

A.P.T.# 15-065-24036-00-00

GEOLOGICAL REPORT
 DRILLING TIME AND SAMPLE LOG

COMPANY Baird Oil Company, LLC.
 LEASE David Worcester #1-24
 FIELD Wildcat
 LOCATION 1880' FNL + 1360' FEL
 SEC 24 TWSP 7s RGE 22w
 COUNTY Graham STATE Kansas

ELEVATION
 KB 2169'
 DF 2167'
 GL 2161'
 Depths Measured From
 Log KB Drilling KB

CONTRACTOR WW Drilling Rig #12
 SPUD 4-25-14 COMP 5-4-14
 SAMPLES SAVED FROM 3100' TO R.T.D.

CASING
 Surface 8 5/8" @ 219'
 Production 5 1/2" @ 3705'
 ELECTRIC LOGS
Nabors

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM	A	B	C	D
				-0-	●		
Anhydrite	1770	1766 + 392		+ 404	+ 381		
Base Anhydrite	1802	1797 + 362		+ 371	+ 350		
Topeka	3149	3144 - 985			- 983		
Heebner	3359	3354 - 1195		- 1202	- 1193		
Toronto	3380	3375 - 1216		- 1227	- 1214		
Lansing	3395	3390 - 1231		- 1242	- 1230		
Base Kansas City	3584	3578 - 1419		- 1436	- 1420		
Arbuckle	3686	3681 - 1522		- 1551	- 1506		
Total Depth	3711	3694 - 1535		- 1582	- 1574		

REFERENCE WELLS

- A Murfin + Sitrin, Wallace #1, SE SE NE Sec. 24-7s-22w
- B Baird Oil Co., LLC. Esther Worcester #2-13 1270' FSL + 695' FEL
- C Sec. 13-7s-22w
- D Port Collar @ 1788'

REMARKS

This well ran 1 foot lower to 11 feet higher on the Lansing top than the reference wells. Encouraging D.S.T. data warranted the cementing of production casing, to further test the well. The following zones should be tested; 3439'-3442', 3455'-3457', 3461'-3465' and 3564'-3567'.

Richard B. Bell
5-5-14

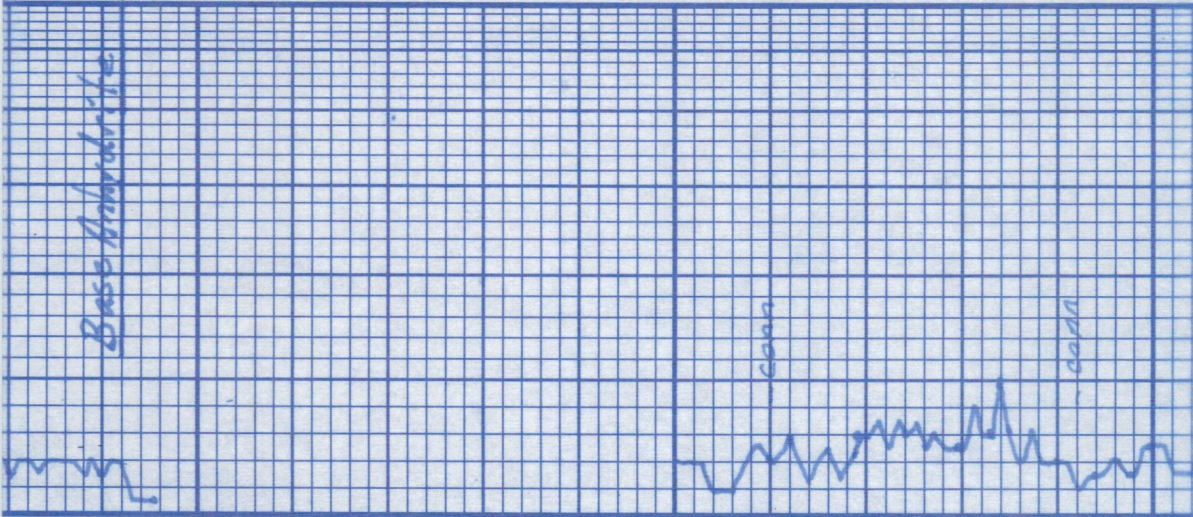
7502

LEGEND

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

DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases	DEPTH	SAMPLE DESCRIPTIONS	REMARKS
	1760	LITHOLOGY	OIL SHOWS
	80		

