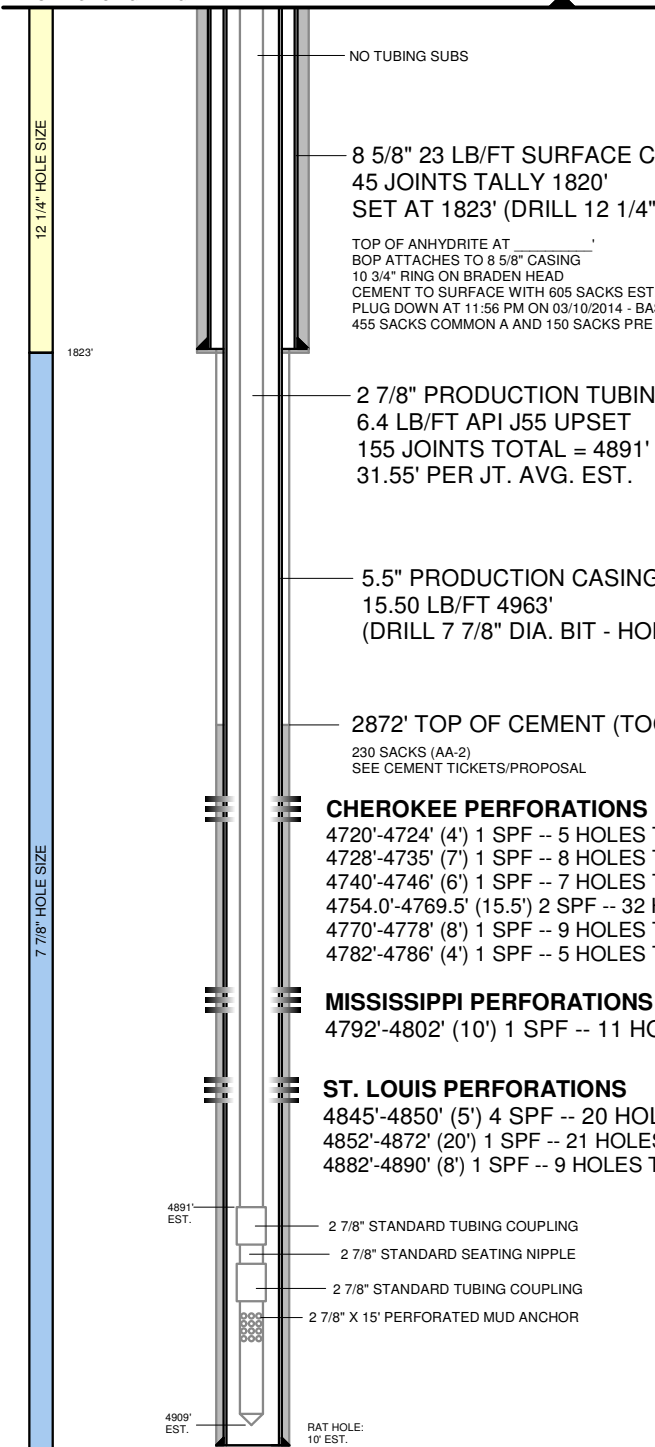


SURFACE TEMP: 70 DEG F MAX

K.B.: 8'

G.L. ELEVATION 2693' (SHL)

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



NOTES:

PUMPING UNIT: 228 - 240 - 84 (84" SURFACE STROKE) OR 114 - 120 - 64 (64" SURFACE STROKE)
LOW PROFILE LUFKIN OR SENTRY UNIT
 40 HP ELECTRIC MOTOR WITH 40 HP SPOCC VFD
 VFD INSTALLED
 RUN TIME: 24 HRS PER DAY
 1.25" X 16' POLISHED ROD WITH LINER ASSEMBLY
 1.50" HARD FACED POLISHED ROD LINER X 8'
 2', 4', 6' AND 8' PONY RODS ON TOP (7/8" GRADE N97)
 1.50" X 16' HARD LINED POLISHED ROD LINER WITH SEAL
 76 - 7/8" GRADE N97 SUCKER RODS ON TOP (1900')
 115 - 3/4" GRADE N97 SUCKER RODS IN MIDDLE (2875')
 4 - 1.5000" SINKER BARS ON BOTTOM (100')
 ONE 3' X 7/8" GRADE N97 PONY ROD ON BOTTOM (TOP OF PUMP)
 SPEED RANGE: 3 TO 10 SPM

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	4.514 IN2	4.68 IN2
SETTING DEPTH	NONE	1820'	NONE	4,963'	4891' TO PUMP
LENGTH	NONE	1820'	NONE	4,963'	NEED 4919'
FOB	NONE	CHASE, KS	NONE	CHASE, KS	CHASE, KS
COST	NONE	N/A	NONE	N/A	N/A

DATE	01/17/2014
APPROVED BY	B. KELSO
AFE	964
API No.	15069204660000
GL ELEVATION	2693'
KB	8'
KB ELEVATION	2701'
RIG	FOSSIL

GUN OWEN 4000-317
 0.450" DIA.
 36.0" PEN.

CHEROKEE / MISSISSIPPI FRAC INTERVAL

4720'-4802' (82') -- 77 HOLES
 *WILL NEED TO SET A CIBP AT 4832' (ABOVE ST. LOUIS)
 PRIOR TO FRAC.

DOWN HOLE SUCKER ROD PUMP:

2.0000" INSERT PUMP
 PUMP LENGTH: 16' (NICARD AND SS)
 BOTTOM HOLD DOWN TYPE
 TRAVELING BARREL
 3' X 7/8" PONY ROD ON TOP OF PUMP
 8" GAS SEPERATOR ON THE BOTTOM
 PUMP INTAKE DEPTH: 4890' EST.
 PUMP IS SETTING BELOW PERFORATIONS IF NO FRAC
 PUMP WILL SET ABOVE PERFORATIONS IF THERE IS A FRAC

PBTD: 4919' MD TVD
 RTD: 4980' MD TVD
 LTD: 4980' MD TVD
 DOWNHOLE TEMP: 135 DEG F (EST.)

AGRO #1

GRAY COUNTY, KANSAS
 30-T25S-R29W
 SHL: 2970 FNL, 2970 FWL
 BHL: 2970 FNL, 2970 FWL
 UNNAMED FIELD

