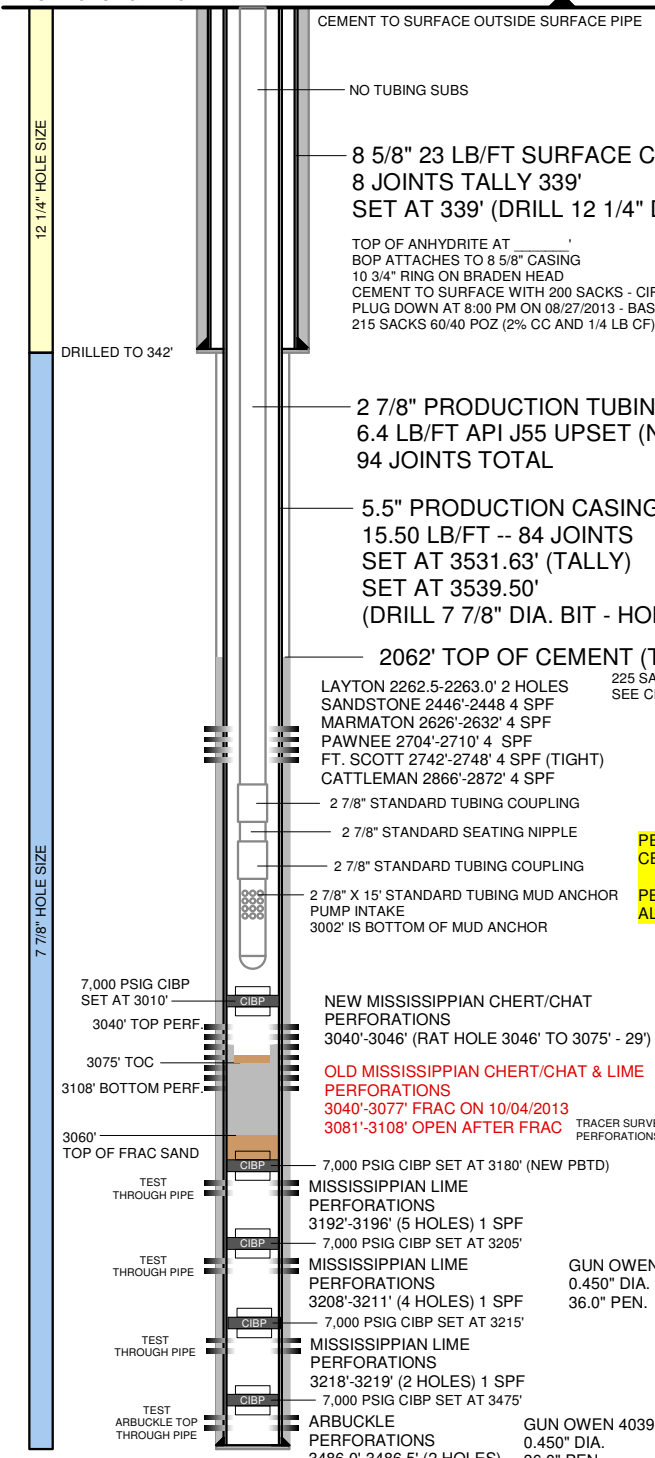


SURFACE TEMP: 30 DEG F

POSSIBLE FUTURE PERFORATIONS:  
 Layton from 2236' to 2241' (or maybe less)  
 Marmaton from 2626' - 2630';  
 \*The limestone at 2767 is too tight

K.B.: 8'  
 G.L. ELEVATION 1354' (SHL)

5 1/2" X 2 7/8" TUBING HEAD  
 SET TOP CLPG 12" AGL



**NOTES:**

PUMPING UNIT: C - 160 - 190 - 74 (74" SURFACE STROKE)  
 CONVENTIONAL PARKERSBURG UNIT  
 30 HP ELECTRIC MOTOR WITH 50 HP SPOCC VFD  
 VFD INSTALLED  
 RUN TIME: 24 HRS PER DAY  
 1.25" X 16' POLISHED ROD WITH LINER ASSEMBLY (16')  
 2' PONY ROD ON TOP (7/8" GRADE D) (2')  
 1.50" X 8' HARD LINED POLISHED ROD LINER WITH SEAL (8')  
 42 - 7/8" GRADE D SUCKER RODS ON TOP (1350')  
 62 - 3/4" GRADE D SUCKER RODS ON BOTTOM (2075')  
 14 - 7/8" X 25' SINKER BAR ON TOP OF PUMP  
 ONE 2' X 7/8" GRADE D PONY ROD ON BOTTOM (TOP OF PUMP) (2')  
 SPEED RANGE: 4 TO 14 SPM  
 MAX. SPEED: 14 SPM  
 CURRENT DISPLACEMENT: 390 BPD (2.00" BORE PUMP AT 12 SPM)  
 MAX. DISPLACEMENT: 900 BPD (2.75" BORE PUMP W/TUBING ANCHOR)

