



**GEOLOGISTS' REPORT**

OPERATOR **MURFIN DRILLING COMPANY, INC.**  
LEASE **MOORE UNIT # 1-17**

LOCATION **2600 FSL & 2300 FWL**  
SEC. **17** TWSP. **15** RGE. **29W**  
COUNTY **DECATUR** STATE **KANSAS**

FIELD **WILDCAT**

CONTRACTOR **Murfin Drilling Company** REG. NO. 8  
COMMENCED **12 Feb. 2011** COMPLETED **19 Feb. 2011**  
MUD DISP/LACEE **2769** MUD TYPE **CHRYMOL**  
DRILLING TIME KEPT FROM **2890** TO **3815**  
SAMPLES SAVED FROM **2890** TO **3815**  
SAMPLES EXAMINED FROM **2890** TO **3815**

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**ELEVATIONS**

KB	2683 Ft.
GL	2578 Ft.

ALL MEASUREMENTS FROM KB.

**CASING RECORD**  
Conductor Name \_\_\_\_\_  
Surfice 8.56' @ 230'  
Production Name \_\_\_\_\_

**ELECTRICAL SURVES:**  
LOG-TECH, INC.  
Comp. Neutron Density  
Dual Induction  
Micro-resistivity  
Comp. Sonic

**FORMATION**

NAME	LOG	TOP DATUM	TOP DATUM	SAMPLE DATUM
Stone Corral	2272	+311	2272	+311
Base/Anhydrite	2304	+279	2305	+278
Neva	2924	-341	2924	-341
Foraker	3044	-461	3046	-463
Topeka	3312	-729	3309	-726
Heebner Shale	3470	-887	3468	-885
Lansing	3494	-911	3494	-911
Slack Shale	3685	-1102	3684	-1101
Base/Kansas City	3740	-1157	3738	-1155
Total Depth	3815	-1232	3815	-1232

**REMARKS**

API 15-039-21126-00-00  
Drilling Fluids: Morgan Mud, Inc. (David Lines, engineer)  
Drill Stem Testing: Trilobite Testing, Inc.  
Gas Trailer: No Gas Trailer  
Reserve Pit Chlorides:

DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARKS
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**STONE CORRAL**  
2272 (+311)

**BASE/ANHYDRITE**  
2305 (+278)

**NEVA**  
2924 (-341)

Morgan Mud check @ 2963'  
Vis: 62, Wt: 8.8, WL: 6.0  
Chlor: 900 ppm, LCM: 4#

**RED EAGLE**  
3000 (-417)

**FORAKER**  
3042 (-459)

**TOPEKA**  
3309 (-726)

**OREAD**  
3454 (-871)

**HEEBNER SHALE**  
3468 (-885)

Morgan Mud check @ 3527'  
Vis: 68, Wt: 9.1, WL: 6.0  
Chlor: 1,500 ppm, LCM: 2#

**LANSING**  
3494 (-911)

DST # 1 3470 - 3527  
30° - 60° - 30° - 50°  
IF: Weak blow incr to 2 3/4"  
FF: Weak blow incr to 2 1/4"  
RECOVERY:  
3 Ft. Mud  
120 Ft. Muddy Water  
(Chlor. 27,000 ppm)  
(Rw. 317 @ 56.3 deg.)  
IHP: 1721 psi. FHP: 1662 psi.  
IFP: 21-44 psi. ISIP: 1044 psi.  
FFP: 50-79 psi. FSIP: 939 psi.  
BHT: 98 deg. F.

**DST # 2 3517 - 3572**  
30° - 60° - 30° - 60°  
IF: Weak 1 1/4" blow  
FF: Weak surface blow after 19 min.  
RECOVERY:  
3 Ft. Mud Cur Oil  
(2%Gas, 25%Mud, 73%Oil)  
25 Ft. Oil Cut Mud  
(3%Gas, 41%Oil, 56%Mud)  
IHP: 1729 psi. FHP: 1714 psi.  
IFP: 18-20 psi. ISIP: 1045 psi.  
FFP: 22-26 psi. FSIP: 973 psi.  
BHT: 96 deg. F.

**DST # 3 3620 - 3686**  
30° - 60° - 30° - 50°  
IF: Weak surface blow, died in 16 min.  
FF: No blow  
RECOVERY:  
2 Ft. Mud  
IHP: 1811 psi. FHP: 1808 psi.  
IFP: 18-23 psi. ISIP: 1045 psi.  
FFP: 32-58 psi. FSIP: 51 psi.  
BHT: 98 deg. F.

**BASE/KANSAS CITY**  
3738 (-1155)

DST # 4 3661 - 3718  
30° - 60° - 30° - 30°  
IF: Weak surface blow, died in 30 min.  
FF: No blow  
RECOVERY:  
2 Ft. Mud w/oil spots  
IHP: 1850 psi. FHP: 1849 psi.  
IFP: 18-19 psi. ISIP: 40 psi.  
FFP: 20-21 psi. FSIP: 26 psi.  
BHT: 97 deg. F.

**TOTAL DEPTH**  
3815 (-1232)

1:13 AM, 19 February 2011

Operator:	MURFIN DRILLING COMPANY, INC.
Lease:	MOORE UNIT # 1-17
Location:	2600 FSL & 2300 FWL SEC. 17 TWSP 15 RGE 29W
County:	DECATUR State: KANSAS