

A.P.I. # 15-065-23814-00-00

GEOLOGICAL REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY Baird Oil Company, LLC
 LEASE White # 1-11
 FIELD Worcester Northeast
 LOCATION 710' FNL + 1230' FEL
 SEC 11 TWSP 7s RGE 22w
 COUNTY Graham STATE Kansas

ELEVATION
 KB 2229'
 DF 2227'
 GL 2224'
 Depths Measured From
 Log KB Drilling KB

CONTRACTOR WWD Drilling Rig #8
 SPUD 3-24-12 COMP 3-30-12
 SAMPLES SAVED FROM 3200' TO R.T.D.

CASING
 Surface 8 5/8" @ 212'
 Production 5 1/2" @ 3806'
 ELECTRIC LOGS
 Superior Well Service

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM	A	B	C	D
			<u>log</u>				
<u>Anhydrite</u>	<u>1863</u>	<u>1861</u>	<u>+ 368</u>				
<u>Base Anhydrite</u>	<u>1894</u>	<u>1893</u>	<u>+ 336</u>				
<u>Topeka</u>	<u>3225</u>	<u>3224</u>	<u>- 995</u>	<u>-1004</u>			
<u>Heebner</u>	<u>3425</u>	<u>3424</u>	<u>- 1195</u>	<u>-1203</u>			
<u>Toronto</u>	<u>3451</u>	<u>3449</u>	<u>- 1220</u>	<u>-1225</u>			
<u>Lansing</u>	<u>3465</u>	<u>3463</u>	<u>- 1234</u>	<u>-1242</u>			
<u>Base Kansas City</u>	<u>3652</u>	<u>3651</u>	<u>- 1422</u>	<u>-1427</u>			
<u>Marmaton</u>	<u>3695</u>	<u>3694</u>	<u>- 1465</u>	<u>-1470</u>			
<u>Arbuckle</u>	<u>3770</u>	<u>3769</u>	<u>- 1540</u>				
<u>Total Depth</u>	<u>3806</u>	<u>3807</u>	<u>- 1578</u>	<u>-1558</u>			

REFERENCE WELLS

A Black Diamond Oil, Inc, White #1, 470' FNL + 1900' FEL sec 11-7s-22w
 B
 C
 D Part Collar @ 1868'

REMARKS

This well ran 8 feet higher on the Lansing top than the reference well. After review of all data it was decided production casing would be cemented to further test the well. The following zones should be tested: 3754'-3762', 3617'-3619', 3534'-3536' and 3494'-3496'.

