

API #15-065-23813-00-00

GEOLOGICAL REPORT  
DRILLING TIME AND SAMPLE LOG

COMPANY Baird Oil Company, LLC  
 LEASE Quinn # 2-2  
 FIELD Last Hope Northeast  
 LOCATION 330' ENL + 1330' FWL  
 SEC 2 TWSP 7s RGE 22W  
 COUNTY Graham STATE Kansas

ELEVATION  
 KB 2286'  
 DF 2284'  
 GL 2281'  
 Depths Measured From  
 Log KB Drilling KB

CONTRACTOR UW Drilling Rig # 8  
 SPUD 3-15-12 COMP 3-22-12  
 SAMPLES SAVED FROM 3250' TO R.T.D.

CASING  
 Surface 8 5/8" @ 212'  
 Production 5 1/2" @ 3819'  
 ELECTRIC LOGS  
 Superior Well Services

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM	A	B	C	D
				●			
Anhydrite	1919	1917 +	369	+ 362			
Base Anhydrite	1948	1948 +	338	+ 329			
Topeka	3275	3278 -	992	- 993			
Heebner	3478	3480 -	1194	- 1196			
Toronto	3502	3504 -	1218	- 1219			
Lansing	3520	3523 -	1237	- 1236			
Base Kansas City	3710	3712 -	1426	- 1424			
Marmaton	3753	3756 -	1470	- 1467			
Total Depth	3826	3828 -	1542	- 1539			

REFERENCE WELLS

A Baird Oil Company, LLC, #1 Quinn, 330' ENL + 2100' FWL Sec. 2-7s-22W

B

C

D

Port Collar @ 1934'

REMARKS

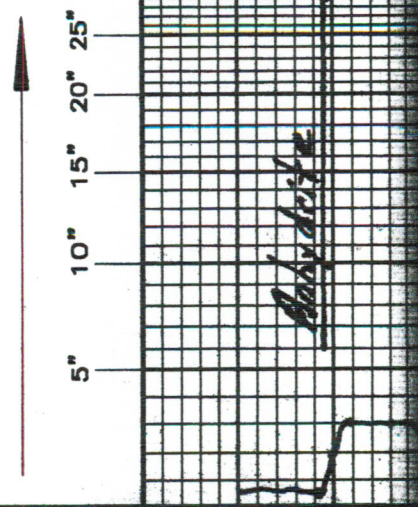
This well ran 1 foot lower on the Lansing top than the reference well. Due to the favorable structural position and encouraging D.S.T. results, it was decided production casing would be cemented to further test the well. The following zones should be tested; 3706'-3707', 3678'-3680', 3649'-3650', 3553'-3556', 3523'-3525' and 3504'-3507'.  
 Richard B. Bell  
 3-23-12

7502

LEGEND

-   
 Anhydrite
-   
 Salt
-   
 Sandstone
-   
 Shale
-   
 Carb sh
-   
 Limestone
-   
 Ool. Lime
-   
 Chert
-   
 Dolomite

