

API # 15-137-20634-00-00

GEOLOGICAL REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY Baird Oil Company, LLC
 LEASE Esslinger Ranch, Inc #3-26
 FIELD Red Fox
 LOCATION 1590' ENL & 1170' FEL
 SEC 26 TWSP 3s RGE 22w
 COUNTY Norton STATE Kansas

ELEVATION
 KB 2351'
 DF 2349'
 GL 2343'
 Depths Measured From
 Log KB Drilling KB

CONTRACTOR WW Drilling Rig #12
 SPUD 3-8-13 COMP 3-15-13
 SAMPLES SAVED FROM 3320' TO R.T.D

CASING
 Surface 8 5/8" @ 221'
 Production 5 1/2" @ 3902'

ELECTRIC LOGS
Nabors

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM <u>E. log</u>	A	B	C	D
				•	•		
<u>Anhydrite</u>	<u>2052</u>	<u>2048</u>	<u>+ 303</u>	<u>+ 325</u>	<u>+ 315</u>		
<u>Base Anhydrite</u>	<u>2067</u>	<u>2065</u>	<u>+ 286</u>	<u>+ 297</u>	<u>+ 288</u>		
<u>Topeka</u>	<u>3351</u>	<u>3349</u>	<u>- 998</u>	<u>- 995</u>	<u>- 999</u>		
<u>Heebner</u>	<u>3555</u>	<u>3552</u>	<u>- 1201</u>	<u>- 1196</u>	<u>- 1199</u>		
<u>Toronto</u>	<u>3580</u>	<u>3577</u>	<u>- 1226</u>	<u>- 1222</u>	<u>- 1226</u>		
<u>Lansing</u>	<u>3595</u>	<u>3593</u>	<u>- 1242</u>	<u>- 1237</u>	<u>- 1241</u>		
<u>Base Kansas City</u>	<u>3786</u>	<u>3785</u>	<u>- 1434</u>	<u>- 1430</u>	<u>- 1430</u>		
<u>Marmaton</u>	<u>3819</u>	<u>3817</u>	<u>- 1466</u>	<u>- 1461</u>	<u>- 1457</u>		
<u>Basal Sand</u>	<u>3858</u>	<u>3856</u>	<u>- 1505</u>	<u>- 1492</u>	<u>- 1488</u>		
<u>Wea. Granite</u>	<u>3881</u>	<u>3878</u>	<u>- 1527</u>		<u>- 1494</u>		
<u>Granite</u>	<u>3888</u>	<u>3888</u>	<u>- 1537</u>	<u>- 1516</u>	<u>- 1529</u>		
<u>Total Depth</u>	<u>3904</u>	<u>3903</u>	<u>- 1552</u>	<u>- 1546</u>	<u>- 1554</u>		

REFERENCE WELLS

- A Baird Oil Co., Esslinger Ranch, Inc #1-26, 910' FSL & 1635' FEL Sec 26-35-22W
- B Baird Oil Co., Esslinger Ranch, Inc #2-26, 2265' FSL & 330' FEL Sec 26-35-22W
- C
- D Port Callie @ 2073'

REMARKS

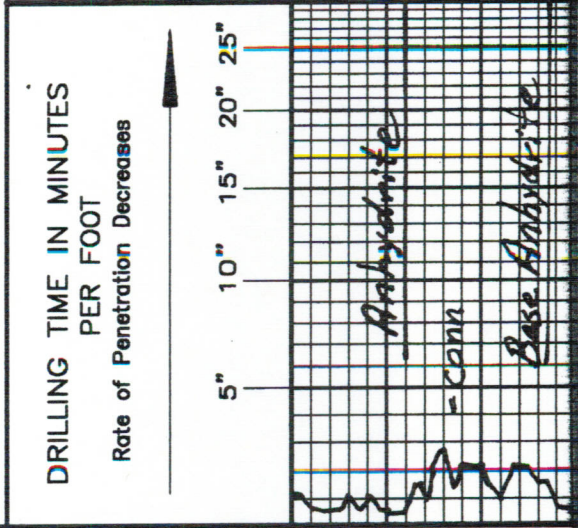
This well ran 1 foot to 5 feet lower on the lapping top than the reference wells. Because of encouraging results on DST # 2 it was decided production casing would be cemented to further test the well. The zones from 3746'-3749' and 3642'-3644' should be tested.