Richard S. Bell
3-31-12

7502

LEGEND

- 

Anhydrite
- 

Salt
- 

Sandstone
- 

Shale
- 

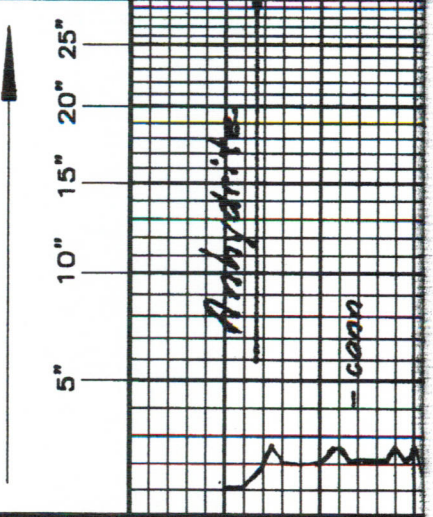

Carb sh
- 

Limestone
- 

Ool. Lime
- 

Chert
- 

Dolomite

DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
	1860 80				

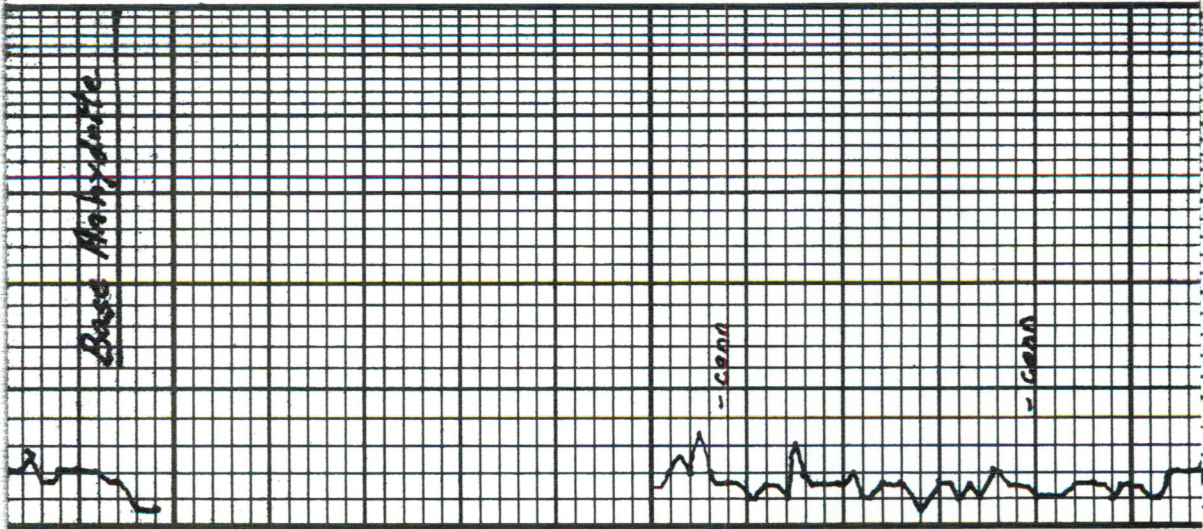
LOG 7710



3100

20

40



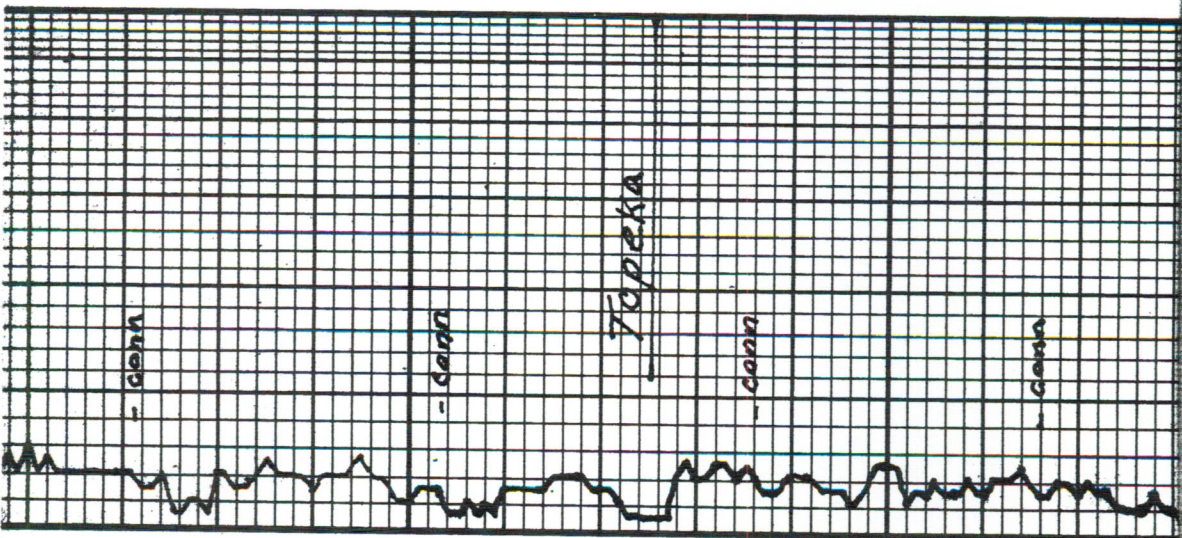
Base Anhydride

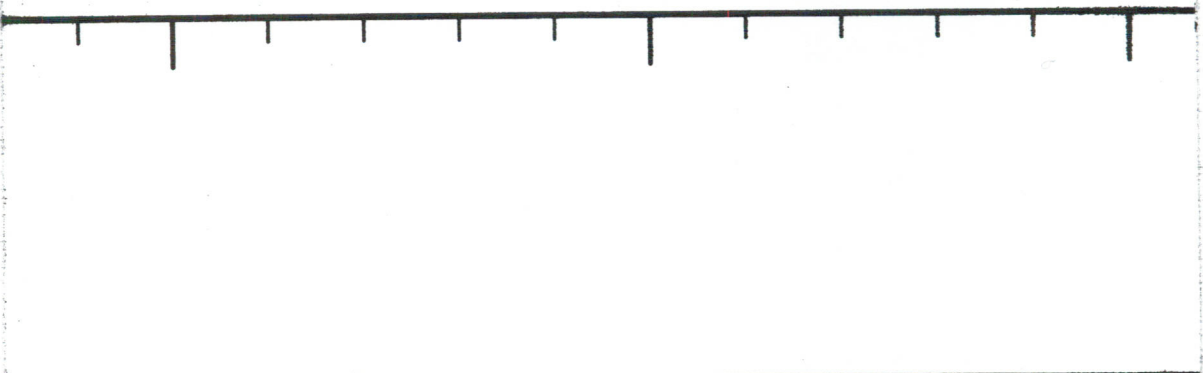
