



Mudgrove

**PETROLEUM
CORPORATION**
Claflin, Kansas

COMPANY: John Roy Evans Oil Company LLC

LEASE: DEMEL #3

FIELD: Kraft-Prusa

LOCATION: Nw-Se-Nw-Ne (910 FNL & 1815' FEL)

SEC: 6 TWSP: 17s RGE: 11w

COUNTY: Barton STATE: Kansas

KB: 1883 GL: 1876

API # 15-009-25948-00-00

CONTRACTOR: Royal Drilling (rig #2)

Spud: 02/28/2014 Comp: 03/06/2014

RTD: 3400' LTD: 3400'

Mud Up: 2660 Type Mud: Chemical was displaced

Samples Saved From: 2800' to RTD

Drilling Time Kept From: 2800' to RTD

Samples Examined From: 2800' to RTD

Geological Supervision From: 2800' to RTD

Geologist on Well: Wyatt Urban & Josh Austin

Surface Casing: 8 5/8" @ 752'

Production Casing: 5 1/2" @

Electronic Surveys: By Pioneer Energy Services

NOTES

On the basis of the positive drill stem test and after reviewing the electric logs, it was recommended by all parties involved in the Demel #3 to run 5 1/2" production casing at the rotary total depth 3400'.

Correction: Pipe was strapped after DST #1 and found to be 30' off. All drill time and sample tops were corrected.

John Roy Evans Oil Company LLC
well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
Demel #3					Demel #2				Demel #1			
					s/2-Sw-Nw-Ne				Nw-Ne-Ne			
1883 KB					1876 KB				1895 KB			
					Structural Relationship				Structural Relationship			
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Anyhydrite					737	1139	1139					
Heebner	2959	-1076	2954	-1071	2949	-1073	-3	2	2962	-1067	-9	-4
Toronto	2974	-1091	2970	-1087	2965	-1089	-2	2	2980	-1085	-6	-2
Douglas	2986	-1103	2982	-1099	2977	-1101	-2	2	2991	-1096	-7	-3
Brown Lime	3058	-1175	3054	-1171	3048	-1172	-3	1	3065	-1170	-5	-1
Lansing	3074	-1191	3068	-1185	3066	-1190	-1	5	3081	-1186	-5	1
Base KC	3321	-1438	3318	-1435	3309	-1433	-5	-2	3314	-1419	-19	-16
Conglomerate	3329	-1446	3323	-1440	3320	-1444	-2	4	3318	-1423	-23	-17
Arbuckle	3360	-1477	3358	-1475	3331	-1455	-22	-20				
Total Depth	3400	-1517	3374	-1491	3600	-1724			3420	-1525		



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: STC/Demel3dst1

TIME ON: 00:01 3/5/2014
TIME OFF: 05:10 3/5/2014

Company JOHN ROY EVANS Lease & Well No. DEMEL #3
Contractor ROYAL DRILLING RIG #2 Charge to JOHN ROY EVANS
Elevation _____ Formation UPPER LANSING Effective Pay _____ Ft. Ticket No. j3192
Date 3/05/14 Sec. 6 Twp. 17 S Range 11 W County BARTON State KANSAS
Test Approved By GARY KIRMER Diamond Representative JOHN RIEDL

Formation Test No. 1 Interval Tested from 3058 ft. to 3113 ft. Total Depth 3113 ft.
Packer Depth 3053 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 3058 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3061 ft. Recorder Number 30046 Cap. 6000 P.S.I.
Bottom Recorder Depth (Outside) 3110 ft. Recorder Number 13498 Cap. 6000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 59 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 8.7 Water Loss 7.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 5,400 P.P.M. Drill Pipe Length 3038 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 20 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 55 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: VERY WEAK DEAD IN 20 MINUTES
2nd Open: VERY WEAK DEAD IN 10 MINUTES: FLUSHED TOOL AND RECEIVED SHORT SURGE

Recovered 15 ft. of DRILLING MUD

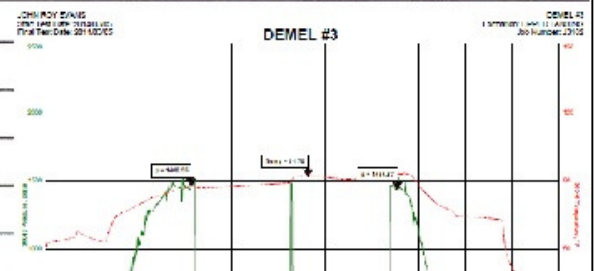
Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

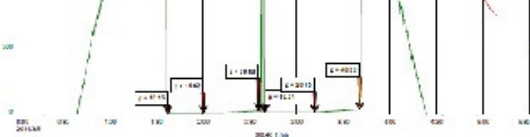
Recovered _____ ft. of _____

Recovered _____ ft. of _____



Recovered _____ ft. of _____
Remarks: **TOTAL FLUID RECOVERY : 15' IN DRILL PIPE**

TOOL SAMPLE GRINDOUT (100%MUD)



Time Set Packer(s) 1:35 A.M A.M. P.M. Time Started Off Bottom 3:35 A.M A.M. P.M. Maximum Temperature 92

Initial Hydrostatic Pressure..... (A) 1462 P.S.I.