LOG 7710



1800

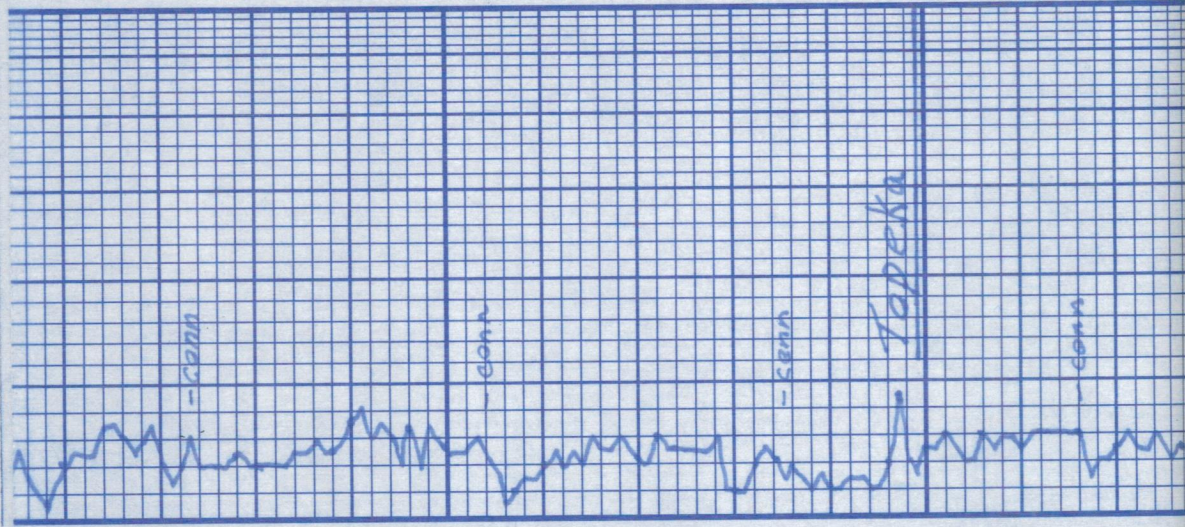
3000

20

40

Samples are lagged
good Samples

Drilling time must
be adjusted up 5.
to Match E. / log tops



60

80

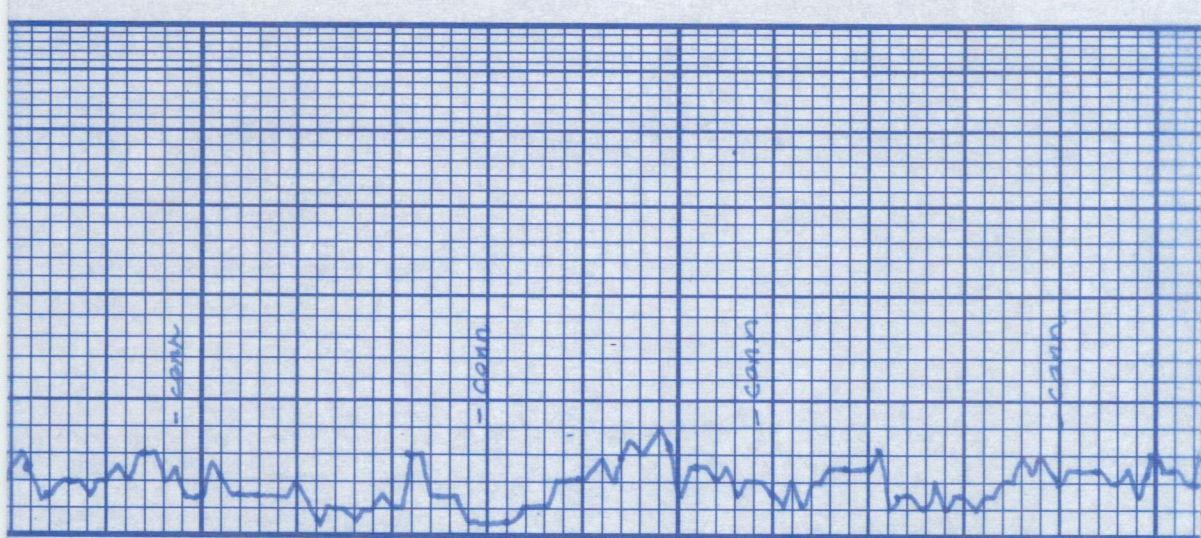
3100

20

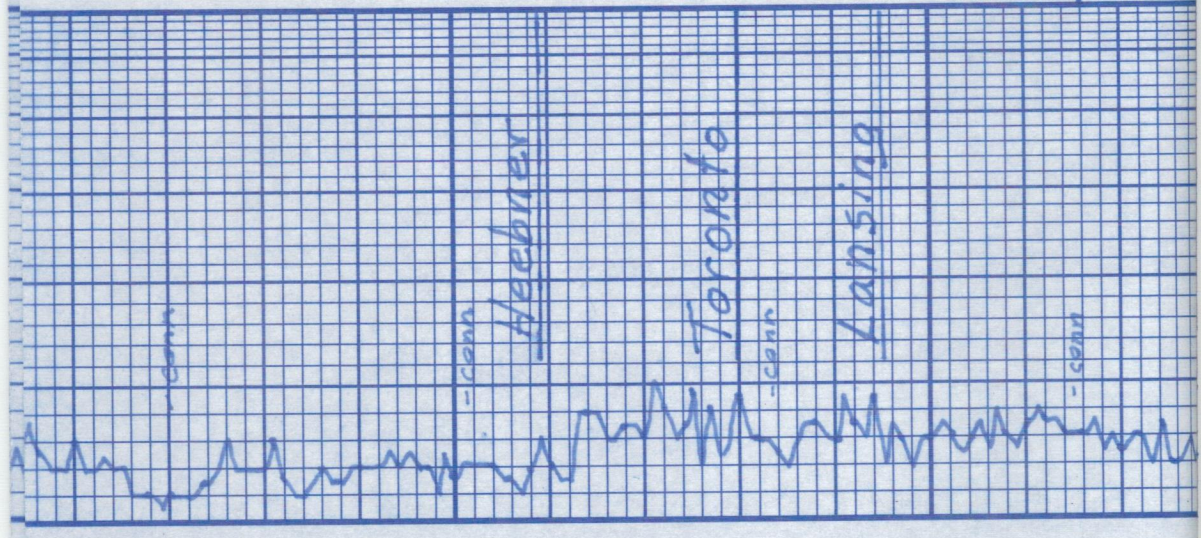
40

60

	ls:tn-gry mtd fslf dns
	Sh:brn + gry
	ls:tn-gry mtd fslf dns
	Sh:gry
	ls:tn fslf dns
	Sh:gry
	ls:tn fslf pr. ppq N.S.O.
	ls:wh-tn-gry Tr. fclm massive fslf dns N.S.O.
	Sh:gry + brn
	ls:wh-tn-gry mtd sl:cby- fslf dns N.S.O.



