



**DUAL IND / DUAL COMP
POROSITY LOG**

Company RITCHEE EXPLORATION, INC.
Well D. SCHUMACHER #1
Field UNKNOWN
County LOGAN
State KANSAS

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Field UNKNOWN
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Location: API #: 15-109-21428-00-00
1830' FNL & 1020' FWL
SEC 23 TWP 15S RGE 36W
Permanent Datum GROUND LEVEL Elevation 3294
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING
Other Services None
Elevation K.B. 3305
D.F. N/A
G.L. 3294

Date	8/12/2015
Run Number	ONE
Depth Driller	4910
Depth Logger	4909
Bottom Logged Interval	4908
Top Log Interval	3600
Casing Driller	8:625 @ 212
Casing Logger	215
Bit Size	7.875
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	5000
Density / Viscosity	9.3 54
pH / Fluid Loss	11.0 8.0
Source of Sample	Flowline
Rm @ Meas. Temp	0.65 @ 90
Rmt @ Meas. Temp	0.49 @ 90
Rmc @ Meas. Temp	0.88 @ 90
Source of Rmf / Rmc	Charts
Rm @ BHT	0.47 @ 125
Operating Rig Time	3 HOURS
Max Rec. Temp. F	125
Equipment Number	91
Location	Hays
Recorded By	D. SCHMIDT
Witnessed By	JOHN GOLDSMITH

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

RUSSELL SPRINGS,
SOUTH ON HWY 25 TO DAKOTA RD,
4 EAST TO 200 RD, 1/2 SOUTH,
EAST INTO

Log Measured From: KELLY BUSHING 11 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: JOHN GOLDSMITH
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Database File ritchie_d schumacher_1hd.db
 Dataset Pathname DIL/ristack
 Presentation Format jamex
 Dataset Creation Wed Aug 12 19:14:35 2015
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	0.2	Shallow Guard (Ohm-m)	2000	30	Density Porosity (pu)	0
150	GR (GAPI)	300	0.2	Medium Induction (Ohm-m)	2000	30	Neutron Porosity (pu)	0
6	Caliper (in)	16	0.2	Deep Induction (Ohm-m)	2000	2.65	dga (g/cc)	3.75
2.875	DCAL (in)	7.875						
-200	SP (mV)	0						
-160	Rxo/Rt	40						