Initial Flow Period..... Minutes 30 (B) 13 P.S.I. to (C) 16 P.S.I.

Initial Closed In Period..... Minutes 30 (D) 30 P.S.I.

Final Flow Period..... Minutes 30 (E) 19 P.S.I. to (F) 21 P.S.I.

Final Closed In Period..... Minutes 30 (G) 40 P.S.I.

Final Hydrostatic Pressure..... (H) 1435 P.S.I.



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: STC/Demel3dst2

TIME ON: 23:45 3/5/2014

TIME OFF: 06:20 3/6/2014

Company JOHN ROY EVANS Lease & Well No. DEMEL #3

Contractor ROYAL DRILLING RIG #2 Charge to JOHN ROY EVANS

Elevation _____ Formation CONGLOMERATE SAND Effective Pay _____ Ft. Ticket No. j3193

Date 3/05/14 Sec. 6 Twp. 17 S Range 11 W County BARTON State KANSAS

Test Approved By GARY KIRMER Diamond Representative JOHN RIEDL

Formation Test No. 2 Interval Tested from 3304 ft. to 3345 ft. Total Depth 3345 ft.

Packer Depth 3299 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Packer Depth 3304 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3307 ft. Recorder Number 30046 Cap. 6000 P.S.I.

Bottom Recorder Depth (Outside) 3342 ft. Recorder Number 13498 Cap. 6000 P.S.I.

Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 59 Drill Collar Length 0 ft. I.D. 2 1/4 in.

Weight 9 Water Loss 8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.

Chlorides 6,000 P.P.M. Drill Pipe Length 3284 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 20 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out NO Anchor Length 41 ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: **STRONG (B.O.B 4 MINUTES)** **NO BB**

2nd Open: **B.O.B 4 MINUTES)** **NO B**

Recovered 30 ft. of GIP

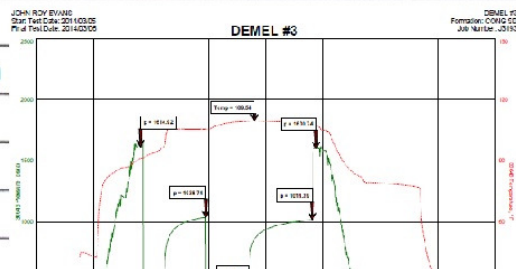
Recovered 870 ft. of W+MCO (25%WATER 25%MUD 50%OIL)

Recovered 120 ft. of VSLOCW (2%OIL 98%WATER) CHLORIDES 28,000Ppm

Recovered _____ ft. of _____

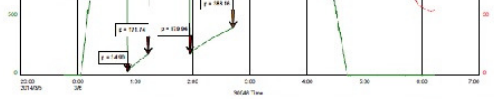
Recovered _____ ft. of _____

Recovered _____ ft. of _____



TOTAL FLUID REC: 990' IN DRILL PIPE

Remarks: TOTAL FLUID REC. 550 IN DRILL I L
 TOOL SAMPLE GRNDOUT: 25% WATER 75% OIL



Time Set Packer(s)	12:45 A.M.	A.M. P.M.	Time Started Off Bottom	3:45 A.M.	A.M. P.M.	Maximum Temperature	110
Initial Hydrostatic Pressure	(A)		1615 P.S.I.				
Initial Flow Period	Minutes	30	(B)	35 P.S.I. to (C)	175 P.S.I.		
Initial Closed In Period	Minutes	45	(D)	1039 P.S.I.			
Final Flow Period	Minutes	45	(E)	180 P.S.I. to (F)	388 P.S.I.		
Final Closed In Period	Minutes	60	(G)	1019 P.S.I.			
Final Hydrostatic Pressure	(H)		1601 P.S.I.				