-CERN

-CERN

Samples are tagged
good samples

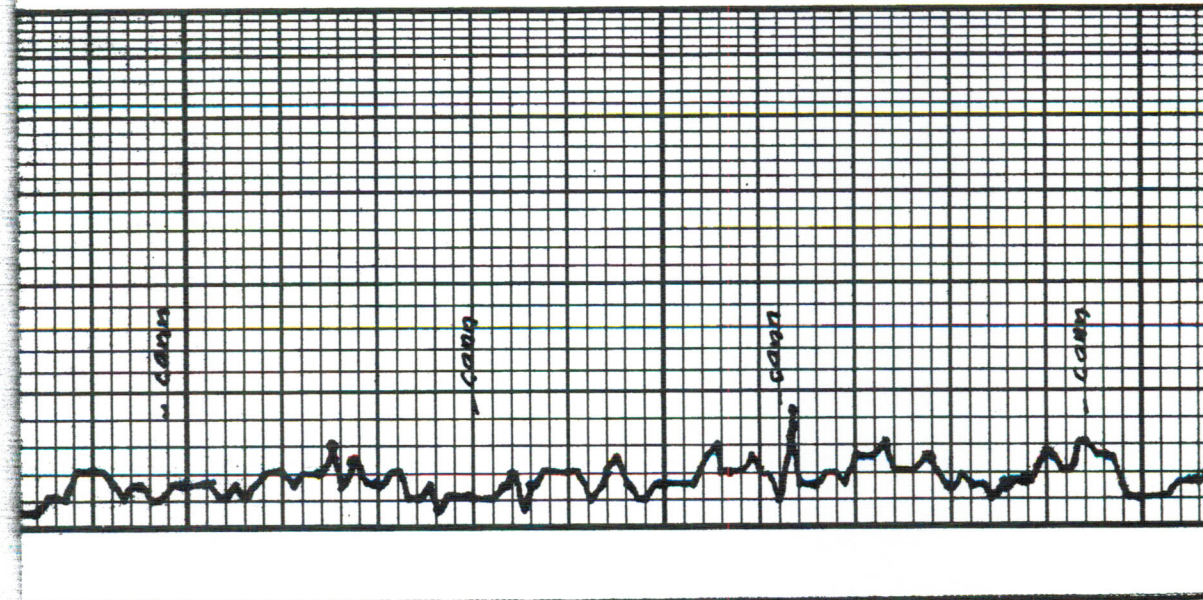
60			
80		LS: tn-gry fsif ds.	
3200		LS: tn-gry mtd fsif ds V. shly: gry shty, brn	
20		LS: wh. tn cky-fxln-fsif dol foss inclus. impart of glauc. SPK-s N.S.O.	
40		LS: gry mtd fsif ds. Sh: gry	
60		LS: wh. tn-gry mtd cky-fsif R.T. drk brn Yary-asph edge str	✓
80		LS: tn-gry mtd fsif ds T.A. ta-ar shly: gry/shty, brn shty LS: aa.	