DRILLING TIME IN MINUTES  
 PER FOOT  
 Rate of Penetration Decreases



LOG 7710

DEPTH

1900

LITHOLOGY

SAMPLE DESCRIPTIONS

OIL SHOWS

REMARKS

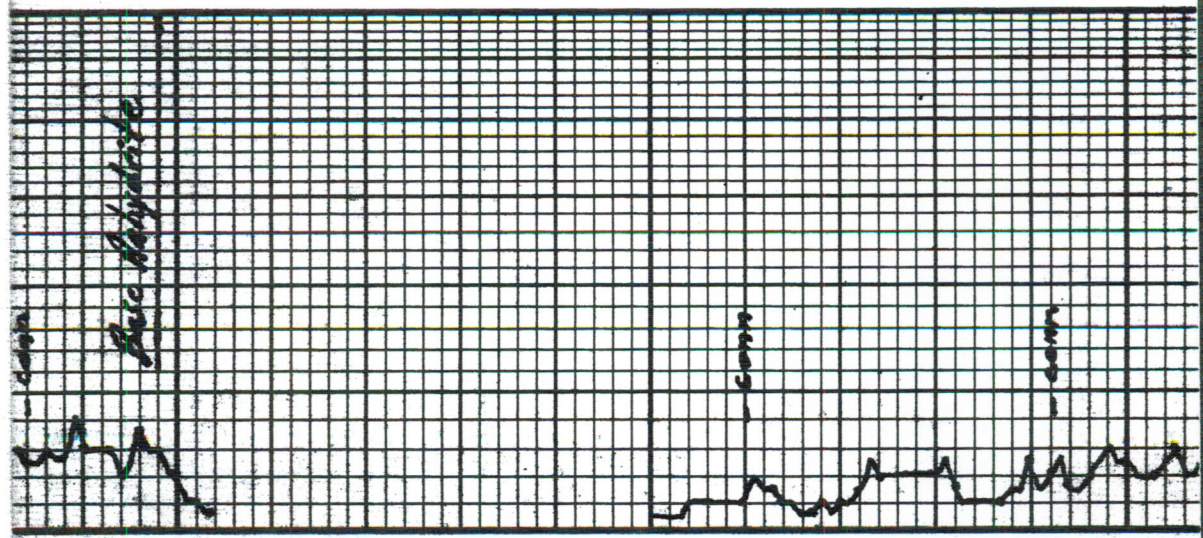


1950

3100

20

40

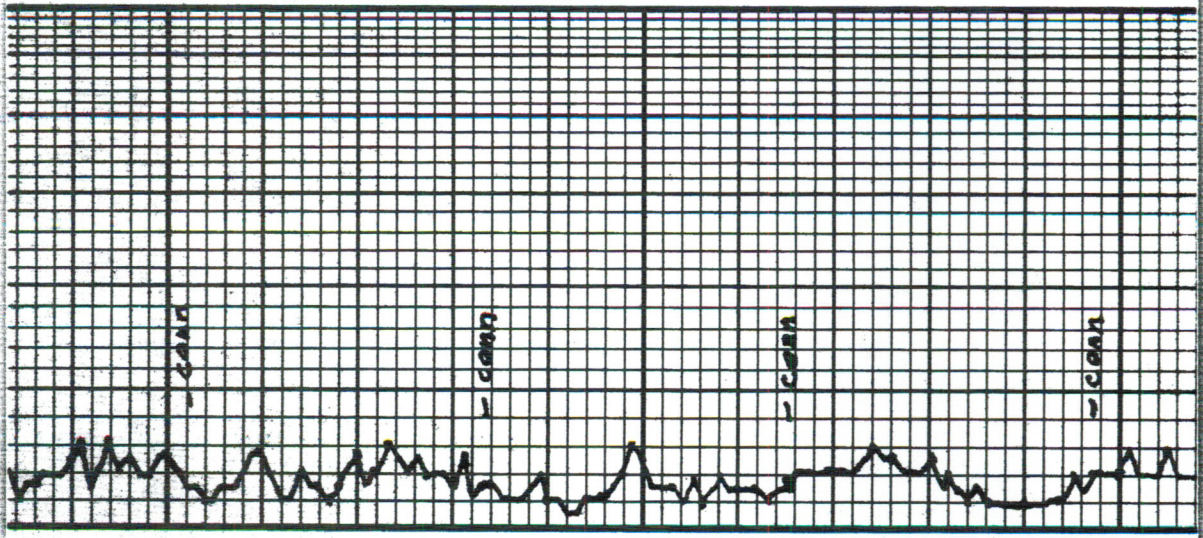


Puro Hydroxide

com

com



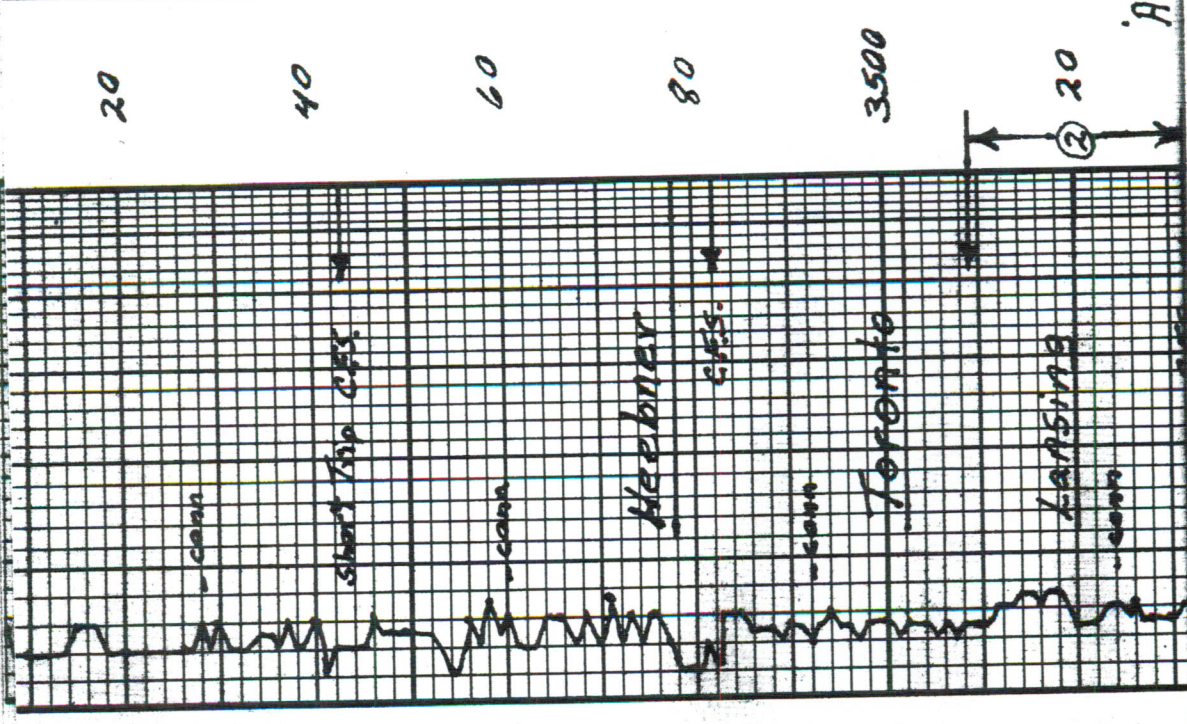


LS: wht - shly v. cky - feln dms - f. l. - incl. pp - sh: brn, gry N50.	LS: wht - gry mld felf dms.	LS: wht - gry cky - felf dms N50.	Sh: gry, brn	LS: wht - cky - felf dms Tr: Δ to felf	Sh: gry	LS: wht - gry cky - felf dms N50.	LS: wht - v. cky - felf dms Δ to wh - tr	LS: gry felf dms	LS: wht - cky - felf dms Δ WL	Tr: blk - carb - sh LS: wht - gry mld felf dms	shly: brn slty	LS: wht - felf dms N50.	LS: wht - sh - gry Tr: cky - felf
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3300  
20  
40  
60  
80  
3400

Gas NSO, T, A, W

20	sh: brn slty, gry	ns
40	ls tn-gry fsif dns	ns
60	Tr. blk Carb Sh	ns
80	ls: wh. tn cky-faln Tr. pr. pp $\phi$ Tr. blk thick $\phi$ str fr-odor sht-tn	ns
3500	ls: wh. tn cky-faln dns Tr. blk Thick edge $\phi$ str Tr. ls: to-gry half part $\phi$ str No odor $\Delta$ wh. tn sh: gry, brn	ns
20	ls: wh. tn cky-faln sl:ool - sub oil pr. ls. spr $\phi$ str str pp $\phi$ on crushing	ns



Trilobite Testing

Incline @ 3532' 1°

Board 3587.87  
Stamp 3587.72  
Diff. .15

DST #2 3509'-3532'  
45-45-45-45

Tr: Wk blow incr. to 2"  
FF: Wk blow incr. to 1 1/4"