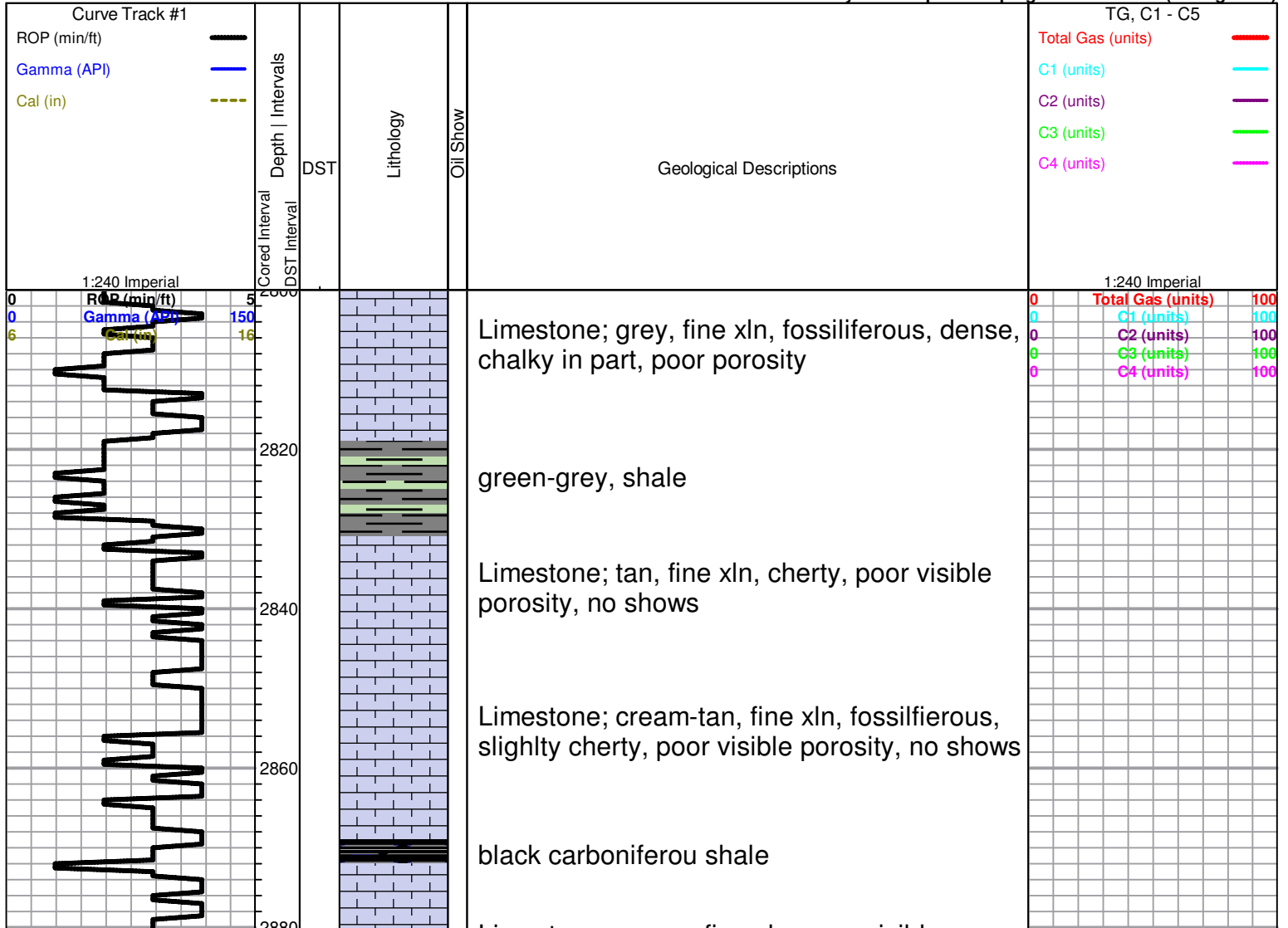
ROCK TYPES

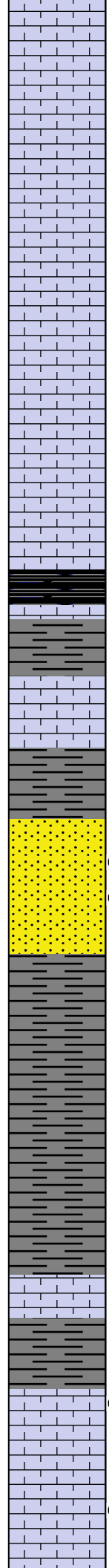
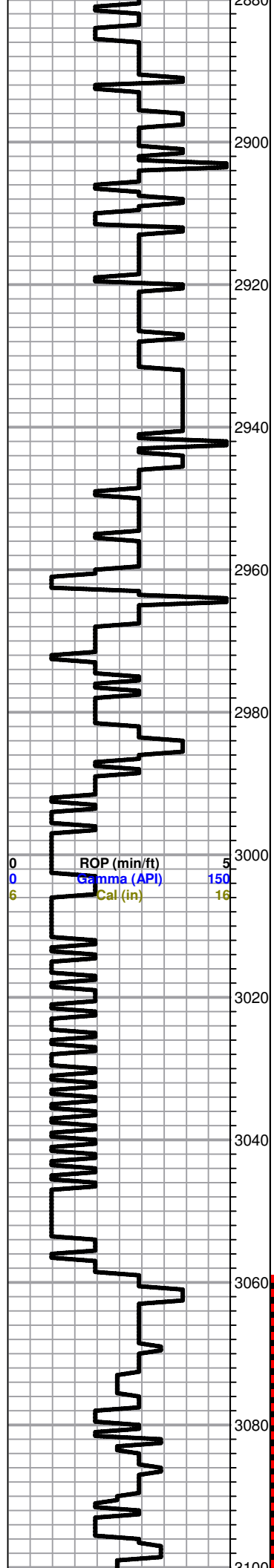
Congl	Dolsec	shale, grn	Carbon Sh
Chtcongl	Lmst fw>	shale, gry	Ss

OTHER SYMBOLS

Oil Show	DST
● Even Stn	■ DST Int
● Spotted Stn 50-75	■ DST alt
● Spotted Stn 25-50	■ Core
● Spotted Stn 1-25	■ tail pipe
○ Questionable Stn	
D Dead Oil Stn	
■ Fluorescence	
* Gas	

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Limestone; cream, fine xln, poor visible porosity, few fossils

Limestone; tan-buff, fine xln, dense, poor visible porosity, no shows, few fossils

Limestone; cream, tan, fine xln, dense, fossiliferous, poor scattered porosity, no shows

Limestone; cream/grey, fine xln, few fossils