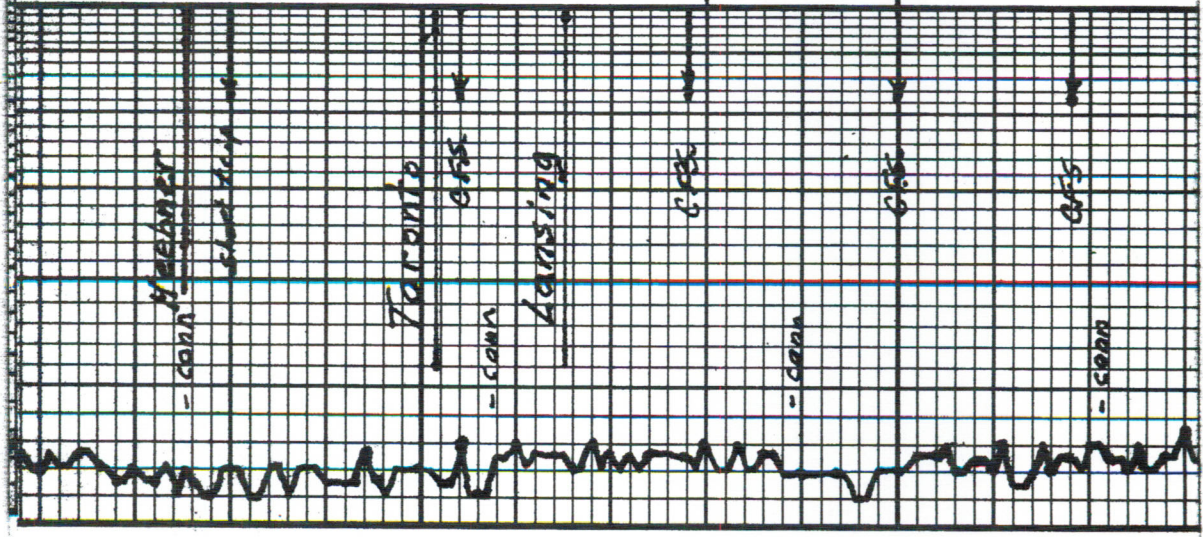




LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.	LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.	LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.	LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.	LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.	LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.	LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.	LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.	LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.	LS: wh. to ch. - f. in R.T. foss incl. pp. N.S.O.
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3300
 20
 40
 60
 80
 3400