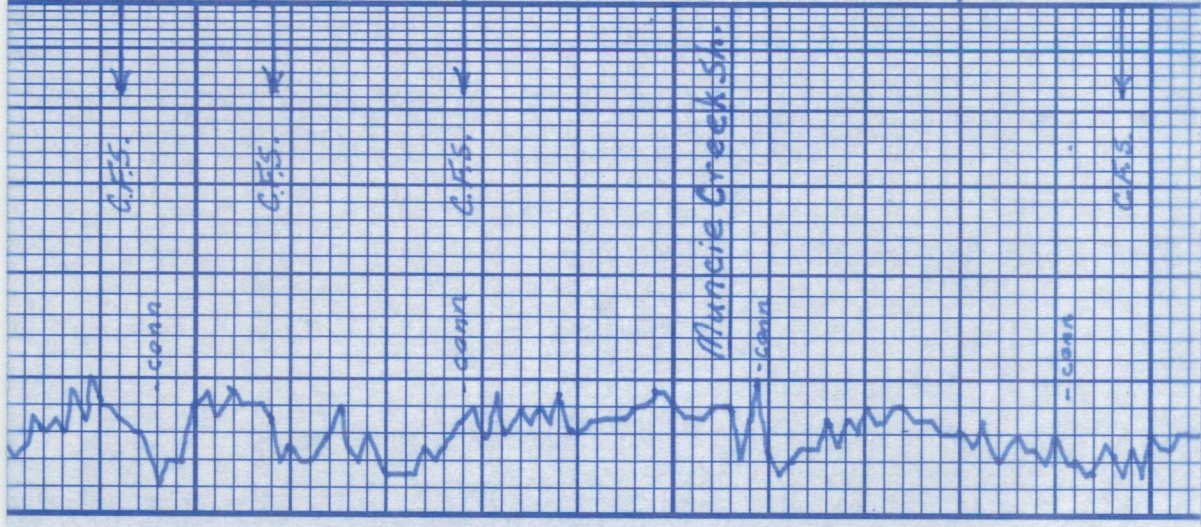
80		LS: tn-gry fs/f ds N.S.O.
3200		SHstone: tn-gry
20		LS: wh-tn v. chy -fx tr friable N.S.O. Δ tr wh-st. gry
40		LS: gry fs/f ds
60		LS: ta-gry fs/f ds N.S.O. Tr Δ wh-gry
80		sh: blk carb LS: gry fs/f ds SHstone: gry
3300		SHstone: brn + tn
		LS: wh-tn chy -fx ln No Vis φ Δ wh-tn N.S.O.
		sh: brn
		LS: tn-gry fs/f ds
		sh: brn
		LS: tn-gry fs/f ds N.S.O.



LS: wh-to fxln-fs/f Tr ppd friable N.S.O. Δ Tn. ht. gry	20
a.a. sh.ber	
LS: wh-to-gry cky-fs/f fr pe in part of N.S.O. Δ wh. tr	40
LS: wh. tr- gry cky-fs/f dns	60
sh: blk Carb. LS: tr- gry fs/f dns	
sltstone: gry	
LS: tr fxln dns Tr Δ wh	80
sh.ber	
LS: wh-th cky-fxln tr sl: ool dns N.S.O Tr Δ wh-tr fs/f	3400.A
LS: wh- crm fxln dns	
LS: gry fs/f dns	20
LS: wh-to slt. cky-fxln	

Incline @ 3442' 3/4
Trilobite Testing

DST # 1 3416' 3442'
45-45-45-45
IF: B.O.B. in 25 min.
ISI: No blow
FF: B.O.B. in 31 min
FSI: No blow
Recovery: 333' Total
3 Oil
85' MW 15% M, 85% W
126' MW 35% M, 65% W
60' MW 30% W, 70% M
59' Mud
HYD: 1770-1664#
FP: 17-112 / 116-164#
BHP: 709-700#
DIT: 107°F