Limestone; as above, poor porosity (dense)

HEEBNER 2959 (-1076)
black carboniferous shale

TORONTO 2974 (-1091)
Limestone; tan, fine xln, poor visible porosity, few fossiliferous, poor spotty brown stain, NSFO, no odor

DOUGLAS 2986 (-1103)
Sand; grey, fine grained, well sorted, SFO, lt. brown stain, odor

Sand as above, plus grey soft shale

Shale; grey, soft/gummy

Shale; as above

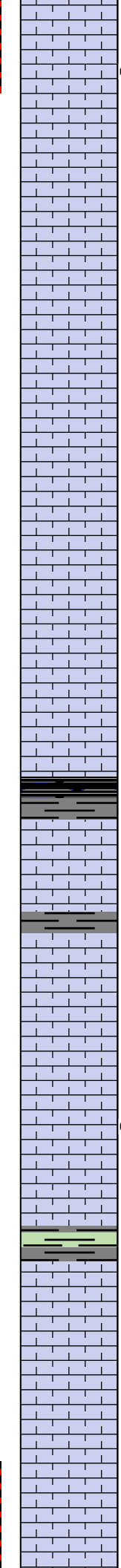
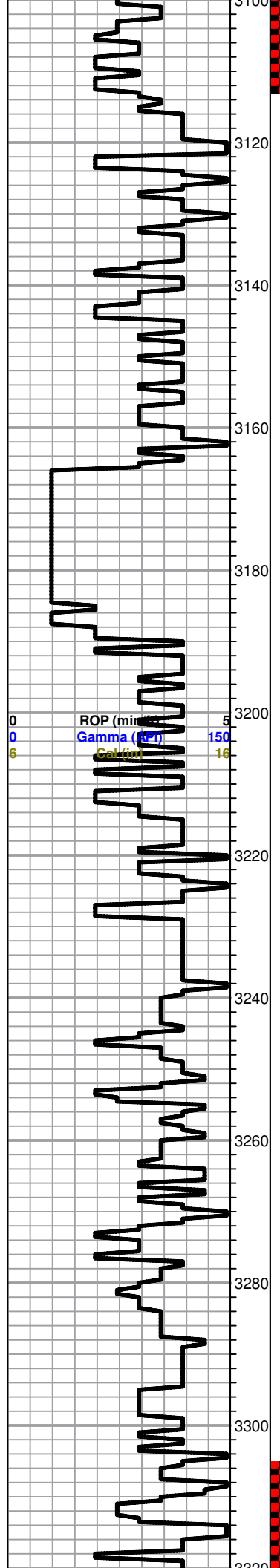
BROWN LIME 3058 (-1175)
Limestone; tan-buff, fine xln, slightly cherty (dense)

LANSING 3704 (-1191)
Limestone; cream-white, chalky, trace golden brown stain, NSFO
Limestone; cream-grey, fine xln, chalky, fossiliferous
Limestone; cream, oomoldic, chalky, fair oomoldic-vuggy porosity, grey-brown stain.