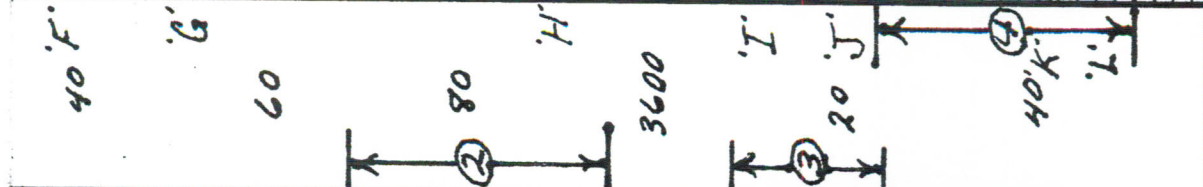
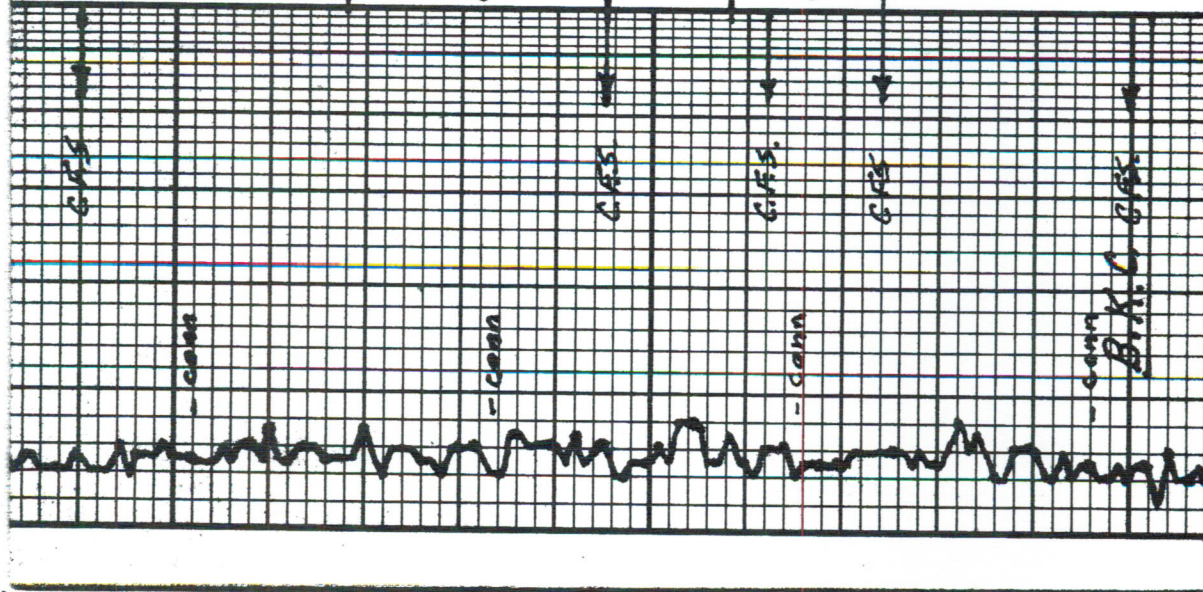




20	LS: wh-tn sli. cky. fsln dms N.S.O. Δ wh gry, or Sh: blk Carb. 25: tn mtd p3 ff dms	LS: wh-tn sli. cky. fsln dms ool Tr. glauc. spks Tr. pm. spks PPP N.S.O. A wh-tn	Sh: brn, gry, grn	LS: wh-tn sli. cky. fsln dms ppp N.S.O. A wh-tn 1 pc. ht. edge stn Δ wh-tn	a.g.	LS: wh-tn fsln faly ool impart φ frimble drk osat. pp floating F.O. strong odor Δ ty wh gry Tr. asph stn sh: gry, brn	LS: wh-tn fsln Tr. ool seat. drk brn edge stn Tr impart φ Tr pp f.d. Tr drk o sat. Δ gry mtd	LS: wh-tn cky. fsln dms
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Strip 3522.83
 Board 3521.48
 A.iff. 1.35
 Trilobite Testing
 DST #1 3480-3500'
 45-45-45-46
 IF: wk blow incr. to 8"
 ISI: wk blow diad. in 16"
 FF: wk blow, incr. to 2"
 FSI: wk blow diad. in 9 min
 Recovery: 155' G.I.P.
 220' Total fluid
 50' C.O.
 40' 505 MW 102 W, 902 M
 130' MW 902 W, 102 M
 MYD: 1706-1657 #
 FP: 15-103/106-130 #
 BHP: 829-826 #
 BNTemp: 117 °F.
 Gravity: 29 °A.P.I.
 Chlorides: 70,000 ppm

