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PETROLEUM GEOLOGIST
Wichita, Kansas

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR Murfin Drilling Company, Inc.
LEASE #1-22

LOC. SPOT 190°N & 10°W of NW NE SE
LOC. FOOTAGE 2,500' FSL 1,000' FEL
SEC. 22 Twp. 55 Rng. 33W
COUNTRY Rawlins STATE Kansas

ELEVATIONS
KB 3,014'
GL 3,009'

MEASUREMENTS/FRACKA
Casing Record

Conductor _____
Surface 8-5/8" @ 218'
w/ 20' socks cement
Production none

ELECTRICAL SURVEYS
Log-Tech, Inc.
Drill Log
Dual Compensated -

Borehole Compensated -
Microresistivity Log
Sonic Log

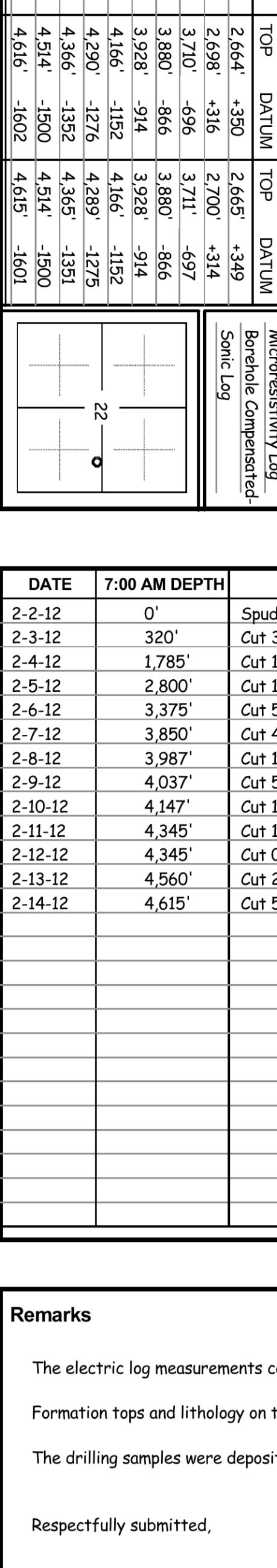
Geological Supervision from 3,520'

Drilling Time Kept from 3,610' To RTD
Mud Displaced from 3,610' To RTD
Samples Saved from 3,610' To RTD
Drilling Time Kept from 3,610' To RTD
Geological Supervision from 3,520'

Contractor Murfin Drilling Co., Inc. Rig No. 8
Drilling Started 2-2-2012 Completed 2-18-2012
Mud Displaced 3,723'

Samples Examined from 3,610' To RTD
Drilling Time Kept from 3,610' To RTD
Geological Supervision from 3,520'

Formation Name Top Datum Sample Top Datum
Stone Corral 2,654' +350 2,665' +349
Base Stone Corral 2,698' -696 3,711' -697
Heebner 3,880' -866 3,880' -866
Lansing 3,928' -914 3,928' -914
Bak 4,166' -1152 4,166' -1152
Pawnee 4,290' -1276 4,289' -1275
Cherokee 4,356' -1392 4,365' -1351
Mississippian 4,514' -1500 4,514' -1500
Total Depth 4,616' -1602 4,615' -1601



DATE	7:00 AM DEPTH	REMARKS
2-2-12	0'	Spud @ 5:00 pm. Plug down @ 9:30 pm. Started drilling out plug @ 5:30 am on 2-3-12
2-3-12	320'	Cut 320' in last 24 hrs. Dev. 0.25° @ 1001'
2-4-12	1,785'	Cut 1,465' in last 24 hrs; 22.25 hrs drilg. Dev. 0.25° @ 2012'
2-5-12	2,800'	Cut 1,015' in last 24 hrs; 22.5 hrs drilg.
2-6-12	3,375'	Cut 575' in last 24 hrs; 20.75 hrs drilg.
2-7-12	3,850'	Cut 475' in last 24 hrs; 23 hrs drilg. DST #1 @ 3987'
2-8-12	3,987'	Cut 137' in last 24 hrs; 7 hrs drilg. DST #2 @ 4037'
2-9-12	4,037'	Cut 50' in last 24 hrs; 3 hrs drilg. DST #3 @ 4118'
2-10-12	4,147'	Cut 110' in last 24 hrs; 6.75 hrs drilg. DST #4 @ 4345'. Rig repair 4.75 hrs
2-11-12	4,345'	Cut 198' in last 24 hrs; 12.75 hrs drilg. Rig repair 5.75 hrs. Ran DST #4
2-12-12	4,345'	Cut 0' in last 24 hrs; 0 hrs drilg. DST #5 @ 4402'
2-13-12	4,560'	Cut 215' in last 24 hrs; 10.25 hrs drilg. RTD 4615' @ 11:21 am
2-14-12	4,615'	Cut 55' in last 24 hrs; 4.25 hrs drilg. P&A