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

Wyatt 2800-3020
Josh 3020-RTD

DST #1 3058-3113
30-30-30-30
Blow; weak
Recovery;
15' mud
Pressures;
ISIP 31
FSIP 40
IFP 13-16
FFP 19-21
HSH 1462-1435



trace free oil, faint odor

Limestone; grey-cream, fine xln, chalky in part, inter xln-vuggy porosity, black stain, SFO, very faint odor

Limestone; cream, oomoldic-oolitic, chalky, dense, oomoldic porosity (barren)

Limestone; cream-grey, fine xln, chalky, dense

Limestone; cream-buff, fine xln, chalky, dense, poor porosity, no shows

Limestone; cream, oomoldic, chalky, good oomoldic porosity (barren)

Limestone; grey-cream, oolitic-oomoldic, good oomoldic porosity, no shows

Limestone; grey-cream-tan, fine xln, fossiliferous, dense

black-grey shale

Limestone; grey-buff, highly oolitic/fossiliferous, dense, cherty in part, poor porosity, no shows
grey shale

Limestone; cream-grey, fine xln, dense, slightly fossiliferous, plus white chalk

Limestone; cream, highly oolitic, poorly developed porosity, golden brown stain, spotty SFO, faint-fair odor

Limestone; cream, fine xln, chalky, dense

Shale; grey-green-maroon

Limestone; cream-white, chalky, granular, slightly fossiliferous-oolitic, poor porosity, no shows

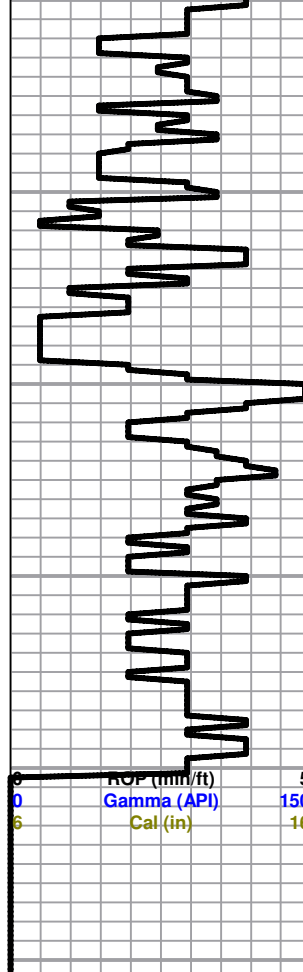
Limestone; cream-buff-grey, fine-medium xln, slightly fossiliferous, dense, poor porosity, no shows

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

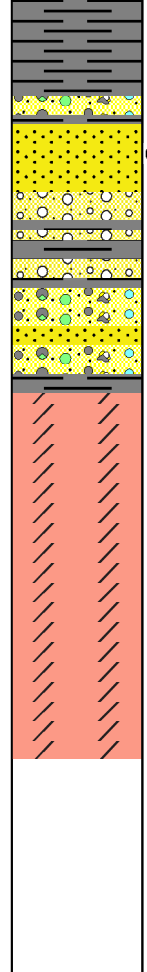
DST #2 3304-3345
30-45-45-60
Blow; BOB 4 min
Final; BOB 4 min

BASE KANSAS CITY 3321 (-1438)

3320
3340
3360
3380
3400
3420



ROP (min/ft) 5
Gamma (API) 150
Cal (in) 16



Shale; grey-green, soft/ gummy

CONCLOMERATE 3329 (-1446)

Trace grey-clear oolitic, Chert
Sand; white, sub rounded, sub angular, well cemented, friable in part, dark brown stain, SFO, faint-fair odor

Chert; cream-grey, oolitic, variety color of Shale, plus white sand, no shows

ARBUCKLE 3360 (-1477)

Dolomite; white, medium-rhombic xln, fair inter xln porosity, no shows

Dolomite; white-lt. grey, fine-medium xln, few rhombic xln, slightly sucrosic, plus FeS2

Dolomite; as above

ROTARY TOTAL DEPTH 3400' (-1517)

no blow back
Recovery;
30' GIP
810' wcmo
(25%W 25%M 50%O)
120' vsocw
(2%oil 98%water)
Pressures;
ISIP 1039
FSIP 1019
IFP 35-175
FFP 180-388
HSH 1615-1601

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