



GEOLOGIST'S REPORT

OPERATOR **MURFIN DRILLING COMPANY, INC.**

LEASE **RUTH # 1-8**

LOCATION **2250 FSL & 900 FEL**

SEC. **8** TWP **8S** RGE **14W**

COUNTY **OSBORNE** STATE **KANSAS**

FIELD **WILDCAT**

CONTRACTOR **Murfin Drilling Company** RIG NO. **8**

COMMENCED **23 AUG 2011** COMPLETED **30 AUG 2011**

MUD REPLACED **2504** MUD TYPE **Chemical**

DRILLING TIME KEPT FROM **220** TO **3650**

SAMPLES SAVED FROM **220** TO **3650**

SAMPLES EXAMINED FROM **220** TO **3650**

GEOLOGICAL SUPERVISION FROM **575** TO **3650**

GEOLOGIST ON WELL **Paul Gunzelman**

FORMATION NAME	LOG TOP DATUM	SAMPLE TOP DATUM
Stone Corral	1025 +740	1028 +737
Base/Anhydrite	1058 +706	1058 +707
Topoka	2886 -921	2885 -920
Heebner Shale	2918 -1153	2915 -1150
Lansing	2962 -1197	2963 -1198
Base/Kansas City	3245 -1480	3244 -1479
Viola	3468 -1703	3476 -1711
Simpson	3527 -1762	3524 -1759
Atbuckle	3576 -1811	3580 -1815
Total Depth	3633 -1888	3650 -1885

ELEVATIONS
KB **1765 Ft.**

GL **1760 Ft.**

ALL MEASUREMENTS FROM K.B.

CASING RECORD

CONDUCTOR NAME

SURFACE **9.56" @ 219'**

PRODUCTION **4.12Z @ 3255'**

ELECTRICAL SURVEYS:

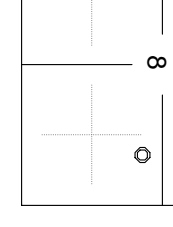
Log-Tech, Inc.