**TUBULARS**

PURPOSE SIZE	CONDUCTOR 13 3/8"	SURFACE 8 5/8"	INTERMEDIATE	PRODUCTION 5 1/2"	PROD. TUBING 2 7/8"
WEIGHT	NONE	2,946 PSIG	NONE	15.5 LB/FT	6.40 LB/FT
GRADE	NONE	J-55	NONE	J-55	J-55
BURST	NONE	24.0 LB/FT	NONE	4,812 PSIG	7,265 PSIG
COLLAPSE	NONE	381,395 LBF	NONE	4,043 PSIG	7,676 PSIG
YIELD	NONE	1,434 PSIG	NONE	248,274 LBF	99,661 LBF
CAPACITY	NONE	0.064 BBL/FT	NONE	0.024 BBL/FT	0.006 BBL/FT
THICKNESS	NONE	0.2640"	NONE	0.2750"	0.2170"
ID	NONE	8.0970"	NONE	4.9500"	2.4410"
DRIFT ID	NONE	7.9720"	NONE	4.8250"	2.3470"
AREA	NONE	51.49 IN2	NONE	19.42 IN2	4.68 IN2
SETTING DEPTH	NONE	339'	NONE	3,532'	3,000' TO PUMP
LENGTH	NONE	339'	NONE	3,532'	NEED 3,525'
FOB	NONE	CHASE, KS	NONE	CHASE, KS	CHASE, KS
COST	NONE	\$ / FT	NONE	\$ / FT	\$ / FT

DATE	07/29/2013
APPROVED BY	B. RELSO
AFE	TBD
API No.	1503524513000
GL ELEVATION	1354'
KB	8'
KB ELEVATION	1362'
RIG	FOSSIL #2

PERFORATIONS SQUEEZED OFF WITH 150 SACKS (12/16/2013)  
 CEMENT FELL TO 3075' AND SET UP -- 3075' TO 3108' SEALED OFF

PERFORATIONS RE SQUEEZED OFF WITH 140 SACKS (12/18/2013)  
 ALL PERFORATIONS ARE SEALED OFF -- 3040' TO 3075' SEALED OFF

**MISSISSIPPIAN PERFORATIONS:**

**SINGLE STAGE FRAC (22 HOLES TOTAL)**

**MISSISSIPPIAN CHERT/CHAT**  
 3040'-3046' (2 SPF)  
 HEIGHT (FT): 6  
 TOTAL HOLES: 13

AND

**MISSISSIPPIAN LIME**  
 3063'-3077' (1 SPF)  
 HEIGHT (FT): 14  
 TOTAL HOLES: 9  
 3063, 3064, 3066, 3067, 3068,  
 3069, 3073, 3076 & 3077

DOWN HOLE SUCKER ROD PUMP:  
 2.00" INSERT PUMP  
 PUMP LENGTH: 16' (NICARD AND SS)  
 BOTTOM HOLD DOWN TYPE  
 TRAVELING BARREL  
 2' X 7/8" PONY ROD ON TOP OF PUMP  
 8' GAS SEPARATOR ON THE BOTTOM  
 PUMP INTAKE DEPTH: 3002'  
 PUMP IS SETTING 38' ABOVE THE PERFORATIONS  
 GAS IS VENTING AT WELL HEAD (TUBING/CASING)

PBTD: 3500' MD TVD (NEW PBTD 3075')  
 RTD: 3541' MD TVD  
 LTD: 3541' MD TVD  
 DOWNHOLE TEMP: 120 DEG F

**BAIR #1**

**COWLEY COUNTY, KANSAS**  
 23-T32S-R06E  
 SHL: 660 FSL, 660 FWL  
 BHL: 660 FSL, 660 FWL  
 LORTON FIELD

\*(2 SPF ON 3081, 3087, 3103 & 3108)

RAT HOLE WILL BE FROM 3108' TO 3180' (72')