40'	D	G.F.S.	sl: fslf ppφ tr vgyφ fr. o.s.tn fr sptd o.s.tn ppφ. strong odor & wh-tn. Sh. brn. Siltty. Dol: tn fxln inxln φ - vgyφ above drk o.s.tn rainbow s.d. pp f.o. strong odor & grey mtd. ls: tn fxln dns
60'	E	G.F.S.	ls: wh- CRM fxln sl: ool ppφ tr vgy φ Lt. o.s.tn tr f.o. ls: wh-tn cky-fxln ool impart φ - vgyφ Lt. o.s.tn pp floating f.o. ls: wh- CRM sl: cky-fxln fr pp φ n.s.o.
80'	F	G.F.S.	ls: wh-tn fxln dns
3500'	G		ls: wh-tn fxln dns
3520'	H		a.a. sh: blk carb. ls: tn grey mtd fslf dns
3540'	I		ls: wh-tn tr. sub ool dns n.s.o. tr Δ-tn sh: brn
3560'	J		ls: wh-tn fxln tr. pr. pp φ tr isd. vugs R.T. blk tary sps ls: wh-tn fslf pp φ - tr vgy φ

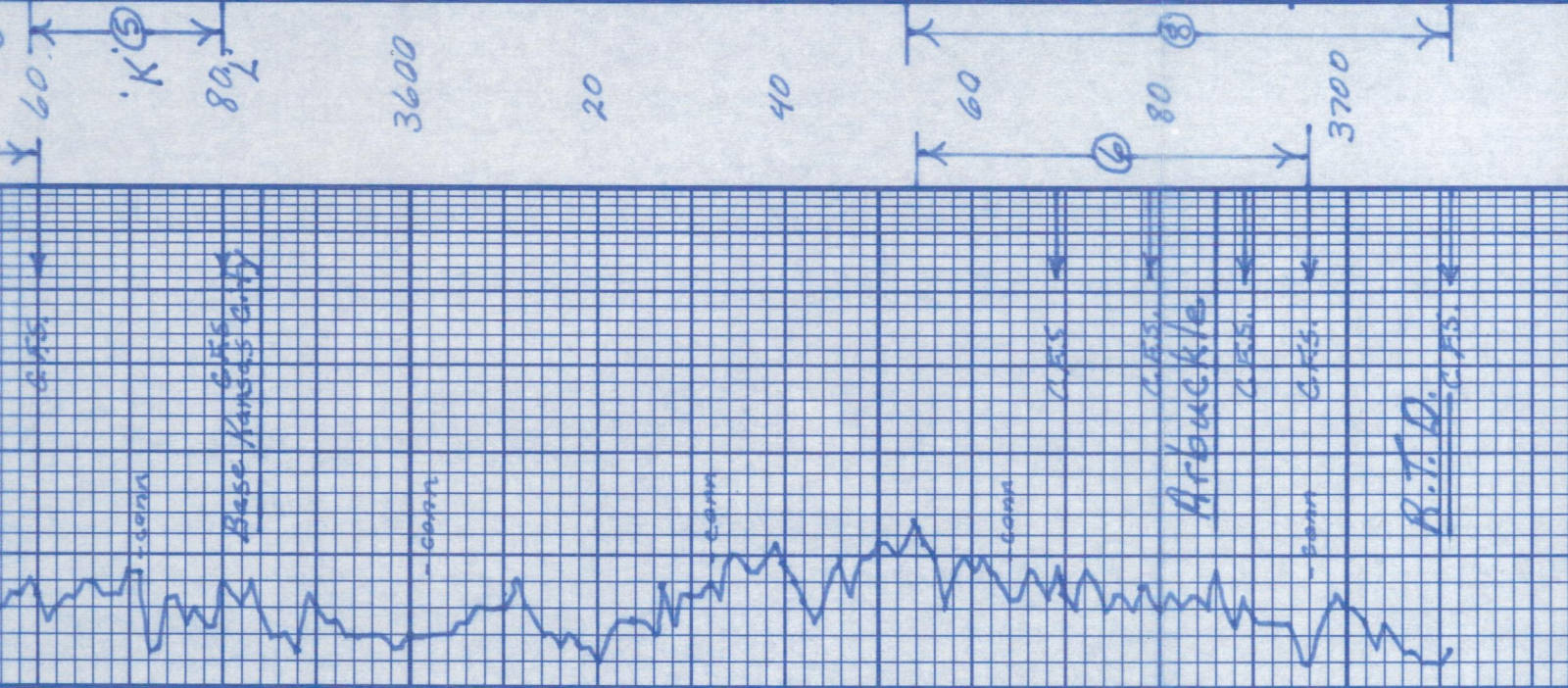
DST #2 3439-3458'
 45-45-45-45
 IF: wk blow incr. to 3 1/2"
 FF: wk blow incr. to 6"
 Recovery: 250' Total
 20' Oil
 48' OMCW 1020, 252M, 652W
 123' OMCW 520, 252M
 59' MW 102M, 90% W, 80% W
 HYD: 1735-1664#
 FP: 14-84/86-124#
 BHP: 729-721#
 BH Temp: 108°F.