Diff. Tr. 5 to 8 mm above?
 A wh-tn fsln

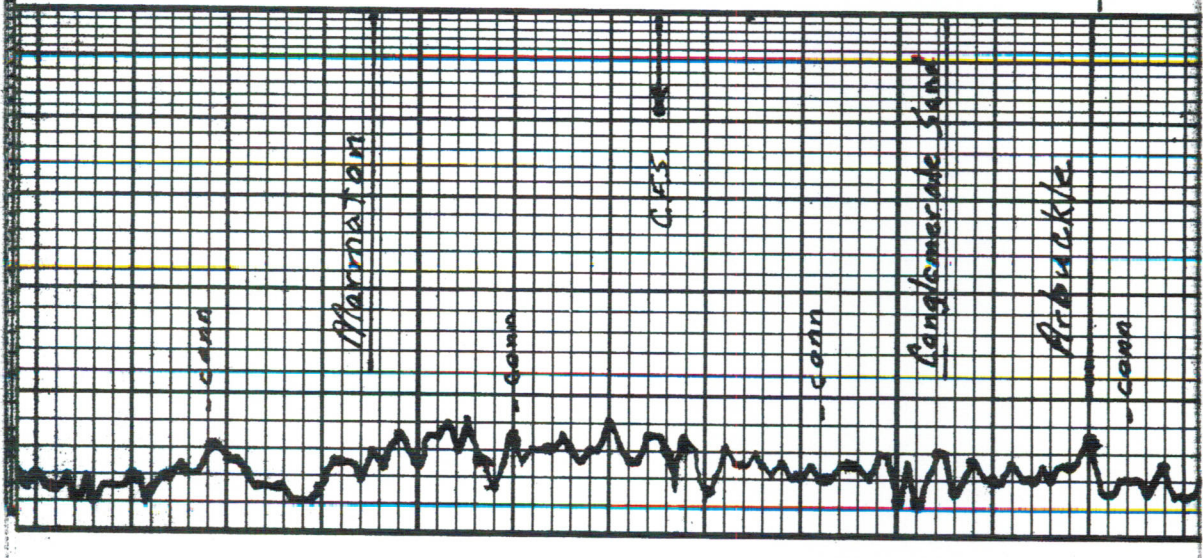


LS: wh-tn cky-suc-feln Tr oil incln @ VRT pr. Lt. 0.5tn	LS: wh-tn cky-feln dns	aa.	sh: blk carb.	LS: wh-tn fxlh oil w/foss incln in part of Lt. f. @ 5tn Tr. PP F.O.	sh: ye brn, gry	LS: tn: gry-vel fxlh-fsif dns N.S.O.	LS: wh-tn fxlh-fsif IC fr. in part of Lt. sptd 0.5tn Tr. Lt. fr. 0 Sat pp floating F.O. fr. odor	sh: brn, gry	LS: wh-tn fxlh-fely oil PPΦ incln @ 5tn PP floating F.O.	LS: wh-tn fxlh-fsif Lt. sptd 0.5tn Tr. fely diss 0 on crushing	sh: brn, gry
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✓ DST# 2 3518'-3595'
 30-30-0-0
 IF: wk blow diad in 10 min
 Recovery: 5' 0.5M
 Hyd: 1772-1717 #
 FP: 11-16 #
 BHP: 1010 #
 BH Temp: 108° F.

✓ DST# 3 3608-3624
 45-45-45-45
 IF: wk blow incr. to 3"
 ISI: No blow
 FF: wk blow incr. to 3 1/2"
 FSI: No blow
 Recovery: 130 G.I.P.
 170' Total fluid
 60' C.O.
 110' HOGCM 10% G,
 30% O, 60% M
 HYD: 1772-1754 #
 FP: 13-59/60-72 #
 BHP: 259-259 #
 BH Temp: 115° F.
 gravity: 35° API

✓ DST# 4 3623'-3650'
 30-30-0-0
 IF: wk blow diad in 10 min
 Recovery: 5' 0.5M
 Hyd: 1788-1735 #
 FP: 12-15 #
 BHP: 684 #
 BH Temp: 107° F.