Richard B. Bell
3-15-13

7502

LEGEND

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



DEPTH
2040
60

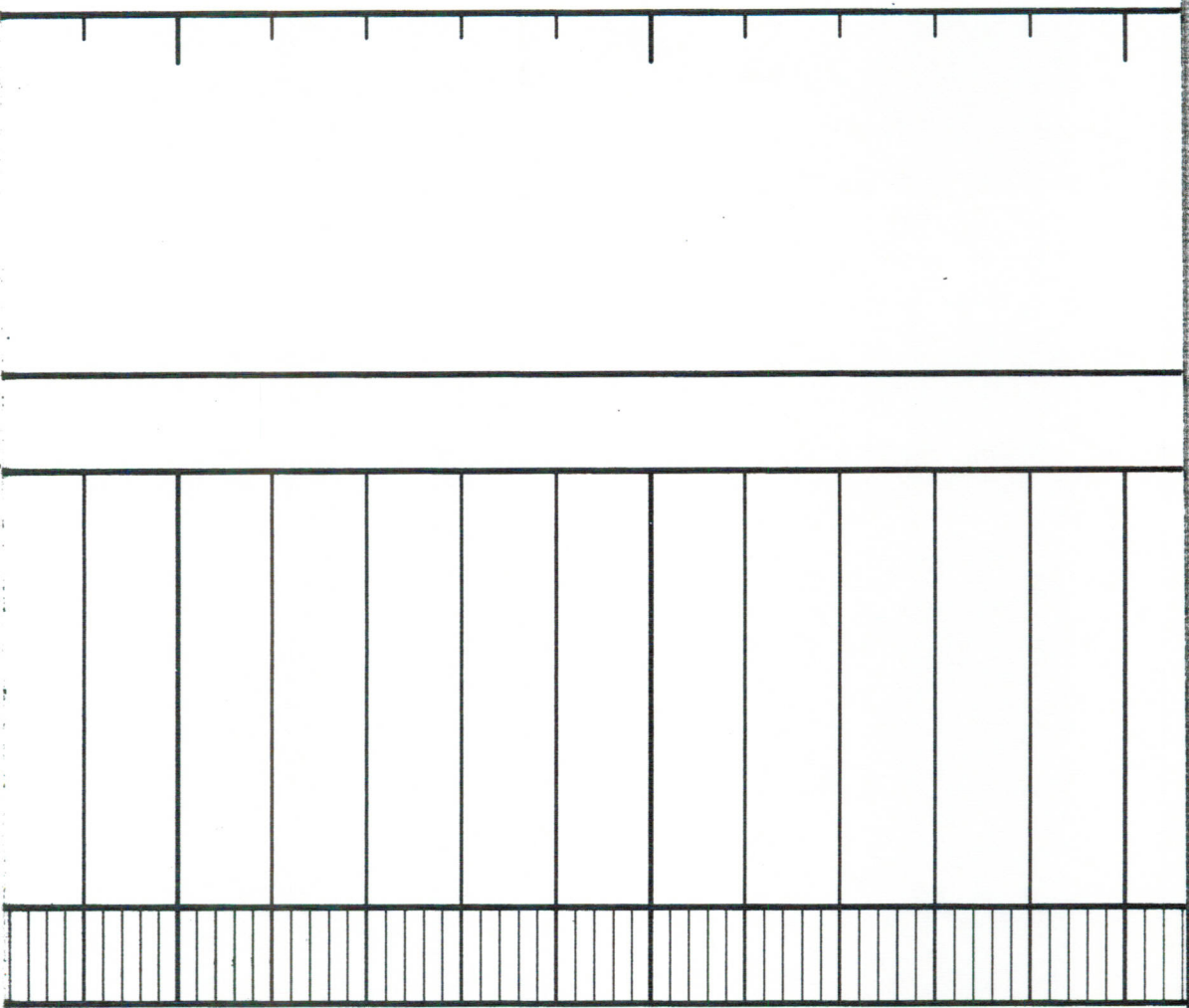
LITHOLOGY

SAMPLE DESCRIPTIONS

OIL SHOWS

REMARKS

LOG 7710

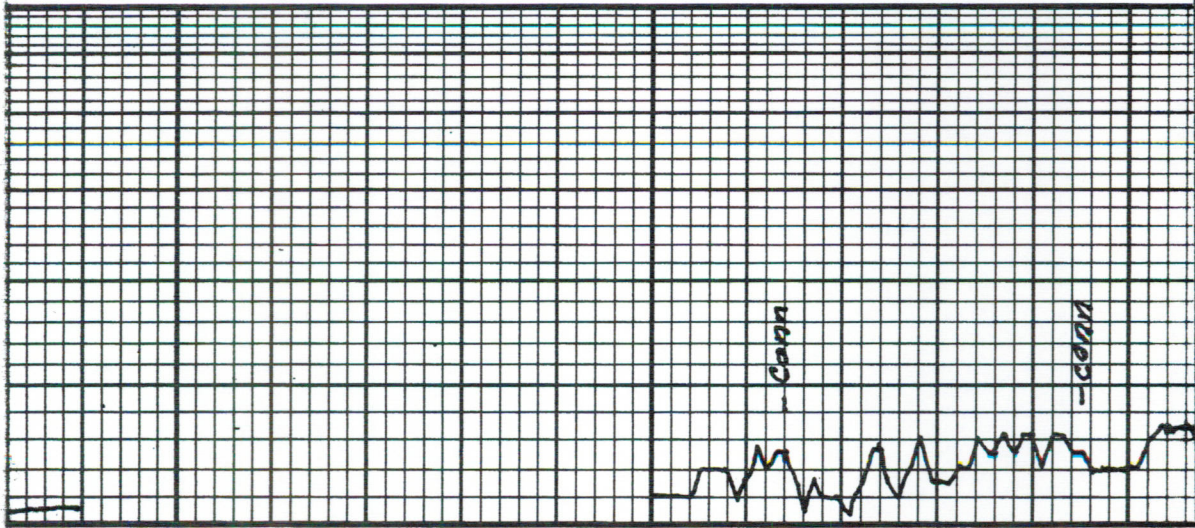


80