DST #3 3456'-3478'
 15-45-30-60
 IF: B.O.B. in 2 min
 ISI: 6" blow
 FF: B.O.B. in 3 min
 FSI: B.O.B. in 15 min.
 Recovery: 633' Total
 73' 60 52 G, 95% O
 189' 60 207 G, 80% O
 189' 60 502 G, 50% O
 63' OCM 2020, 802M
 119' OMCW 1020, 102W, 802M
 HYD: 1724-1613#
 FP: 42-133/148-261#
 BHP: 794-782#
 BH Temp: 109°F.

DST #4 3530'-3560'
 30-30-30-30
 IF: wk blow died in 28 min
 FF: No blow
 Recovery: 20' OMCW

Hyd: 1713 - 1710 #
 FP: 12-18 / 21-24 #
 BHP: 572 - 209 #
 DST #5 3559' - 3580'
 30-30-45-45
 IF: wk blow
 FF: wk blow
 Recovery: 50' G.I.P.
 30' G.O. 10% G, 90% O
 60' anwcm 20% O, 30% W
 50% M
 Hyd: 1744 - 1744
 FP: 13-34 / 37-52 #
 BHP: 1139 - 1163 #
 Gravity: 28° API.
 BH Temp: 103° F
 DST #6 3654' - 3696'
 30-30-0-0
 IF: wk blow died in 25 min.
 Recovery: 20' OCM
 20% O, 80% M
 Hyd: 1817 - 1857 #
 FP: 16-21 #
 BHP: 153 #
 BH Temp: 103° F
 DST #7 3694' - 3711'
 Misrun Packer failed
 DST #8 3653' - 3711'
 30-30-0-0
 IF: wk blow
 Recovery: 20' OCM
 20% O, 80% M
 Hyd: 1785 - 1750 #
 FP: 31-30 #
 BHP: 633 #
 BH Temp: 104° F
 Board 3602.76
 Strap 3602.36
 Diff .40

S.O. P.F.O fr. odor
 Sh: brn + gry
 LS: wh-tn fxln oöl abund.
 in part of Lt. O sat. pp F.O.
 Lt. rainbow fr odor
 LS: tn-brn mtd fslf dns
 shly: brn + gry
 a.a.
 LS: tn-brn fslf dns N.S.O.
 shly: brn + gry
 LS: tn-brn fxln dns
 Sh: brn slty
 LS: tn-gry fxln-fslf sd
 embedded dns N.S.O.
 LS: wh-tn chy-fxln dns N.S.O.
 LS: a.a.
 Sh: brn slty
 Sh: brn slty
 Dol: tn fxln pr. inx/mid Tr.
 isol vugs. Lt. - fr satd O stn
 Sat pp F.O. Lt. odor
 Dol: tn fxln-mxln inxln φ
 vgy φ O sat Tr bleeding Fo
 Dol: wh-tn fxln-mxln vgy φ
 Lt-drt O sat P.F.O.



R.T.D.