Comp. Neutron Density

Dual Induction

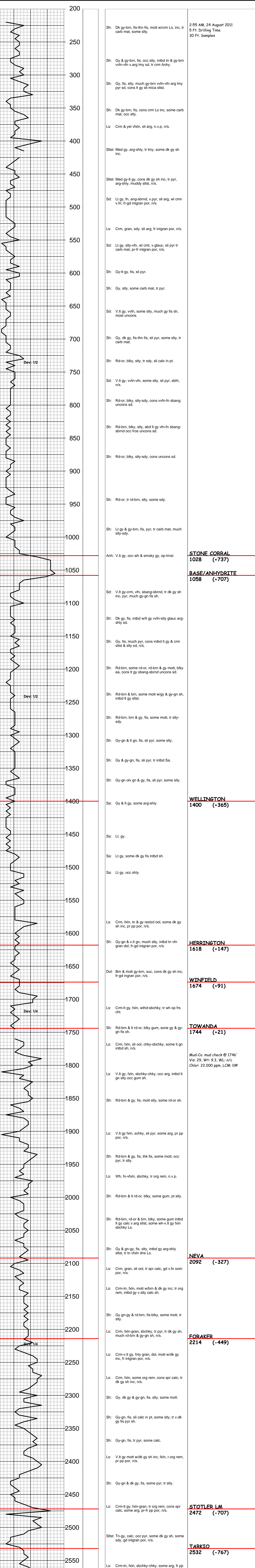
Micro-resistivity

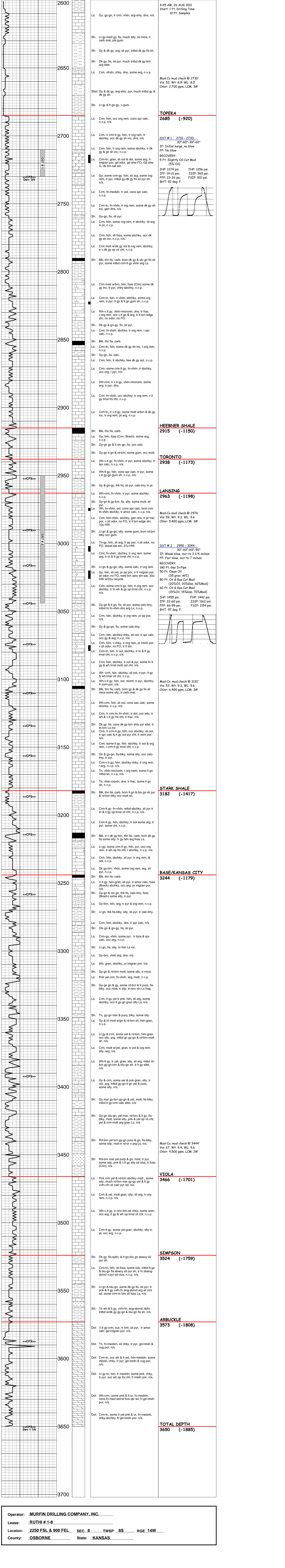
Comp. Sonic



REMARKS
API 15-141-20433-00-00
Drilling Fluids: Mud-Co./Service Mud, Inc. (Gary Schmidtberger, engineer)
Drill Stem Testing: Trilobite Testing, Inc. (Ray Schwager, tester)
Gas Trailer: Earth-Tech OGL, Inc. (unmanned)
Reserve Pit Chlorides: 30,000 ppm.

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARKS
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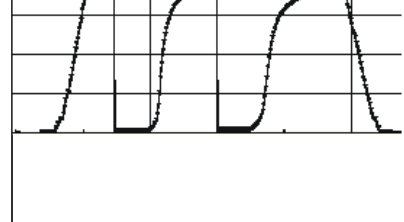


4:45 AM, 26 AUG 2011
 Start: 1 Ft. Drilling Time
 10 Ft. Samples

Mud-Co mud check @ 2730'
 Vis: 53, Wt: 8.9, WL: 8.0
 Chlor: 2,700 ppm, LCM: 3#

TOPEKA
2685 (-920)

DST # 1 2710 - 2730
 30"-60"-30"-60"
 IF: Initial surge, no blow
 FF: No blow
 RECOVERY:
 5 Ft. Slightly Oil Cut Mud
 (5% Oil)
 IHP: 1274 psi. FHP: 1256 psi.
 IFP: 14-21 psi. ISIP: 965 psi.
 FFP: 23-26 psi. FSIP: 910 psi.
 BHT: 92 deg. F.



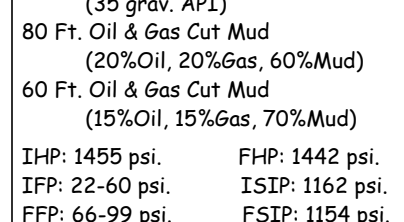
HEEBNER SHALE
2915 (-1150)

TORONTO
2938 (-1173)

LANSING
2963 (-1198)

Mud-Co mud check @ 2976'
 Vis: 59, Wt: 9.3, WL: 9.6
 Chlor: 5,400 ppm, LCM: 3#

DST # 2 2950 - 3044
 30"-60"-60"-90"
 IF: Weak blow, incr to 3 1/4 inches
 FF: Fair blow, incr to 7 inches
 RECOVERY:
 180 Ft. Gas In Pipe
 50 Ft. Clean Oil
 (35 grav. API)
 80 Ft. Oil & Gas Cut Mud
 (20%Oil, 20%Gas, 60%Mud)
 60 Ft. Oil & Gas Cut Mud
 (15%Oil, 15%Gas, 70%Mud)
 IHP: 1455 psi. FHP: 1442 psi.
 IFP: 22-60 psi. ISIP: 1162 psi.
 FFP: 66-99 psi. FSIP: 1154 psi.
 BHT: 97 deg. F.



STARK SHALE
3182 (-1417)

BASE/KANSAS CITY
3244 (-1179)

VIOLA
3466 (-1701)

Mud-Co mud check @ 3444'
 Vis: 67, Wt: 9.4, WL: 9.6
 Chlor: 4,500 ppm, LCM: 2#

SIMPSON
3524 (-1759)

ARBUCKLE
3573 (-1808)

TOTAL DEPTH
3650 (-1885)

Operator: MURFIN DRILLING COMPANY, INC.
 Lease: RUTHI # 1-8
 Location: 2250 FSL & 900 FEL SEC. 8 TWSP 8S RGE 14W
 County: OSBORNE State: KANSAS