3200

20

40



COM

-COM

Samples are legged
good samples

60

80

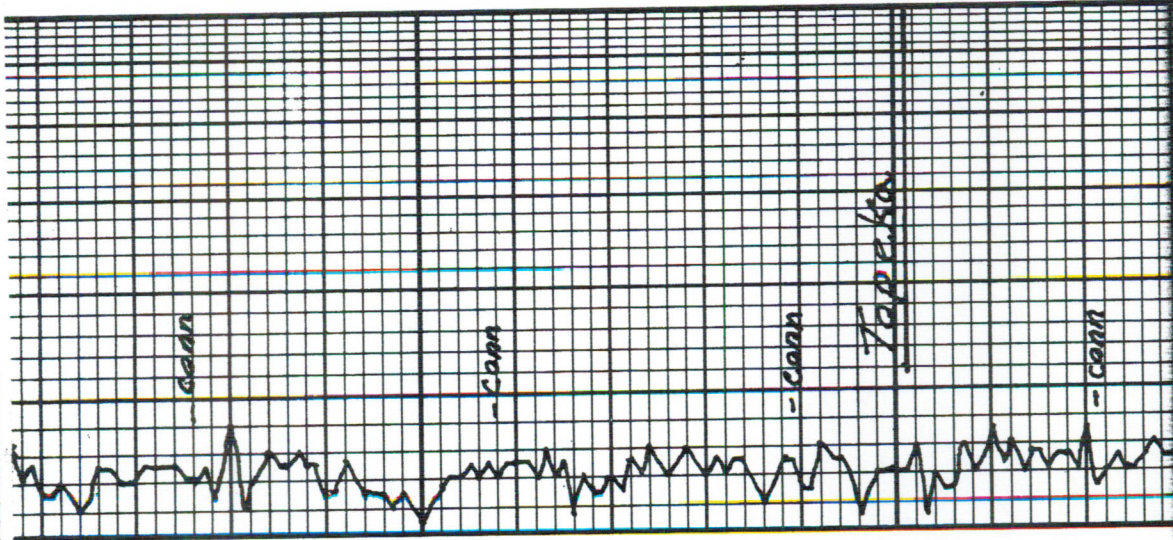
3300

20

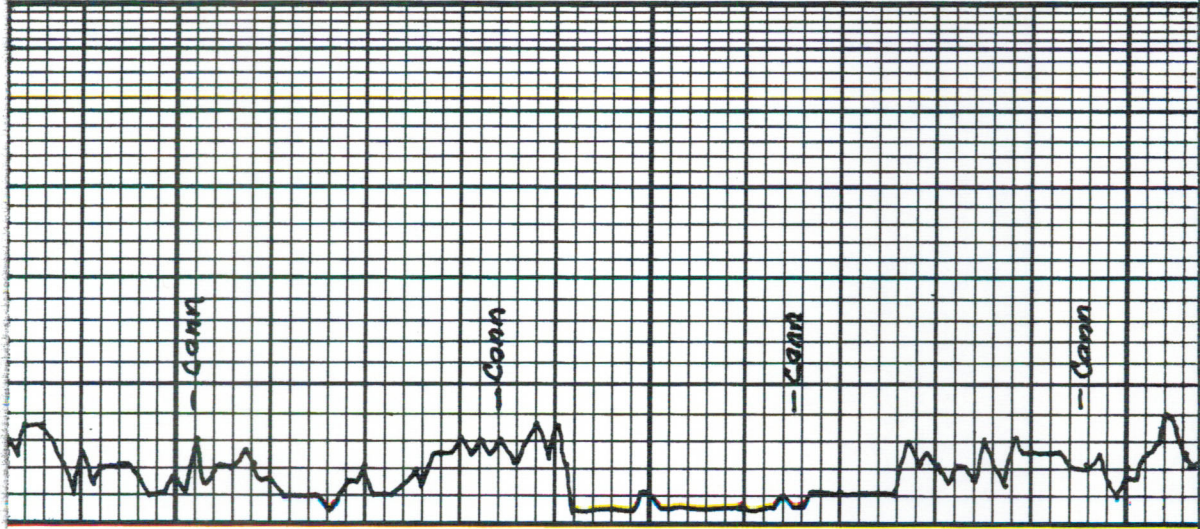
40

60

80

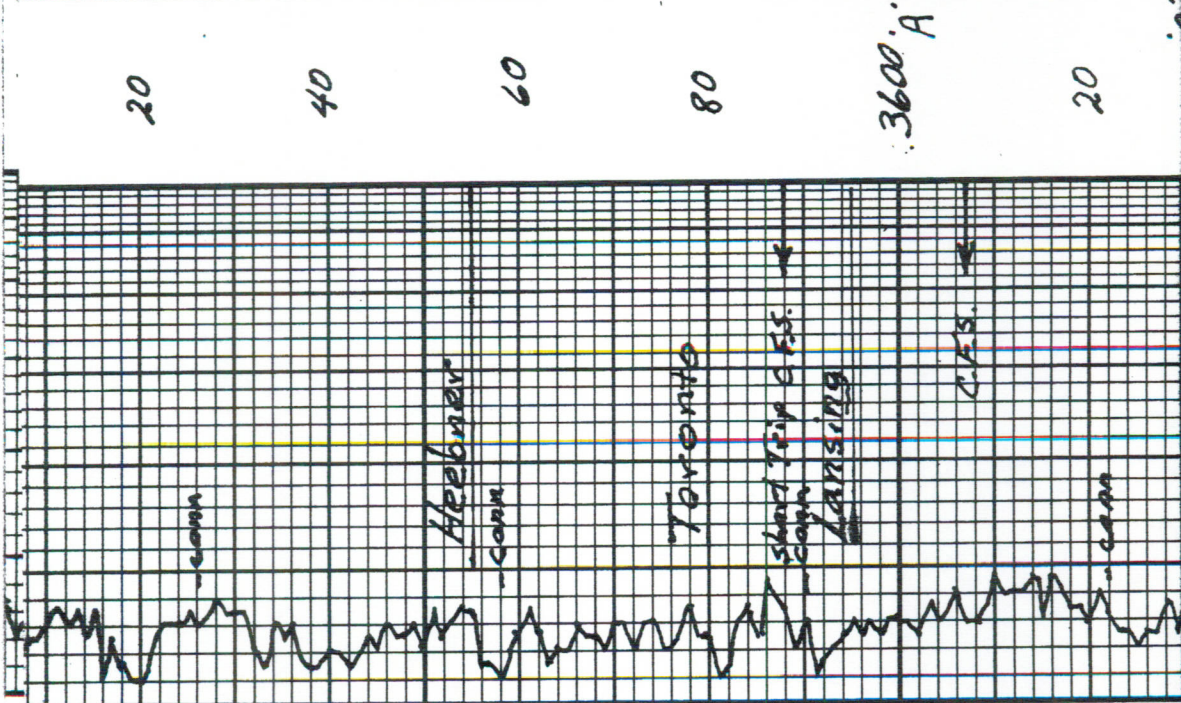


ls:tn-gry fsif dns
ls:wh to lt gry cky-feln-sli fsif dns sli glauc spks sh:brn Tr gry
ls:wh to lt gry fxl dns sh: gry
ls:tn-gry fxl-sli fsif dns N.S.O.
ls:tn cky-fxl pp sh:brn N.S.O.
sh: gry s/ty
ls:wh to cky-fxl dol pp gry N.S.O.
ls:wh to cky-fxl dns
ls:wh to sli-cky-fxl sli glauc spks sh:brn N.S.O.



