



**STEVEN P. MURPHY, P.G.**

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**Scale 1:240 (5"=100') Imperial  
Measured Depth Log**

**Well Name: Bixenman #1-18  
API: 15-179-21391-00-00**

**Location: Sheridan County**

**License Number: 34344**

**Spud Date: 1/14/2015**

**Region: Kansas**

**Drilling Completed: 1/23/2015**

**Surface Coordinates: 813' FNL & 2234' FWL (Approx. N/2 SE NE NW)**

**Section 18-T10S-R30W**

**Bottom Hole Coordinates: Vertical well, same as above**

**Ground Elevation (ft): 2943'**

**K.B. Elevation (ft): 2948'**

**Logged Interval (ft): 3500'**

**To: TD**

**Total Depth (ft): LTD - 4656'**

**Formation: Topeka through Mississippian**

**Type of Drilling Fluid: Chemical - Kansas Drilling Technologies**

**Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)**

#### **OPERATOR**

**Company: Culbreath Oil & Gas**

**Address: 1532 S. Peoria Ave.  
Tulsa, OK 74120**

#### **GEOLOGIST**

**Name: Steven P. Murphy, PG (KS License #228) & Anthony Luna**

**Company: Consulting Petroleum Geologist**

**Address: 3365 CR 390  
Otis, KS 67565**

#### **FORMATION TOPS**

**The following are open-hole log tops with associated datums.**

**Anhydrite Top 2522 (+426)  
Anhydrite Base 2552 (+396)  
Topeka 3749 (-801)  
Heebner 3963 (-1015)  
Toronto 3983 (-1035)  
Lansing 3998 (-1050)  
Muncie Creek 4125 (-1177)  
Stark 4214 (-1266)  
Hushpuckney 4244 (-1296)  
BKC 4273 (-1325)  
Marmaton 4303 (-1355)  
Pawnee 4395 (-1447)  
Myrick Station 4442 (-1494)  
Fort Scott 4468 (-1520)  
Cherokee 4495 (-1547)  
Miss 4578 (-1630)**

DSTs

Drillstem testing was performed by Mike Roberts with Trilobite Testing, Inc (Scott City shop):

DST #1 3956-4014 (Toronto, "A")  
30:60:30:90  
IF: BOB 3 min, NR  
FF: BOB 4 min, NR  
Recovery: 372' OCWM (2%O, 38%W, 60%M), 310' OCMW (2%O, 88%W, 10%M), 680' MCW (95%W, 5%M)  
IHP: 1946      FHP: 1935  
IFP: 86-413    ISIP: 1238  
FFP: 438-650   FSIP: 1246  
BHT - 125 F  
Chlorides - 6,000 ppm

DST #2 4156-4186 (LKC "I")  
30:30:30:30  
IF: Built to 1/4in, no return  
FF: No blow, no return  
Recovery: 5' Mud (100%M)  
IHP: 2005      FHP: 1991  
IFP: 15-16      ISIP: 28  
FFP: 16-16      FSIP: 22  
BHT - 115 F

DST #3 4247-4276 (LKC "L")  
30:60:30:90  
IF: BOB 3min, BOB 25min  
FF: BOB 10min, BOB 41min  
Recovery: 526' GIP, 278' MCOG (36%G, 34%O, 30%M), 62' OCGWM (5%G, 5%O, 40%W, 50%M), 61' OCGMW (5%G, 5%O, 70%W, 20%M), 61' OCMW (1%O, 89%W, 10%M)  
IHP: 2054      FHP: 2036  
IFP: 96-193      ISIP: 886  
FFP: 148-197      FSIP: 1042  
BHT - 128 F  
Oil Gravity - 40 API  
Chlorides - 20,000 ppm

DST #4 4389-4458 (Pawnee-Myrick Station)  
30:60:30:60  
IF: BOB 27min, no return  
FF: Built to 8in, no return  
Recovery: 62' GIP, 186' OCM (2%O, 98%M), 61' WCM (26%W, 74%M), 61' MCW (70%W, 30%M)  
IHP: 2195      FHP: 2201  
IFP: 40-132      ISIP: 1055  
FFP: 123-166      FSIP: 975  
BHT - 130 F  
Chlorides - 35,000 ppm

COMMENTS

Based on the results of DST's, and log & sample analysis, 5 1/2" casing was set for completion.

## ROCK TYPES

## LITHOLOGY



Anhy  
Bent  
Brec  
Cht  
Clyst  
Coal  
Congl  
Dol  
Gyp  
Igne  
Lmst  
Meta  
Mrlst  
Salt  
Shale  
Shcol  
Shgy  
Slstst  
Ss  
Till  
Slststn  
Shale  
Sandylms  
Lms  
Gry sh  
Dtd  
Dol  
Carb sh  
pipesymbol  
unknown lith  
Red shale

## FOSSIL



## Oomoldic Fuss Algae

## MINERAL



Silty  
Sand  
Dol  
Chlorite  
Anhy  
Arggrn  
Arg  
Bent  
Bit  
Brecfrag  
Calc  
Carb  
Chtdk  
Chtlit  
Dol

**STRINGER**



Red shale  
Sh  
Sandy lms  
Lms  
Gryslt  
Grysh  
Dol  
Clystn  
Carbsh  
Anhy  
Arg  
Bent  
Coal  
Dol  
Gyp  
Ls  
Mrst

## TEXTURE



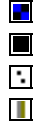
**Boundst**  
**Chalky**  
**Cryxln**  
**Earthy**  
**Finexln**  
**Grainst**  
**Lithogr**  
**Microxln**  
**Mudst**  
**Packst**  
**Wackst**

## OIL SHOW



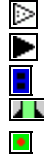
Gas show  
Good  
Fair  
Poor  
Dead

## INTERVAL



**Dst**  
**Core**  
**Dst**  
**Straddle test tail pip**

## EVENT



**Rft  
Sidewall  
Dst  
Open hole  
Perforations**

[illegible]

