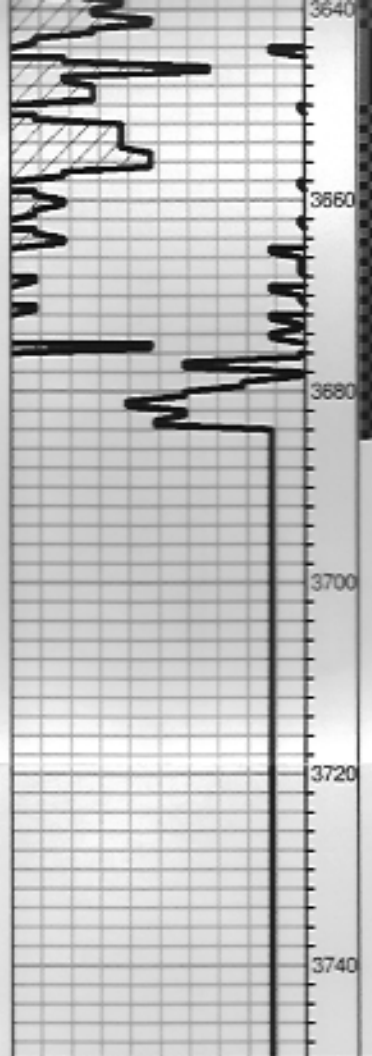
0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

**DST #2 3627-3684**  
**30-45-30-60**

IF: BOB 5 min  
No return

Recovery:  
20' Clean Oil  
185' GOCWM  
(16%g 16%o 23%w 45% m)





Sand- gry/greenish, very fine to fin grained, sub round, iner gran por, dark brwon to black asphaltic stains, NSFO, no odor

Trace sand A/A, Shale- mar/green firm  
Chert-peach/boney wht

**Arbuckle 3679.0 (-1845.0) 0.0**

Dol-crm/tan, f-med rhomb xln, fair/good iner xln to finely vug por, godlen brown stains, slightly sat, SFO, good odor

Recovery:  
20' Clean Oil  
185' GOCWM  
(16%g 16%o 23%w 45% m)  
250' OCWM  
(15%o 42%w 42% m)  
125' OCMW  
(15%o 4% m 94%w)  
250 SOCMW  
(2%o 4% m 94%w)

Pressures:  
ISIP 1274 psi  
FSIP 1274 psi  
IFP 29-233 psi  
FFP 230-383 psi  
HSH 1840-1817 psi

3640  
3660  
3680  
3700  
3720  
3740