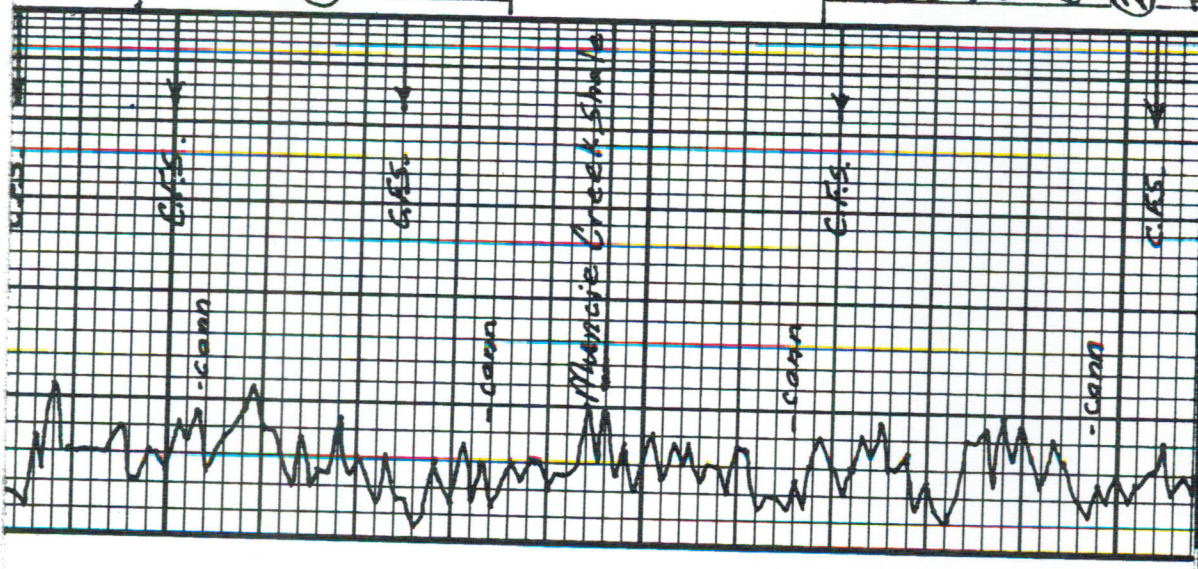
3400	<p>ATA</p> <p>LS:tn-gry fsh das</p> <p>Sh:brn, gry</p> <p>LS:wh-tn V.cky-fxln oöl</p> <p>ppp-inpart p N.S.O</p> <p>Sh:brn, gry</p>
20	<p>LS:wh-tn V.cky-fxln-sli: fsh</p> <p>No vis φ Δ + h</p>
40	<p>LS:tn-lt-gry fxln-sli: fsh</p> <p>TR PPP N.S.O Tr Δ or</p> <p>aa</p> <p>Trace blk Carb sh</p> <p>incr. Sh:brn sity-gry sity</p>
60	<p>Sh:brn sity-gry sly ss</p> <p>brn v. fn gn Consal. ingran</p> <p>φ N.S.O</p>
80	<p>Sh:brn sity sly ss aa</p>
3500	<p>LS:wh-tn-yel fxln-sli: fsh</p> <p>das N.S.O</p> <p>Sh: gry, brn</p> <p>LS:wh-tn-cky-fxln ppp</p> <p>sli: fshable N.S.O</p>

sh: gry sly brn slty no blk carb. ls: brn fxl n dms	20	
ls: wh to slicky - fxl n oil pp φ N.S.O.	40	
ls: wh to fxl n - slicky dms	60	
ls: wh - tncky - fxl n pp φ N.S.O. Tr dta	80	
ls: tn - kt. gry deer. lky - fxln dms N.S.O. sh: Blk Carb. ls: tn - gry t3ff dms	3600 A	
sh: brn slty	20	
ls: wh - tncky - fxl n Tr 001 gd in part φ N.S.O. Δ tn		
sh: brn, gry ls: wh - tncky - fxl n oil w/ r foes in ches. pp φ kt. spid 0.5 tn Tr fr 0 sat Tr pp f.o. v. ft. odor		
ls: tn - Lt. gry fxl n dms		
sh: brn		
ls: wh - tncky - fxl n slicky oil		