60		shly ss brn fn. gn. consol.
80		sh: gry, brn LS: fn. gry ety - flsif dns N.S.O.
3700		sh: gry, brn LS: wh-ta chy-fxln - slifslf dns N.S.O.
20		sh: brn, gry LS: wh-ta fxln dns slisdy A brn - ov N.S.O.
40		sh: brn, gry LS: wh-ta slicky-fxln slisdy dns N.S.O.
60	Test	shly: brn sdy LS: SS: fn. gn. consol. cl. - or rnd. slings. iagan φ ft. - drk Q sat floating F.O. abundant Sp: brn
80		Deli: wh-ta fxln - coarsuh inln φ Tr. 194 ft. - drko sat bleeding F.O.

Tested after log

DST #5 3771-3807'
30-30-30-30
IF: wk blow inc. to 9"
ISI: No blow
FF: wk blow inc. to 3"
FSI: No blow
Recovery: 340' 505mm
HYD: 1878-1806'
FP: 62-128/137-173#
BHP: 678-656#
BHTemp: 121°F
Chlorides: 33,000ppm

DST #5 3771-3807'
30-30-30-30
IF: wk blow inc. to 9"
ISI: No blow
FF: wk blow inc. to 3"
FSI: No blow
Recovery: 340' 505mm
HYD: 1878-1806'
FP: 62-128/137-173#
BHP: 678-656#
BHTemp: 121°F
Chlorides: 33,000ppm

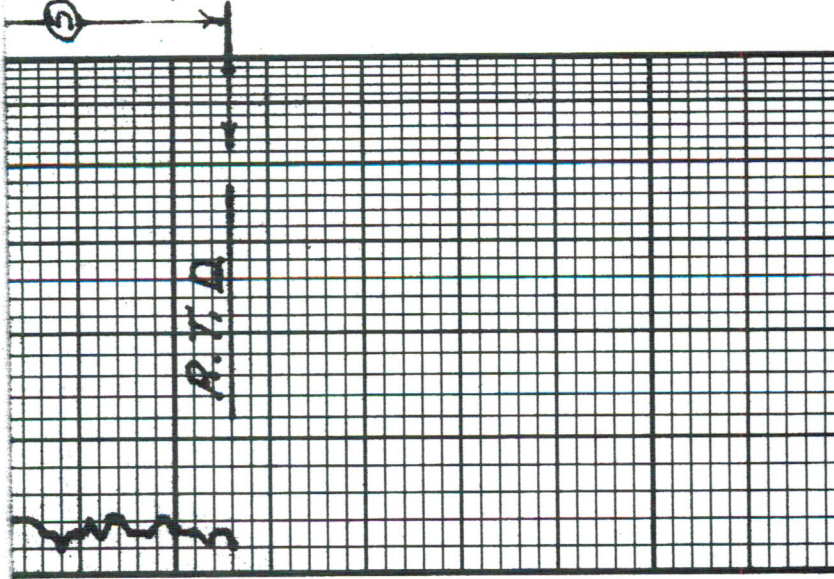
Straddle Test

DST #6 3736-3772'
30-30-30-30
IF: wk blow inc. to 1 1/2"
FF: surface blow
Recovery: 30' G.I.P.
LO' C.O. 2026, 807.0
30' HOCGM 1026 2020
HYD: 1850-1795#

BHP: 633-4807
BHTemp: 110°F
gravity: 24° A.P.I.

Dolomite fsh - max in decr.
5th mostly barren in chd
Tr. fary - asph 0.5 in

Dol: aa incr. glauc. spks



3800

5

P.T.A.