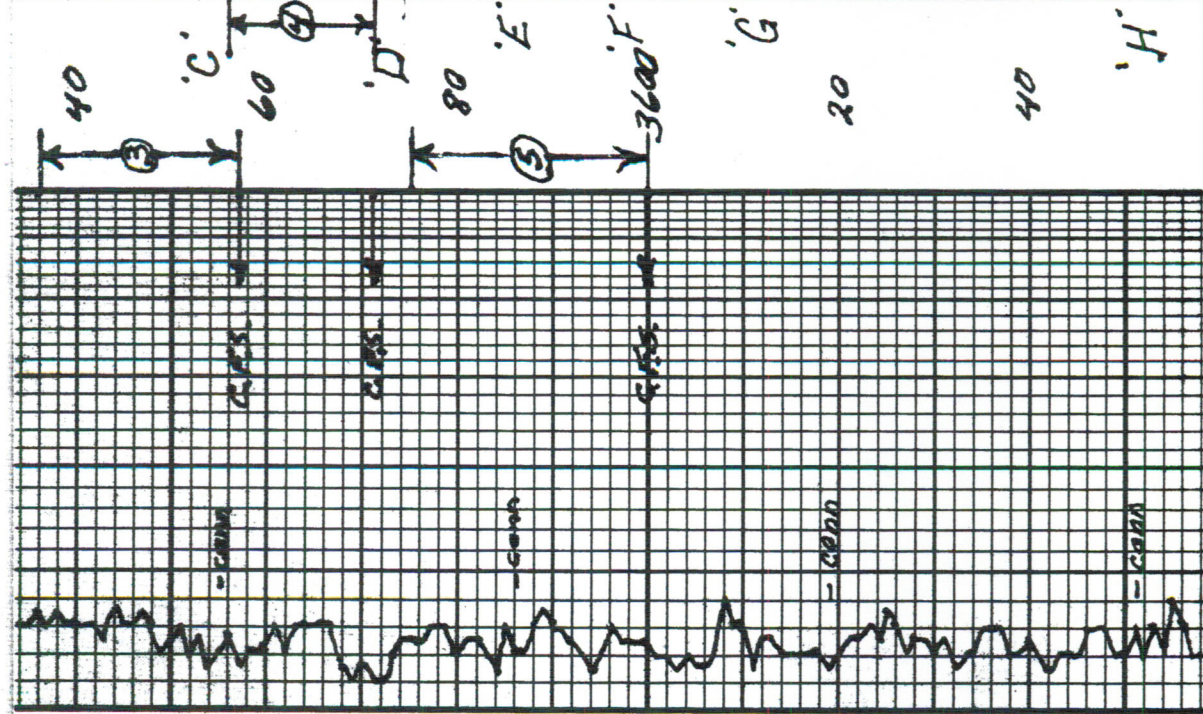
Recovery: 82' Total  
20' GSYD

62' G4MCO 5% G  
60% 352M  
Hyd: 1739-1708

1739-1708 / 30-45

BHP: 54-53 #  
 BH Temp: 104°F  
 gravity: 31° A.P.I.  
 DST #3 3536'-3557'  
 15-45 -30-45  
 IF: B.O.B. in 2 min  
 JAF: B.O.B. in 12 min  
 FF: B.O.B. in 1 min.  
 FSI: B.O.B. in 8 min.  
 Recovery: 100' G.I.P  
 1198 Total Fluid  
 20' G. 302 G 70% O  
 620' G. 102 G 90% O  
 279' G. 60 M 102 G 3% O  
 60% w, 27% m  
 279' gmcw 5% g,  
 85% w, 10% m  
 HYD: 1749-1683 #  
 FP: 87-241/264-439 #  
 BHP: 892 - 879 #  
 BH Temp: 117°F  
 gravity: 31.9° A.P.I.  
 DST #4 3656'-3571'  
 30-30-30-30  
 IF: B.O.B. in 4 min.  
 FF: B.O.B. in 6 min.  
 Recovery: 1456' Total  
 30' C.O.I  
 142' Wtr.  
 HYD: 1801-1709 #  
 FP: 53-341/348-552 #  
 BHP: 920 - 917 #  
 BH Temp: 118°F

sh: brn, gry	✓
LS: wh to blk oil in part of f. O sat pp f. e strong odor ΔTY TH - gry	✓
LS: wh to blk - f. O sat pp f. e ΔTY TH - gry	✓
LS: wh to sl: cky - f. in oil w pass inclus. fr. spid O str pp f. e. No odor	✓
LS: wh to blk oil w pass inclus. in part of ht spid O str fr. O sat pp f. e.	✓
LS: wh to cky - f. in gel ps sl: oil pr. in part of fr. ht. edge str N.F.O.	✓
LS: wh to cky - f. in dns	✓
Sh: blk Carb gry LS: th - gry mild - ps f dns	✓
LS: wh to blk to trap of isol. Vugs fr. fr spid O str	✓



- conn  
 - conn  
 - conn  
 - conn





✓

ls: wh-tn fs lf vgy φ  
drk brn F.O.

shly: brn sHy

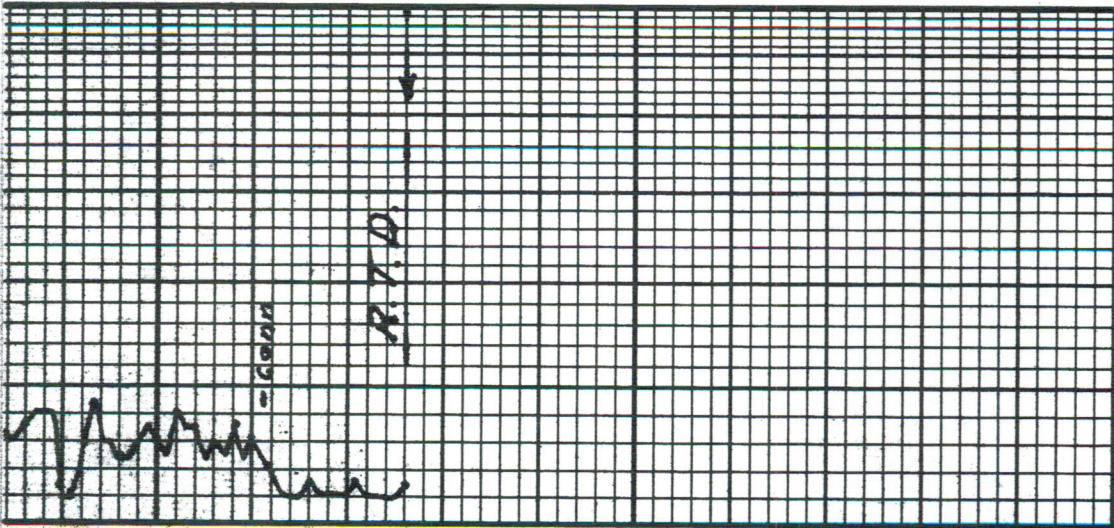
sh: brn, mar, gny, gvn  
A-TN-OY



3800

20

40



-6000

R.T.D.