Trilobite Testing

Staddle Test
DST #3 3046'-3685'
15-30-15-30
Tr: B. O. B. in 4 min.
Tr: No blow



PP.F.O. on crushing No odor Δ tn-gry	Sh:brn slty	LS: wh-fn sl:cky-fxln sl: fshp Tr in part φ PP.F.O. on crushing Tr thick tary 0.5th	LS:tn-brn fxln dns	Sh:brn-gry-grn	LS: wh-fn sl:cky-fxln 0.0l PP φ Tr thick tary 0.5th Tr PP.F.O. on crushing LS:tn fxln 0.0c. scat pss. drk thick 0.5th fr odor Δ wh-gry	incr 0.0c mostly barren	LS: wh-fn sl: cky-fxln dns Δ wh-gry	sh:blk carb. LS:tn-gry with fsh dns.	Sh:brn, gry, grn	LS: wh-fn v. cky-fxln PP φ - sl: vgy φ NSO.	Sh:brn, gry	LS:tn -yel fxln-fsh dns NSO.	Sh:brn, gry	LS: wh-fn sl: Tr. sl:al PP φ - in part. φ RT drk 0.5at Tr. sl: spid 0.5th PP.F.O. No odor
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FF: D.O.D.M.
 FSI: No blow
 Recovery: 581 Total
 209 Mud
 126 WCM 50% W, 50% M
 126 MCW 75% W, 25% M
 120 MCW 95% W, 5% M
 Hyd: 1920-1819 #
 FP: 69-196/208-292 #
 BHP: 1225-1212 #
 BH Temp: 95°F
 Chlorides: 32,000 ppm

Straddle Test
 DST #2 3718-3784
 45-45-45-45
 IF: B.O.B. in 45 min.
 ISI: No blow
 FF: wk blow incr to 6"
 FSI: No blow
 Recovery: 282 Total
 93 Gsy 0.40% G, 60% O
 23 MCG 0.25% G, 70% O,
 57% M
 63 GOCM 20% G, 30% O,
 50% M
 63 GOCM 10% G, 20% O,
 70% M
 Hyd: 2031-1883 #

40 'D'
 60 'E/F'
 80 'G'
 3700
 20 'H'
 40 'I'
 'J'

FP: 39-74/87-94W
 BHP: 1082-1014#
 BHTemp: 94°F.
 Gravity: 27° A.P.I.

DST#1 3951: 3903'
 45-45-45-45
 IF: B.O.B. in 10 min.
 ISI: No blow
 FF: B.O.B. in 12 min.
 FSI: No blow
 Recovery: 750' Total
 189' MCW 407.4, 60% M
 189' MCW 702.4, 90% M
 372' MCW 907.4, 10% M
 Hyd: 2084-1955#
 FP: 71-231/250-379#
 BHP: 1025-1017#
 BHTemp: 96°F.
 Chlorides: 25,000ppm
 Incline @ 3904' 3/4°

Sh: brn	LS: wh-ta fxlh - fslf oil w/As inclu pr. ppp Tr Lt. Spid Ostn LS: ta-xel fslf dms Sh: brn-ta-gry
LS: wh-ta -lt. gry Cky. fxlh pr. ppp N.S.O.	
Sh: brn, gry Tr shly ss brn V. fgn. Consol. ingran p N.S.O.	
V. shly: brn	
LS: wh-ta fxlh sli. oil ppp VRT Spid Ostn N.F.O. LS: yel-brn fslf dms	
sh: brn, gry	
LS: ta-kt. gry fxlh dms	
LS: wh V. Cky. fxlh sli. Sdy N.S.O. No vis p Sh: blue slty Tr-flocting fco strong odor lot pyrite Tr 55 fn. gn Consol. friable ingran p drk O Sat Thick F.O.	
incr ss a.a. w/gtn a.a. Unconsol ss ang-sub rnd clr-slit-fashed a.a. a.g. Qtz, biotite, feldspar	
Quartz, biotite, feldspar	

